यह एम एस आॅफिस का एक software है। जिसकी सहायता से हम डाटाबेस पर डाटा प्रोसेसिंग का कार्य कर सकते है। एवं डाटा को स्टोर कर सकते है। इसमें डाटाबेस को मैनेज करने के लिये विभिन्न प्रकार के टूल होते है। जिसका प्रयोग करके डाटाबेस की फाॅमेंटिंग कर सकते हे। इस एप्लीकेशन साॅफ्टवेयर के मेन्यु बार में नौ मेन्यु होते है। इसमें विभिन्न प्रकार की टूलबार होती है। जिसका प्रयोग करके अपने कार्य को आसानी से कर सकते है। इसमें एक एप्लीकेशन विंडो होती है। जिसके अन्दर वर्कबुक होती हैं। वर्कबुक के अन्दर वर्कसीट होती है। एक्सेल में डाटा को वर्कशीट में स्टोर किया जाता है। इसमें रो ओर काॅलम होते है। रो और काॅलम से मिलकर सेल बनती हैं इसमें प्रत्येक सेल का एक address होता है। जिसे सेल एड्रेस कहा जाता है। यह एड्रेस काॅलम और रो के नाम से मिलकर बना होता है। जैसे A1, BB10 आदि। एक वर्कसीट में 65536 रो और 256 काॅलम होते है। रो का नाम Number से रहता है। और काॅलम का नाम alphabet में रहता है। इसमें कुल सेल की संख्या निम्न होती है। 65536*256=16777216 एक वर्कवुक में 256 वर्कसीट होती है। इसमें जो फाईल बनती है। उसका द्वितीयक नाम.XLS होता है।

वर्कबुकः- यह एक ऐक्सल फाईल होती है। जिसके अन्दर कई वर्कसीट होती है। जिसमें डाटा को स्टोर किया जाता है। एक वर्कबुक के अन्दर 256 वर्कसीट होती है। वाय डिफाल्ट तीन वर्कसीट होती है। इसमें नई वर्कसीट को जोडा या डिलिट किया जा सकता है। रीनेम किया जा सकता है और इसमें सीट को काॅपी मूव आदि का कार्य सरलता से किया जा सकता है। वर्कबुक open करने पर वर्कसीट अपने आप खुल होती है। एक समय में एक ही वर्कबुक पर कार्य किया जाता सकता बर्क सीट जिसे ऐक्टिव है। कहा जाता है। वर्कसीटः- वर्कसीट बुक के पेज की तरह होती है। जिसमें हम डाटा को स्टोर कर सकते है। एक वर्कसीट में 65536 रो और 256 काॅलम होते है। एवं 65536*256=16777216 सेल होती है। प्रत्येक काॅलम का एक नाम 55 होता है। जो एल्फाबेट होते है। यह रेंज A से IV =256 तक होती है। एवं रो का नाम न्युमेंरिक होता है। इसकी रेंज 1 To 65536 तक होती डसको रीनेम किया है। जा है। सकता सेलः- रो और काॅलम के मिलने से सेल बनती है। एक वर्कसीट में 65536*256=16777216 cells बमससे होती है। सेल में डाटा को लिखा जाता है। एक सेल में 255 अक्षर लिखे जा सकते है। काॅलम एवं रो के नाम को मिलाकर सेल का नाम बनता है। यह सेल का ऐडस होता है। दो सेल ऐडस मिलकर रेंज ऐडस बनाते है। इसमें दो या दो से अधिक सेल को आपस में मर्ज किया जा सकता है और सेल की फाॅमेटिंग का कार्य भी किया जा सकता है।

एक्सेल में फ़ॉर्मूला या फंक्शन का बहुत महत्त्व हैं जब हम कोई गणना करना चाहते हैं जैसे – किसी कॉलम के कुछ सेलों को जोड़ना, एक संख्या का दुसरे में गुणा करना, किसी रेंज के डाटा का औसत निकालना आदि, तो हम उस गणना के लिए फोर्मुलों का उपयोग करते हैं कोई फ़ॉर्मूला उस सेल में भरा जाता हैं जहाँ हम गणना का परिणाम दिखाना चाहते हैं ऍम एस एक्सेल में फ़ॉर्मूला हमेशा बराबर चिन्ह (=) से प्रारंभ होता हैं।

एक्सेल में पहले से परिभाषित फार्मूले होते है जिन्हें फंक्शन कहते हैं जिनके द्वारा विभिन्न प्रकार के कार्य किये जा सकते है जैसे जोड़ना, घटना, गुणा, भाग, डेट, टाइम आदि| यह प्रकार के होते है। जो निम्न है।

1. Math or String

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

- 2. Date & Time
- 3. Text
- 4. Financial
- 5. Logical
- 6. Statically
- 7. Lookup or reference

Function का प्रयोग करनाः- इसका प्रयोग दो प्रकार से किया जाता है। Director Type करके:- इसमें Function को = के चिन्ह के बाद टाईप कर देते है और उसमें Argument insert करा देते है। और अंत में इंटर या क्लिक करके उसका परिणाम प्राप्त कर सकते है।

Menu के द्वारा:- Insert menu → Function पर क्लिक करने पर Function डायलाॅग बॉक्स आता है। जिसमें Function सिलेक्ट करते है। और ok button पर क्लिक करते हैं। और उसके बाद उसमें उसके आॅर्गूमेंट देते है और ok button पर क्लिक करते है।

Math or String Function

1. SUM() :- इस Function के द्वारा संख्याओं को जोड़ा जाता है। इसमें value, cell address or cell range दी जा सकती है।

Example:- =SUM(a1:a4)



result:- 180

2. SQRT() :- इस Function की सहायता से किसी भी संख्या का SQUARE ROOT निकाला जाता है। इसके आर्गूमेंट में किसी संख्या का सेल एड्रेस देते है या वह संख्या देते है। जिसका SQUARE ROOT निकालना होता है।

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Example:-=SQRT(25)

	C1	•	. (=	fx =SQ	RT(A1)			~
	Α	В	С	D	E	F	G	
1	25		5					
2	33.6							
3	-5.2							
4								
5								
6								-
14 4	► ► She	et1 She	et2 / Shee	et3 / 🞾				
Rea	dy 🎦				100%	0	0 0	:

Result :- 5

3. odd() :- इस Function से सम संख्या को विषम संख्या में बदला जा सकता है। उदाहरण=odd(80)

Result=81

4. even() :- इस Function से विषम संख्या को सम संख्या में बदला जा सकता है। Example:- =even(79)

Result=80

5. MOD() :- इस function की सहायता से किसी भी संख्या का शेषफल निकाला जाता है। इसमें दो आर्गूमेंट दिये जाते है। Example:- =MOD(26,5)

result=1

 6.POWER() :- इस Function से किसी भी संख्या की घात की गणना की जा सकती हैं। इसमें दो आर्गूमेंट दिये जाते है

 पहली
 संख्या,
 दूसरी
 पावर।

 Example:- =POWER(5,2)

Result = 25

7. ABS() :- इससे absolute value निकालते है। अर्थात यदि कोई चिन्ह लगा है। तो उसको हटा दिया जाता है। यह आर्गूमेंट में एक नंबर लेता है।

Example:- =abs (-125)

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Result = 125

8.Fact() :- इस Function की सहायता से किसी भी संख्या का Factorial number निकाल सकते है। यह आर्गूमेंट में एक नंबर लेता है। जैसे 5 का Factorial होता है। 1*2*3*4*5=120

Example:- =fact (5)

Result= 120

9. INT() :- इस function से किसी भी संख्या की इंटीजर Value निकाल सकते है। यह आर्गूमेंट में एक नंबर लेता है।

Example:- =fact(123.34)

Result=123

Text Function

इस Function का प्रयोग टैक्ट के लिये किया जाता है। इसलिये इन्हे टैक्ट Function कहा जाता है। यह निम्न है। 1. UPPER():- यह Function lower case के अक्षर को बडे अक्षर में बदलता है।

Syntax:- =UPPER(TEXT)

Example:- UPPER("CyberDairy Solutions")

Result:- CYBERDAIRY SOLUTIONS

2. LOWER() :- यह Function Upper Case के अक्षर को Lower Case अक्षर में बदलता है।

Syntax:- =LOWER(TEXT)

Example:- LOWER("CYBERDAIRY SOLUTIONS")

Result:- cyberdairy solutions

3. Proper():- यह Function text को proper case में सेट करता है।

Syntax: =proper(TEXT)

Example:- proper("CYBERDAIRY SOLUTIONS")

Result:- Cyberdairy Solutions

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

```
4. len():- यह Function text के अक्षर गिनता है।
```

```
Syntax: =len(TEXT)
```

```
Example:- len("Computer")
```

Result:- 8

5.left():- यह Function शब्द के अक्षरो को बायीं तरफ से निकालता है। इसमें टैक्ट एवं कितने अक्षर निकालना है। उसकी संख्या देनी होती है।

```
Syntax: =Left(TEXT, Number)
```

```
Example:- Left("Computer",3)
```

Result:- Com

6. Right():- यह Function शब्द के अक्षरों को दायीं तरफ से निकालता है। इसमें टैक्ट एवं कितने अक्षर निकालना है। उसकी संख्या देनी होती है।

```
Syntax: =Right(TEXT, Number)
```

Example:- Left("Computer",2)

Result:- er

7. TRIM():- यह Function टैक्ट के आगे पीछे के खाली स्थान को खत्म कर देता है।

Syntax: =Trim(TEXT)

Example:- Left(" Computer ")

Result:- Computer

8.MID():- यह Function शब्दों को अक्षरो के बीच से निकालाता है। इसमें आर्गूमेंट के तौर पर टैक्ट एवं कहाॅ से अक्षर निकालना है। और कितने अक्षर निकालना हैं । उसकी संख्या देते है।

Syntax: =MID(TEXT, START NUMBER , END NUMBER)

Example:- Left("MICRO COMPUTER",6,7)

Result:- COMPUTER

DATE OR TIME FUNCTION

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

DATE:-

1. NOW():- यह Function Computer की current date and Time देता है।

=NOW()

OUT PUT- 10/20/2012 19:16

2. DAY():- यह Function DATE से दिन निकालता है।

Syntax:- day(date)

Example=day(22/7/2016)

Output=20

3. MONTH ():- यह Function DATE से Month निकालता है।

Syntax:- month(date)

```
Example= month (10/20/2011)
```

Output=10

4. year():- यह Function DATE से वर्ष निकालता है।

Syntax:- year(date)

Example= year (10/20/2011)

Output= 2011

5. today():- यह Function current date output में देता है।

=today()

Output:- 10/20/2011

6. Date():- यह Function दिये गये नम्बरों को दिनांक में बदलता है।

Syntax:- date(year,month,day)

Example:- date(2011,22,10)

Output= 22/10/211

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Time Function:-1. Time():- यह Function दिये गये hour, minute, second को समय में बदलता है। Syntax:- Time(hour,minute,second) Example:- Time(4,30,10) Output:- 4:30 AM 2. Second():- यह Function दिये गये समय से सेकेंड आउटपुट में देता है। yntax:- Second(Time) Example:- Second(4:30) Output:- 10 3. Minute():- यह Function दिये गये समय से मि टपुट में देता है। yntax:- minute(Time) Example:- minute (4:30) Output:- 30 4. hour():- यह Function दिये गये समय से टपुट में देता है। Syntax:- hour(Time) Example:- hour(4:30) Output:-4 sort(शॉर्ट):- MS Excel में Sort प्रयोग एक Particular column ascending या descending order में व्यवस्थि करने के लिए किया है। Adhyayan An Educational Trust

(Approved By Govt. of Delhi) Contact- 9999478454, 9999478409 B-1/A 3rd Floor Opp. Kirpal Apt. Joshi Colony I.P. Extention Delhi 110092

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Sort				2			
Sort by							
Column 1	Tune	Test		Ascending			
Column 1	lking:	Paragraphs		Descending			
Then by	Using.	Falagraphs					
Tuen py	1	Test		Ascending			
	Type:	Text		Descending			
	Using:	Paragraphs					
Then by							
7	Type:	Text	-	Ascending			
	Using:	Paragraphs	-	Descending			
My list has							
Header row	No	header ro <u>w</u>					
			_				
Options		OK		Cancel			
				2. ¹ .			
		×. – –		-×-		N.	
Ascending	; :- इस	я́ А То Z	क्रम	ਸੱ	किया	है।	
Microsoft Excel - Boo	k1	-	1.0	-			
Eile Edit View	Insert Form	nat Iools Data	Windo	w Help Adobe PDF			
	7 2 17	X -0	-) -	α - 8. Σ - 21 X			
Arial	• 14	• B I U		· 通 王 5 % ·			
81		Namo					
A	P	B	4	C D			
S.No.	Na	ame	c	ourse			
1 Aja	ay Namd	ео	DC	4			
2 An	nit Jain		DC				
3 44	iol khan		PGI				
	ju kieh		POL				
5 4 N6	ena Mish	ra	DC/	•			
5 Ni	dhi Jain		PGI	DCA			
6 Sa	khshi Ch	nourasiya	PGI	DCA			
3							
Deceendin	а. г т		∧ का	τŤ	किंगा	<u> </u>	
Descention	ig :- ২4	101 2 107	1 900	1 01	ाकता	۶I	
		Ť					
			A	Adhvay	van An	Educational	Trust
			4	(A	10		AT USL
				(Appro	ved By (Jovt. of Delhi)	
	-			Contact	9999478454	. 9999478409	
	B.1	/A 2ml E	loor	Opp King	Apt Jachi (alony I P Extention Dalk	; 110092
	D-1	/A JIU F	toor	Opp. Rirpa	Apt. Joshi C	Joiny I.r. Extention Delh	1 110092
8-1/A 3R	D FI.	OOR IO	SH			N. DELHI-92	Ρηπρ
							I ugu

Eile Edit V	Descending list ew Insert Format Tools Dat	a <u>W</u> indow <u>H</u> elp A	tobe PDF				
		()) = (t =) (t) Σ	· • 21 ž1				
The St.	- 10 - B I						
E9	• 4	20 a.c.					
A	Nama	Course	D				
1 S.No.	Name Sakhshi Chourasiya	DCDCA					
2 1	Nidbi Jain	PODCA					
3 2	Neba Mishra	DCA					
5 4	Kaiol khan	PGDCA					
6 5	Amit Jain	DCA					
7 6	Alay Namdeo	DCA					
8	Ajdy Hamaco	DOA					
Filter (फ (1) (2) Advar	ल्टर):- इस option ice Filter	का प्रयोग		ने के लिये किया Auto	है। इसक	दर दो sub- o	ption होते है। Filter
Auto Filte	er (फिल्टर):-	इस	प्रय	गग करन स सभा ।	leader Columr	ਮਸ Combo Bo	x ह।
जसमें sea	arching tools पाये	जाते है। उस	मे से प	ser अपनी जरूरत के	ज अनुसार search	ning tool चुनता	है।
Advance	Filter (पि	ल्टर):- इस	option	द्वारा लिस्ट से	conditi	ion नुसार	कर दूसरे
Ч	र display व	नरते है।	इसमे	प्रकार	Range	प्रयोग	होता है।
(1)				List			Range
(2)				Criteria			Range
(3) Outpu	t Range						
(1) List	Range (लिस्ट	रेन्ज):- य	ह वह	रेन्ज होती है। ज	नहाॅ से Reco	rds	है।
(2) Criteri	a Range (रि	रया रेन्ज):- य	ाह वह r	ange होती है। जहा	ॅ पर condition	है। इसी	condition
त्रमार	निम्ह	ोत्तन		ц ц	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	र रे	ک ا
	INTEC.					х <u>б</u> і	61
(3) Outpu	t Range (टपु	ट रेन्ज):- य	ह वह रेव हे। जन	न्ज होती है। जहा <i>े</i> प सभी recorde जमी	नर output displ	ay हीता है। ra न्य क्षेप	ange criteria
		ו ואיניטע אוח	୧୮୳୯	สาศา เองบเนร จุฬเ	עיטו פו ואפט אן	נוו פו	
Prosticall	V						Annroach
1.	y Dre	pare		а	Ь	ata	-Approach:-
2.	pro	CODV		u	header		row
3. Paste	it twice at differe	ent location					
a.	first			for	criteria	а	range
b. second	I for output range	Ð					
D 4 / 1							D ^
В-1/А.	3 ^{KD} FLUUK I	USHI CO	LUNY	I.P. EXTN. DI	5 1.HI-92		raae 9

4 the condition in criteria for filtering set range data 5 pointer first cell list set the cell at of range 6 select advanced filter option from filter them it display a dialog box tell criteria range ,output range and press ok button alter that you will see the filtered records in output range.

 Form():- फार्म
 से user interface बनाया
 हैं। जिसकी सहायता से
 व्यवस्थित किया जाता

 है। फार्म
 सबसे पहले cell Pointer को पहली cell में रखा
 है। और उसक
 इस
 पर click किया

 है।

subtotal(सबटोटल):- यह ऑप्शन वहाॅ पर प्रयोग किया है। जहाॅ पर एक नाम से कई रिकार्ड होते है। और वह financial activities से सम्ब ि हो। जैसे कि एक कम्पनी में कई सेल्समैन कई item अलग-अलग जगहो पर है। वहाॅ पर हर सेल्समैन total और Grand total निकालन की जरूरत पडती है। इसके लिए हम सबसे पहले रिकाड ascending order में sort कर लेते है। उसक लिस् select करते हैं और इस ऑप्शन पर click करे।

Validation(
शन):- इसद्वारा सीट के अन्दर कार्य पद्वति के नियम स्थापित किये जाते है। जैसे
हम अपनी कम्पनी
employees5000 से कम और 10000 के बीच वेतन देते है तो हम यह चाहते है कि salary
column में 5000 से कम और 10000 से ज्यादाEntry user से न हो जाये तो इसके लिये salary column में
validation लगा

Table(बल):- इसप्रयोग वहाँ कियाहै। जहाँ पर financial परिणामहो जैसेसेलोन लेमहीने में किस रेट से,करनी पडइसके लिये एक टेबलकर देख लेते है।

Consolidation(शन):- इसप्रयोग वहाॅ पर कियाहै। जहाॅ पर दो या दो सेLocationsvaluetotal या average निकालना हो।

Pivot Table(पाइवोट बल):- इसद्वारा data sheet की summery report तैयारहै। जिसमेंकिसीvaluescolumn & row wise total एवं grand totalकर सकते है।

किसी एक्सेल वर्कशीट में प्रकार भरे जा सकते हैं किसी सैल में किसी विशेष प्रकार भरन लिए हमें उस सैल को वह स्टोर करने और तरह से लिए फॉर्मेट करना पड़ता हैं सैलों ॉर्मेट करने से पहले डाटा टाइप को ठीक से समझ लेना आवश्यक हैं|

Data Type सेट करने के लिये रो काॅलम या ऐरिया को सिलेक्ट करना होता है। इसकटाईप को सेट करनाहोता है। एक्सेल में बारह प्रकारटाईप होते है। लेकिन नमें सेटाइप हीमहत्वपूर्ण हैं एक्सेल मेंमुख्यतःनलिटाइपउपयोगमेंलायेहैंहै।

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92





rmat Cells					8 ~				
Number Alignment	Font	Border Fill	Protection						
Category:									
General Number	Sample								
Currency Accounting	Type:				[]]				
Date Time	*3/14/2	2001	2224		^				
Percentage Fraction	3/14	esday, March 14,	2001		E				
Scientific Text	3/14/01 03/14/0	í1							
Special Custom	14-Mar 14-Mar	·01			-				
	Locale (le	ocation):							
	English	(U.S.)			_				
	-	•							
Date formats display	date and time	serial numbers as	date values. Date	formats that beg	in with an				
asterisk (*) respond t operating system, Fo	to changes in re rmats without	egional date and an asterisk are no	time settings that a ot affected by oper	re specified for t ating system sett	he tinas.				
-, <u>,</u> -,									
				ОК	Cancel				
			A						
ne :- इस सिलेक्ट करन	टाईप का ा होता है।	प्रयोग टाई	म से सम्बं	`ॉर्मेट	दलने	के लिए किया	हैं इसमें	टाईम	ੱ
me :- इस सिलेक्ट करन rmat Cells	टाईप का ा होता है।	ं प्रयोग टाई	म से सम्बं	ें ॉर्मेट	दलने <u> </u>	के लिए किया	हैं इसमें	- टाईम	õ
ne :- इस सिलेक्ट करन rmat Cells	टाईप का ा होता है।	प्रयोग टाई	म से सम्बं	ें ॉर्मेट	दलने <u> </u>	के लिए किया	हैं इसमें	टाईम	õ
me :- इस सिलेक्ट करन ^{rmat Cells} Number Alignme	टाईप का ा होता है। nt Font	प्रयोग टाई Border F	म से सम्बं	ĬĦŹ	दलने <u>१</u> ×	के लिए किया	हैं इसमें	टाईम	0
ne :- इस सिलेक्ट करन rmat Cells Number Alignme <u>C</u> ategory: General	टाईप का T होता है। nt Font	प्रयोग टाई Border F	म से सम्बं	` ĭĦ́ट	दलने <u> </u>	के लिए किया	हैं इसमें	टाईम	ॅ
me :- इस सिलेक्ट करन rmat Cells Number Alignme <u>C</u> ategory: General Number Currency	टाईप का T होता है। nt Font Sample 8:30:00	y 고 가 고 등 Border F 2 0 PM	म से सम्बं	ŤĦĔ	दलने <u>२</u> ×	के लिए किया	हैं इसमें	टाईम	Ŭ,
ne :- इस सिलेक्ट करन rmat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date	टाईप का T होता है। nt Font Sample 8:30:00 Type:	· प्रयोग टाई Border F PM	म से सम्बं	` ĭ́मेट	दलने २ ×	के लिए किया	हैं इसमें	टाईम	ŏ
me :- इस सिलेक्ट करन rmat Cells Number Category: General Number Currency Accounting Date Time Bergatage	टाईप का T होता है। nt Font 8:30:00 Type: 13:30	· 모리카 CI훅 Border F PM 5 PM	म से सम्बं	ĬĦŹ	दलने २ ×	के लिए किया	हैं इसमें	टाईम	ॅ
ne :- इस सिलेक्ट करन mat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date Time Percentage Fraction	टाईप का T होता है। nt Font 8:30:00 13:30 PM 13:30:5 13:30 PM	·	म से सम्बं iII Protection	ॉर्मेट ormat	दलने २ ×	के लिए किया	हैं इसमें	टाईम	ॅ
ne :- इस सिलेक्ट करन mat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date Time Percentage Fraction Scientific Text	टाईप का T होता है। nt Font Sample 8:30:00 Type: 13:30 1:30 PM 13:30:5 1:30:55 2	· 모리키 CI훅 Border F e 0 PM 5 PM 5 PM	म से सम्बं	й́н ormat	दलने २ ×	के लिए किया	हैं इसमें	टाईम	്
ne :- इस सिलेक्ट करन mat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date Time Percentage Fraction Scientific Text Special Custom	टाईप का T होता है। nt Font 8:30:00 13:30 1:30 PM 13:30:55 13:30 1:30 S5 13:30:55 13:30	·	म से सम्बं	ॉर्मेट ormat	दलने २ ×	के लिए किया	हैं इसमें	⁻ टाईम	័រ
ne :- इस सिलेक्ट करन mat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date Time Percentage Fraction Scientific Text Special Custom	टाईप का T होता है। I होता है। Sample 8:30:00 Iype: 13:30 1:30 PM 13:30:5 30:55 30:55.2 30:55.2 37:30:5 20:55.2	· 모리카 리통 Border F 9 DPM 5 PM 5 PM 5 location):	म से सम्बं	т́н́с		के लिए किया	हैं इसमें	⁻ टाईम	័
ne :- इस सिलेक्ट करन mat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date Time Percentage Fraction Scientific Text Special Custom	टाईप का T होता है। nt Font 8:30:00 1:30 PM 1:3:305 1:30:55 30:55.2 37:30:5 Locale (I English	·	म से सम्बं	т́н́с	दलने	के लिए किया	हैं इसमें	⁻ टाईम	ŭ
me :- इस सिलेक्ट करन rmat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date Time Percentage Fraction Scientific Text Special Custom	टाईप का T होता है। I होता है। Sample 8:30:00 Iype: 13:30 1:30 PM 13:30:55 30:55.2 37:30:55 Locale (I English	·	म से सम्बं	۲́म́ट	दलने <u>२</u> २	के लिए किया	हैं इसमें	⁻ टाईम	
me :- इस सिलेक्ट करन rmat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date Time Percentage Fraction Scientific Text Special Custom	टाईप का T होता है। nt Font 8:30:00 1:30 PM 13:305 1:30:55 13:30 1:30 PM 13:30:55 13:305 1:30:55 13:305 1:30:55 13:305 1:30:55 13:305 1:30:55 13:305 1:30:55 13:305 1:30:55 1:	y 고 가 가 고 등 Border F Border F PM 5 PM 5 cocation): 1 (United States)	म से सम्ब iII Protection	ormat	दलने	के लिए किया	हैं इसमें	⁻ टाईम	ŏ
me :- इस सिलेक्ट करन mat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date Fraction Scientific Text Special Custom	टाईप का T होता है। nt Font Sample 8:30:0 Iype: 13:30 1:30 PM 13:30:5 30:55.2 37:30:5 Locale ((English	y 고리 키 CI Border F Border F PM 5 PM 5 PM 5 vocation): i (United States)	म से सम्बं	۲ آفت Time formats tha	दलने २ २	के लिए किया	हैं इसमें	⁻ टाईम	ŏ
me :- इस सिलेक्ट करन rmat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date Time Percentage Fraction Scientific Text Special Custom	टाईप का T होता है। I होता है। I Font Sample 8:30:0 Iype: II:30:5 I3:30 I:30 PM I3:30:5 I3:30:5 I3:30:5 I3:30:5 I3:30:5 I3:30:5 I3:30 I:30 PM I3:30:5 I3:30 I:30 PM I3:30:5 I3:30 I:30 PM I3:30:5 I3:30 I:30 PM I3:30:5 I3:30 I:30 PM I3:30:5 I3:30 I I3:30 PM I3:30:5 I3:30 I I3:30 PM I3:30 I I3:30 I I3:30 I I3:30 I I3:30 I I I I I I I I I I I I I I I I I I I	·	· Default time f	ॉर्मेट ormat	दलने	के लिए किया	हैं इसमें	⁻ टाईम	ŏ
me :- इस सिलेक्ट करन rmat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date Time Percentage Fraction Scientific Text Special Custom	टाईप का T होता है। I होता है। Sample 8:30:0 Iype: 13:30 1:30 PM 13:30:5 30:55.2 37:30:5 Locale (I English	· 모리카 리종 Border F Border F PM 5 PM 5 location): 1 (United States) in (United States) in regional dat ut an asterisk ard	म से सम्बं ill Protection Default time f	ॉर्मेट format	दलने २ २ २ २ २ २ २ २ २	के लिए किया	हैं इसमें	⁻ टाईम	ŏ
me :- इस सिलेक्ट करन rmat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date <u>Time</u> Percentage Fraction Scientific Text Special Custom	टाईप का T होता है। I होता है। Sample 8:30:0 Jype: 13:30 1:30 PM 13:30:5 13:30:5 13:30 1:30 PM 13:30:5 13:30:5 13:30:5 13:30 1:30 PM 13:30:5 13:30 1:30 PM 13:30:5 13:30 1:30 PM 13:30:5 13:30 1:30 PM 13:30:5 13:30 1:30 PM 13:30:5 13:30 1:30 PM 13:30:5 13:30 1:30 PM 13:30:5 13:30 1:30 PM 13:30 1:30 PM 13:30 1:30 1:30 PM 13:30 1:30 PM 13:30 1:30 1:30 1:30 1:30 1:30 1:30 1:3	·	म से सम्बं iII Protection Default time f s as date values. The and time setting e not affected by of	ॉर्मेट format	दलने	के लिए किया	हैं इसमें	⁻ टाईम	č
me :- इस सिलेक्ट करन rmat Cells Number Alignme <u>Category:</u> General Number Currency Accounting Date Fraction Scientific Text Special Custom	टाईप का T होता है। I होता है। Sample 8:30:0 Iype: 13:05 13:05 1:30 PM 13:30:5 1:30 PM 13:30:5 1:30 PM 1:30:5 1:30 PM 1:30:5 1:30 S5 2:0:55.2 37:50:5 Locale (I English	· 모리카 리종	म से सम्बं ill Protection Default time f	й́нтс format	दलने २ २ २ २ २ २ २ २ २ २ २ २ २ २ २ २ २ २ २	के लिए किया	हैं इसमें	⁻ टाईम	

	ADHYAYAN AN E	DUCATION	AL TRUST	IS-EXCEL
Percentage:- इस शमलव	टाईप का प्रयोग Percentage से सेट करना होता है। इसमें Perc	सम्बंधि ॉर्मेट entage चिन्ह	बदलने के लिए किर है।	ग हैं इसमें
Format Cells	Font Border Fill Protection Sample	Υ ΣΣ ,		
Scientific:- इस	टाईप में नंबर प्रकार स्ट	ोर किया है। इ	इसमें दशमलव	सेट करना होता
होता है। Text :- इस डेटा टाई नही सकती है	प का प्रयोग टेक्स से सम्बंिॉमें ।	ट बदलने के लि	गेए किया हैं इसमे	ो तीये ायें
Special :- इस स्टोर किय	टाईप का प्रयोग प्रकार है। Adhyayan	स्टोर करने के An Edu	लिए किया है। उ cational T	नेप कोड एवं नंबर rust
B-1	A 3rd Floor Opp. Kirpal Apt. J	By Govt. c 78454, 9999478 oshi Colony I.P.	of Delhi) 409 Extention Delhi 110	0092
B-1/A, 3 RD FI	OOR JOSHI COLONY I.P.	. EXTN. DELI	HI-92	Page 14

Sector Sector Sector Sector <td< th=""><th></th><th></th><th></th><th></th></td<>				
Image: Text in the set of Production Image: Text in the set of Production Image: Text in the set of	Format Cells	8 ×		
Image: State of the state	Number Alignment	Font Border Fill Protection		
Image: Start 2000 Image: Start 2000 <t< th=""><th>Category:</th><th></th><th></th><th></th></t<>	Category:			
Weight with the second for the stating bit and disableser values. Second finance with for the stating bit and disableser values. Outcome finance control in the stating bit and disableser values. Accounting:- set size cigit an stating with end the state end of the stating bit and disableser values. Accounting:- set size cigit an stating with end of the stating bit and disableser values. Format Cell Format Cell View of the stating with end of the stating withend of the stating with end of the stating w	General Number	85741-7788		
With the state of the stat	Currency Accounting	Type:		
Bood Section: Bood Section: <t< td=""><td>Date Time</td><td>Zip Code</td><td></td><td></td></t<>	Date Time	Zip Code		
Sender find the second formation of the stating list and distance values. Sender find the second find the second stations evalues. Accounting:- इस डेटा टाईप का प्रयोग आ से सम्बंगि स्टोर करने के लिए किया है। इसमें दशमलवत को को सेट करना होता है एवं करेंसी व्ह पहला है। Custom:- इस डेटा टाईप में आवश्यकता नुसार प्रकार को सेट कर सकते है। Import Cels Import Sender find the second	Percentage Fraction	Phone Number		
District cells Second formats are useful for tracking ist and database value: Image: Set Sci Ci Sci V an IX value: Image: Set Sci Ci Sci V an IX value: Accounting: - Set Sci Ci Sci V an IX value: Image: Set Sci Ci Sci V an IX value: ah ah Ab co arcan: Ricin & Ucia arX Ath Image: Value: Custom: - Set Sci Ci Sci V an IX value: Image: Value: Image: Value: Image: Value:	Scientific Text	Social Security Number		
Image: Set	Special Custom	· · · · · · · · · · · · · · · · · · ·		
Implef (1.3.) Special formats are useful for tradrug lot and database value: Implef (1.3.) Accounting:- Set Boll cl St value At contring:- Set Boll cl St value ah ah Ab caveni Bill (1 k vci ab Xth) rest Usstom:- Set Boll cl St value Implef (1.3.) rest Value Implef (1.3.) rest Sci cl St value Implef (1.3.) rest Sci cl St value Implef (1.3.) rest Implef (1.3.) Implef (1.3.) rest Implef (1.3.) Implef (1.3.) rest Implef (1.3.)		Locale (location):		
Special formation are useful for tracking lat and diablaser values. Accounting:- इस डेटा टाईप का प्रयोग आ से सम्बे ah ah देट करला होता है एवं करेंसी लह पडता है! Costom:- इस डेटा टाईप में आवश्यकता नुसार प्रकार को से ट कर सकते है! Tormat Cells Implement format code, using one of the existing codes as a starting point. Type the number format code, using one of the existing codes as a starting point. Implement format code, using one of the existing codes as a starting point.		English (U.S.)		
Section formatic are used for trading lat and diabases value. Image: Section formatic are used for trading lat and diabases value. Accounting: - इस डेटा टाईप का प्रयोग आ से सम्बी रहे कर सकते है। Custom: - इस डेटा टाईप में आवश्यकता नुसार प्रकार को सेट कर सकते है। Image: The trading lat and diabases value. Image: The trading lat and diabases value. <td< th=""><th></th><th></th><th></th><th></th></td<>				
Special formats are useful for trading list and database values. Image: Special formats are useful for trading list and database values. Accounting:- Spt Sci CitSpt an Spain Rine Rine Rine Rine Rine Rine Rine Ri		*		
Accounting:- इस डेटा टाईप का प्रयोगअ से सम्बं को को सेट करना होता है एवं करेंसी न्ह पडता है। Custom:- इस डेटा टाईप में आवश्यकता नुसार प्रकार को सेट कर सकते है। Format Cell We may be apply to the start of the st	Special formats are us	seful for tracking list and database values.		
Image: Series of the subtraction of the				
Image: Start Star				
Accounting:- इस डेटा टाईप का प्रयोग आ से सम्बं स्टोर करने के लिए किया है। इसमें दशमलव को को सेट करना होता है एवं करेंसा न्ह पडता है। Custom:- इस डेटा टाईप में आवश्यकता नुसार प्रकार को सेट कर सकते है। Tormat Cals गिर्माक्ट प्रकार हो। हिंग स्ट्रा 0000 Unifer 10000 10000 10000 Tormat Cals 10000 10000 10000 Unifer 10000 10000 10000 10000 Tormat Cals 10000 10000 10000 10000 Unifer 1000				
Accounting:- इस डेटा टाईप का प्रयोग सं सम्बं स्टोप करने के लिए किया है। इसमें दशमलव को को सेट करना होता है एवं करेंसी न्ह पडता है। Custom:- इस डेटा टाईप में आवश्यकता नुसार प्रकार को सेट कर सकते है। Format Cells Image: Source Sample Image: Source Sample Source (************************************		OK Cancel		
Accounting:- इस डटा टाइप का प्रयोग आ स सम्बा को को से टे करना होता है एवं करेंसी न्ह पडता है। Custom:- इस डेटा टाईप में आवश्यकता नुसार प्रकार को सेट कर सकते हैं। Tomat Cells Semule Sector (s* ##0.00.): (s* (#,#00.0): (s* *77.): (@) The Pectotage (s* ##0.00.): (s* (#,#00.0): (s* *77.): (@) (* #,#00.00.): (* (#,#00.0): (* *77.): (@) (* #,#00.00.): (* (#,#00.0): (* *77.): (@) (* #,#00.00.): (* (#,#00.0): (* *77.): (@) (* #,#00.00.): (* (* #,#00.0): (* #,#00.0): (* *77.): (@) (* #,#00.00.): (* #,#00.0): (* #,#00.0): (* *,#00.0): (
ah ah the aven ighnight to da aven ight to da aven ight to da aven ight to data aven ight	Accounting:-	· इस डेटा टाईप का प्रयोगअ से सम्ब	स्टोर करने के लिए किया	है। इसमें दशमलव
Custom:- इस डेटा टाईप में आवश्यकता नुसार प्रकार को सेट कर सकते हैं। Format Cells The Algument Fort Border Fl Potection Gategory: General Accounting Data The Universe Section Section Section (***##0.00); (**(###0.00); (***772):(@) (**##0.00); (**(###0.00); (***772):(@) (*###0.00); (**(###0.00); (***772):(@) (*##0.00); (**(##0.00); (***772):(@) (*##0.00); (**(###0.00); (***772):(@) (*##0.00); (**(##0.00); (***772):(@) (*##0.00); (**(##0.00); (***772):(@) (*##0.00); (**(##0.00); (***772):(@) (*##0.00); (**(##0.00); (***772):(@) (*##0.00); (**(###0.00); (**(###0.00); (***772); (@) (*##0.00); (**(###0.00); (**(###0.00); (***772); (@) (*##0.00); (**(###0.00); (**(###0.00); (***772); (@) (*##0.00); (**(###0.00); (**(###0.00); (***772); (@) (*##0.00); (**(###0.00); (**(को को मेट	र करना दोना दै एतं करेंसी हद पहला	우 1	
Custom:- इस डेटा टाइंप में आवश्यकता नुसार प्रकार को सेट कर सकते हैं।	9/1 9/1 (10			
Format Cells Number Alignment Service Sample Silou.00 Type: Certral Alignment Sample Fraction Silou.00.); (\$* (* ##0.00); (\$* **7?); (@) Scentific (* ###0.00); (* (* ##0.00); (\$* **7?); (@) Centon (* ##0.00); (* (* ##0.00); (* **7?); (@) (* ##0.00); (* (* ##0.00); (* **7?); (@) Extended (* ##0.00); (* (* ##0.00); (* (* ##0.00); (* **7?); (@) Extended (* ##0.00); (* (* ##0.00); (* **7?); (@) Extended (* ##0.00); (* (* ##0.00); (* **7?); (@) Extended (* ##0.00); (* (* ##0.00); (* **7?); (@) Extended (* ##0.00); (* (* ##0.00); (* (* ##0.00); (* **7?); (@) Extended (* ##0.00); (* (* ##0.00); (* (* ##0.00); (* **7?); (@) Extended (* ##0.00); (* (* ##0.00); (* (* ##0.00); (* **7?); (@) Extended (* ##0.00); (* (* ##0.00); (* (* ##0.00); (* **7?); (@) Extended (* ##0.00); (* (* ##	Custom:- इस	। डेटा टाईप में आवश्यकता न्सार प्रव	गर को सेट कर सकते है।	
Format Cells Number Alignment Category: General Number Number Discouring Discouring Discouring Category: General Second Upre: Caccouring Discouring Discouring Practon Precentage Practon Philmmiss: mmiss: Category: General (Biomastic (# ###00)); (\$* (# ###0); (* ***); (@) (* # ###0); (\$* (# ##00); (* ***); (@) (* # ###0); (* (# ##00); (* ***); (@) (* # ##00); (* (# ##00); (* ***); (@) (* # ###00); (* (# ##00); (* ***); (@) (* # ###00); (* (# ##00); (* (* ##00); (* ***); (@) (* # ###00); (* (# ##00); (* (* ##00); (* (* ***); (@)) (* # ###00); (* (# ##00); (* (* ##00); (* (* ##00); (* (* #00); (* (* #00); (* (* ##00); (* (* ##00); (* (* #0		5		
Number Sample Sample Sample Sumber Sample Number Sample Sumber Sample Sample Sample <td< th=""><th>Format Calls</th><th>2 🗖</th><th></th><th></th></td<>	Format Calls	2 🗖		
Number Alignment Font Border Fil Protection Category: Sample \$100.00 Type: Sample \$100.00 Type: Carrency Type: (\$* =, #=0.00_); (\$* (=, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@) (\$* =, #=0.00); (\$* "??); (@)	Format Cells			
Category: Centeral Number Currency Accounting Data Time Precentage Fraction Million Seenal (\$* #;##0.00); (\$* (#,##0.00); (\$* **??); (@) miss miss miss miss miss (\$* #;##0.00); (\$* (#,##0.00); (\$* **??); (@) (\$* #;##0.00); (\$* (#,##0.00); (\$* **??); (@) (\$* #;##0.00); (\$* #;#0); (\$* ?; ";); (@) (\$* #;##0.00); (\$* #; ##0.00); (\$* **??); (@) (\$* #; ##0.00); (\$* #; ##0.00); (\$* **??); (@) (\$* #; ##0.00); (\$* #; ##0.00); (\$* **??); (@) (\$* #; ##0.00); (\$* #; ##0.00); (\$* **??); (@) (\$* #; ##0.00); (\$* #; ##0.00); (\$* **??); (@) (\$* #; ##0.00); (\$* #; ##0.00); (\$* **??); (@) (\$* #; ##0.00); (\$* #; ##0.00); (\$* **??); (@) (\$* #; ##0.00); (\$* #; ##0.00); (\$* **??); (@) (\$* #; ##0.00); (\$* #; ##0.00); (\$* **??); (@) (\$* #; ##0.00); (\$* #; ##0.00); (\$* **??); (@) (\$* #; #0.00); (\$* #; ##0.00); (\$* *??); (@) (\$* #; #0.00); (\$* #; ##0.00); (\$* *??); (@) (\$* #; #0.00); (\$* #; ##0.00); (\$* *??); (@)	Number Alignme	ent Font Border Fill Protection		
General Numery Sample \$100.00 Type: Type: General Accounting Type: Time Percentage Fraction mid/ynyn hum muss muss (* # ##=0.00); (\$* (# ##0.00); (\$* "?"); (@.) Special (* # ##0.00); (\$* (# ##0.00); (\$* "?"); (@.) Cwaton (* # ##0.00); (\$* (# ##0.00); (\$* "?"); (@.) (* # ##0.00); (\$* (# ##0.00); (\$* "?"); (@.) (@.) (* # ##0.00); (\$* (# ##0.00); (\$* "?"); (@.) (@.) (* # ##0.00); (\$* (# ##0.00); (\$* "?"); (@.) (@.) (* # ##0.00); (\$* (# ##0.00); (\$* "?"); (@.) (@.) (* # ##0.00); (\$* (# ##0.00); (\$* "?"); (@.) (@.) (* # ##0.00); (\$* (# ##0.00); (\$* "?"); (@.) (@.) (* # ##0.00); (\$* (# ##0.00); (\$* "?"); (@.) (@.) (* # ##0.00); (\$* (# ##0.00); (\$* "?"); (@.) (@.) (* # ##0.00); (\$* (# ##0.00); (\$* "?"); (@.) (@.) (* # ##0.00); (* (# ##0.00); (\$* "?"); (@.) (@.) (* # ##0.00); (* (# ##0.00); (* "?"); (@.) (@.) (* # #0.00); (* (# ##0.00); (* "?"); (@.) (@.) (* # #0.00); (* (# ##0.00); (* "?"); (@.) (@.) (* # #0.00); (* # #0.00); (* "?"); (@.) (@.) (* # #0.00); (* # #0.00); (* "?"); (@.) (@.)	Category:			
Number \$100.00 Tipe:	General	Sample		
Accounting Date Time Percentage Fraction Scientific Text ((**##0.00); (**##0.00); (***??); (@) minss: @ Diffic Text @ Custom (*###0); (*###0); (***); (@) (*##00); (*##00); (***?); (@) (***??); (@) (**??); (@) (**?); (@)	Currency	\$100.00		
Conc	Accounting	Type:		
Precentage m/d/yyy hmm Scientific mm:ss Text @ []n:mn:ss []o []s#=r=0); (\$"(#, #=0); (\$"(*); "); (@) (#, #=0); (\$"(#, #=0); (\$"(*); "); (@) (#, #=0); (\$"(#, #=0); (\$"(*); "); (@) (#, #=0); (\$"(#, #=0); (\$"(*); "); (@) (#, #=0); (\$"(#, #=0); (\$"(*); "); (@) (#, #=0); (\$"(#, #=0); (\$"(*); "); (@) (#, #=0); (\$"(#, #=0); (\$"(*); "); (@) []s=09]dddo; (\$"(#, #=0); (\$"(*); "); (@) []s=09]dddo; (\$"(#, #=0); (\$"(*); "); (@) []s=09]ddd; (\$", #=0); (\$"(#, #=0); (\$"(*); "); (@) []s=09]hinmiss AM/PM Delete Type the number format code, using one of the existing codes as a starting point. OK Cancel	Time	_(\$* #,##0.00_);_(\$* (#,##0.00);_(\$* "-"??_);_(@_)		
Special (**, #*0); (**, #*0); (**, **0); (Percentage Fraction	m/d/yyyy h:mm.		
I ext Special (s* #, ##0.0); (s* (#, ##0.00); (* ***); (@) (* #, ##0.00); (* (#, ##0.00); (* **??); (@) (* #, ##0.00); (* (#, ##0.00); (* *??); (@) (* #00]h:mm:ss AM/PM Delete Type the number format code, using one of the existing codes as a starting point. OK Cancel	Scientific	mm:ss.0		
Custom 	Special	Pilmm:ss		
Image: Construction of the construc	Custom	(\$* #,##0_);_(\$* (#,##0);_(\$* "-"_);_(@_) (* # ##0_);_(* (# ##0);_(* "=");_(@_)		
Image: Contract of the second contrac				
Image: Constraint code, using one of the existing codes as a starting point. OK Cancel		_(* #, ##0.00_); _(* (#, ##0.00); _(* "-"??_); _(@_) =		
* Delete Type the number format code, using one of the existing codes as a starting point. OK Cancel		[\$-409]h:mm:ss AM/PM		
Type the number format code, using one of the existing codes as a starting point.		▼ Delete		
OK Cancel	Time the number fo			
OK Cancel	I ype the number to	ormat code, using one of the existing codes as a starting point.		
OK Cancel				
		OK Cancel		
B-1/A, 3 RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92 Page 15	<u>B-1/A, 3^{ri}</u>	<u>^p FLOOR JOSHI COLONY I.P. EXT</u>	N. DELHI-92	<u> </u>

ADHYAYAN AN EDUCATIONAL TRUST MS-EXCEL	
Excel Data में करने के लिए प्रयोग किया है। से समझने में आसानी होती है। एक्सेल मे इसको के द्वारा बनाया है। Excel में चार्ट बनानाः- इसमें चाट चार स्टैप में बनाया है। है।	
Step First:-	
Insert menu \rightarrow Chart	
Or	
Standard Tool Bar \rightarrow Click on Chart Button	
ें बटन पर क्लिक करने पर chart wizard नाम का डायलाॅंग बॉक्स है। इसमें प्रकार है 3 Next Button पर क्लिक करते है। एक्सेल में चौदह प्रकार के चाट होते है।	गौर
Step Second:-	
Second Step में लिये डाटाबेस को चुनते है। इस डायलाॅग बॉक्स में होते है। प्रथम देब में डाटा रेंज है एवं यह चुनते है। रो में है या काॅलम में दूसरे देब series का होता है। इसमें सीरीज नाम एवं उसकी रें देते है। इसमें नई सीरीज सकता है। एवं पहले से उपस्थित सीरीज को डिलिट किया जा सकता है। एवं X Axis पर जो डाटा करना है। उसकी रेंज है और Next Button पर क्लिक करते है। Step Third: –	ज
इस डायलाॅ बाक्स में होते है। सहायता से सेंि हैं	
यह है। 1. Titles- हम्में टाईटन X and X Avis टाईटन टेने है।	
2. Axes: इस टेब से यह धारित करते है कि चाट में X and Y Axes पर लेबिल करना है या नही।	
3. Grid lines :- इस टेब में चार्ट में Grid lines धारित किया जाता है।	
4. Legend :- इस टेब में चार्ट में legend धारित किया है कि Legend में कहाँ पर रना है	
5. Data label :- chart में लेबिल के तौर पर क्य कराना है। इसको है।	
6. Data Table:- Chart टेबिल को शो करना है या नही इसको सेट किया है।	
इसी प्रकार सभी सेटि करन Next Button पर क्लिक करते है।	
Step Fourth:-	

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

<u>Page 16</u>

इस स्टेप में यह निर्धारित किया है। Finish Button पर क्लिक करते ही Formatting सकती है।

को कहाँ पर लोक करना है वर्तमान सीट पर या नई सीट पर। इसक निर्माण हो जाता है। इसक उस पर राईट क्लिक करके उसकी

В C D Е F G A Column1 Smith Jones Michaels Hancock 1 4213 6796 2149 4611 2 January 3 February 3194 1449 9020 7402 3000 2333 8508 4 March 5 6 10000 7 8 8000 9 Smith 6000 10 Jones 11 4000 Michaels 12 13 2000 Hancock 14 0 15 February March January 16 17

Introduction



Excel is a **spreadsheet program** that allows you to store, organize, and analyze information. In this lesson, you will learn your way around the Excel 2010 environment, including the new **Backstage view**, which replaces the Microsoft Office button menu from Excel 2007.

We will show you how to use and modify the **Ribbon** and the **Quick Access toolbar**, as well as how to **create new workbooks** and **open** existing ones. After this lesson, you will be ready to get started on your first workbook.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Getting to know Excel 2010

The **Excel 2010** interface is similar to Excel 2007. There have been some changes we'll review later in this lesson, but if you're new to Excel first take some time to learn how to navigate an Excel workbook.

The Excel interface

Click the buttons in the interactive below for an overview of how to navigate an Excel workbook.



Working with your Excel environment

The **Ribbon** and **Quick Access toolbar** are where you'll find the commands you need to perform common tasks in Excel. If you are familiar with Excel 2007, you will find that the main

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

difference in the Excel 2010 Ribbon is that commands such as Open and Print are now housed in **Backstage view**.

The Ribbon

The Ribbon contains multiple **tabs**, each with several **groups** of commands. You can add your own tabs that contain your favorite commands.



Certain programs—such as **Adobe Acrobat Reader**—may install additional tabs to the Ribbon. These tabs are called **add-ins**.

To customize the Ribbon:

You can customize the Ribbon by creating your own **tabs** that house your desired commands. Commands are always housed within a **group**, and you can create as many groups as you need to keep your tabs organized. You can also add commands to any of the default tabs as long as you create a custom group within the tab.

1. Right-click the Ribbon, then select Customize the Ribbon. A dialog box will appear.

Adhyayan An Educational Trust (Approved By Govt. of Delhi) Contact- 9999478454, 9999478409 B-1/A 3rd Floor Opp. Kirpal Apt. Joshi Colony I.P. Extention Delhi 110092

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	Book1 - M	icroso	ft Exc	el	-	-	-	-		
ient	Wrap Text Merge & Cent	e	<u>A</u> do <u>C</u> us <u>S</u> ho	d Group to Q stomize Quic	uick Access k Access Too ess Toolbar	Toolbar Ibar Below the Ri	bbon	Cell Styles *	the sector of t	Delete
			Mir	imize the Ri	ubbon bbon	2ª				
1				N	L	IVI	IN			Ρ

- 2. Click New Tab. A new tab will be created with a new group inside it.
- 3. Make sure the new group is selected.
- 4. Select a command from the list on the left, then click **Add**. You can also drag commands directly into a group.
- 5. When you are done adding commands, click OK.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



If you do not see the command you want, click the **Choose commands** drop-down box and select **All Commands**.

hoose commands from: (i)	Customize the Ribbon: (i)
Popular Commands 🔹	Main Tabs
Popular Commands	
Commands Not in the Ribbon	Main Tabs
All Commands	🖃 📝 Home
Macros	Clipboard
File Tab	Font
All Tabs	New Group (Custom)
Main Tabs	Alignment
[ool Tabs	Number
Custom Table and Crouns	Styles
Lustom rabs and Groups	Cells

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

To minimize and maximize the Ribbon:

The Ribbon is designed to be easy to use and responsive to your current tasks; however, if you find that it's taking up too much of your screen space, you can **minimize** it.

1. Click the **arrow** in the upper-right corner of the Ribbon to minimize it.



2. To maximize the Ribbon, click the arrow again.

When the Ribbon is minimized, you can make it reappear by clicking a tab. However, the Ribbon will disappear again when you're not using it.

The Quick Access toolbar

The **Quick Access toolbar**, above the Ribbon, lets you access common commands no matter which tab you are on. By default, it shows the **Save**, **Undo**, and **Repeat** commands. You can add other commands to make it more convenient for you.

To add commands to the Quick Access toolbar:

- 1. Click the drop-down arrow to the right of the Quick Access toolbar.
- 2. Select the **command** you want to add from the drop-down menu. To choose from more commands, select **More Commands**.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

🗶 🛃 🤊	- (2) -	<mark>-</mark>		Boo
File	Home	Cus	stomize Quick Access Toolbar	as Dat
F	Cal	ib	New	= =
	B		Open	
v 🍼		· 🗸	Save	*
Clipboard	5		E-mail	Alignme
	A1		Quick Print	
A			Print Parious and Drint	olbar
1			Spelling	
2		\checkmark	Undo	
3		\checkmark	Redo	
4		_	Sort Ascending	
5		_	Sort Descending	
6		_	Open Recent File	
0		_	More Commands	
9		-	<u>Show Below the Ribbon</u>	
10		<u> </u>		

Backstage view

Backstage view gives you various options for saving, opening a file, printing, and sharing your document. It is similar to the **Microsoft Office button menu** from Excel 2007 and the **File menu** from earlier versions of Excel. However, instead of just a menu it's a full-page view, which makes it easier to work with.

To get to Backstage view:

1. On the Ribbon, click the **File** tab.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



2. Choose your desired option, or return to your workbook by clicking any tab on the Ribbon.

Click the buttons in the interactive below to learn about the different things you can do in Backstage view.



	insent Page Layout	ronnulas	Data P	Veview view	
Save	Available Tem	plates			Blank workbook
😤 Onen	÷ ÷ 🙆	Home			
Close				-	
info		VCD.			
		4.			
Recent	Blank workbook	templates	templates		
New		* 5		=	
Print	8				
Save & Send	My templates	New from			
Help	Office com Te	existing	Sauch Office of	-	
	Office.com re	implates	Search Office.c		
• Options			T annua		
Exit					
	Agendas	Budgets	Calendars		
	_	_			Create
	1	1			
	Databases	Diagrams	Expense reports		

Creating and opening workbooks

Excel files are called **workbooks**. Each workbook holds one or more **worksheets** (also known as spreadsheets).

To create a new blank workbook:

- 1. Click the **File** tab. This takes you to **Backstage view**.
- 2. Select New.
- 3. Select Blank workbook under Available Templates. It will be highlighted by default.
- 4. Click Create. A new blank workbook appears in the Excel window.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Save As	Available Templates Blank workbook	
🚰 Open	🔄 🗇 🚮 Home	
Close Info	Blank workbook	
Recent	Blank Recent Sample workbook templates templates	r
New		
Print		
Save & Send	My templates New from existing	
Help	Office.com Templ Search Office.	
Dptions		
🔀 Exit		
	Agendas Budgets Calendars	Ť
	Create	

To save time, you can create your document from a **template**, which you can select under Available Templates. We'll talk more about this in a later lesson.

To open an existing workbook:

- 1. Click the **File** tab. This takes you to **Backstage view**.
- 2. Select **Open**. The Open dialog box appears.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

S S S S S S S S S S S S S S S S S S S	al Disk	(C:) Users I lauren I Desktop I D	vocuments 🕨 👻	Search Documents
Organize 🔻 New	v folde	r		8≡ ▼ [
K Microsoft Excel	-	Name	Date modified	
		퉬 Downloads	7/26/2010 11:17 AM	
쑦 Favorites		🕌 Family	7/26/2010 11:15 AM	
Nesktop		🎍 Misc	7/26/2010 11:17 AM	
📜 Downloads	=	闄 Personal	7/26/2010 11:15 AM	
🖳 Recent Places		🕘 2010 Coastal Candle Company Sales	7/26/2010 10:20 AM	Select a file to preview.
		Invoice Template	7/26/2010 10:03 AM	
🥃 Libraries		Office Contacts	7/26/2010 10:04 AM	
J Music		Personal Budget	10:02 AM	
Pictures		Authors: Lauren	cel worksheet	
🚼 Videos		Size: 8.16 KB		
	Ŧ	Date modified: 7/2	26/2010 10:04 AM	
	File na	me:		✓ All Excel Files

3. Select your desired workbook, then click **Open**.

If you have opened the existing workbook recently, it may be easier to choose **Recent** from the **File tab**instead of **Open** to search for your workbook.



Sometimes you may need to work with workbooks that were created in earlier versions of Microsoft Excel, such as Excel 2003 or Excel 2000. When you open these types of workbooks, they will appear in **Compatibility mode**.

Compatibility mode **disables** certain features, so you'll only be able to access commands found in the program that was used to create the workbook. For example, if you open a workbook created in Excel 2003 you can only use tabs and commands found in Excel 2003.

In the image below, the workbook has opened in Compatibility mode. You can see that the sparklines and slicers features have been disabled.



To exit Compatibility mode, you'll need to **convert** the workbook to the current version type. However, if you're collaborating with others who only have access to an earlier version of Excel, it's best to leave the workbook in Compatibility mode so the format will not change.

To convert a workbook:

If you want access to all of the Excel 2010 features, you can **convert** the workbook to the 2010 file format.

Note that converting a file may cause some changes to the **original layout** of the workbook.

- 1. Click the **File** tab to access Backstage view.
- 2. Locate and select the **Convert** command.

Adhyayan An Educational Trust (Approved By Govt. of Delhi) Contact- 9999478454, 9999478409 B-1/A 3rd Floor Opp. Kirpal Apt. Joshi Colony I.P. Extention Delhi 110092

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



3. The **Save As** dialog box will appear. Select the **location** where you want to save the workbook, enter a **file name** for the presentation, and click **Save**.

🔀 Save As	×
🚱 🕞 🗢 📗 « My Documents 🕨	AdWorks > Sales - + + Search Sales P
Organize 🔻 New folder	
Libraries	Documents library Sales Arrange by: Folder •
J Music ■ Dictures	🗙 Sales Data
Videos	
r Computer	
File name: Employee_Sales	4 I
Save as type: Excel Workbook	· •
Authors: Add an author	Tags: Add a tag
Save Thu	umbnail
Hide Folders	Tools Save Cancel

4. The workbook will be converted to the newest file type.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Challenge!

- 1. **Open** Excel 2010 on your computer. A new blank workbook will appear on the screen.
- 2. Try minimizing and maximizing the **Ribbon**.
- 3. Click through all of the tabs, and notice how the Ribbon options change.
- 4. Try switching **page views**.
- 5. Add any commands you want to the **Quick Access toolbar**.
- 6. Close Excel without saving the workbook.

Introduction



Every Excel **workbook** contains at least one or more **worksheets**. If you are working with a large amount of related data, you can use worksheets to help organize your data and make it easier to work with.

In this lesson, you will learn how to **name** and **add color** to worksheet tabs, as well as how to **add**, **delete**, **copy**, and **move** worksheets. Additionally, you will learn how to **group** and **ungroup** worksheets and **freeze** columns and rows in worksheets so they remain visible even when you're scrolling.

Introduction to worksheets

When you open an Excel workbook, there are **three worksheets** by default. The default names on the worksheet tabs are **Sheet1**, **Sheet2**, and **Sheet3**. To organize your workbook and make it easier to navigate, you can rename and even color code the worksheet tabs. Additionally, you can insert, delete, move, and copy worksheets.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Optional: You can download this **example** for extra practice.

To rename worksheets:

- 1. Right-click the **worksheet tab** you want to rename. The **worksheet** menu appears.
- 2. Select Rename.



3. The text is now highlighted by a black box. Type the name of your worksheet.



4. Click anywhere outside the tab. The worksheet is renamed.

43	
44	
45	
H 4	🕨 🗏 January / Sheet2 / Sheet3 / 😓 /
Rea	dy

To insert new worksheets:

Click the **Insert Worksheet** icon. A new worksheet will appear.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

43						
44						
45						
	🕩 🕅 Ja	nuary / Sh	eet2	/ She	et3 🦯 🖏 N	
Rea	ady			Insert	ہا Worksheet (S	র্ত Shift+F11)

You can change the setting for the default number of worksheets that appear in Excel workbooks. To access this setting, go into **Backstage view** and click **Options**.

To delete worksheets:

Worksheets can be deleted from a workbook, including those containing data.

- 1. Select the worksheets you want to delete.
- 2. Right-click one of the selected worksheets. The **worksheet** menu appears.
- 3. Select **Delete**. The selected worksheets will be deleted from your workbook.



To copy a worksheet:

- 1. Right-click the worksheet you want to copy. The worksheet menu appears.
- 2. Select Move or Copy.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

24		<u> </u>
25		Insert
26		<u>D</u> elete
27		<u>R</u> ename
28		Move or Copy
29		View Code
30	<u></u>	Protect Sheet
31		Tab Color 🕨 🕨
32		Hida
33		<u>n</u> ide
34		<u>U</u> nhide
35		Select All Sheets
HAFH	January 🤭	1/
Ready		

3. The Move or Copy dialog box appears. Check the Create a copy box.

Move or Copy	? ×)
Move selected sheets To book:	
MonthlyBudget	•
Before sheet:	
January (move to end)	
Create a copy	Cancel

4. Click **OK**. Your worksheet is copied. It will have the same title as your original worksheet, but the title will include a version number, such as **January** (2).

34	
35	
🛯 🔹 🕨 🖉 January	🗍 January (2) 🦯 🔁 🦯
Ready	

To move a worksheet:

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

- 1. Click the worksheet you want to move. The mouse will change to show a small worksheet icon
- 2. Drag the worksheet icon until a small black arrow appears where you want the worksheet to be moved.



3. Release your mouse, and the worksheet will be moved.

33							
34							
35							
14 4	E ► H	Yearly	/ Budget	t / Monthl	y Budget 🍃	Daily Bud	get 🏸 🖓
Rea	ady						

To color code worksheet tabs:

You can color worksheet tabs to help organize your worksheets and make your workbook easier to navigate.

- 1. Right-click the worksheet tab you want to color. The worksheet menu appears.
- 2. Select **Tab Color**. The **color** menu appears.
- 3. Select the color you want to change your tab.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



4. The tab color will change in the workbook. If your tab still appears white, it is because the worksheet is still selected. Select any other worksheet tab to see the color change.

July August September

Grouping and ungrouping worksheets

You can work with each worksheet in a workbook individually, or you can work with multiple worksheets at the same time. Worksheets can be combined into a **group**. Any changes made to one worksheet in a group will be made to every worksheet in the group.

To group worksheets:

1. Select the **first worksheet** you want in the group.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	ADHY	YAYAN AI	N EDUCA	ATIONA	L TRUST	MS-EXCE
September	October / N	lovember / Dec	remher			
	1		combor A			
	~~					
2. Press and ho	ld the Ctrl I	xey on your k	keyboard.			
 Press and he Select the ne 	d the Ctrl I t workshee	key on your k t you want in	xeyboard.	Continue to	select works	heets until all
 Press and he Select the ne of the works 	d the Ctrl I at workshee eets you wan	key on your k t you want in it to group an	a the group.	Continue to	select worksl	heets until all
 Press and he Select the ne of the worksl 	d the Ctrl I at workshee eets you wan	key on your k t you want in nt to group an	a the group. re selected.	Continue to	select worksl	heets until all
 2. Press and he 3. Select the ne of the worksl 	d the Ctrl I at workshee eets you war	key on your k t you want in nt to group an	a the group. re selected.	Continue to	select worksl	heets until all
 2. Press and he 3. Select the ne of the worksl 	d the Ctrl I at workshee eets you wan	key on your k t you want in nt to group an	a the group. re selected.	Continue to	select worksl	heets until all
 2. Press and he 3. Select the ne of the worksl 	Id the Ctrl I at workshee eets you wan	key on your k t you want in nt to group an	a the group. re selected.	Continue to	select works	heets until all

4. **Release the Ctrl key**. The worksheets are now grouped. The worksheet tabs appear white for grouped worksheets.

While worksheets are grouped, you can navigate to any worksheet in the group and make changes that will appear on every worksheet in the group. If you click a worksheet tab that's not in the group, however, all of your worksheets will become ungrouped. You will have to group them again.

To ungroup all worksheets:

- 1. Right-click one of the worksheets. The **worksheet** menu appears.
- 2. Select **Ungroup**. The worksheets will be ungrouped.

Freezing worksheet panes

The ability to freeze specific rows or columns in your worksheet can be a useful feature in Excel. It is called **freezing panes**. When you freeze panes, you select rows or columns that will remain visible all the time, even as you are scrolling. This is particularly helpful when working with large spreadsheets.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92
To freeze rows:

1. Select the row **below** the rows you want frozen. For example, if you want rows 1 and 2 to always appear at the top of the worksheet even as you scroll, then select row 3.

	А	В	С	D
1	Monthly	Budge	et - Ja	nuary
2	Bills	Payment	Date Due	Paid
3	Fixed Expenses			
4	Cable / Internet	\$ 89.99	15-Jan	Visa

- 2. Click the **View** tab.
- 3. Click the Freeze Panes command. A drop-down menu appears.
- 4. Select Freeze Panes.

	Mo	onthlyBud	lget.xlsx - I	Aicrosoft	Excel						
V	iew										
5						🔜 Split	View Side by Side	ing			
m :	100%	Zoom to Selection	New Window	Arrange All	Freeze Panes 🔻	🔲 Unhide	Reset Window Posi	tion Workspace			
	Zoom					<u>Freeze</u> Pan	es				
					Keep rows and columns visible while the rest of the worksheet scrolls (based on current selection)						
		E	F	G		Freeze Top	Row				
						Keep the top row visible while scrolling through the rest of the worksheet.					
						Freeze First <u>C</u> olumn Keep the first column visible while scrolling					
						through th	e rest of the worksheet.				

5. A black line appears **below** the rows that are frozen in place. Scroll down in the worksheet to see the rows below the frozen rows.

	Monthly	' B	udge	et - Ja	nuary			
	Bills	Pay	ment	Date Due	Paid			
2	Gas	\$	160.00	6-Jan	Discover			
3	Pets	\$	65.00	10-Jan	Visa			
1	Water	\$	28.23	21-Jan	Visa			
5	Other				(-	
5	Clothes	\$	18.54	8-Jan	Store Credit Card	Rows	1 and 2 a	re
7	Misc.	\$	98.06	6-Jan	Discover	frozen	above th	nis
3	Restaurants	\$	156.71	6-Jan	Discover	bla	ack line	
)								
ו	Credit Payment							
L	Discover	\$	1,108.31	6-Jan	Yes			

To freeze columns:

1. Select the column to the **right** of the columns you want frozen. For example, if you want columns A and B to always appear to the left of the worksheet even as you scroll, select column C.

	А	E	3		C ↓		D		E		F
1											Va
2	Variable Expenses	January		Febru	iary	Mar	ch	April		May	
3											
4	Cell Phone	\$	47.99	\$	53.62	\$	55.64	\$	52.31	\$	
5	Clothes	\$	55.24	\$	10.24	\$	-	\$	157.44	\$	
6	Gas	\$	100.00	\$	120.49	\$	125.30	\$	153.00	\$	1
7	Groceries	\$	230.23	\$	203.50	\$	189.35	\$	125.00	\$	2
8	Home Phone	\$	30.50	\$	32.68	\$	31.67	\$	32.55	\$	
9	Power	\$	57.22	\$	68.65	\$	52.65	\$	55.98	\$	
10	Restaurants	\$	24.45	\$	78.24	\$	50.21	\$	60.24	\$	
11	Water	\$	44.88	\$	52.84	\$	50.36	\$	32.41	\$	
12	Total	\$	590.51	\$	620.26	\$	555.18	\$	668.93	\$	6
13	Total Year	\$	590.51	\$	1,210.77		\$1,765.95	\$	2,434.88	\$	3,1

- 2. Click the **View** tab.
- 3. Click the **Freeze Panes** command. A drop-down menu appears.
- 4. Select Freeze Panes.

	Mor	nthlyBu	ıdget.xlsx -	Microsoft	Excel					
Vi	ew									
	100					Spli		iew Side by	Side Scrolling	
m 1	00%	Zoom t Selectio	o New On Windov	Arrange v All	Freeze Panes *	🗖 Unh	iide 📑 R	eset Window	w Position	Save Workspace
	Zoom					Ereeze Keep r the w	e Panes rows and co orksheet scr	lumns visibl olls (based o	e while the on current s	rest of election).
		E	F	G		Freeze Keep t the re	top <u>R</u>ow the top row st of the wo	visible while rksheet.	e scrolling ti	hrough
						Freeze Keep t throu	e First <u>C</u> olun the first colu gh the rest c	nn mn visible v of the works	vhile scrollir heet.	ng

5. A black line appears to the **right** of the frozen area. Scroll across the worksheet to see the columns to the right of the frozen columns.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	A	В	1		F		G		Н		I.
1			Variable Expenses								
2	Variable Expenses	January		May	1	June	2	July		Aug	gust
3		-									
4	Cell Phone	\$	47.99	\$	49.87	\$	47.86	\$	41.30	\$	49.40
5	Clothes	\$	55.24	\$	24.25	\$	46.42	\$	-	\$	204.24
6	Gas	\$	100.00	\$	146.42	\$	107.77	\$	106.28	\$	113.12
7	Groceries	\$	230.23	\$	220.78	\$	208.45	\$	256.38	\$	245.12
8	Home Phone	\$	30.50	\$	39.87	\$	43.55	\$	55.60	\$	36,88
9	Power	\$	57.22	\$	68.21	\$	88.55	\$	87.42	\$	75.32
10	Restaurants	\$	24.45	\$	79.02	\$	45.45	\$	150.42	\$	46.02
11	Water	\$	44.88	\$	41.26	\$	31.43	\$	56.86	\$	48.55
12	Total	\$	590.51	\$	669.68	\$	619.48	\$	754.26	\$	818.65
13	Total Year	\$	590.51	\$	3,104.56	\$	3,724.04	\$	4,478.30	\$	5,296.95
14											
15											
16											
17											
18											
19					Columns A	an	d				
20					B are froz	en t	0				
21					the left of	this					
22					black li	ne					<u>_</u>
23											
24				-		-					

To unfreeze panes:

- 1. Click the **View** tab.
- 2. Click the Freeze Panes command. A drop-down menu appears.
- 3. Select Unfreeze Panes. The panes will be unfrozen, and the black line will disappear.



Challenge!

- 1. Open an existing Excel 2010 workbook. If you want, you can use this example.
- 2. **Insert** a new worksheet.
- 3. Change the name of a worksheet.
- 4. **Delete** a worksheet.
- 5. Move a worksheet.
- 6. Copy a worksheet.
- 7. Try grouping and ungrouping worksheets.
- 8. Try **freezing and unfreezing** columns and rows.

Creating complex formulas

×	✓ f _x =B4*\$	B\$1
	В	С
	0.055	
	Price	Sales Tax
U	\$9.95	=B4*\$B\$1
lit	\$24.50	\$1.35
wn	\$9.99	\$0.55
zer	\$49.99	\$2.75
	\$8.25	\$0.45
	40.20	40110

Excel is a spreadsheet application that can help you calculate and analyze numerical information for household budgets, company finances, inventory, and more. To do this, you need to understand **complex formulas**.

In this lesson, you'll learn how to write complex formulas in Excel following the order of operations. You will also learn about **relative** and **absolute cell references**, as well as how to **copy** and **fill formulas** containing cell references.

Complex formulas

Simple formulas have one mathematical operation, such as **5+5**. **Complex formulas** have more than one mathematical operation, such as **5+5-2**. When there is more than one operation in a formula, the **order of operations** tells us which operation

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

<u>Page 40</u>

to calculate first. To use Excel to calculate complex formulas, you'll need to understand the order of operations.

Optional: You can download this **example** for extra practice.

The order of operations

Excel calculates formulas based on the following order of operations:

- 1. Operations enclosed in parentheses
- 2. Exponential calculations (to the power of)
- 3. Multiplication and division, whichever comes first
- 4. Addition and subtraction, whichever comes first

A mnemonic that can help you remember the order is Please Excuse My Dear Aunt Sally.

Example 1

The following example demonstrates how to use the order of operations to calculate a formula:



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



Example 2

In this example, we'll review how Excel will calculate a complex formula using the order of operations. The selected cell will display the percent of total Pete Lily seeds sold that were white.

Seed Inventory	Packets Sold	Price	Percent of Total Sold
Pete Lily - Blue	14	\$1.99	42.42
Pete Lily - White	19	\$1.99	=(19*1.99) <mark>/</mark> (33*1.99) <mark>*</mark> 100
Total Pete Lily	33	\$1.99	,

- 1. First, Excel will calculate the amount sold in parentheses: (19*1.99)=37.81 White Pete Lily seeds and (33*1.99)=65.67 Total Pete Lily seeds.
- 2. Second, it will divide the White Pete Lily seeds amount by the Total Pete Lily seeds amount: **37.81/65.67=.5758**.
- 3. Last, it will multiply the result by 100 to obtain the value as a percent: **.5758*100=57.58**.

Based on this complex formula, the result will show that **57.58%** of the total Pete Lily seeds sold were white. You can see from this example that it is important to enter

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

complex formulas with the correct order of operations. Otherwise, Excel will not calculate the results accurately.

To create a complex formula using the order of operations:

In this example, we'll use **cell references** in addition to actual values to create a complex formula that will add tax to the nursery order.

- 1. Click the cell where you want the formula result to appear (**F11**, for example).
- 2. Type the **equals sign** (=).
- 3. Type an **open parenthesis**, then click the cell that contains the first **value** you want in the formula (**F4**, for example).
- 4. Type the first **mathematical operator** (the addition sign, for example).
- 5. Click the cell that contains the second **value** you want in the formula (**F5**, for example), then type a **closed parenthesis**.
- 6. Type the next **mathematical operator** (the multiplication sign, for example).
- 7. Type the next value in the formula (0.055 for 5.5% tax, for example).

		SUM ▼ (X √ f _x =(F4+ F5)*0.055									
	Α	В	С	D	E	F						
1												
2		Blooming Bells Nursery										
3		ITEM	ITEM #	Price	Quantity	Total						
4		LE Tomato Planter Bags	SG324	\$18.99	2	\$37.98						
5		M - Cord	AU396	\$0.12	5	\$0.60						
6												
7												
8												
9												
10												
11		Тах				=(F4+ F5)*0.055						
12		Total				\$40.70						
13												

8. Click **Enter** to calculate your formula. The results show that \$2.12 is the tax for the nursery order.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

\$2.12

Excel **will not always tell you** if your formula contains an error, so it's up to you to check all of your formulas. To learn how to do this, you can read the **Double-Check Your Formulas** lesson from our **Excel Formulas** tutorial.

Working with cell references

Video: Working with Cell References in Excel 2010

In order to maintain accurate formulas, it is necessary to understand how cell references respond when you copy or fill them to new cells in the worksheet.

Excel will interpret cell references as either **relative** or **absolute**. By default, cell references are **relative references**. When copied or filled, they change based on the relative position of rows and columns. If you copy a formula (=A1+B1) into row 2, the formula will change to become (=A2+B2).

Absolute references, on the other hand, do not change when they are copied or filled and are used when you want the values to stay the same.

Relative references

Relative references can save you time when you're repeating the same type of calculation across multiple rows or columns.

In the following example, we're creating a formula with cell references in row 4 to calculate the total cost of the electric bill and water bill for each month (B4=B2+B3). For the upcoming months, we want to use the same formula with relative references (C2+C3, D2+D3, E2+E3, etc.). For convenience, we can copy the formula in B4 into the rest of row 4, and Excel will calculate the value of the bills for these months using relative references.

To create and copy a formula using relative references:

1. Select the first cell where you want to enter the formula (**B4**, for example).

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

 f_{x} - (m B4 ٨ в с D G н N MAR APR JUN JUL AUG NOV JAN FEB SEP ост DEC MAY \$ 116.45 | \$ 125.15 | \$ 132.04 \$ 114.78 \$ 101.98 \$ 120.41 \$ 139.42 \$ 99.56 \$ 106.24 \$ 110.12 \$ 114. 2 Electric \$ 98.45 \$ 50.15 45.87 Water Ś 48.75 Ś 49.57 50.42 64.45 Ś 66.42 63.24 56.54 46.24 Ś 43.24 \$ 50 ¢ Total

2. Enter the formula to calculate the value you want (**B2+B3**, for example).

	А	В	С
1		JAN	FEB
2	Electric	\$ 116.45	\$ 125.15
3	Water	\$ 50.15	\$ 48.75
4	<u>Total</u>	= <mark>B2+</mark> B3	Į

3. Press Enter. The formula will be calculated.

S	166 60
Ŷ	100.00

- 4. Select the cell you want to copy (**B4**, for example), then click the **Copy** command from the **Home** tab.
- 5. Select the cells where you want to paste the formula, then click the **Paste** command from the **Home** tab. You can also drag the fill handle to fill cells.

	C4	- (e 1	=C2+C3									
1	Α	В	С	D	E	F	G	Н	1	J	K	L	M
1		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ост	NOV	DEC
2	Electric	\$ 116.45	\$ 125.15	\$ 132.04	\$ 114.78	\$ 98.45	\$ 101.98	\$ 120.41	\$ 139.42	\$ 99.56	\$ 106.24	\$ 110.12	\$ 114.
3	Water	\$ 50.15	\$ 48.75	\$ 45.87	\$ 49.57	\$ 50,42	\$ 64.45	\$ 66.42	\$ 63.24	\$ 56.54	\$ 46.24	\$ 43.24	\$ 50.
4	Total	\$ 166.60	\$ 173.90	\$ 177.91	\$ 164.35	\$ 148.87	\$ 166.43	\$ 186.83	\$ 202.66	\$ 156.10	\$ 152.48	\$ 153.36	\$ 164.

6. Your formula is copied to the selected cells as a relative reference (C4=C2+C3, D4=D2+D3, E4=E2+E3, etc.), and the values are calculated.

Absolute references

There may be times when you do not want a cell reference to change when copying or filling cells. You can use an **absolute reference** to keep a row and/or column constant in the formula.

An absolute reference is designated in the formula by the addition of a **dollar sign (\$)**. It can precede the column reference, the row reference, or both.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

\$A\$2:	The column and the row do not change when copied.

- A\$2: The row does not change when copied.
- \$A2: The column does not change when copied.

In the below example, we want to calculate the sales tax for a list of products with varying prices. We'll use an absolute reference for the sales tax (\$B\$1) because we do not want it to change as we are copying the formula down the column of varying prices.

To create and copy a formula using an absolute reference:

1. Select the first cell where you want to enter the formula (C4, for example).



- 2. Type an equals sign, and then click the cell that contains the first **value** you want in the formula (**B4**, for example).
- 3. Type the first **mathematical operator** (the multiplication sign, for example).
- 4. Type the **dollar sign** (\$), then enter the **column letter** of the cell you are making an absolute reference to (**B**, for example).

	MAX - (= X •	✓ <i>f</i> ∗ =B4*\$B	
	A	В	С
1	5.5% Salés Tax	0.055	
2			
3	ITEM	Price	Sales Tax
4	7" Spanish Pot - BLU	\$9.95	=B4*\$B
5	LightWorks Garden Kit	\$24.50	
6	Coneflower - Sundown	\$9.99	
7	Four Way Soil Analyzer	\$49.99	
8	Ferti-Again	\$8.25	

5. Type the **dollar sign (\$)**, then enter the **row number** of the same cell you are making an absolute reference to (1, for example).

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	MAX - (= 🗙 ·	✓ <i>f</i> _x =B4*\$B\$1	l
	A	В	С
1	5.5% Sales Tax	0.055	
2			
3	ITEM	Price	Sales Tax
4	7" Spanish Pot - BLU	\$9.95	=B4*\$B\$1
5	LightWorks Garden Kit	\$24.50	
6	Coneflower - Sundown	\$9.99	
7	Four Way Soil Analyzer	\$49.99	
8	Ferti-Again	\$8.25	

6. Press **Enter** to calculate the formula.

```
$0.55
```

- 7. Select the cell you want to copy (C4, for example), then click the Copy command from the Home tab.
- 8. Select the cells where you want to paste the formula, then click the **Paste** command from the **Home** tab. You can also drag the fill handle to fill cells.

	C5 🗸 🧑	f_x	=B5*\$B\$1	
	А		В	C
1	5.5% Sales Tax		0.055	
2				
3	ITEM	Price		Sales Tax
4	7" Spanish Pot - BLU		\$9.95	\$0.55
5	LightWorks Garden Kit		\$24.50	\$1.35
6	Coneflower - Sundown		\$9.99	\$0.55
7	Four Way Soil Analyzer		\$49.99	\$2.75
8	Ferti-Again		\$8.25	\$0.45

9. Your formula is copied to the selected cells using the absolute reference (C5=B5*\$B\$1, C6=B6*\$B\$1, etc.), and your values are calculated.

When writing a formula, you can press the **F4** key on your keyboard to switch between relative and absolute cell references. This is an easy way to quickly insert an absolute reference.

Challenge!

- 1. Open an **existing Excel 2010 workbook**. If you want, you can use this **example**.
- 2. Create a formula that uses an **absolute reference**. If you are using the example, calculate the sales tax in **E4:E20**. Use cell C23 as your absolute reference to the price of sales tax.
- 3. Create a formula that uses a **relative reference**. If you are using the example, create a formula that adds the price of each item in column D and the sales tax for each item in column E, then multiplies the result by the quantity of each item in column F. Enter your

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

results in the totals column (column G). **Hint:** You'll need to think about the order of operations for this to work correctly.

Working with basic functions

J In Fun	$\int_{x} \sum_{\substack{0 \\ \text{ bettigen for a sert for a sert } \\ \text{ bettigen for a sert } } \sum_{i=1}^{N} Au$	itoSum ▼ cently Used nancial ▼	È Le ▼ Â Te È D Functi
	MAX	-	• • •
	А	В	С
1	=SUM(19.9	99, <mark>89,</mark> C9:0	:11)
2	SUM(nun	nber1, [num	ber2], [I
3			

Figuring out formulas for calculations you want to make in Excel can be tedious and complicated. Fortunately, Excel has an entire library of **functions**—or **predefined formulas**— you can take advantage of. You may be familiar with common functions like **sum**, **average**, **product**, and **count**, but there are hundreds of functions in Excel, even for things like formatting text, referencing cells, calculating financial rates, and analyzing statistics.

In this lesson, you'll learn the basics of inserting common functions into your worksheet by utilizing the **AutoSum** and **Insert Functions** commands. You will also become familiar with how to **search** and **find various functions**, including exploring Excel's **Functions Library**.

Basic functions

A **function** is a **predefined formula** that performs calculations using specific values in a particular order. One of the key benefits of functions is that they can save you time because you do not have to write the formula yourself. Excel has hundreds of functions to assist with your calculations.

To use these functions correctly, you need to understand the different **parts of a function** and how to create **arguments** in functions to calculate values and cell references.

You can download this **example** for extra practice.

The parts of a function

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

The order in which you insert a function is important. Each function has a specific order called **syntax**—which must be followed in order for the function to work correctly. The basic syntax to create a formula with a function is to insert an **equals sign** (=), **function name** (SUM, for example, is the function name for addition), and **argument**. Arguments contain the information you want the formula to calculate, such as a range of cell references.



Working with arguments

Arguments must be enclosed in **parentheses**. Individual values or cell references inside the parentheses are separated by either **colons** or **commas**.

• Colons create a reference to a range of cells.

For example, =**AVERAGE**(**E19:E23**) would calculate the **average** of the cell range E19 through E23.

• **Commas** separate individual values, cell references, and cell ranges in parentheses. If there is more than one argument, you must separate each argument by a comma.

For example, =COUNT(C6:C14,C19:C23,C28) will count all the cells in the three arguments that are included in parentheses.

To create a basic function in Excel:

- 1. Select the cell where the answer will appear (F15, for example).
- 2. Type the equals sign (=), then enter the function name (SUM, for example).

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

\$12.20	\$61.00	8-Aug	11-Aug	
\$7.33	\$36.65	8-Aug	11-Aug	
=	SUM	_		
	€ SUM	Adds all	the numbers in a ra	nge of cells
	🕭 SUMIF			
Unit Price	SUMIFS	Ordered	Date Received	
\$12.03		18-Sep	26-Sep	
\$15.95	G SUMX2MY2	18-Sep	26-Sep	
\$5.87	€ SUMX2PY2	8-Aug	14-Aug	
\$8.83	€ SUMXMY2	8-Aug	14-Aug	
\$13.54	\$27.08	22-Jul	29-Jul	

3. Enter the cells for the **argument** inside the parentheses.

Unit Price	Subtotal	Date Ordered	Date Received
\$5.86	\$58.60	12-Sep	17-Sep
\$40.26	\$80.52	12-Sep	17-Sep
\$4.20	\$42.00	6-Sep	12-Sep
\$6.19	\$74.28	6-Sep	12-Sep
\$3.20	\$48.00	6-Sep	12-Sep
\$3.40	\$17.00	6-Sep	12-Sep
\$4.10	\$32.80	6-Sep	12-Sep
\$12.20	\$61.00	8-Aug	11-Aug
\$7.33	\$36.65	8-Aug	11-Aug
	=SUM(F6:F1	4)	

4. Press Enter, and the result will appear.

\$450.85

Excel **will not always tell you** if your function contains an error, so it's up to you to check all of your functions. To learn how to do this, read the **Double-Check Your Formulas** lesson from our **Excel Formulas** tutorial.

Using AutoSum to select common functions

The **AutoSum** command allows you to automatically return the results for a range of cells for common functions like SUM and AVERAGE.

- 1. Select the cell where the answer will appear (E24, for example).
- 2. Click the **Home** tab.
- 3. In the **Editing** group, click the **AutoSum** drop-down arrow and select the function you want (**Average**, for example).

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



4. A formula will appear in **E24**, the selected cell. If logically placed, AutoSum will select your cells for you. Otherwise, you will need to click the cells to choose the argument you want.

Unit Price	Subtotal	Date Ordered	Date Received
\$12.03	\$36.09	18-Sep	26-Sep
\$15.95	\$31.90	18-Sep	26-Sep
\$5.87	\$58.70	8-Aug	14-Aug
\$8.83	\$88.30	8-Aug	14-Aug
\$13.54	\$27.08	22-Jul	29-Jul
=AVERAGE(19:E23)		
AVERAGE(n	umber1, [nun	nber2],)	
	Subtotal		

5. Press Enter, and the result will appear.

\$11.24

The AutoSum command can also be accessed from the Formulas tab.

The Function Library

There are hundreds of functions in Excel, but only some will be useful for the type of data you're working with. There is no need to learn every single function, but you may want to explore some of the different types to get ideas about which ones might be helpful to you as you create new spreadsheets.

A great place to explore functions is in the **Function Library** on the Formulas tab. Here, you can search and select Excel functions based on categories such as **Financial**, **Logical**, **Text**, and **Date & Time**. Click the buttons in the interactive below to learn more.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	- 17 - (¥ - -				Book2 -	Microsoft E	xcel			
File	Ho	me Inse	ert Pag	e Layout	Formulas	Data	Review	View			
fx Inse Funct	rt Auto	Sum Recen	tly Financia	Logical T	Fext Date & Time *	Lookup & Reference *	Math & Trig ▼ Fu	More nctions *			
	A1		- (=	f _x							
	А	В	С	D	E	F	G	н	1	J	K
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
10											
15											
16											
17											r
18											
19											
20											
21											

To insert a function from the Function Library:

- 1. Select the cell where the answer will appear (I6, for example).
- 2. Click the **Formulas** tab.
- 3. From the **Function Library** group, select the **function category** you want. In this example, we'll choose **Date & Time**.
- 4. Select the desired **function** from the Date & Time drop-down menu. We'll choose the **NETWORKDAYS** function to count the days between the order date and receive date in our worksheet.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

F	File Home Insert	Page Layout	Form	nulas	Data	Review	View		
	f. 5 🙉	6						£	👔 🗏 De
J						0			∫ fx [™] Us
In Fun	sert AutoSum Recently action • Used •	Financial Logical	Text	Date & Time ∗	Lookup & Reference	Math ▼&Trig ▼	More Functions *	Nai Man	me ager 🕮 Cr
		Function	n Library	D	AY		▲		Define
	l6 🔻 🤇	<i>f</i> _x =N	NETWO	D	AYS360				
1	А	В		E	DATE		E		F
2	Office Supply Order	Log Jul-Sep	2010	F	OMONTH				
3					omontin				
4	OfficeMax			н	OUR				
5	Office Supply	Item Nu	mber	N	IINUTE		Unit F	rice	Subtota
6	File Folders	EGC3829	0	N	IONTH		\$	5.86	\$58.6
7	Copy Paper	LBG4357	6	N	FTWORKD	vs	\$4	0.26	\$80.5
8	Paperclips	CAD7892	37				\$	4.20	\$42.0
9	Binder Clips (Multi)	CAD2569	03	N			to the total	d data	holidaye
10	Pens (Blue)	KLH7890	2	N	O	KRUATS(S	tart_uate,en	u_uate	(nonuays)
11	Pens (Red)	KLH78904	4	S	EC betwee	ns the num	iber of whol tes	e work	days
12	Highligher Pens (Yello	w) STA7329	8	п	M				
13	Sticky Notes	JUG1984	30		Pre	ss F1 for n	nore help.		
			-	T	MEVALUE		4		4

5. The **Function Arguments** dialog box will appear. Insert the cursor in the **first field**, then enter or select the cell(s) you want (**G6**, for example).

ntity	Туре	Unit Price	Subtota	Date Ordered Da	te Received_Delivery T	ime
10	boxes	\$5.86	\$58.60	12-Sep	17-Sep KDAYS(G6)	
2	cartons	\$40.26	\$80.52	12-Sep	17-Sep	
F	unction Argu	ments	100 00	6 Teer		? ×
1	NETWORKDA	YS				
		Start date	56	- Î	= 40433	
-		End date			= anv	
		Helidaye			- 2014	
-		Holidays			- any	
-	Returns the nu	mber of whole w	orkdays betwee	en two dates.	=	
	Retarns are na		s includy's between			
		Sta	irt_date is a	serial date number that	represents the start date.	
iu						
	Formula result	=				
-	Help on this fur	nction			ОК	Cancel

6. Insert the cursor in the **next field**, then enter or select the cell(s) you want (**H6**, for example).

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

) boxes	\$5.8	5 \$58.60	12-Ser	17-Sep AYS(G6,H	5)
2 cartons	\$40.2	5 \$80.52	12-Sep	17-Sep	
Function Are	guments	0.00	in the second	al feat	? ×
NETWORK	DAYS				
	Start_date	G6	E	= 40433	
	End_date	H6	E.	= 40438	
	Holidays		E	any = any	
	number of whole	workdays betwee	en two dates	= 5	
Returns the	number of whole	End date is a	serial date number the	t represents the end date.	
Returns the		End_ddee is a			
Returns the					

7. Click **OK**, and the result will appear. Our results show that it took five days to receive the order.

Date Ordered	Date Received		
12-Sep	17-Sep	5	

The Insert Function command

The **Insert Function** command is convenient because it allows you to search for a function by typing a description of what you're looking for or by selecting a category to peruse. The Insert Function command can also be used to easily enter or select more than one argument for a function.

Using the Insert Function command

In this example, we want to find a function that will count the total number of supplies listed in the Office Supply Order Log. The basic COUNT function only counts cells with numbers; we want to count the cells in the Office Supply column, which uses text. Therefore, we'll need to find a formula that counts cells with text.

- 1. Select the cell where the answer will appear (A27, for example).
- 2. Click the **Formulas** tab, then select the **Insert Function** command.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

🗶 🔛 🤊	• (° •	Ŧ							ex10_off	ice_
File	Home	Insert	Page	e Layout	For	mulas	Data	Review	View	
f _x	Σ	A	B	?	A			θ		
Insert Function	AutoSum	Recently Used *	Financia	Logical *	Text	Date & Time *	Lookup 8 Reference	k Math ▼&Trig▼	More Functions	5 -
				Function	n Libraŋ	/				
Insert Fund	tion (Shif	t+F3)		f _x						
Edit the f	ormula in	the currer	nt cell	В			С	D		E
by choosi	ing functi nents	ons and e	diting							
		em Nur	nber	Unit (Quantity	Туре	Uni	it P		
Press F	¹ for mor	e help.		GC3829	0		10	boxes		\$!
7 Conv	Daner		1	RG/13576	5		2	cartone		¢лг

- 3. The **Insert Function** dialog box will appear.
- 4. Type a **description** of the function you are searching for, then click **Go** (**Count cells with text**, for example). You can also search by selecting a category.

9	Binder Clips (Multi)	CP	
10	Pens (Blue)	ĸ	Insert Function
11	Pens (Red)	ĸ	Search for a function:
12	Highligher Pens (Yellow)	S	Count cells with text
13	Sticky Notes	JL	
14	Staples	S١	Or select a category: All
15			
16			Select a function:
17	USFoods		
18	Office Supply	It	ACCRINTM Type a brief description of
19	Coffee Filters	78	ACOSH the function you are
20	Creamer	98	ADDRESS searching for and click Go
21	Paper Towels	70	ABS(number)
22	Hand Soap	90	Returns the absolute value of a number, a number without its sign.
23	Garbage Bags	58	
24			
25			
26	Total Supplies		Help on this function
27	=		
20		1	

5. Review the results to find the function you want (COUNTA, for example). Click OK.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Search for a function:		
Count cells with Text	<u>G</u> o	
Or select a <u>c</u> ategory: Rec	:ommended	
Select a functio <u>n</u> :		
COUNT	Review the recommended	
	results and select a function.	
COUNTBLANK	Then click OK.	
TEXT		
COUNTA	-	
COUNTA(value1,value2	2)	
Counts the number of cells	s in a range that are not empty.	

6. The **Function Arguments** dialog box will appear. Insert the cursor in the **first field**, then enter or select the cell(s) you want (**A6:A14**, for example).

A	B C D E F G H I			
4 Office Max				
5 Опісе ѕирріу	- Lunction Arguments			
6 File Folders				
7 Copy Paper	COUNTA			
8 Paperclips	Value1 A6:A14 📾 = ('File Folders ''; 'Copy Paper'; 'Paperc			
9 Binder Clips (Multi)	yslue2 [56] = number			
1 Pens (Blue)				
1 Pens (Red)				
1 Highligher Pens (Yellow)	Select cell range for first argument.			
1 Sticky Notes				
1. Staples	- 9			
	Counts the number of cells in a range that are not empty.			
13				
16	Value1: value1 value2 are 1 to 255 arguments representing the values and cells			
15 16 17 USFoods	Value1: value1, value2, are 1 to 255 arguments representing the values and cells you want to count. Values can be any type of information.			
13 16 17 USFoods 18 Office Supply	Value1: value1,value2, are 1 to 255 arguments representing the values and cells you want to count. Values can be any type of information.			
13 16 17 USFoods 18 Office Supply 19 Coffee Filters	Value1: value1,value2, are 1 to 255 arguments representing the values and cells you want to count. Values can be any type of information.			
13 16 17 USFoods 18 Office Supply 19 Coffee Filters 20 Creamer	Value1: value1,value2, are 1 to 255 arguments representing the values and cells you want to count. Values can be any type of information.			
13 16 17 USFoods 18 Office Supply 19 Coffee Filters 20 Creamer 21 Paper Towels	Value1: value1,value2, are 1 to 255 arguments representing the values and cells you want to count. Values can be any type of information. Portula result = 9 Help on this function OK			
13 16 17 USFoods 18 Office Supply 19 Coffee Filters 20 Creamer 21 Paper Towels 22 Hand Soap	Value1: value1,value2, are 1 to 255 arguments representing the values and cells you want to count. Values can be any type of information. Pormula result = 9 Help on this function OK Cancel			

7. Insert the cursor in the **next field**, then enter or select the cell(s) you want (**A19:A23**, for example). You can continue to add additional arguments if needed.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

15	Function Arguments			8 ×		
16 17 USFoods	COUNTA			frei, e. i.e., 5. te., 5. te., 5. te., 5.		
18 Office Supply 19 Coffee Filters	Value2	A6:A14 A19:A23	=	{"Coffee Filters"; "Creamer"; "Paper T		
20 Creamer	Value3		-	number		
2 Paper Towels		Calant	and an and the			
22 Hand Soap	14	Select cell range for next argument.				
23 Garbage Bags	Counts the number of ce	lis in a range that are no	LIICK OK Whe	n finished.		
25		Value Dr. uslust	tunkun 2. ava 1.ka 2	TT and an and a second s		
		valuez: value.	,valuez, are 1 to 2	55 arguments representing the values and ce		
26 Total Supplies		you w	ant to count. Values c	an be any type of information.		
26 Total Supplies 27 =COUNTA(A6:A14,A	(9:A23)	you w	ant to count. Values c	an be any type of information.		
Total Supplies 27 =COUNTA(A6:A14,A 28	19:A23)	you w	ant to count. Values c	an be any type of information.		
Total Supplies 27 =COUNTA(A6:A14,A 28	L9:A23) Formula result = 14	you w	ant to count. Values c	an be any type of information.		

8. Click **OK**, and the result will appear. Our results show that 14 Total Supplies were ordered from our log.

Total Supplies	
	1

If you're comfortable with basic functions, you may want to try a more advanced one like **VLOOKUP**. You can check out our article on **How to Use Excel's VLOOKUP Function** for more information. If you want to learn even more about functions, check out our **Excel Formulas** tutorial.

Challenge!

- 1. Open an existing Excel 2010 workbook. If you want, you can use this example.
- 2. Create a function that contains **more than one argument**.
- 3. Use **AutoSum** to insert a function. If you are using the example, insert the MAX function in cell E15 to find the highest-priced supply.
- 4. Insert a function from the **Functions Library**. If you are using the example, find the PRODUCT function (multiply) to calculate the Unit Quantity times the Unit Price in cells F19 through F23.
- 5. Use the **Insert Function** command to search and explore functions.

Introduction

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

_						
Sort						
_						
	<mark>≎≩l <u>A</u>dd</mark>	Level	X <u>D</u> elete L	evel		
C	Column					
S	ort by	Colum	n A	-		

With more than 17 billion cells in a single worksheet, Excel 2010 gives you the ability to work with an **enormous amount of data**. Arranging your data alphabetically, from smallest to largest, or using other criteria can help you find the information you're looking for more quickly.

In this lesson, you will learn how to **sort** data to better view and organize the contents of your spreadsheet.

Basic sorting

Sorting is a common task that allows you to change or customize the order of your spreadsheet data. For example, you could organize an office birthday list by employee, birthdate, or department, making it easier to find what you're looking for. Custom sorting takes it a step further, giving you the ability to sort multiple levels—such as department first, then birthdate—to group birthdates by department.

Optional: You can download this example for extra practice.

To sort in alphabetical order:

1. Select a cell in the column you want to sort by. In this example, we'll sort by Last Name.

	C		D	E
1	Last Name		Payment	T-Shirt Color
2	Olivera	പ	1-Oct	White
3	Richards		4-Oct	Dark Red
4	Hanlon	-	5-Oct	Heather Grey
5	Means		5-Oct	Dark Red

- 2. Select the **Data** tab, then locate the **Sort and Filter** group.
- Click the ascending command ²↓ to Sort A to Z or the descending command ^X↓ to Sort Z to A.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

<u>Page 58</u>

Insert Page	Layout	Formulas	Data	Revie	
Connections Properties Edit Links	Z↓ ZA Z↓ Sort	Filter	K Clear	ly E ced Co	
nections		Sort & Fil	ter		
-	Sort A to Z				
С	Sort the s	Sort the selection so that the lowest values are at the top of the column. Press F1 for more help.			
Last Name	lowest va column.				
Olivera					
Richards	Press F				
Hanlon	5-Oct		Heathe	r Grey	

4. The data in the spreadsheet will be organized alphabetically.

	С	D	E
1	Last Name	Payment	T-Shirt Color
2	Ackerman	1-Oct	Heather Grey
3	Albee	13-Oct	Heather Grey
4	Bell	11-Oct	Dark Red
5	Benson	11-Oct	White
6	Chen	5-Oct	Dark Red
7	Del Toro	13-Oct	White
8	Ellison	Pending	Dark Red
9	Flores	6-Oct	White
10	Hanlon	5-Oct	Heather Grey
11	Kelly	11-Oct	Dark Red
12	Kelly	11-Oct	Heather Grey
13	Lazar	14-Oct	White
14	MacDonald	Pending	Dark Red
15	Means	5-Oct	Dark Red
16	Naser	14-Oct	Dark Red
17	Nichols	6-Oct	Dark Red

Sorting options can also be found on the Home tab, condensed into the **Sort &** Filter command.

To sort in numerical order:

1. Select a cell in the column you want to sort by.

	А	В	С
1	Homeroom #	First Name	Last Name
2	110 த	Kris	Ackerman
3	105	Nathan	Albee
4	220-B	Samantha	Bell
5	110	Matt	Benson

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

From the Data tab, click the ascending command ²↓ to Sort Smallest to Largest or the descending command ^X↓ to Sort Largest to Smallest.

3.	The data	in the	sprea	ldsheet	will b	e e	organized	nume	erically.
		Α		1	В		С		

A	В	C
Homeroom #	First Name	Last Name
105	Nathan	Albee
105	Christiana	Chen
105	Sidney	Kelly
105	Derek	MacDonald
105	Melissa	White
105	Esther	Yaron
110	Kris	Ackerman
110	Matt	Benson
110	Gabriel	Del Toro
110	Regina	Olivera
135	Anisa	Naser
135	James	Panarello
135	Lia	Richards
135	Jordan	Weller
135	Chantal	Weller
135	Alex	Yuen
	A Homeroom # 105 105 105 105 105 105 105 105 105 105 105 105 110 110 110 135 135 135 135 135 135 135	ABHomeroom #First Name105Nathan105Christiana105Sidney105Derek105Derek105Esther110Kris110Matt110Regina135James135Lia135Chantal135Alex

To sort by date or time:

1. Select a cell in the column you want to sort by.

	D	E	F
1	Payment	T-Shirt Color	T-Shirt Size
2	13-Oct 🔥	Heather Grey	Medium
3	5-Oct	Dark Red	Medium
4	11-Oct	Dark Red	Medium
5	Pending	Dark Red	Large

- 2. From the **Data** tab, click the ascending command ² ↓ to **Sort Oldest to Newest** or the descending command ² ↓ to **Sort Newest to Oldest**.
- 3. The data in the spreadsheet will be organized by date or time.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	D	E	F
1	Payment	T-Shirt Color	T-Shirt Size
2	1-Oct	Heather Grey	Large
3	1-Oct	White	Large
4	4-Oct	Dark Red	X-Large
5	5-Oct	Dark Red	Medium
6	5-Oct	Heather Grey	Large
7	5-Oct	Dark Red	Medium
8	5-Oct	Heather Grey	X-Large
9	6-Oct	White	X-Large
10	6-Oct	Dark Red	X-Large
11	7-Oct	Heather Grey	Small
12	7-Oct	Dark Red	Small
13	7-Oct	Heather Grey	Small
14	7-Oct	Heather Grey	Small
15	11-Oct	Dark Red	Medium
16	11-Oct	White	Medium
17	11-Oct	Dark Red	Medium

Custom sorting

To sort in the order of your choosing:

You can use a **Custom List** to identify your own sorting order, such as days of the week—or in this example, T-shirt sizes from smallest to largest.

1. From the **Data** tab, click the **Sort** command to open the **Sort** dialog box.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

2. Identify the column you want to **Sort by** by clicking the drop-down arrow in the **Column** field. In this example, we'll choose T-Shirt Size.



- 3. Make sure Values is selected in the Sort On field.
- 4. Click the drop-down arrow in the **Order** field, then choose **Custom List**.

Sort				2 ×
Print and L	.evel X Delete Level	Copy Level	Options	✓ My data has <u>h</u> eaders
Column		Sort On	Order	
Sort by	T-Shirt Size 💌	Values	👻 🗛 to Z	
			A to Z Z to A Custom Lie	st
				OK Cancel

- 5. Select **NEW LIST**, and enter how you want your data sorted in the **List entries** box. We'll sort T-shirt sizes from smallest to largest.
- 6. Click Add to save the list, then click OK.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Custom Lists				
Custom lists:	List entries:			
NEW LIST Sun, Mon, Tue, Wed, Thu, Fri Sunday, Monday, Tuesday, W	, S Small , S Medium /ec Large	*	Delete	
January, February, March, Ap	oril X-Large			
	Ŧ	~		
Press Enter to separate list	entries.			

7. Click **OK** to close the Sort dialog box and sort your data.

Sort		? <u>x</u>
Palete Level X Delete Level	Copy Level	Wy data has <u>h</u> eaders
Column	Sort On	Order
Sort by T-Shirt Size 💌	Values 💽	Small, Medium, Large, X-Large 🗨
		OK Cancel

8. The spreadsheet will be sorted in order of Small, Medium, Large, and X-Large.



1	С	D	E	F
1	Last Name	Payment	T-Shirt Color	T-Shirt Size
6	Naser	14-Oct	Dark Red	Small
7	Lazar	14-Oct	White	Small
8	Ellison	Pending	Dark Red	Small
9	Peyton-Gomez	Pending	White	Small
10	Chen	5-Oct	Dark Red	Medium
11	Means	5-Oct	Dark Red	Medium
12	Benson	11-Oct	White	Medium
13	Bell	11-Oct	Dark Red	Medium
14	Albee	13-Oct	Heather Grey	Medium
15	Del Toro	13-Oct	White	Medium
16	Panarello	15-Oct	White	Medium
17	Ackerman	1-Oct	Heather Grey	Large
18	Olivera	1-Oct	White	Large
19	Weller	5-Oct	Heather Grey	Large
20	Yuen	4-0ct	White	Large
21	MacDonald	Pending	Dark Red	Large
22	Richards	4-Oct	Dark Red	X-Large
23	Hanlon	5-Oct	Heather Grey	X-Large

To sort by cell color, font color, or cell icon:

- 1. From the **Data** tab, click the **Sort** command to open the **Sort** dialog box.
- 2. Identify the column you want to **Sort by** by clicking the drop-down arrow in the **Column** field.
- 3. Choose whether you want to sort by Cell Color, Font Color, or Cell Icon in the **Sort On** field. In this example, we'll sort by **Font Color**.

Sort		? ×
♀ ₂ I <u>A</u> dd Level X <u>D</u> elete Level	Copy Level	s Wy data has <u>h</u> eaders
Column	Sort On	Order
Sort by T-Shirt Color	Values 🔹	A to Z
	Values Cell Color Font Color Cell Icon	
		OK Cancel

4. In the **Order** field, click the drop-down arrow to choose a color, then decide whether you want it ordered **On Top** or **On Bottom**.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Q _{21 A} dd Level X [Delete Level	▲ 💌 Options 🕅 My data h	as <u>h</u> eade
Column	Sort On	Order	
Sort by T-Shirt Color	▼ Font Color	Automatic	ip 🔻
		RGB(155, 45, 31)]

5. Click **OK**. The data is now sorted by attribute rather than text.

	С	D	E	
1	Last Name	Payment	T-Shirt Color	
2	Richards	4-Oct	Dark Red	
3	Means	5-Oct	Dark Red	
4	Chen	5-Oct	Dark Red	
5	Nichols	6-Oct	Dark Red	
6	Yaron	7-Oct	Dark Red	
7	Bell	11-Oct	Dark Red	
8	Kelly	11-Oct	Dark Red	
9	Naser	14-Oct	Dark Red	
10	Ellison	Pending	Dark Red	
11	MacDonald	Pending	Dark Red	
12	Ackerman	1-Oct	Heather Grey	
13	Olivera	1-Oct	White	

Sorting multiple levels

Another feature of custom sorting—**sorting multiple levels**—allows you to identify which columns to sort by and when, giving you more control over the organization of your data. For example, you could sort by more than one cell color—such as red, then yellow, then green, to indicate different levels of priority—or, as seen below, you could sort students by homeroom number, then by last name.

To add a level:

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

- 1. From the **Data** tab, click the **Sort** command to open the **Sort** dialog box.
- 2. Identify the first item you want to **Sort by**. In this example, we will sort Homeroom # from **Smallest to Largest**.
- 3. Click Add Level to add another item.

Sort			? ×
<mark>⊉_i Add</mark>	Level X Delete Level	Copy Level	Options My data has <u>h</u> eaders
Column		Sort On	Order
Sort by	Homeroom #	Values	✓ Smallest to Largest
			OK Cancel

4. Identify the item you want to sort by next. We will sort Last Name from A to Z.

Sort				? X
Patrix <u>a</u> dd	Level X Delete Level	Copy Level	Options,	My data has <u>h</u> eaders
Column		Sort On	Order	
Sort by	Homeroom #	Values	Smallest to Larg	est 💌
Then by	Last Name	Values		•
	Homeroom # First Name Last Name Payment T-Shirt Color T-Shirt Size			
			ОК	Cancel

- 5. Click OK.
- 6. The spreadsheet will be sorted so homeroom numbers are in order, and within each homeroom, that students are listed alphabetically by last name.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	А	В	С
1	Homeroom #	First Name	Last Name
2	105	Nathan	Albee
3	105	Christiana	Chen
4	105	Sidney	Kelly
5	105	Derek	MacDonald
6	105	Melissa	White
7	105	Esther	Yaron
8	110	Kris	Ackerman
9	110	Matt	Benson
10	110	Gabriel	Del Toro
11	110	Regina	Olivera
12	135	Anisa	Naser
13	135	James	Panarello
14	135	Lia	Richards
15	135	Jordan	Weller
16	135	Chantal	Weller
17	135	Alex	Yuen

Copy Level will add a level by duplicating the one you have selected and allowing you to modify the sorting criteria. This is useful if you need to sort multiple levels that share some criteria, such as the same Column, Sort On, or Order.

To change the sorting priority:

- 1. From the **Data** tab, click the **Sort** command to open the **Custom Sort** dialog box.
- 2. Select the **level** you want to reorder.
- 3. Use the Move Up or Move Down arrows. The higher the level is on the list, the higher its priority.

Column			Sort On	Move Up ((Ctrl+U	p Arrow)		
Sort by	Homeroom #	-	Values		-	Smallest to Largest	-	
Then by	T-Shirt Size	•	Values		-	Small, Medium, Large, X-Lar	ge 🖵	
Then by	Last Name	-	Values		-	A to Z	-	
						ок	ancel	

4. Click **OK**.

Challenge!

- 1. Open an **existing Excel 2010 workbook**. If you want, you can use this **example**.
- 2. Sort a column in **ascending**^A → or **descending**^A → order. If you are using the example, sort by Homeroom #.
- 3. Add a **second level**, and sort it according to cell color, font color, or cell icon. If you are using the example, add a second and third level to sort by the red and grey fonts used in T-Shirt Color.
- 4. Add **another level**, and sort it using a Custom List. If you are using the example, sort by T-Shirt Size in the order of Small, Medium, Large, and X-Large.
- 5. Change the **sorting priority**. If you are using the example, reorder the list to sort by T-Shirt Color (red), then by T-Shirt Color (grey), then by T-Shirt Size, then by Homeroom #.

Introduction

1	2 3		В	
		1	First Name	Last Na
Γ	+	10		
	+	21		
L	5	22	Derek	MacDc
L	·	23	Kris	Ackerr
L	·	24	Jordan	Weller
L	·	25	Regina	Oliver
L	·	26	Alex	Yuen
	-	27		

If the amount of data in your worksheet becomes overwhelming, creating an outline can help. Not only does this allow you to organize your data into groups and then show or hide them from view, but it also allows you to summarize data for quick analysis using the Subtotal command (for example, subtotaling the cost of office supplies depending on the type of product).

In this lesson, you will learn how to **outline** your worksheet in order to summarize and control how your data is displayed.

Outlining data

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Outlines give you the ability to group data you may want to show or hide from view, as well as to create a quick summary using the Subtotal command. Because outlines rely on grouping data that is related, you **must sort before you can outline**. For more information, you may want to review our lesson on **Sorting Data**. Optional: You can download this **example** for extra practice.

Outlining data using Subtotal

The **Subtotal** command can be used to outline your worksheet in several ways. It uses common functions like SUM, COUNT, and AVERAGE to **summarize** your data and place it in a **group**. To learn more about functions, visit our **Working with Basic Functions** lesson.

In this example, we'll use the Subtotal command to count the number of T-shirt sizes that were ordered at a local high school. This will also place each T-shirt size in a group, making it possible to show the count but hide the details that are not crucial to placing the order (such as a student's homeroom number and payment date).

To outline data using Subtotal:

1. **Sort** according to the data you want to outline. Outlines rely on grouping data that is related. In this example, we will outline the worksheet by T-Shirt Size, which has been sorted from smallest to largest.

	С	D	E	F
1	Last Name	Payment	T-Shirt Color	T-Shirt Size
4	Ellison	Pending	Dark Red	Small
5	White	7-Oct	Heather Grey	Small
6	Reynolds	7-Oct	Heather Grey	Small
7	Shaw	7-Oct	Heather Grey	Small
8	Peyton-Gomez	Pending	White	Small
9	Lazar	14-Oct	White	Small
10	Chen	5-Oct	Dark Red	Medium
11	Kelly	11-Oct	Dark Red	Medium
12	Means	5-Oct	Dark Red	Medium
13	Bell	11-Oct	Dark Red	Medium
14	Albee	13-Oct	Heather Grey	Medium
15	Kelly	11-Oct	Heather Grey	Medium
16	Benson	11-Oct	White	Medium
17	Del Toro	13-Oct	White	Medium
18	Panarello	15-Oct	White	Medium
19	Weller	15-Oct	White	Medium
20	MacDonald	Pending	Dark Red	Large
21	Ackerman	1-Oct	Heather Grey	Large
22	Weller	5-Oct	Heather Grey	Large
23	Olivera	1-Oct	White	Large
24	Yuen	5-Oct	White	Large
25	Richards	4-Oct	Dark Red	X-Large

2. Select the **Data** tab, then locate the **Outline** group.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

3. Click the **Subtotal** command to open the Subtotal dialog box.



- 4. In the **At each change in** field, select the column you want to use to outline your worksheet. In this example, we'll choose T-Shirt Size.
- 5. In the **Use function** field, choose from the list of functions that are available for subtotaling. We'll use the COUNT function to tally the number of each size.
- 6. Select the **column** you want the subtotal to appear in. We'll choose the T-Shirt Size column.
- 7. Click OK.

Subtotal	
At each change in:	
T-Shirt Size	
Use function:	
Count	
Add subtotal to:	
Homeroom #	
Payment	
T-Shirt Color	
T-Shirt Size	
Replace current subtotals	
Page break between groups	
✓ Summary below data	
Remove All OK Cancel	

8. The contents of your worksheet will be outlined. Each T-shirt size will be placed in its own group, and the subtotal (count, in this case) will be listed below each group.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

1	2	3		С	D	E	F
			1	Last Name	Payment	T-Shirt Color	T-Shirt Size
Γ	Γ	•	2	Yaron	7-Oct	Dark Red	Small
L		•	3	Naser	14-Oct	Dark Red	Small
L		•	4	Ellison	Pending	Dark Red	Small
L		•	5	White	7-Oct	Heather Grey	Small
L		•	6	Reynolds	7-Oct	Heather Grey	Small
L		•	7	Shaw	7-Oct	Heather Grey	Small
L		•	8	Peyton-Gomez	Pending	White	Small
L		•	9	Lazar	14-Oct	White	Small
L	-		10			Small Count	8
L	Γ	•	11	Chen	5-Oct	Dark Red	Medium
L		•	12	Kelly	11-Oct	Dark Red	Medium
L		•	13	Means	5-Oct	Dark Red	Medium
L		•	14	Bell	11-Oct	Dark Red	Medium
L		•	15	Albee	13-Oct	Heather Grey	Medium
L		•	16	Kelly	11-Oct	Heather Grey	Medium
L		•	17	Benson	11-Oct	White	Medium
		•	18	Del Toro	13-Oct	White	Medium
		•	19	Panarello	15-Oct	White	Medium
		•	20	Weller	15-Oct	White	Medium
	-		21			Medium Count	10

Showing and hiding data

To show or hide a group:

1. Click the minus sign—also known as the **Hide Detail** symbol—to collapse the group.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

1	2 3		С	D	E	F
		1	Last Name	Payment	T-Shirt Color	T-Shirt Size
	·	8	Peyton-Gomez	Pending	White	Small
	·	9	Lazar	14-Oct	White	Small
	-	10			Small Count	8
	٢·	11	Chen	5-Oct	Dark Red	Medium
	·	12	Kelly	11-Oct	Dark Red	Medium
	·	13	Means	5-Oct	Dark Red	Medium
	·	14	Bell	11-Oct	Dark Red	Medium
	·	15	Albee	13-Oct	Heather Grey	Medium
	·	16	Kelly	11-Oct	Heather Grey	Medium
	·	17	Benson	11-Oct	White	Medium
	·	18	Del Toro	13-Oct	White	Medium
	·	19	Panarello	15-Oct	White	Medium
t.		20	Weller	15-Oct	White	Medium
	Ē	21			Medium Count	10
ų,		22	MacDonald	Pending	Dark Red	Large
	·	23	Ackerman	1-Oct	Heather Grey	Large
	·	24	Weller	5-Oct	Heather Grey	Large
	·	25	Olivera	1-Oct	White	Large
	·	26	Yuen	5-Oct	White	Large
	-	27			Large Count	5

2. Click the plus sign—also known as the **Show Detail** symbol—to expand the group again.

1	2	3		С	D	È	F
			1	Last Name	Payment	T-Shirt Color	T-Shirt Size
Т	Τ	•	8	Peyton-Gomez	Pending	White	Small
L	T	•	9	Lazar	14-Oct	White	Small
t.	Ė		10			Small Count	8
	+	2	21			Medium Count	10
ų,	f	5	22	MacDonald	Pending	Dark Red	Large
Г	Τ	•	23	Ackerman	1-Oct	Heather Grey	Large
L	T	•	24	Weller	5-Oct	Heather Grey	Large
L	T	•	25	Olivera	1-Oct	White	Large
L	T	•	26	Yuen	5-Oct	White	Large
L	Ė	•	27			Large Count	5
L	Γ	•	28	Richards	4-Oct	Dark Red	X-Large
L	T	•	29	Nichols	6-Oct	Dark Red	X-Large
L	T	•	30	Hanlon	4-Oct	Heather Grey	X-Large
L	T	•	31	Flores	6-Oct	White	X-Large
	Ė	•	32			X-Large Count	4
-]		33			Grand Count	27

You can also use the Show Detailor Hide Detail commands on the **Data** tab in the Outline group. Select a cell in the group you want to show or hide, then click the appropriate command.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92
To view groups by level:

The groups in your outline, based on their hierarchy, are placed on different levels. You can quickly display as little or as much information as you want by clicking the level symbols 123 to the left of your worksheet. In this example, we will view levels in descending order, starting with the entire worksheet on display, then finishing with the grand total. While this example contains only three levels, Excel can accommodate up to eight.

1. Click the **highest level** (level **3** in this example) to view and expand all of your groups. Viewing groups at the highest level will display the entirety of your worksheet.

1	2	3		С	D	E	F
		h	1	Last Name	Payment	T-Shirt Color	T-Shirt Size
Γ	Γ	·	2	Yaron	7-Oct	Dark Red	Small
l		•	3	Naser	14-Oct	Dark Red	Small
l		·	4	Ellison	Pending	Dark Red	Small
l		·	5	White	7-Oct	Heather Grey	Small
l		·	6	Reynolds	7-Oct	Heather Grey	Small
l		·	7	Shaw	7-Oct	Heather Grey	Small
l		·	8	Peyton-Gomez	Pending	White	Small
l		·	9	Lazar	14-Oct	White	Small
	-		10			Small Count	8
	Γ	·	11	Chen	5-Oct	Dark Red	Medium
		·	12	Kelly	11-Oct	Dark Red	Medium
l		·	13	Means	5-Oct	Dark Red	Medium
l		·	14	Bell	11-Oct	Dark Red	Medium
l		·	15	Albee	13-Oct	Heather Grey	Medium
l		·	16	Kelly	11-Oct	Heather Grey	Medium
l		·	17	Benson	11-Oct	White	Medium
l		·	18	Del Toro	13-Oct	White	Medium
l		·	19	Panarello	15-Oct	White	Medium
l		·	20	Weller	15-Oct	White	Medium
l	-		21			Medium Count	10
	Γ	·	22	MacDonald	Pending	Dark Red	Large
		·	23	Ackerman	1-Oct	Heather Grey	Large
		•	24	Weller	5-Oct	Heather Grey	Large

2. Click the **next level** (level 2 in this example) to hide the detail of the previous level. In this example, level 2 contains each subtotal.

123		C	D	E	F
2	1	Last Name	Payment	T-Shirt Color	T-Shirt Size
+	10			Small Count	8
+	21			Medium Count	10
+	27			Large Count	5
+	32			X-Large Count	4
_	33			Grand Count	27
	34				

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

3. Click the **lowest level** (level **1** in this example) to display the lowest level of detail. In this example, level 1 contains only the grand total.

1,23		С	D	E	F
13	1	Last Name	Payment	T-Shirt Color	T-Shirt Size
+	33			Grand Count	27
	34				
	35				

Removing groups and subtotaling

To ungroup data:

1. Select the rows or columns you want to ungroup. In this example, we'll ungroup size Small.

123		С	D	E	F
	1	Last Name	Payment	T-Shirt Color	T-Shirt Size
ΓΓ·	2	Yaron	7-Oct	Dark Red	Small
	3	Naser	14-Oct	Dark Red	Small
	4	Ellison	Pending	Dark Red	Small
	5	White	7-Oct	Heather Grey	Small
	6	Reynolds	7-Oct	Heather Grey	Small
	7	Shaw	7-Oct	Heather Grey	Small
	8	Peyton-Gomez	Pending	White	Small
	9	Lazar	14-Oct	White	Small
Ē 1	10			Small Count	8
ΙΓ·	11	Chen	5-Oct	Dark Red	Medium
	12	Kelly	11-Oct	Dark Red	Medium
	13	Means	5-Oct	Dark Red	Medium
	14	Bell	11-Oct	Dark Red	Medium
	15	Albee	13-Oct	Heather Grey	Medium
	16	Kelly	11-Oct	Heather Grey	Medium
	17	Benson	11-Oct	White	Medium

2. From the **Data** tab, click the **Ungroup** command. The range of cells will be ungrouped.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



To ungroup all of the groups in your outline, open the drop-down menu under the **Ungroup** command, then choose **Clear Outline**.

Ungroup and **Clear Outline** will not remove subtotaling from your worksheet. Summary or subtotal data will stay in place and continue to function until you remove it.

To ungroup data and remove subtotaling:

- 1. From the **Data** tab, click the **Subtotal** command to open the Subtotal dialog box.
- 2. Click Remove All.



3. All data will be ungrouped, and subtotals will be removed.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	С	D	E	F
1	Last Name	Payment	T-Shirt Color	T-Shirt Size
4	Ellison	Pending	Dark Red	Small
5	White	7-Oct	Heather Grey	Small
6	Reynolds	7-Oct	Heather Grey	Small
7	Shaw	7-Oct	Heather Grey	Small
8	Peyton-Gomez	Pending	White	Small
9	Lazar	14-Oct	White	Small
10	Chen	5-Oct	Dark Red	Medium
11	Kelly	11-Oct	Dark Red	Medium
12	Means	5-Oct	Dark Red	Medium
13	Bell	11-Oct	Dark Red	Medium
14	Albee	13-Oct	Heather Grey	Medium
15	Kelly	11-Oct	Heather Grey	Medium
16	Benson	11-Oct	White	Medium
17	Del Toro	13-Oct	White	Medium
18	Panarello	15-Oct	White	Medium
19	Weller	15-Oct	White	Medium
20	MacDonald	Pending	Dark Red	Large
21	Ackerman	1-Oct	Heather Grey	Large
22	Weller	5-Oct	Heather Grey	Large
23	Olivera	1-Oct	White	Large
24	Yuen	5-Oct	White	Large
25	Richards	4-Oct	Dark Red	X-Large

Creating your own groups

The **Group** command allows you to group any range of cells—either columns or rows. It does not calculate a subtotal or rely on your data being sorted. This gives you the ability to show or hide any part of your worksheet and display only the information you need.

To create and control your own group:

In this example, we will prepare a list of T-shirt colors and sizes that need to be distributed to each homeroom. Some of the data in the worksheet is not relevant to the distribution of T-shirts; however, instead of deleting it, we'll group it, then temporarily hide it from view.

1. Select the range of cells you want to group. In this example, we will group the First Name, Last Name, and Payment columns.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	В	С	D	E
1	First Name	Last Name	Payment	T-Shirt Color
2	Esther	Yaron	7-Oct	Dark Red
3	Anisa	Naser	14-Oct	Dark Red
4	Brigid	Ellison	Pending	Dark Red
5	Melissa	White	7-Oct	Heather Grey
6	Malik	Reynolds	7-Oct	Heather Grey
7	Windy	Shaw	7-Oct	Heather Grey
8	Christopher	Peyton-Gomez	Pending	White
9	Michael	Lazar	14-Oct	White
10	Christiana	Chen	5-Oct	Dark Red
11	Sidney	Kelly	11-Oct	Dark Red

2. From the Data tab, click the Group command.



3. Excel will group the selected columns or rows.

1	· ·			
	В	C	D	E
1	First Name	Last Name	Payment	T-Shirt Color
2	Esther	Yaron	7-Oct	Dark Red
3	Anisa	Naser	14-Oct	Dark Red
4	Brigid	Ellison	Pending	Dark Red
5	Melissa	White	7-Oct	Heather Grey
6	Malik	Reynolds	7-Oct	Heather Grey
7	Windy	Shaw	7-Oct	Heather Grey
8	Christopher	Peyton-Gomez	Pending	White
9	Michael	Lazar	14-Oct	White
10	Christiana	Chen	5-Oct	Dark Red
11	Sidney	Kelly	11-Oct	Dark Red

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

<u>Page 77</u>

- 4. Click the minus sign—also known as the **Hide Detail** symbol—to hide the group.
- 5. The group will be hidden from view.

1 2	+				
	А	E	F		
1	Homeroom #	T-Shirt Color	T-Shirt Size		
2	105	Dark Red	Small		
3	135	Dark Red	Small		
4	220-A	Dark Red	Small		
5	105	Heather Grey	Small		
6	220-В	Heather Grey	Small		
7	220-В	Heather Grey	Small		
8	220-A	White	Small		
9	220-В	White	Small		
10	105	Dark Red	Medium		
11	105	Dark Red	Medium		

Click the plus sign—also known as the **Show Detail** symbol—to show the group again.

Challenge!

- 1. Open an existing Excel 2010 workbook. If you want, you can use this example.
- 2. Outline your worksheet using the **Subtotal** command. If you are using the example, outline by T-shirt size.
- 3. Display the **first level** of groups in your outline.
- 4. Display the **highest level** to view your entire worksheet again.
- 5. Create your own group of rows or columns, then hide the group from view.
- 6. **Ungroup** any range of data.
- 7. **Remove** subtotaling from your worksheet.

Introduction

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	А	В	
1	Equipn	nent Log — F	Ragnar Te
2	ID # 💌	Туре 🚽 🖵	Equipme
3	1011	Laptop	10" Saris
4	1012	Laptop	10" Saris
5	1021	Laptop	15" EDI S
6	1022	Laptop	15" EDI S
7	1023	Laptop	15" EDI S
8	1025	Laptop	15" EDI S
9	1031	Laptop	17" Saris

Filters can be used to narrow down the data in your worksheet and hide parts of it from view. While it may sound a little like grouping, filtering is different because it allows you to qualify and display only the data that interests you. For example, you could filter a list of survey participants to view only those who are between the ages of 25 and 34. You could also filter an inventory of paint colors to view anything that contains the word **blue**, such as **bluebell** or **robin's egg blue**.

In this lesson, you'll learn how to **filter** the data in your worksheet to display only the information you need.

Filtering data

Filters can be applied in different ways to improve the performance of your worksheet. You can filter text, dates, and numbers. You can even use more than one filter to further narrow your results.

Optional: You can download this **example** for extra practice.

To filter data:

In this example, we'll filter the contents of an equipment log at a technology company. We'll display only the laptops and projectors that are available for checkout.

1. Begin with a worksheet that identifies each column using a header row.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	Α	В	С	D	
1	Equipment Log — Ragnar Technologies Inc.				
2	ID #	Туре	Equipment Detail	Checked Out	
3	1011	Laptop	10" Saris Netbook Pro	04-Oct-10	
4	1012	Laptop	10" Saris Netbook Pro	29-Sep-10	
5	1021	Laptop	15" EDI SmartPad L200-3	15-Sep-10	
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-10	
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-10	
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-10	
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-10	
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-10	
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-10	
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-10	
13	2050	Other	EDI SmartBoard L500-1	05-Oct-10	
14	2051	Other	EDI SmartBoard L500-1	01-Oct-10	
15	3000	Other	Saris Lumina Digital Camera	12-May-10	

- 2. Select the **Data** tab, then locate the **Sort & Filter** group.
- 3. Click the **Filter** command.



- 4. Drop-down arrows will appear in the header of each column.
- 5. Click the **drop-down arrow** for the column you want to filter. In this example, we'll filter the Type column to view only certain types of equipment.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	Α	В		С	D
1	Equipn	nent Log — I	Ragnar Tec	hnologies Inc.	
2	ID # 💌	Туре 👖	Equipmer	Checked Out 💌	
3	1011	Laptop	10" Coric N	Vetbook Pro	04-Oct-10
4	1012	Laptop	Showing All)	letbook Pro	29-Sep-10
5	1021	Laptop	15" EDI Sn	nartPad L200-3	15-Sep-10
6	1022	Laptop	15" EDI Sn	nartPad L200-3	14-Aug-10
7	1023	Laptop	15" EDI Sn	nartPad L200-3	08-Aug-10

- 6. The **Filter** menu appears.
- 7. **Uncheck** the boxes next to the data you don't want to view, or uncheck the box next to **Select All** to quickly uncheck all.
- 8. **Check** the boxes next to the data you do want to view. In this example, we'll check Laptop and Projector to view only these types of equipment.



9. Click **OK**. All other data will be filtered, or temporarily hidden. Only laptops and projectors will be visible.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	Α	В	С	D
1	Equipn	nent Log — F	Ragnar Technologies Inc.	
2	ID # 👻	Туре 🚽 🏹	Equipment Detail 🛛 🚽	Checked Out 💌
3	1011	Laptop	10" Saris Netbook Pro	04-Oct-10
4	1012	Laptop	10" Saris Netbook Pro	29-Sep-10
5	1021	Laptop	15" EDI SmartPad L200-3	15-Sep-10
6	1022	Laptop	15" EDI SmartPad L200-3	14-Aug-10
7	1023	Laptop	15" EDI SmartPad L200-3	08-Aug-10
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-10
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-10
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-10
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-10
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-10
26	6100	Projector	Omega VisX 1.0	28-Sep-10
27	6101	Projector	Omega VisX 1.0	26-Sep-10
28	6102	Projector	Omega VisX 1.0	22-Aug-10

Filtering options can also be found on the Home tab, condensed into the **Sort &** Filter command.

To add another filter:

Filters are additive, meaning you can use as many as you need to narrow your results. In this example, we'll work with a spreadsheet that has already been filtered to display only laptops and projectors. Now we'll display only laptops and projectors that were checked out during the month of August.

- 1. Click the **drop-down arrow** where you want to add a filter. In this example, we'll add a filter to the Checked Out column to view information by date.
- 2. Uncheck the boxes next to the data you don't want to view. Check the boxes next to the data you do want to view. In this example, we'll check the box next to August.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	Α	В		С	D	E
1	Equipn	nent Log — F	Ragnar Teo	hnologies Inc.		
2	ID # 🔻	Туре 🚽 🖵	Equipme	nt Detail 🛛 🔤	🖌 Checked Out 💌	Checked In
3	1011	Laptop	10" S A/Z↓	Sort Oldest to Newest		
4	1012	Laptop	10" S 🗛	Sort Newest to Oldest		
5	1021	Laptop	15" E	Sor <u>t</u> by Color	►	01-Oct-10
6	1022	Laptop	15" E 🛒	Clear Filter From "Checke	d Out"	16-Aug-10
7	1023	Laptop	15" E	– Filter by Color	h	15-Aug-10
8	1025	Laptop	15" E	Date Filters		04-Oct-10
9	1031	Laptop	17" S	Date Linters		
10	1032	Laptop	17" S	Search (All)	ب	
11	1033	Laptop	17" S	(Select All)		26-Sep-10
12	1034	Laptop	17" S	⊡■ 2010		27-Aug-10
26	6100	Projector	Ome			01-Oct-10
27	6101	Projector	Ome			27-Sep-10
28	6102	Projector	Ome			23-Aug-10
29	6200	Projector	Saris			04-Sep-10
30	6301	Projector	Saris			
31	6302	Projector	Saris			15-Sep-10
32						
33				ОК	Cancel	
34						
35						

3. Click **OK**. In addition to the original filter, the new filter will be applied. The worksheet will be narrowed down even further.

	Α	В	С		D	E
1	Equipr	nent Log — I	Ragnar Technologies Inc	-		
2	ID # 🔽	Туре 📑	Equipment Detail	v	Checked Out 🗾	Checked In
6	1022	Laptop	15" EDI SmartPad L200-	3	14-Aug-10	16-Aug-10
7	1023	Laptop	15" EDI SmartPad L200-	3	08-Aug-10	15-Aug-10
12	1034	Laptop	17" Saris X-10 Laptop		25-Aug-10	27-Aug-10
28	6102	Projector	Omega VisX 1.0		22-Aug-10	23-Aug-10
32						

To clear a filter:

- 1. Click the **drop-down arrow** in the column from which you want to clear the filter.
- 2. Choose Clear Filter From.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	Α	В	С		С	D	E
1	Equipn	ne <mark>nt Log</mark> — F	Ragnai	r Teo	chnologies Inc.		
2	ID # 🔻	Туре 🚽 🖵	Equip	pme	nt Detail 🛛 🔽	Checked Out 🖪	Checked In
6	1022	Laptop	15" E	Az↓	Sort Oldest to Newest		16-Aug-10
7	1023	Laptop	15" E	Z↓	Sort Newest to Oldest		15-Aug-10
12	1034	Laptop	17" S		Sor <u>t</u> by Color	►	27-Aug-10
28	6102	Projector	Ome	V	Clear Filter From "Checke	d Out" s	23-Aug-10
32				~	Citar Inter From Criceke	a con	
33					Filter by Color		
34					Date <u>F</u> ilters	+	
35					Search (All)	- ۹	
36				\checkmark	: (Select All)		
37					⊡■ 2010		
38					⊕ · 🗹 August		
39					⊡ September		
40					⊞ October		

3. The filter will be cleared from the column. The data that was previously hidden will be on display once again.

To instantly clear all filters from your worksheet, click the **Filter** command on the Data tab.

Advanced filtering

To filter using search:

Searching for data is a convenient alternative to checking or unchecking data from the list. You can search for data that contains an exact phrase, number, date, or simple fragment. For example, searching for the exact phrase **Saris X-10 Laptop** will display only Saris X-10 laptops. Searching for the word **Saris**, however, will display Saris X-10 laptops and any other Saris equipment, including projectors and digital cameras.

- 1. From the **Data** tab, click the **Filter** command.
- 2. Click the **drop-down arrow** in the column you want to filter. In this example, we'll filter the Equipment Detail column to view only a specific brand.
- 3. Enter the data you want to view in the **Search** box. We'll enter the word **Saris** to find all Saris brand equipment. The search results will appear automatically.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	Α	В	С		D
1	Equipm	ient Lo	g — Ragnar Technologies Inc.		
2	ID # 🔽	Туре	🔽 Equipment Detail	-	Checked Out 💌
3	1011	<u></u> ≵↓ ≦	ort A to Z		04-Oct-10
4	1012	ZA↓ S	ort Z to A		29-Sep-10
5	1021	s	or <u>t</u> by Color	►	15-Sep-10
6	1022	TK C	lear Filter From "Equipment Detail"		14-Aug-10
7	1023	F	ilter by Color	Þ	08-Aug-10
8	1025		avt Filters	- -	26-Sep-10
9	1031			, , , , , , , , , , , , , , , , , , ,	04-Oct-10
10	1032	S	aris	×	19-Sep-10
11	1033		(Select All Search Results)		24-Sep-10
12	1034		Add current selection to filter		25-Aug-10
13	2050		✓ 10 Saris Netbook Pro ✓ 17" Saris X-10 Lapton		05-Oct-10
14	2051		Saris Lumina Digital Camera		01-Oct-10
15	3000	•	Saris Lux T-80		12-May-10
16	3005		Saris Lux T-81 Lite		27-Jul-10
17	3070		Saris Zoom Z-60 Digital Camera		06-Oct-10
18	3800		U-Go Saris Label Maker		04-Aug-10
19	3900			7	13-Jun-10
20	4800		OK Cancel		27-Jul-10
21	4900				04-Oct-10
22	4905	Other	7N Heavy Rolling Laptop Cas	e	04-Oct-10

- 4. **Check** the boxes next to the data you want to display. We'll display all of the data that includes the brand name Saris.
- 5. Click **OK**. The worksheet will be filtered according to your search term.

	Α	В	C	D
1	Equipn	ne <mark>nt Log</mark> — F	Ragnar Technologies Inc.	
2	ID # 🔻	Туре 🔽	Equipment Detail 🍡	Checked Out 💌
3	1011	Laptop	10" Saris Netbook Pro	04-Oct-10
4	1012	Laptop	10" Saris Netbook Pro	29-Sep-10
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-10
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-10
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-10
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-10
15	3000	Other	Saris Lumina Digital Camera	12-May-10
16	3005	Other	Saris Zoom Z-60 Digital Camera	27-Jul-10
18	3800	Other	U-Go Saris DigiCam Printer II	04-Aug-10
19	3900	Other	U-Go Saris Label Maker	13-Jun-10
29	6200	Projector	Saris Lux T-80	01-Sep-10
30	6301	Projector	Saris Lux T-81 Lite	10-Sep-10
31	6302	Projector	Saris Lux T-81 Lite	08-Sep-10
32				

Using advanced text filters

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Advanced text filters can be used to display more specific information, such as cells that contain a certain number of characters or data that does not contain a word you specify. In this example, we'll use advanced text filters to hide any equipment that is related to cameras, including digital cameras and camcorders.

- 1. From the **Data** tab, click the **Filter** command.
- 2. Click the **drop-down arrow** in the column of **text** you want to filter. In this example, we'll filter the Equipment Detail column to view only certain types of equipment.
- 3. Choose **Text Filters** to open the advanced filtering menu.
- 4. Choose a **filter**. In this example, we will choose **Does Not Contain** to view data that does not contain the text we specify.



- 5. The Custom AutoFilter dialog box appears.
- 6. Enter your **text** to the right of your filter. In this example, we'll enter **cam** to view data that does not contain these letters. That will exclude any equipment related to cameras, such as digital **came**ras, **cam**corders, **cam**era bags, and the digi**cam** printer.



Show rows Equipme	where: ent Detail			×	
does	not contain	-	cam		
۲	And © Or		·		
		-			
Use ? to rep Use * to rep	present any singl present any serie	e character es of charac	ters		

7. Click **OK**. The data will be filtered according to the filter you chose and the text you specified.

Using advanced date filters

Advanced date filters can be used to view information from a certain time period, such as last year, next quarter, or between two dates. Excel automatically knows your current date and time, making this tool easy to use. In this example, we'll use advanced date filters to view only the equipment that has been checked out this week.

- 1. From the **Data** tab, click the **Filter** command.
- 2. Click the **drop-down arrow** in the column of **dates** you want to filter. In this example, we'll filter the Checked Out column to view only a certain range of dates.
- 3. Choose Date Filters to open the advanced filtering menu.
- 4. Click a **filter**. We'll choose This Week to view equipment that has been checked out this week.

Adhyayan An Educational Trust (Approved By Govt. of Delhi) Contact- 9999478454, 9999478409 B-1/A 3rd Floor Opp. Kirpal Apt. Joshi Colony I.P. Extention Delhi 110092

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

		С	D		E	F	
1	lagnar Te	chnologies Inc.					
2	Equipme	ent Detail 🛛 🔽	Checked Out 💌	Che	cked In 💌	By Whom	
3	10" S ≵↓	Sort Oldest to Newest				Jay Peralta	
4	10" S 🖁	Sort Newest to Oldest				August Zorn	
5	15" E	Sor <u>t</u> by Color	►.	01-0	Oct-10	Sofie Ragnar	
6	15" E 🥋	Clear Filter From "Checked	d Out"	16-/	Aug-10	Hank Sorens	on
7	15" E	Eilter by Color		15-/	Aug-10	Jennifer Wei	iss
8	15" E	Date Filters		04-0	Oct-10	Min Seuna	-
9	17" S				<u>c</u> quais		
10	17" S	Search (All)	ب		<u>B</u> efore		e r
11	17" S	(Select All)			<u>A</u> fter		osta
12	17" S	⊇ 2010			Bet <u>w</u> een		
13	EDI S	iter May			Tomorrow		lell
14	EDI S	i le July			Today		
15	Saris	🗄 🗹 August			Vectorday		iyen
16	Saris	E September			rester <u>u</u> ay		
17	Ome				Next Wee <u>k</u>		
18	U-Gc				T <u>h</u> is Week		on
19	U-Gc				Last Week	10	
20	7N D	ОК	Cancel		Next Mont	h	
21	7N Li				This Month		
22	7N Heav	y Rolling Laptop Case	04-Oct-10				

5. The worksheet will be filtered according to the date filter you chose.

	C	D		E	F
1	agnar Technologies Inc.				
2	Equipment Detail 🛛 🔽	Checked	Out 🛒	Checked In	By Whom
3	10" Saris Netbook Pro	04-Oct-10)		Jay Peralta
9	17" Saris X-10 Laptop	04-Oct-10)		Nick Ortiz
13	EDI SmartBoard L500-1	05-Oct-10)	06-Oct-10	Anthony Liddell
17	Omega PixL Digital Camcorder	06-Oct-10)		Min Seung
21	7N Light Rolling Laptop Case	04-Oct-10)		Jay Peralta
22	7N Heavy Rolling Laptop Case	04-Oct-10)		Nick Ortiz
32					

If you're working along with the example file, your results will be different from the images above. If you want, you can change some of the dates so the filter will give more results.

Using advanced number filters

Advanced number filters allow you to manipulate numbered data in different ways. For example, in a worksheet of exam grades you could display the top and bottom numbers to view the highest and lowest scores. In this example, we'll display only certain types of equipment based on the range of ID #s that have been assigned to them.

1. From the **Data** tab, click the **Filter** command.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

- 2. Click the **drop-down arrow** in the column of **numbers** you want to filter. In this example, we'll filter the ID # column to view only a certain range of ID #s.
- 3. Choose **Number Filters** to open the advanced filtering menu.
- 4. Choose a **filter**. In this example, we'll choose Between to view ID #s between the numbers we specify.

	Α	В	C			D	E
1	Equipm	nent Log — I	Ragnar Technologies	Inc.			
2	ID # 💌	Туре 🚽 🔽	Equipment Detail		Υ.	Checked Out 🖌	Checked In
A Z↓	<u>S</u> ort Sm	allest to Large	est	ro		04-Oct-10	
Z↓	S <u>o</u> rt Lar	rgest to Smalle	est	ro		29-Sep-10	
	Sor <u>t</u> by	Color	►	00-3		15-Sep-10	01-Oct-10
K	Clear Fi	iter From "ID #	±=	00-3		14-Aug-10	16-Aug-10
	Eilter by	v Color	•	00-3		08-Aug-10	15-Aug-10
	Numba	r Eiltere		00-4	¥	26-Sen-10	04-Oct-10
	Numbe	r <u>r</u> iiters			Equals		
	Search		Q		Does <u>N</u> o	ot Equal	
	;···· 🖌 ((Select All)			<u>G</u> reater	Than	Sep-10
	🗹	1011			Greater	Than <u>O</u> r Equal To	Aug-10
		1012			Less Tha	in	Oct-10
		1022			Less Tha	n Or Equal To	Oct-10
		1023			Betwee		May-10
		1025				6	Aug-10
	····· 🗸	1031			<u>T</u> op 10		
		1033			<u>A</u> bove A	verage	Aug-10
	:				Bel <u>o</u> w A	verage	Jun-10
			K Cancel		Custom	Filter	Aug-10
				top (Jase	04-001-10	_
22	4905	Other	7N Heavy Rolling La	ptop	Case	04-Oct-10	
23	5020	TV	32" Paragon 440 Pla	sma'	TV	11-Aug-10	13-Aug-10

5. Enter a **number** to the right of each filter. In this example, we'll view ID #s greater than or equal to 3000 but less than or equal to 4000. This will display ID #s in the 3000-4000 range.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Shov I	v rows where: D #	
	is greater than or equal to	▼ 3000
	And Or	
	is less than or equal to	4000
Use Use	? to represent any single chai * to represent any series of o	racter haracters

6. Click **OK**. The data will be filtered according to the filter you chose and the numbers you specified.

	Α	В	С	D
1	Equipn	nent Log — F	Ragnar Technologies Inc.	
2	ID # 🖵	Туре 📃 🔽	Equipment Detail 🛛 🗸 🔽	Checked Out 💌
15	3000	Other	Saris Lumina Digital Camera	12-May-10
16	3005	Other	Saris Zoom Z-60 Digital Camera	27-Jul-10
17	3070	Other	Omega PixL Digital Camcorder	06-Oct-10
18	3800	Other	U-Go Saris DigiCam Printer II	04-Aug-10
19	3900	Other	U-Go Saris Label Maker	13-Jun-10
32				

Challenge!

- 1. Open an existing Excel 2010 workbook. If you want, you can use this example.
- 2. **Filter a column** of data. If you are using the example, filter the Type column so it displays only laptops and other equipment.
- 3. Add **another filter** by searching for the data you want. If you are using the example, search for EDI brand equipment in the Item Description column.
- 4. Clear both filters.
- 5. Use an **advanced text filter** to view data that does not contain a certain word or phrase. If you are using the example, display data that does not contain the word **cam**. This should exclude any camera-related equipment, such as digital **cam**eras and **cam**corders.
- 6. Use an **advanced date filter** to view data from a certain time period. If you are using the example, display only the equipment that was checked out in **September 2010**.
- 7. Use an **advanced number filter** to view numbers less than a certain amount. If you are using the example, display all ID #s less than 3000.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Introduction



Once you have entered information into a spreadsheet, you may want to format it. Formatting your spreadsheet can not only improve the look and feel of your spreadsheet, but it also can make it easier to use. In a previous lesson, we discussed many manual formatting options such as bold and italics. In this lesson, you'll learn how to **format as a table** to take advantage of the tools and predefined table styles available in Excel 2010.

Formatting tables

Just like regular formatting, tables can help to **organize** your content and make it easier for you locate the information you need. To use tables effectively, you'll need to know how to **format** information as a table, **modify** tables, and apply **table styles**.

Optional: You can download this **example** for extra practice.

To format information as a table:

1. Select the cells you want to format as a table. In this example, an invoice, we'll format the cells containing the column headers and order details.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

В С D Date: 11/13/10 1 Λ ongibello 2 145-10 Invoice #: INVOICE 3 Customer: Café Aurora 4 Quantity Description Unit Price Line Total 5 5 Fettuccini, Black Bean Flavor \$12.00 \$60.00 6 7 Fettuccini, Sundried Tomato Flavor \$10.00 \$70.00 7 9 Fettuccini, Thai Basil Flavor \$10.00 \$90.00 8 6 Penne, Roasted Red Pepper Flavor \$14.00 \$84.00 9 \$42.00 3 Penne, Massaman Curry Flavor \$14.00 10 4 Penne, Wild Mushroom Flavor \$15.00 \$60.00 11

2. Click the **Format as Table** command in the **Styles** group on the Home tab.



3. A list of predefined **table styles** will appear. Click a table style to select it.

_							
**		Normal	Bad		Good	Neut	ral
ional ing *	Format as Table *	Calculation	Check	Cell	Explanatory	Input	
	Light						
	====						
				==&==			
		=====					

- 4. A dialog box will appear, confirming the **range** of cells you have selected for your table. The cells will appear selected in the spreadsheet, and the range will appear in the dialog box.
- 5. If necessary, **change** the range by selecting a new range of cells directly on your spreadsheet.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

6. If your table has headers, check the box next to **My table has headers**.

	А		В	С	D	
1		·		Date:	11/13/10	
2		ongidello		Invoice #:	145-10	
3	ART	ISAN PASTA	INVOICE	Customer:	Café Aurora	
4	Quantity D	escription	Format As Table	? x	Line Total	
5	5 F	ettuccini, Black Be			\$60.00	
6	7 F	ettuccini, Sundrie	Where is the data for your tab	le?	\$70.00	
7	9 F	ettuccini, Thai Bas	=\$A\$4:\$D\$10		\$90.00	
8	6 P	enne, Roasted Re	My table has headers	2	\$84.00	
9	3 P	enne, Massaman	2		\$42.00	
10	4 P	enne, Wild Mushi	ОК	Cancel 2	\$60.00	
11						
12						

7. Click **OK**. The data will be formatted as a table in the style you chose.

	А	В		С	D	
1				Date:	11/13/10	
2		ongibello		Invoice #:	145-10	
3	ART	<u>ISAN PASTA INVOICE</u>		Customer:	Café Aurora	
4	Quantity 💌	Description	•	Unit Price 🔽	Line Total 💌	
5	5	Fettuccini, Black Bean Flavor		\$12.00	\$60.00	
6	7	Fettuccini, Sundried Tomato Flavor		\$10.00	\$70.00	
7	9 Fettuccini, Thai Basil Flavor \$10.00 \$90.00					
8	6	Penne, Roasted Red Pepper Flavor		\$14.00	\$84.00	
9	3	Penne, Massaman Curry Flavor		\$14.00	\$42.00	
10	4	Penne, Wild Mushroom Flavor		\$15.00	\$60.00	
11						

Tables include **filtering** by default. You can filter your data at any time using the **drop-down arrows** in the header. To learn more, review our **Filtering Data** lesson.

To convert a table back into normal cells, click the **Convert to Range** command in the **Tools** group. The filters and Design tab will then disappear, but the cells will retain their data and formatting.

Modifying tables

To add rows or columns:

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

- 1. Select **any cell** in your table. The **Design** tab will appear on the Ribbon.
- 2. From the Design tab, click the **Resize Table** command.

Table Name: 📴 Summarize with P			ble
Table1 Remove Duplicate		5	
Resize Table	Resize Table 🛄 Convert to Range		
Properties Tools			
Resize Table			5
-		-	
Resize this tabl	e by adding or	В	
Resize this tabl removing rows	e by adding or and columns.	В	

3. Directly on your spreadsheet, select the new **range** of cells you want your table to cover. You must select your original table cells as well.

	А		В		С	D
1		- :1 11.			Date:	11/13/10
2		ongidello)		Invoice #:	145-10
3	ART	ISAN PASTA		VOICE	Customer:	Café Aurora
4	Quantity 💌	Description			Unit Price	Line Total 💽
5	5	Fettuccini, Blac	Resize Table		8 ×	\$60.00
6	7	Fettuccini, Sun	Select the new	data range for	vour table:	\$70.00
7	9	Fettuccini, Thai		enal		\$90.00
8	6	Penne, Roastee	Note: The he	aders must rem	ain in the same row	\$84.00
9	3	Penne, Massan	and the	e resulting table	range must overlap	\$42.00
10	4	Penne, Wild M	the orig	ginal table range	,	\$60.00
11						
12				UK	Cancel	
13						
14						
15						

4. Click **OK**. The new rows and/or columns will be added to your table.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

	А	В		С	D	
1		anaihalla		Date:	11/13/10	
2		ongibello		Invoice #:	145-10	
3	ARI	ISAN PASIA INVOICE		Customer:	Café Aurora	
4	Quantity 💌	Description	-	Unit Price	Line Total	r
5	5	Fettuccini, Black Bean Flavor		\$12.0	0 \$60.0	0
6	7	Fettuccini, Sundried Tomato Flavor		\$10.0	0 \$70.0	0
7	9 Fettuccini, Thai Basil Flavor			\$10.0	0 \$90.0	0
8	6 Penne, Roasted Red Pepper Flavor			\$14.0	0 \$84.0	0
9	3	Penne, Massaman Curry Flavor		\$14.0	0 \$42.0	0
10	4	Penne, Wild Mushroom Flavor		\$15.0	0 \$60.0	0
11	1					
12						
13						
14						
15						

To change the table style:

- 1. Select any cell in your table. The Design tab will appear.
- 2. Locate the **Table Styles** group. Click the **More** drop-down arrow to see all of the table styles.

				•
Н	K	L	M	More Choose a visual style for the table.

- 3. Hover the mouse over the various styles to see a live preview.
- 4. Select the desired style. The table style will appear in your worksheet.

	AB	С	D	
1	A Manaila No	Date:	11/13/10	
2	WIVLONGIDello	Invoice #:	145-10	
3	ARTISAN PASTA INVOICE	Customer:	Café Aurora	
4	Quantity 🔽 Description 🔄	🛛 Unit Price 🖉	Line Total	
5	5 Fettuccini, Black Bean Flavor	\$12.00	\$60.00	
6	7 Fettuccini, Sundried Tomato Flavor	\$10.00	\$70.00	
7	9 Fettuccini, Thai Basil Flavor	\$10.00	\$90.00	
8	6 Penne, Roasted Red Pepper Flavor	\$14.00	\$84.00	
9	3 Penne, Massaman Curry Flavor	\$14.00	\$42.00	
10	4 Penne, Wild Mushroom Flavor	\$15.00	\$60.00	
11				

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

To change table style options:

When using an Excel table, you can turn various options **on** or **off** to change its appearance. There are six options: **Header Row**, **Total Row**, **Banded Rows**, **First Column**, **Last Column**, and **Banded Columns**.

- 1. Select **any cell** in your table. The **Design** tab will appear.
- 2. From the **Design** tab, **check** or **uncheck** the desired options in the **Table Style Options** group.

Excel		Table Tools	
v	View Developer	Design	
owser	 Header Row Total Row Banded Rows Table Stvi 	First Column	

Depending on the **table style** you're using, certain **table style options** may have a different effect. You may need to **experiment** to get the exact look you want.

Challenge!

- 1. Open an **existing Excel 2010 workbook**. If you want, you can use this **example**.
- 2. Format a range of cells as a **table**. If you are using the example, format the column headers (Quantity, Description, etc.) and the order details.
- 3. Add a row or a column.
- 4. Change the **table style options**. If you are using the example, add a total row.
- 5. Change the **table style** several times. Take note of how the table options may appear different depending on the style you use.

Adhyayan An Educational Trust (Approved By Govt. of Delhi) Contact- 9999478454, 9999478409 B-1/A 3rd Floor Opp. Kirpal Apt. Joshi Colony I.P. Extention Delhi 110092

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Introduction

Top/Bottom R	ules 🕨	
Data Parr		Gra
	ŕ	
Icon Sets	•	Soli
icon sets	r	301

Let's say you have a spreadsheet with thousands of rows of data. It would be extremely difficult to see patterns and trends just from examining the raw data. Excel gives us several tools that will make this task easier. One of these tools is called **conditional formatting**. With conditional formatting, you can apply formatting to **one or more cells** based on the value of the cell. You can highlight **interesting** or **unusual** cell values, and visualize the data using formatting such as **colors**, **icons**, and **data bars**.

In this lesson, you'll learn how to **apply**, **modify**, and **remove** conditional formatting rules.

Conditional formatting

Conditional formatting applies one or more **rules** to any cells you want. An example of a rule might be **If the value is greater than 5000, color the cell yellow**. By applying this rule to the cells in a worksheet, you'll be able to see at a glance which cells are more than 5000. There are also rules that can mark the **top 10 items**, all cells that are **below the average**, cells that are within a certain **date range**, and many more.

Optional: You can download this **example** for extra practice.

To create a conditional formatting rule:

- 1. Select the **cells** you want to add formatting to.
- 2. In the **Home** tab, click the **Conditional Formatting** command. A drop-down menu will appear.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

- 3. Select **Highlight Cells Rules** or **Top/Bottom Rules**. We'll choose Highlight Cells Rules for this example. A menu will appear with several **rules**.
- 4. Select the desired rule (Greater Than, for example).



- 5. From the dialog box, enter a **value** in the space provided, if applicable. In this example, we want to format cells that are greater than \$5000, so we'll enter 5000 as our value. If you want, you can enter a **cell reference**instead of a number.
- 6. Select a formatting style from the drop-down menu.



7. The formatting will be applied to the selected cells.

\$9,355.00	\$1,100.00	\$10,185.00	\$18,749.00
\$6,702.00	\$2,116.00	\$13,452.00	\$8,046.00
\$4,415.00	\$1,089.00	\$4,404.00	\$20,114.00
\$11,601.00	\$1,122.00	\$3,170.00	\$10,733.00
\$3,726.00	\$1,135.00	\$8,817.00	\$18,524.00
\$9,007.00	\$2,113.00	\$13,090.00	\$13,953.00
\$4,505.00	\$1,024.00	\$3,528.00	\$15,275.00
\$3,973.00	\$1,716.00	\$4,839.00	\$13,085.00

If you want, you can apply more than one rule to your cells.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Conditional formatting presets

Excel has several **presets** you can use to quickly apply conditional formatting to your cells. They are grouped into three categories:

Data bars are horizontal bars added to each cell, much like a bar graph.

\$3,863.00	\$1,117.00	<mark>\$</mark> 8,237.00	\$8,690.00
<mark>\$</mark> 9,355.00	\$1,100.00	\$10,185.00	\$18,749.00
\$6,702.00	\$2,116.00	\$13,452.00	\$8,046.00
\$4,415.00	\$1,089.00	\$4,404.00	\$20,114.00

• Color scales change the color of each cell based on its value. Each color scale uses a **two- or three-color gradient**. For example, in the **Green-Yellow-Red** color scale, the **highest** values are green, the **average**values are yellow, and the **lowest** values are red.

\$3,863.00	\$1,117.00	\$8,237.00	\$8,690.00
\$9,355.00	\$1,100.00	\$10,185.00	\$18,749.00
\$6,702.00	\$2,116.00	\$13,452.00	\$8,046.00
\$4,415.00	\$1,089.00	\$4,404.00	\$20,114.00

• Icon sets add a specific icon to each cell based on its value.

₽	\$3,863.0	00 🤚	\$1,11	7.00	2	\$8,2	237.	00	2	\$8,6	90.0	00
2	\$9,355.0	00 🗸	\$1,10	0.00	<mark>∕``</mark> \$	10,:	185.	00		\$18,7	49.0	00
2	\$6,702.0	00 🤚	\$2,11	6.00	∕7\$	13,4	452.	00	S	\$8,0	46.0	00
Ŷ	\$4,415.0	00 🦣	\$1,08	9.00	₽	\$4,4	404.	00		\$20,1	.14.0	00

To use preset conditional formatting:

- 1. Select the cells you want to add formatting to.
- 2. In the **Home** tab, click the **Conditional Formatting** command. A drop-down menu will appear.
- 3. Select Data Bars, Color Scales, or Icon Sets. Then select the desired preset.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Conditional Formating v as Table v Styles v Highlight Cells Rules v Lop/Bottom Rules v	Erea Insert v Markov Delete v Format v Cells				
Data Bars >	Gradient Fill				
Color <u>S</u> cales →					
Icon Sets →	Solid Fill				
Mew Rule					
Elear Rules →					
\$13,085.00	More Rules				

4. The conditional formatting will be applied to the selected cells.

\$3,863.00	\$1,117.00	\$8,237.00	\$8,690.00
<mark>\$</mark> 9,355.00	\$1,100.00	\$10,185.00	\$18,749.00
\$6,702.00	\$2,116.00	\$13,452.00	\$8,046.00
\$4,415.00	\$1,089.00	\$4,404.00	\$20,114.00

To remove conditional formatting rules:

- 1. Select the cells that have conditional formatting.
- 2. In the **Home** tab, click the **Conditional Formatting** command. A drop-down menu will appear.
- 3. Select Clear Rules.
- 4. A menu will appear. You can choose to clear rules from the **Selected Cells**, **Entire Sheet**, **This Table**, or **This PivotTable**. In this example, we'll clear rules from the entire sheet.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Conditional Formatting * as Table * Styles	-	¦ •= Insert ▼ Format ▼	Σ · A · Z · Sort & · Filter	k Find &	
Highlight Cells Rules	F	Cells	Editi	ng	
10 Top/Bottom Rules	Þ	I	J	К	
Data Bars	•				
Color <u>S</u> cales	ŀ				
Icon Sets	ŀ				
New Rule					+
😳 <u>C</u> lear Rules	•	Clear R	ules from <u>S</u> ele	cted Cells	
Manage <u>R</u> ules		Clear R	ules from <u>E</u> nti	re Sheet	
		Clear R	ules from <u>T</u> his	Table	

You can edit or delete **individual** rules by clicking the **Conditional Formatting** command and selecting **Manage Rules**. This is especially useful if you

have applied multiple rules to the cells.

Challenge!

- 1. Open an existing Excel 2010 workbook. If you want, you can use this example.
- 2. Apply conditional formatting to a range of cells with **numerical values**. If you are using the example, apply formatting to all of the sales data.
- 3. Apply a **second conditional formatting rule** to the same set of cells.
- 4. Explore the **Conditional Formatting Rules Manager** dialog box.
- 5. Clear all conditional formatting rules from the worksheet.

Introduction

Adhyayan An Educational Trust (Approved By Govt. of Delhi)

Contact- 9999478454, 9999478409

B-1/A 3rd Floor Opp. Kirpal Apt. Joshi Colony I.P. Extention Delhi 110092

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



A chart is a tool you can use in Excel to communicate data graphically. Charts allow your audience to see the meaning behind the numbers, and they make showing comparisons and trends much easier. In this lesson, you'll learn how to insert charts and modify them so they communicate information effectively.

Charts

Excel workbooks can contain **a lot of data**, and this data can often be difficult to interpret. For example, where are the highest and lowest values? Are the numbers increasing or decreasing?

The answers to questions like these can become much clearer when data is represented as a **chart**. Excel has various types of charts, so you can choose one that most effectively represents your data.

Optional: You can download this **example** for extra practice.

Types of charts

Click the arrows in the slideshow below to view examples of some of the types of charts available in Excel.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

ADHYAYAN AN EDUCATIONAL TRUST **MS-EXCEL Types of Charts** Excel has a variety of chart types, each with its own advantages. Click the arrows to see some of the different types of charts available in Excel. Adhyayan An Educational Trust (Approved By Govt. of Delhi) Contact- 9999478454, 9999478409 B-1/A 3rd Floor Opp. Kirpal Apt. Joshi Colony I.P. Extention Delhi 110092 B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92 **Page 103**

S140,000 S120,000 S100,000 S80,000 S60,000



2011

2012



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

\$40,000

\$20,000

\$0

2008

Page 104

Young Adult



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



Humor

Mystery

Religion

Romance

Sci-Fi &

Fantasy

Sports

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Page 106

2007

2005

Travel



To create a chart:

1. Select the **cells** you want to chart, including the **column titles** and **row labels**. These cells will be the **source data** for the chart.

	А	A B C		D E		F	
1	Genre 🔽	2006 🔽	2007 🔽	2008 🔽	2009 🔽	2010 🔽	
2	Young Adult	\$35,358.00	\$42,685.00	\$20,893.00	\$16,065.00	\$21,388.00	
3	Classics	\$18,580.00	\$49,225.00	\$16,326.00	\$10,017.00	\$26,134.00	
4	Mystery	\$78,970.00	\$82,262.00	\$48,640.00	\$49,985.00	\$73,428.00	
5	Romance	\$94,236.00	\$131,390.00	\$79,022.00	\$71,009.00	\$81,474.00	
6	Sci-Fi & Fantasy	\$16,730.00	\$19,730.00	\$12,109.00	\$11,355.00	\$17,686,60	
7							

- 2. Click the **Insert** tab.
- 3. In the **Charts** group, select the desired **chart category** (**Column**, for example).

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Insert Page	Layout Fo	ormulas	Data	Rev	iew	View	Desi	gn
		∕∕∕∕	0	=		:÷:	\bigcirc	
Picture Clip Art @+ Illustratio	Column	Line	Pie	Bar Tharts	Area	Scatter *	Other Charts *	
▼ (0	Column	1						
В	Insert	a colum	n chart.				G	
2006 🔽	Colum	Column charts are used to compare values across categories.				0 - 8.00		
\$35,358.00	C values							

4. Select the desired **chart type** from the drop-down menu (**Clustered Column**, for example).



5. The chart will appear in the worksheet.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92
	А	В	С	D	E	F	G
1	Genre 🚽	2006 🔽	2007 🔽	2008 💌	2009 🔽	2010 🔽	J
2	Classics	\$18,580.00	\$49,225.00	\$16,326.00	\$10,017.00	\$26,134.00]
3	Mystery	\$78,970.00	\$82,262.00	\$48,640.00	\$49,985.00	\$73,428.00	
4	Romance	\$94,236.00	\$131,390.00	\$79,022.00	\$71,009.00	\$81,474.00	
5	Sci-Fi & Fantasy	\$16,730.00	\$19,730.00	\$12,109.00	\$11,355.00	\$17,686.00	
6	Young Adult	\$35,358.00	\$42,685.00	\$20,893.00	\$16,065.00	\$21,388.00	
7				3333			10
8	\$140,00	00.00					
9	\$120,00	00.00	_				
10							
11	\$100,00	00.00				Classics	
12	\$80,00	0.00				Mystery	
13	1 0 0 0					Romance	
14	\$60,00	0.00				Sci-Fi & Fanta	
15	\$40,00	0.00				Verse Adult	- Y
16						Young Adult	
17	\$20,00	0.00					
18	\$	so.oo +					
19		2006	2007 20	2009 2009	2010		
20	(c)			9999			23

Chart tools

Once you insert a chart, a set of **chart tools** arranged into three tabs will appear on the Ribbon. These are only visible when the chart is selected. You can use these three tabs to **modify** your chart.



To change chart type:

1. From the **Design** tab, click the **Change Chart Type** command. A dialog box appears.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



	Templates		
hd	Column		
X	Line	Line	
٩	Pie		
	Bar		
\bowtie	Area	Pie	Line with Markers
* * * **	X Y (Scatter)		
hi	Stock		
æ	Surface	Bar	
\bigcirc	Doughnut		
00	Bubble		
ø	Radar		
Man	age Templates	Set as Default Chart	OK Cancel

To switch row and column data:

Sometimes when you create a chart, the data may not be grouped the way you want. In the **clustered column chart** below, the Book Sales statistics are grouped **by Fiction and Non-Fiction**, with a column for each year. However, you can also **switch the row and column data** so the chart will group the statistics **by year**, with columns for Fiction and Non-Fiction. In both cases, the chart contains the **same data**—it's just organized differently.



- 1. Select the **chart**.
- 2. From the **Design** tab, select the **Switch Row/Column** command.



3. The chart will readjust.



To change chart layout:

1. Select the **Design** tab.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

2. Click the **More** drop-down arrow in the **Chart Layouts** group to see all of the available layouts.



3. Select the desired layout.



4. The chart will update to reflect the new layout.



Some layouts include **chart titles**, **axes**, or **legend labels**. To change them, place the **insertion point** in the text and begin typing.

To change chart style:

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

- 1. Select the **Design** tab.
- 2. Click the **More** drop-down arrow in the **Chart Styles** group to see all of the available styles.



To move the chart to a different worksheet:

- 1. Select the **Design** tab.
- 2. Click the **Move Chart** command. A dialog box appears. The current location of the chart is selected.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



3. Select the desired location for the chart (choose an existing worksheet, or select New Sheet and name it).

Move Chart			5 ×
Choose where	you want the cha	rt to be placed: –	
	⊘ New <u>s</u> heet:	Chart1	
	Object in:	Sheet2	
			OK Cancel

4. Click **OK**. The chart will appear in the new location.

Challenge!

- 1. Open an existing Excel 2010 workbook. If you want, you can use this example.
- 2. Use worksheet data to create a **chart**.
- 3. Change the chart layout.
- 4. Apply a chart style.
- 5. Move the chart to a different worksheet

Introduction

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92



PivotTable reports—or **PivotTables**—make the data in your worksheets much more manageable by **summarizing** the data and allowing you to **manipulate** it in different ways. PivotTables can be an indispensable tool when used with large and complex spreadsheets, but they can be used with smaller spreadsheets as well.

In this lesson, you will learn the basics of creating and manipulating PivotTables.

Using a PivotTable

When you have a lot of data, it can sometimes be difficult to analyze it all. A PivotTable **summarizes** the data, making it easier to manage. Best of all, you can quickly and easily change the PivotTable to see the data in a different way, making it an extremely powerful tool.

Optional: You can download this **example** for extra practice.

Using a PivotTable to answer questions

The example below contains sales statistics for a fictional company. There is a **row** for each order, and it includes the **order amount**, name of the **salesperson** who made the sale, **month**, **sales region**, and customer **account number**.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Salesperson	Region	Account	Order Amount	Month
Albertson, Kathy	East	29386	\$925.00	January
Albertson, Kathy	East	74830	\$875.00	February
Albertson, Kathy	East	90099	\$500.00	February
Albertson, Kathy	East	74830	\$350.00	March
Brennan, Michael	West	82853	\$400.00	January
Brennan, Michael	West	72949	\$850.00	January
Brennan, Michael	West	90044	\$1,500.00	January
Brennan, Michael	West	82853	\$550.00	February
Brennan, Michael	West	72949	\$400.00	March
Davis, William	South	55223	\$235.00	February
Davis, William	South	10354	\$850.00	January
Davis, William	South	50192	\$600.00	March
Davis, William	South	27589	\$250.00	January
Dumlao, Richard	West	67275	\$400.00	January
Dumlao, Richard	West	41828	\$965.00	February
Dumlao, Richard	West	87543	\$125.00	March
Flores, Tia	South	97446	\$1,500.00	March

Flores Tip

Let's say we wanted to answer the question **What is the amount sold by each salesperson?** This could be time consuming because each salesperson appears on multiple rows, and we would need to add all of the order amounts for each salesperson. Of course, we could use the **Subtotal** feature to add them, but we would still have a lot of data to sift through.

Luckily, a **PivotTable** can instantly do all of the math for us and summarize the data in a way that's not only easy to read but also easy to manipulate. When we're done, the PivotTable will look something like this:

Row Labels	- 5	Sum of Order Amount
Albertson, Kathy		\$2,650.00
Brennan, Michael		\$3,700.00
Davis, William		\$1,935.00
Dumlao, Richard		\$1,490.00
Flores, Tia		\$4,565.00
Post, Melissa		\$1,690.00
Thompson, Shanno	n	\$3,160.00
Walters, Chris		\$4,375.00
Grand Total		\$23,565.00

As you can see, the PivotTable is much easier to read. It only takes a **few steps** to create one, and once you create it you'll be able to take advantage of its powerful features.

To create a PivotTable:

- 1. Select the **table** or **cells**—including column headers—containing the data you want to use.
- 2. From the **Insert** tab, click the **PivotTable** command.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

<u>Page 116</u>



3. The **Create PivotTable** dialog box will appear. Make sure the settings are correct, then click **OK**.

Create PivotTable	
Choose the data that you want to analyze	
<u>S</u> elect a table or range	
Table/Range: Table1	
© <u>U</u> se an external data source	
Choose Connection	
Connection name:	
Choose where you want the PivotTable report to be placed	
New Worksheet	
Existing Worksheet	
Location:	
OK Cancel	

4. A blank **PivotTable** will appear on the left, and the **Field List** will appear on the right.



1	A B	С	D	E	F I	PivotTable Field List 🔹 🗙
1 2 4 5 6 7 f	PivotTable To build a report, lelds from the Piv Field List	e1 , choose votTable				Choose fields to add to report:
	Blank PivotTal	ble				Drag fields between areas below: ✓ Report Filter Column Labels Row Labels Σ Values
1; 18 19 20	M Sheet2 20	10 Sales /				Defer Layout Update Update

To add fields to the PivotTable:

You'll need to decide which **fields** to add to the PivotTable. Each field is a **column header** from the source data. It may be helpful to recall the **question** you are trying to answer. In this example, we want to know the total **amount**sold by each **salesperson**, so we'll need the **Order Amount** and **Salesperson** fields.

- 1. In the **Field List**, place a check mark next to each field you want to add.
- The selected fields will be added to one of the four areas below the Field List. In this example, the Salesperson field is added to the Row Labels area, and the Order Amount is added to the Values area. If a field is not in the desired area, you can drag it to a different one.
- 3. The PivotTable now shows the **amount sold** by each **salesperson**.

Adhyayan An Educational Trust (Approved By Govt. of Delhi) Contact- 9999478454, 9999478409 B-1/A 3rd Floor Opp. Kirpal Apt. Joshi Colony I.P. Extention Delhi 110092

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

<u>Page 118</u>



Just like with normal spreadsheet data, you can sort the data in a PivotTable using the **Sort & Filter**command on the **Home** tab. You can also apply any type of formatting you want. For example, you may want to change the number format to **Currency**. However, be aware that some types of formatting may disappear when you modify the PivotTable.

If you change any of the data in your source worksheet, the PivotTable will not update automatically. To manually update it, select the PivotTable and then go to Options \rightarrow Refresh.

Pivoting data

One of the best things about a PivotTable is that it lets you **pivot** the data in order to look at it in a different way. This allows you to answer **multiple questions** and even **experiment** with the data to learn new things about it.

In our example, we used the PivotTable to answer the question **What is the total amount sold by each salesperson?** Now we'd like to answer a new question, **What is the total amount sold in each month**? We can do this by changing the **row labels**.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

<u>Page 119</u>

To change row labels:

1. Drag any existing **fields** out of the **Row Labels** area, and they will disappear.



2. Drag a new field from the **PivotTable Field List** into the **Row Labels** area. In this example, we'll use the **Month** field.

PivotTable Field List 🛛 🔻 🗙	
Choose fields to add to report:	
Salesperson	
Region	
Account	
Order Amount	
Month	
Dray fields between areas below;	
Report Filter 📰 Column Labels	
Row Labels Σ Values	
Month	
Defer Layout Update Update	

3. The PivotTable will adjust to show the new data. In this example, it now shows us the total **Order Amount** for each **month**.

Row Labels 💌	Sum of Order Amount
January	\$9,090.00
February	\$9,160.00
March	\$5,315.00
Grand Total	\$23,565.00

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

To add column labels:

So far, our PivotTable has only shown **one column** of data at a time. To show **multiple columns**, we'll need to add **column labels**.

1. Drag a field from the **PivotTable Field List** into the **Column Labels** area. In this example, we'll use the **Region** field.

Drag fields between areas below:				
Report Filter	Column Labels			
	Region			
Row Labels	Σ Values			
Month	∑ Values Sum of Order ▼			
Month	∑ Values			

2. The PivotTable will now have multiple columns. In this example, there is a column for each **region**.

Sum of Order Amount Column	Labels 💌				
Row Labels 🔻	East	North	South	West	Grand Total
January	\$1,690.00	\$1,140.00	\$3,110.00	\$3,150.00	\$9,090.00
February	\$1,950.00	\$1,720.00	\$3,975.00	\$1,515.00	\$9,160.00
March	\$700.00	\$300.00	\$3,790.00	\$525.00	\$5,315.00
Grand Total	\$4,340.00	\$3,160.00	\$10,875.00	\$5,190.00	\$23,565.00

Using report filters

Sometimes you may want focus on a portion of the data and **filter out** everything else. In our example, we'll focus on certain salespeople to see how they affect the total sales.

To add a report filter:

1. Drag a field from the **Field List** into the **Report Filter** area. In this example, we'll use the **Salesperson** field.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

<u>Page 121</u>

Drag fields between ar	eas below: Column Labels
Salesperson	Region
Row Labels	Σ Values
Month 🔻	Sum of Order 🔻

- 2. The report filter appears above the PivotTable. Click the **drop-down arrow** on the right side of the filter to view the list of items.
- 3. Select the item you want to view. If you want to select more than one item, place a check mark next to **Select Multiple Items**, then click **OK**. In the example below, we are selecting four salespeople.



4. Click **OK**. The PivotTable will adjust to reflect the changes.

Salesperson			(Multiple Items) 🖵				
Sum of Order	r <mark>Amo</mark> u	int	Column Labels 🛛 🔻				
Row Labels		-	East	North	South	West	Grand Total
January			\$765.00	\$1,140.00	\$2,755.00	\$2,750.00	\$7,410.00
February			\$575.00	\$1,720.00	\$1,220.00	\$550.00	\$4,065.00
March			\$350.00	\$300.00	\$2,525.00	\$400.00	\$3,575.00
Grand Total			\$1,690.00	\$3,160.00	\$6,500.00	\$3,700.00	\$15,050.00

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Slicers

Slicers were introduced in Excel 2010 to make filtering data **easier** and **more interactive**. They're basically just **report filters**, but they're more interactive and faster to use because they let you quickly select items and **instantly see the result**. If you filter your PivotTables a lot, you might want to use slicers instead of report filters.

To add a slicer:

- 1. Select any cell in your PivotTable. The **Options** tab will appear on the **Ribbon**.
- 2. From the **Options** tab, click the **Insert Slicer** command. A dialog box will appear.



3. Select the desired field. In this example, we'll select Salesperson. Then click OK.



4. The slicer will appear next to the PivotTable. Each item selected will be highlighted in **blue**. In the example below, the slicer contains a list of the different salespeople, and **four** of them are currently selected.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Sum of Order Amount	Column Labels 💌		
Row Labels	South	West	Grand Total
January	\$2,010.00	\$3,150.00	\$5,160.00
February	\$3,740.00	\$1,515.00	\$5,255.00
March	\$3,190.00	\$525.00	\$3,715.00
Grand Total	\$8,940.00	\$5,190.00	\$14,130.00

Using the slicer:

Just like with **report filters**, only the **selected** items are used in the PivotTable. When you **select** or **deselect** items, the PivotTable will instantly reflect the changes. Try selecting different items to see how they affect the PivotTable.

- To select a single item, click it.
- To select multiple items, hold down the **Control** (**Ctrl**) key on your keyboard, then click each item you want.
- You can also select multiple items by clicking and dragging the mouse. This is useful if the desired items are **adjacent** to one another, or if you want to **select all of the items**.
- To deselect an item, hold down the **Control** (**Ctrl**) key on your keyboard, then click the item.

				Salesperson 😵
Sum of Order Amount	Column Labels 💌			Albertson, Kathy
Row Labels	East	South	Grand Total	
January	\$1,690.00	\$1,100.00	\$2,790.00	Brennan, Michael
February	\$1,950.00	\$235.00	\$2,185.00	Davis, William
March	\$700.00	\$600.00	\$1,300.00	Dumlao Bichard
Grand Total	\$4,340.00	\$1,935.00	\$6,275.00	
				Flores, Tia
				Post, Melissa
				Thompson, Shannon
				Walters, Chris

Using a PivotChart

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

A **PivotChart** is like a regular chart, except it displays data from a **PivotTable**. As with a regular chart, you'll be able to select a **chart type**, **layout**, and **style** to best represent the data. In this example, we'll use a PivotChart so we can visualize the **trends** in each sales region.

To create a PivotChart:

- 1. Select any cell in your PivotTable. The **Options** tab will appear on the **Ribbon**.
- 2. From the **Options** tab, click the **PivotChart** command.



3. From the **dialog box**, select the desired **chart type** (**3-D Clustered Column**, for example), then click **OK**.

Insert (Chart	3 ×	
	Templates	Column	
Lad	Column		
	Line		=
	Pie	3-D Clustered Column	
E	Bar		
	Area		
44	X Y (Scatter)	JAAI JAAI JAA	
	Stock		
<u></u>	Surface		
۵	Doughnut		
000	Bubble		
囫	Radar	Pie	
			-
Man	age Templates	Set as Default Chart OK Cancel	

4. The PivotChart will appear in the worksheet. If you want, you can move it by clicking and dragging.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

Sum of Order Amount	Column Labels 💌					
Row Labels	East	North	South	West	Grand Total	
January	\$1,690.00	\$1,140.00	\$3,110.00	\$3,150.00	\$9,090.00	
February	\$1,950.00	\$1,720.00	\$3,975.00	\$1,515.00	\$9,160.00	
March	\$700.00	\$300.00	\$3,790.00	\$525.00	\$5,315.00	
Grand Total	\$4,340.00	\$3,160.00	\$10,875.00	\$5,190.00	\$23,565.00	
Sum of Order A \$4,000.00 \$3,500.00 \$2,500.00 \$1,500.00 \$1,000.00 \$500.00 \$0.00 \$0.00 \$0.00	January	February	Mai	rch	Region V East North South West	

If you make any changes to the PivotTable, the PivotChart will adjust automatically.

Challenge!

- 1. Open an existing Excel 2010 workbook. If you want, you can use this example.
- 2. Create a **PivotTable** using the data in the workbook.
- 3. Experiment with different row labels and column labels.
- 4. Filter the report with a slicer.
- 5. Create a **PivotChart**.
- 6. If you are using the **example**, use the PivotTable to answer the question, **Which salesperson sold the lowest amount in January? Hint:** First decide which **fields** you need in order to answer the question.

Merging copies of a shared workbook

Turning on the Track Changes feature automatically shares your workbook. When multiple users collaborate on the same shared workbook, you can use the **Compare and Merge Workbooks** command to view all of their changes at once and address them by accepting or rejecting them.

Each person you collaborate with must save a copy of the shared workbook using a unique file name that differs from the original. For example, if the original file name

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

is **Agenda**, your collaborators could use the files names **Agenda—Ana's Changes** or **David Agenda Feedback**.

You can only merge copies of the same shared workbook. All of the copies you plan to merge should be located in the same folder.

To add the Compare and Merge Workbooks command:

The **Compare and Merge Workbooks** command is not available on the Review tab but can be added to the **Quick Access toolbar**. Start here if you have not already added the command.

- 1. Click the **File** tab.
- 2. Choose Options.
- 3. The Excel Options dialog box will appear. Select Quick Access toolbar.

Advanced	Calculate Now
Customize Ribbon	Center
Quick Access Toolbar	Connections
Add-Ins	Copy
Trust Center	Custom Sort

- 4. Under Choose commands from, click the drop-down menu and select All Commands.
- 5. Find and select the **Compare and Merge Workbooks** command.
- 6. Click **Add** to add it to the Quick Access toolbar.

All	Commands		•		For	all documen	ts (default)	•	
	Command Style Command Button (ActiveX Control) Comments Compare and Merge Workbooks Compatibility Compatibility Checker Compress Pictures Conditional Formatting Connection Properties	•	•	Add >> << <u>R</u> emove		Save Undo Redo	Reset 🔻 (i)		▲ ▼
	Compatibility Checker Compress Pictures Conditional Formatting Compation Propation Show Quick Access Toolbar below the	•	Ŧ	< < <u>R</u> emove	<u> </u>	<u>1</u> odify tomizations:	R <u>e</u> set ▼ i		

7. Click **OK**.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

8. The **Compare and Merge Workbooks** command will be added to the Quick Access toolbar.

To compare and merge workbooks:

- 1. Open a copy of the shared workbook.
- 2. Click the Compare and Merge Workbooks command on the Quick Access toolbar.



- 3. If prompted, allow Excel to save your workbook.
- 4. The Select Files to Merge into Current Workbook dialog box will appear.
- 5. **Select** another copy of the same shared workbook you want to merge. To select multiple copies, hold **CTRL**or **SHIFT** on your keyboard while clicking the file names.

Select Files to Merge Into Current Workbook								
C V Ibrar	ies 🕨	Documents >	- i i j	Search Documents	٩			
Organize 🔻 New fo	older							
Desktop	•	Documents library Includes: 2 locations		Arrange by:	Folder 🔻			
Mecent Places	=	Name	Date modified	Туре	Size			
🥽 Libraries		Miscellaneous	10/13/2010 9:31 AM	File folder				
Documents		🔄 My Data Sources	9/14/2010 10:46 AM	File folder				
J Music		🔊 Agenda - Liz's Comments	10/13/2010 9:20 AM	Microsoft Excel	87 KB			
E Pictures		🔊 Agenda Edits Marianne	10/13/2010 9:15 AM	Microsoft Excel	87 KB			
📑 Videos		🛃 Agenda	10/13/2010 9:13 AM	Microsoft Excel	85 KB			
		Recipient List	9/14/2010 9:53 AM	Microsoft Excel	12 KB			
輚 Homegroup								
Fil	e nan	ne: "Agenda Edits Marianne" "A	genda - Liz's Corr 🔻	Excel Workbook	•			
			Tools 🔻	ОК 🔽	Cancel			

- 6. Click **OK**.
- 7. The changes from each copy of the shared workbook will be merged into a single copy. All changes and comments can now be addressed at the same time.

B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

6	Start	End	Time	ltem	Facilitator
7	8:00 AM	9:00 AM	1:00	Breakfast, welcome	Exec team
8	9:00 AM	9:30 AM	0:30	Introduction	Garth
9	9:30 AM	10:30 AM	1:00	Work relationships exercise	Garth, Dean, Liz
10	10:30 AM	10:45 AM	0:15	Break	
11	10:45 AM	12:45 PM	2:00	Cady Falls hike (strategy game)	Marianne, Liz
12	12:45 PM	1:45 PM	1:00	Lunch (with strategy game team)	
13	1:45 PM	2:15 PM	0:30	Strategy debrief	Marianne
14	2:15 PM	3:15 PM	1:00	Get to know your team	Liz
15	3:15 PM	4:00 PM	0:45	Team building exercise	Rick
16	4:00 PM	4:15 PM	0:15	Break	
17	4:15 PM	4:45 PM	0:30	Walk in the redwoods	Dean
18	4:45 PM	6:00 PM	1:15	Strengths exercise	Garth, exec team
19	6:00 PM	8:00 PM	2:00	Dinner	

Each **color** represents changes from a different user, so you can tell at a glance who made the change.



B-1/A, 3RD FLOOR JOSHI COLONY I.P. EXTN. DELHI-92

<u>Page 129</u>