**Advance Excel Assignment 2**

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

In Excel, the dollar sign ($) is used to create absolute cell references in formulas. Absolute cell references do not change their location when you copy the formula to other cells, they remain fixed to a specific cell, column, or row. The dollar sign can be applied to the column, the row number, or both in a cell reference.

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

To change the reference from relative to absolute or mixed in Excel, you'll need to manually modify the cell references in your formulas. Here's how to do it:

* Open the Excel worksheet containing the formula you want to modify.
* Click on the cell containing the formula to select it.
* In the formula bar, locate the cell reference you want to make absolute (e.g., A1).
* Place the cursor at the appropriate location within the cell reference.
* Press the F4 key on your keyboard. This will toggle the reference from relative to absolute, inserting dollar signs ($) before the column letter and the row number.
* Press Enter to confirm the change. The cell reference is now absolute.

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

The order of operations in Excel, also known as the "operator precedence," that means the sequence in which Excel evaluates formulas that involve multiple mathematical operations or functions. The order of operations in Excel are as follows:

Parentheses, Exponents, Multiplication and Division, Addition and Subtraction, Concatenation, Comparison Operators, Logical Operators.

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

Excel offers a wide range of functions to perform various tasks. Here are five commonly used functions along with their basic syntax:

* SUM Function: Calculates the sum of a range of numbers.

Syntax: =SUM(number1, [number2], [number3], ...)

* VLOOKUP Function: Searches for a value in the leftmost column of a range and returns a value in the same row from a specified column.

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

* IF Function: Returns one value if a condition is true and another value if it's false.

Syntax: =IF(logical\_test, value\_if\_true, value\_if\_false).

* AVERAGE Function: Calculates the average of a range of numbers.

Syntax: =AVERAGE(number1, [number2], [number3], ...).

* COUNT Function: Counts the number of cells in a range that contain numbers.

Syntax: =COUNT(value1, [value2], [value3], ...).

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

The SUBTOTAL function in Excel is used to perform calculations on a range of data while also allowing you to specify whether you want to include or exclude values that are already the result of another subtotal calculation within the same range.

Here are some scenarios in which you might use the SUBTOTAL function:

Working with Filtered Data, when we have grouped data, Creating Summary Reports, while doing dynamic calculations, to avoid double counting.

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

The VLOOKUP function in Excel is used to search for a value in the first column of a range and return a corresponding value from a specified column within the same row. The syntax of the VLOOKUP function is as follows:

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

Each term in the syntax:

* lookup\_value: This is the value you want to search for within the first column of the table\_array. It's the value you're trying to match.
* table\_array: This is the range where Excel will search for the lookup\_value and retrieve the corresponding value. It's usually a table or an array that contains the data.
* col\_index\_num: This is the column index number of the value you want to retrieve
* range\_lookup: This is an optional argument that determines whether you want an exact match or an approximate match. If you set it to TRUE, Excel will search for an approximate match and return the closest value that is less than or equal to the lookup\_value. If you set it to FALSE, Excel will search for an exact match.