

Lab No. 4: MS Excel

# **Objectives**:

- 1. Edit cell, row, column, and sheet properties.
- 2. Insert equations and formulas.
- 3. Data sorting and filtering.
- 4. Inserting charts.
- 5. Inserting tables.
- 6. Applying different types of functions.
- 7. Referencing cells in relative and absolute manners.
- 8. Setting a print area.
- 9. Inserting header and footer.
- 10. Formatting number values.

# Introduction

In this assignment, you will be working with three sheets. The first two sheets will have student grades. The third sheet will have percentages of spending for a salary.

## Sheet 1

Open a new worksheet.

Name	First	Second	Final	Total
Amal	24	22	30	
Mahmoud	25	24	32	
Zaid	23	26	33	
Bashar	19	26	29	
Samer	16	24	36	
Ali	20	27	37	
Kamel	30	28	39	
Dareen	27	27	35	

1. Insert the following data into the work sheet.



- 2. Change the properties of the data to the following:
  - a. Font type: Arial
  - b. Font Size: 12
  - c. Alignment: Center.
  - d. Borders: All borders black.
- 3. Adjust the row height to 20.
- 4. For the column titled "total", calculate the sum of the grades for each student using AutoSum.
- 5. Under the data of each column, calculate the sum, the average, the maximum, the minimum, the median using the appropriate functions.
- 6. Find the number of failing students using the function "COUNTIF". You can find this function under "Statistical".
- 7. Color the students whose total is at least 94 in different color using conditional formatting.
- 8. Sort the data according to the total grade (Descending) then by Name (A to Z).
- 9. Apply a filter to your data
- 10. Insert a chart representing the total grade vs. name with the following properties: a. X-axis: Name
  - b. Y-axis: Total Grade
  - c. Chart Title: CE 433
  - d. Chart Type: Column (2D)
- 11. Insert a chart representing the first and second grades vs. name with the following properties: a. X-axis: Name
  - b. Y-axis: First and Second Grades.
  - c. Chart Title: Grade Change
  - d. Chart Type: Column (2D)
- 12. Insert the current date in the footer.
- 13. Rename the sheet as CE 433.



## Sheet 2

• Copy the names and totals of students in sheet1 and paste them in sheet2 using "Paste Special". Choose "Values Only". Make the data look as follows by inserting a table:

Name	💌 Total	💌 Fee Reduction Percentage 💌 Updated Fees	
Amal		86	
Mahmoud		81	
Zaid		82	
Bashar		74	
Samer		76	
Ali		84	
Kamel		97	
Dareen		89	
-			
Fees			
	4000		

- Calculate the Fee Reduction Percentage by applying the "IF" logical function on the "Total" column. The function should calculate the Fee Reduction Percentage according to this rule: If the total is at least 85, the student should get a reduction of 15% on his/her fees
  - After applying the IF function, calculate the Updated Fees for each student by using the value calculated in the previous step. The fees are stored in cell below the table. You should use the value in the cell in your formula, not the 4000. Change the Fees value to other values and note what happens to the data.
  - Sort the data ascending according to Fee Reduction Percentage. Finally, rename sheet2 to "Fees".



## Sheet 3

1- On sheet 3, insert the following data:

Item	Share	Amount	
Food	0.15		
Bills	0.15		
Health	0.1		
Education	0.4		
Recreation	0.05		
Clothes	0.05		
Other	0.1		
Savings	0.63		
Salary			
10	00		

- 2- For the Share column, reformat the cells as percentage.
- 3- Calculate the "Amount" column by multiplying the percentage by the Salary value which is below the data.
- 4- Apply the Number format "#,###.00" on the "Amount" column. Then try some other formatting styles.
- 5- Insert a chart representing Share vs. Item with the following properties:
  - a. Chart Type: Pie chart
  - b. Chart Layout: Layout 6

c. Chart Title: Household Expenses 6- Sort the data according to Share (Ascending).

6- Rename sheet3 to "Item Shares".