

Department of Computer and Software Engineering

SE100L: Information and Communication Technologies Lab

Course Instructor: Hamza Shaukat	Dated: 17-10-2023
Lab Engineer : Asif Ali	Semester: Fall 2023
Batch: BSSE23	

LAB 7 MS Excel (Part a)

Name	Roll. No.	Total Marks (35)
Zunaira Abdul Aziz	BSSE23058	

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Signature: _____

7.1. Objective

This lab will familiarize the students with the basic processing of MS Excel.

- Introduce students to Excel's interface and basic spreadsheet creation.
- Teach students how to format cells for better presentation.
- Introduce basic Excel formulas.
- Teach students how to use the AutoFill feature.
- Introduce sorting and filtering data in Excel.
- Create a simple chart to visualize data.
- Teach students how to save and print their Excel workbooks.

7.2. Description

The excel 2016 is spreadsheet software in the new Microsoft 2016 Office Suite. Excel allows you to store manipulate and analyze data in organized workbooks for home and business tasks

7.3. Home Tab

Home tab incorporates all text and cell formatting features. The Home Tab also includes basic spreadsheet formatting elements such as text wrap, merging cells and cell style. Each rectangle in a worksheet is called a **cell**. A cell is the intersection of a **row** and a **column**. Basically worksheet is comprised of different cells that can hold different contents like numeric data, text etc. Each cell has a name, or a **cell address** based on which **column and row** it intersects.

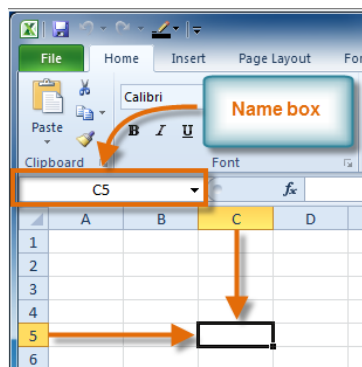


Figure 1: Location of cell

Multiple cells can also be selected. **Click and drag your mouse** until all of the adjoining cells you want are highlighted. Release your mouse. The cells will stay selected until you click on another cell in the worksheet.

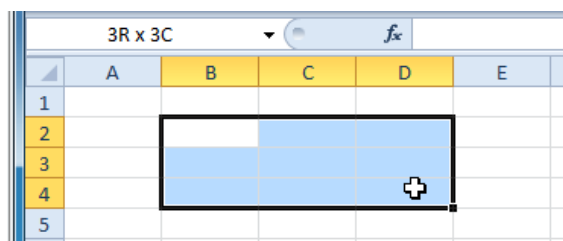


Figure 2: Selection of multiple cells

In alignment group, we have the option to merge the cells. First you have to select all the cells that you want to merge then click any option from that menu shown below. After merging the cells you will find your selected cells merged into a single cell. To split the cells again, uncheck the merge cells checkbox.

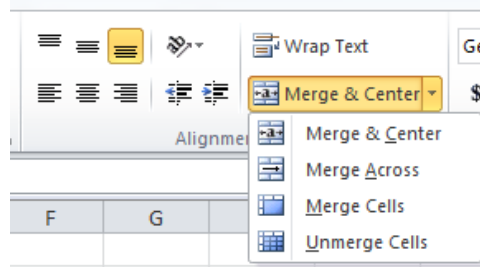


Figure 3: Merging cells

You can display multiple lines of text inside a cell by wrapping the text. Wrapping text in a cell does not affect other cells. To do so, select the cell/cells. Now click “Wrap Text” from Alignment group of Home tab.

By using the “Number” group we can change the type of content that a cell can contain.

Different styles can be selected for distinguishing the contents of the cells using “Styles” group. Another important thing is to delete, insert and format the cells. This is done using the “Cells” group. Similarly to clear the formats, contents, comments we use the “clear” option from the editing group.

7.3.1. Insert Tab

By using different group of insert tab we can insert pictures, table, charts etc. similarly new text box, headers and footers, word art, equations and symbols can also be inserted.

To insert the chart, first select the data then click on the chart you want to insert. After inserting the chart, right click on it. It will provide you with different option to modify the data and other related things of the chart.

7.3.2. Page layout

This tab is majorly used to set the margins, orientation and background of the spread sheet. There is an option “Print Area” in page setup group. By using this option we can select the area for printing purpose.

7.3.3. Formulas Tab

We can apply different formulas using this tab. Function library group is one of the mostly used groups.

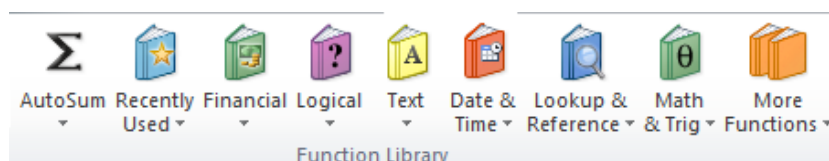


Figure 4: Formula tab in Excel

“Auto Sum” is used to find the maximum, minimum, average and sum of the selected cells. To apply any formula first select the cell (where you want to place the end result), then select the operation of the function you want to perform.

7.4. Lab Tasks

7.4.1. Lab Task 1: Creating a Basic Spreadsheet

Instructions:

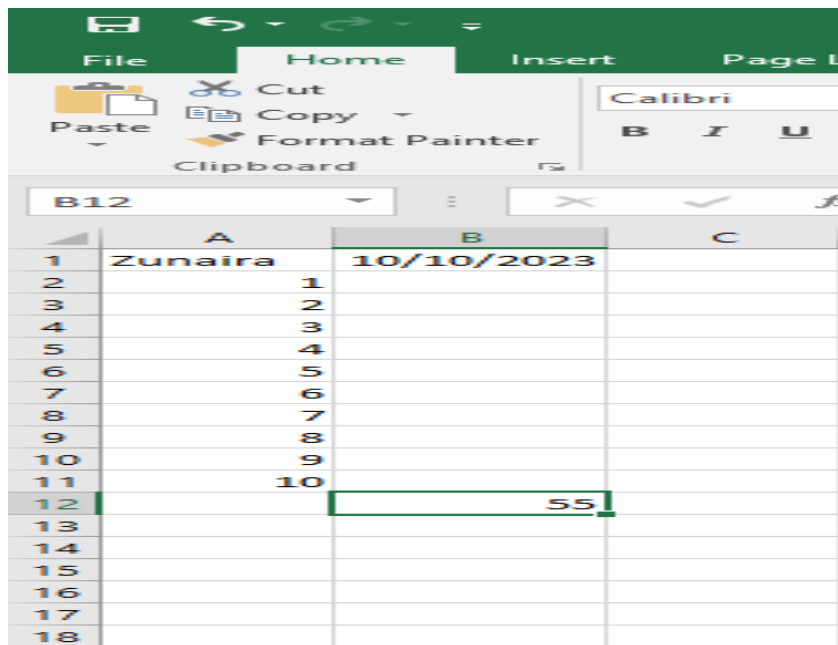
Open Microsoft Excel.

Create a new workbook.

Enter your name in cell A1 and today's date in cell B1.

Enter numbers 1 to 10 in column A (cells A2 to A11).

Calculate the sum of these numbers in cell B12.



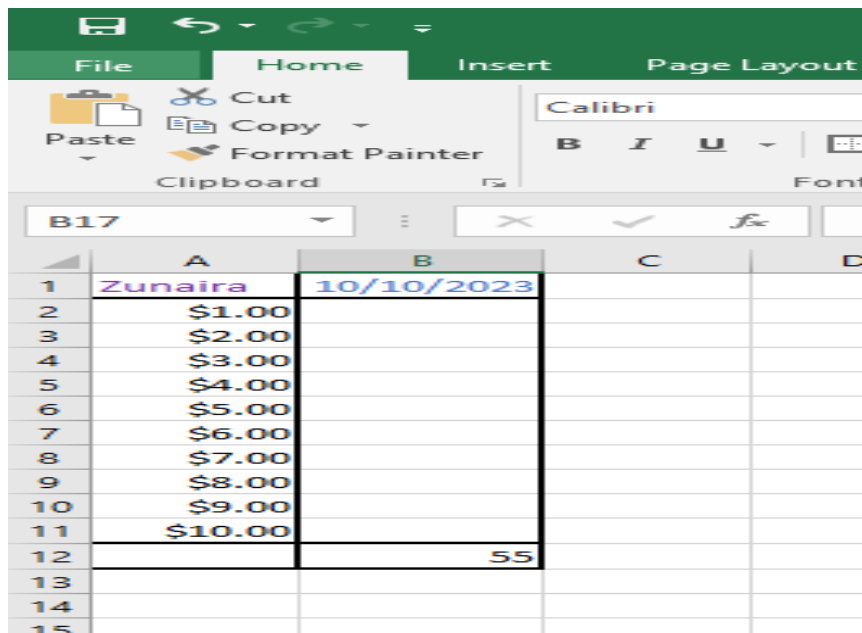
7.4.2. Lab Task 2: Formatting Cells

Instructions:

Format the numbers in column A as currency with two decimal places.

Change the font color of your name and date in cells A1 and B1.

Add a border around the range A1:B12.



7.4.3. Lab Task 3: Basic Formulas

Instructions:

In cell C2, enter "Total" as a label.

In cell C3, calculate the total sum of the numbers in column A using the SUM function.

In cell C4, calculate the average of the numbers in column A using the AVERAGE function.

In cell C5, calculate the maximum value in column A using the MAX function.

	A	B	C	D
1	Zunaira	10/10/2023		
2	\$1.00		Total	
3	\$2.00		\$55.00	
4	\$3.00		\$5.50	
5	\$4.00		\$10.00	
6	\$5.00			
7	\$6.00			
8	\$7.00			
9	\$8.00			
10	\$9.00			
11	\$10.00			
12		55		
13				
14				
15				
16				
17				
18				
19				
20				

7.4.4. Lab Task 4: AutoFill

Instructions:

In cell A12, enter "11" and in cell A13, enter "12."

Select both cells A12 and A13.

Use the AutoFill handle to fill the series down to cell A20, completing the numbers from 11 to 20.

	A	B	C	D
1	Zunaira	10/10/2023		
2	\$1.00		Total	
3	\$2.00		\$55.00	
4	\$3.00		\$5.50	
5	\$4.00		\$10.00	
6	\$5.00			
7	\$6.00			
8	\$7.00			
9	\$8.00			
10	\$9.00			
11	\$10.00			
12	11	55		
13	12			
14	13			
15	14			
16	15			
17	16			
18	17			
19	18			
20	19			
21	20			
22				

7.4.5. Lab Task 5: Sorting and Filtering Data

Instructions:

Select the range A2:B20.

Sort the data in ascending order based on the values in column A.

Apply a filter to column A to display only even numbers.

	A		A		A
1		1		1	
2	57	2	5	2	
3	6579	3	6	3	
4	578	4	6	4	
5	657	5	21	5	
6	5	6	43	6	578
7	6	7	45	7	6
8	6	8	46	8	6
9	657	9	54	9	6
10	564	10	57	10	564
11	46	11	57	11	46
12	54	12	79	12	54
13	43	13	563	13	46
14	563	14	564	14	54
15	57	15	578	15	54
16	45	16	657	16	54
17	758	17	657	17	758
18	21	18	698	18	758
19	79	19	758	19	698
20	698	20	6579	20	698
		21		21	

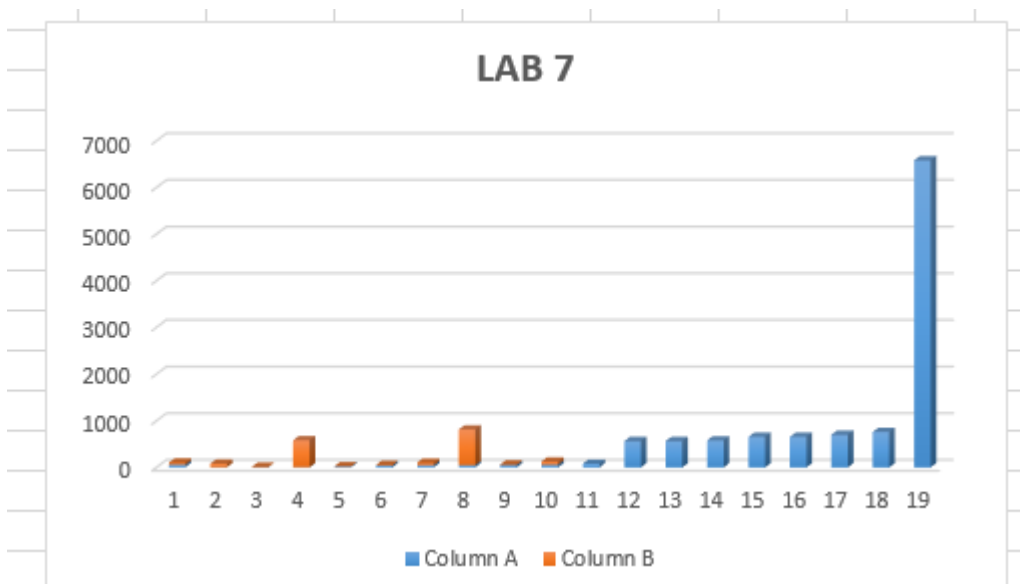
7.4.6. Lab Task 6: Basic Charts

Instructions:

Select the range A1:B11.

Insert a bar chart (column chart) to visualize the data.

Customize the chart title and axis labels.



7.4.7. Lab Task 7: Saving and Printing

Instructions:

Save the workbook with a descriptive name.

Print the spreadsheet, adjusting page layout options as needed.

Ensure that the printed sheet includes the title, data, and chart.

