BIRZEIT UNIVERSITY

Department of Computer Science

COMP 132

Excel Worksheet

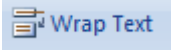
Example 1

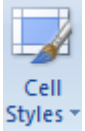
	A	B	C	D	E	F	G	H	I
1		Month of: July 2014 - Week 1							
2	Day	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Total Time
3		1	2	3	4	5	6	7	Per Project
4									
5	Project 1	4	1	1		5			
6	Project 2	2		1		2		1	
7	Project 3		5	2				2	
8	Project 4	1	1	2				4	
9									
10	Leave Hours			1					
11									
12	**Total Work Hours**								
13	**Total Time**								

1. Insert the above data in a new Excel file. Note how the file is made up of sheets.

2. Note that you can fill the days, dates and projects using the auto fill functionality. To do that you must hold the small black square in the bottom right corner and drag to auto fill.

3. Note the following formats:
   a. Column Width
      i. Column A is resized using the Auto Fit Column Width option, under the format menu.
      ii. Columns B through I have the width 10, set from the Column Width option, also under the format menu.
   b. Cell colour 
      i. The cells of Friday and Sunday are coloured in grey.
   c. Borders 
      i. All the table has borders using the All Borders option.
   d. Merging 

      i. The first row is the result of merging cells A1 to I1.
      ii. The cell that contains the word "Day" is the result of merging the cells A2 and A3.
      iii. The cell that contains the phrase "Total Time Per Project" is the result of merging the cells I2 and I3.
   e. Text Wrapping 

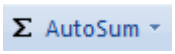
      i. The cell that contains the phrase "Total Time Per Project" is formatted using Text Wrapping
   f. Orientation 
      i. The cell that contains the word "Day" is oriented to Angle Counterclockwise.
   g. Cell Styles 

      i. The rows 12 and 13 has the style of Total from Cell Styles

4. To do some simple calculations, always remember that a cell must start with an equal sign (=). Remember this when you do the following equation:

   Total Time = Leave Hours + Total Work Hours

   Remember to use cell names when you do this equation, in order to keep your data updated.

5. Using functions to do simple equations 

   You can use the options under this menu to do functions such as summation, average, and minimum/maximum.
   The structure of functions is usually like this:

   =SUM(B5:B8)

   - Note that groups of cells are **always** separated by a colon (:).
   - Some functions need more than just a group of cells. For example, the function MOD that calculates the remainder of the division of two numbers, needs the number and the divisor:

     =MOD(6,4)

   - You can find all the functions available in Excel if you click on the Insert Function button 

Example 2

	A	B	C	D	E
1		Item	Quantity	Price	Total Price
2	Book Store	Book	30	$20.00	
3		Marker	6	$6.00	
4		Pens	45	$8.00	
5		Stapler	5	$35.00	
6		Paper Punch	5	$18.00	
7		Ruler	20	$5.00	
8		Notebook	14	$65.00	
9		A4 Paper	16	$11.00	
10					
11		Minimum			
12		Maximum			
13		Average			
14		Sum			

6. Insert the above data in the second sheet in your Excel file.

7. Note the following formats:
   a. Cell Alignments 
      i. the cell that contains the phrase "Book Store" is Centre and Middle Align
   b. Cell Format
      i. Column D has the format of Currency with 2 decimal places.

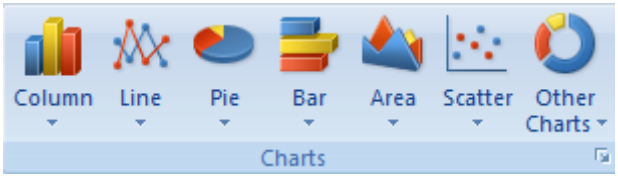
8. Sort the data 

according to the “Item” name, alphabetically from A to Z.
   - Note that when you want to sort cells in Excel, your sheet should **NOT** contain any merged cells.
   - Note the Sort Warning that may appear when you click on the sort option.
     What is the difference between the two options you have;
     - Expand the selection
     - Continue with the current selection

9. Use conditional formatting 

to highlight the numbers in the column “Total Price” as follows:
    a. The numbers that are **below average** should be highlighted in Red.
    b. The numbers that are **above average** should be highlighted in Green.

10. Charts



    a. Draw a column chart that shows the total price of each item.
    b. Draw a pie chart that shows each item’s price.
    c. Draw a line chart that shows the quantity of each item.

When you draw charts be careful of the following:

- Select the data you want to have in the chart before you insert the chart
- If the data is from rows or columns that are far from each other use the Ctrl key on the keyboard to select them all.
- Remember that not all kinds of data work with all kinds of charts.

Chart extra menus:

- Design
  You can use this menu to modify:
    1. Chart type
    2. Selected data
    3. Chart layout
    4. Chart colours
- Layout
  You can use this menu to modify:
    1. Chart labels
        a. Title
        b. Legends
        c. Data labels
    2. Axes and gridlines
- Format
  You can use this menu to modify the general format of the chart.

Home Practice 1

	A	B	C	D	E	F	G
1	Student ID	Major Avg	Avg	Hours Total	Hours Failed	Hours Dropped	Hours Earned
2	1016	80	78	40	0	3	
3	2069	75	77	23	3	3	
4	1597	68	69	30	6	0	
5	1156	85	88	29	0	0	
6	2498	92	87	50	0	3	
7	Averages						

1. Fill the above data in an Excel sheet.

2. Calculate **Hours Earned** according to the following formula:
   Hours Earned = Hours Total – (Hours Failed + Hours Dropped)

3. Calculate the Averages of the **Major Avg.** and **Avg**.

4. Draw a bar chart showing the Student ID and the Avg.

5. Use conditional formatting to show:
   a. Hours Total that are above average coloured in **red**
   b. Hours Total that are below average coloured in **green**

Home Practice 2

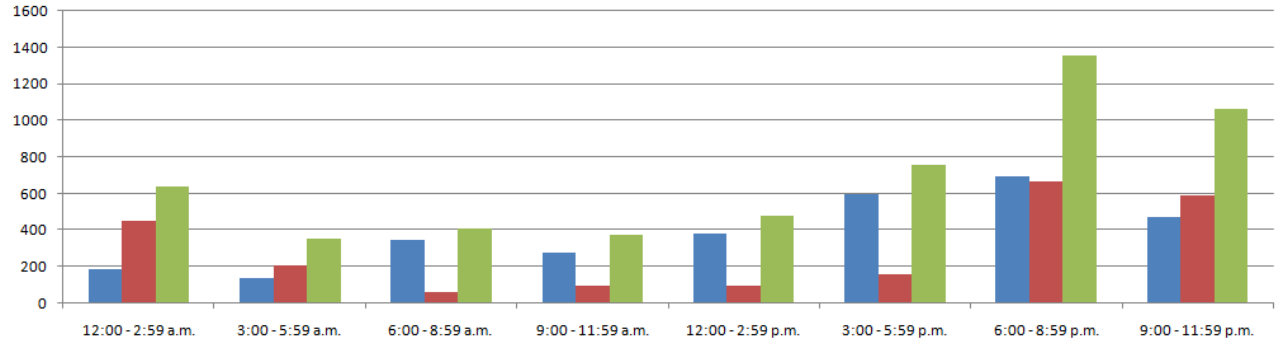
	A	B	C	D	E	F	G
1	**Pedestrians Killed by Time of Day and Day of Week**						
2		Day of Week					
3		Weekday		Weekend		Total	
4	Time of Day	Number	Percent	Number	Percent	Number	Percent
5	12:00 - 2:59 a.m.	188		450		638	
6	3:00 - 5:59 a.m.	142		211		353	
7	6:00 - 8:59 a.m.	346		63		409	
8	9:00 - 11:59 a.m.	281		96		377	
9	12:00 - 2:59 p.m.	382		98		480	
10	3:00 - 5:59 p.m.	601		159		760	
11	6:00 - 8:59 p.m.	694		665		1359	
12	9:00 - 11:59 p.m.	470		592		1062	
13	**Total**						

1. Calculate the Total Number for each hour according to the formula
   Total Number = Weekday Number + Weekend Number

2. Calculate the Total according to the formulas
   Total (Weekday) = Summation of all Weekday Number
   Total (Weekend) = Summation of all Weekend Number
   Total (Total) = Summation of all Total Number

3. Calculate the Percent according to the formula
   Percent = (Number / Total)
   THEN
   Change the **format** of the cells to **Percentage**

4. Create a column chart using the Weekday (Number), Weekend (Number) and Total (Number) Columns. Your chart should look similar to this:



5. Use conditional formatting to highlight the numbers in all the "Number" columns as follows:
   a. The **top 2 numbers** should be highlighted in Red.
   b. The **bottom 2 numbers** should be highlighted in Green.

   To do this you must use the Top 10 Items and Bottom 10 Items under the Top/Bottom Rules menu in the conditional formatting menu.