**Advance Excel Assignment 2**

1. **What does the dollar ($) sign do?**

In Excel, the dollar sign ($) is used to create an absolute cell reference in formulas. When you add a dollar sign before the column letter, row number, or both in a cell reference, it locks that part of the reference, making it stay fixed when the formula is copied to other cells. This prevents the cell reference from changing relative to its new location and ensures that the reference remains constant during the copy process.

1. **How to Change the Reference from Relative to Absolute (or Mixed)?**

To change a cell reference from relative to absolute (or mixed) in Excel, you can add or remove the dollar sign ($) in the formula. Here's how to do it:

To change to an Absolute Reference:

* Select the cell containing the formula you want to modify.
* Click on the formula bar to edit the formula.
* Place the cursor at the cell reference you want to make absolute.
* Press the F4 key on your keyboard to add dollar signs before the column letter and row number. Alternatively, you can manually type the dollar signs ($) before the column letter and row number.

To change to a Mixed Reference:

* Select the cell containing the formula you want to modify.
* Click on the formula bar to edit the formula.
* Place the cursor at the cell reference you want to make mixed.
* Press the F4 key on your keyboard to toggle between different reference types (absolute, relative, mixed) for that cell reference. Each press of the F4 key will cycle through the reference types.

Alternatively, we can manually add or remove the dollar signs ($) before the column letter and row number to create the desired reference type (absolute, relative, or mixed).

Top of Form

Top of Form

1. **Explain the order of operations in excel?**

The order of operations in Excel, also known as the precedence of operators, determines the sequence in which Excel performs calculations in a formula. It follows the standard mathematical rules to ensure accurate results. The order of operations in Excel is as follows (from highest to lowest precedence):

* Parentheses: Excel calculates expressions inside parentheses first.
* Exponents: Calculations involving exponentiation (^) are performed next.
* Multiplication and Division: Excel performs multiplication (\*) and division (/) operations before addition (+) and subtraction (-).
* Addition and Subtraction: Lastly, Excel performs addition and subtraction operations.

In short, Excel follows the acronym PEMDAS, which stands for Parentheses, Exponents, Multiplication and Division, and Addition and Subtraction, to determine the order of calculations in a formula. This ensures that Excel performs the correct calculations and provides accurate results for complex formulas.

1. **What, according to you, are the top 5 functions in excel and write a basic syntax for any of two?**

Top 5 Excel functions:

* SUM: =SUM(number1, number2, ...)
* VLOOKUP: =VLOOKUP(lookup\_value, table\_array, col\_index\_num, [range\_lookup])
* IF: =IF(logical\_test, value\_if\_true, value\_if\_false)
* COUNT: =COUNT(value1, value2, ...)
* CONCATENATE: =CONCATENATE(text1, text2, ...)

1. **When would you use the subtotal function?**

You would use the SUBTOTAL function in Excel when you need to calculate subtotals and apply various functions to a range of data, excluding other subtotal results. It is particularly useful when working with large datasets and creating summary reports, as it can handle filtered or hidden rows without double-counting data. The SUBTOTAL function allows you to choose from a range of functions such as SUM, AVERAGE, COUNT, and more, making it a powerful tool for data analysis and reporting.

1. **What is the syntax of the vlookup function? Explain the terms in it?**

VLOOKUP Function Syntax:

=VLOOKUP(lookup\_value, table\_array, col\_index\_num, [range\_lookup])

* lookup\_value : The value to find in the first column of the table\_array.
* table\_array : The range of cells containing the data you want to search.
* col\_index\_num : The column number in the table\_array to return the value from.
* range\_lookup : Optional. TRUE for approximate match, FALSE for exact match.