**Advance Excel Assignment 2**

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

=> In Microsoft Excel, the dollar sign ($) is used as an operator to create an absolute cell reference. Cell references in Excel are typically relative, meaning they adjust when copied to other cells. However, by using the dollar sign, you can lock a reference to a specific cell or range, preventing it from changing when copied.

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

=> To change the reference from relative to absolute (or mixed) in Excel, you can use the dollar sign ($) to lock the specific parts of the cell reference that you want to keep fixed.

1. **Converting to Absolute Reference:**

To change a cell reference to an absolute reference (both row and column fixed), follow these steps:

a. Select the cell containing the formula with the reference you want to change.

b. Click on the formula bar at the top of the Excel window to edit the formula.

c. Place the cursor at the point where you want to add the dollar signs ($) to make the reference absolute.

d. Type a dollar sign ($) before the column letter and another dollar sign ($) before the row number. For example, to change a reference like A1 to an absolute reference, it becomes $A$1.

e. Press Enter or click outside the formula bar to save the changes.

2. **Converting to Mixed Reference:**

To change a cell reference to a mixed reference (either row or column fixed), follow these steps:

a. Select the cell containing the formula with the reference you want to change.

b. Click on the formula bar at the top of the Excel window to edit the formula.

c. Place the cursor at the point where you want to add the dollar sign ($) to fix either the column or the row.

d. Type a dollar sign ($) before the column letter to fix the column, or type a dollar sign ($) before the row number to fix the row. For example, to change a reference like A1 to a mixed reference with the column fixed, it becomes $A1. To fix the row, it becomes A$1.

e. Press Enter or click outside the formula bar to save the changes.

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

=> The order of operations in Excel is as follows:

Parentheses: Expressions inside parentheses are evaluated first. Excel will prioritize calculations within innermost parentheses and then work outward.

Exponentiation: Exponents are evaluated next. For example, if you have a formula like =2^3, Excel will calculate 2 raised to the power of 3, resulting in 8.

Multiplication and Division: These operations are evaluated from left to right. Excel will perform all multiplication and division operations before moving on to addition and subtraction.

Addition and Subtraction: Similarly, these operations are evaluated from left to right.

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

=> The top 5 functions in Excel can vary depending on specific use cases, but some commonly used and versatile functions that many Excel users find valuable are:

1. Sum

2. Vlookup

3. if

4. Countif

5. Average

1. SUM:

This function is used to add up a range of numbers in Excel.

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

Example: =SUM(A1:A5) - Adds the values in cells A1 to A5.

2. AVERAGE:

This function calculates the arithmetic mean of a range of numbers.

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

Example: =AVERAGE(B1:B10) - Calculates the average of the values in cells B1 to

B10.

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

=> The SUBTOTAL function in Excel is used to perform calculations on a filtered range or a subtotal of a larger dataset. It is particularly useful when you want to calculate specific summary statistics or totals for visible data after applying filters.

The main advantage of using the SUBTOTAL function over other traditional functions like SUM, AVERAGE, etc., is that it automatically considers only the visible cells in a filtered range, while ignoring the hidden cells. This way, you can get accurate calculations for only the visible data, regardless of how the data is filtered.

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

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

**lookup\_value**: This is the value you want to find in the first column of the table or range. It can be a specific value (e.g., a number or text) or a cell reference containing the value you are searching for.

**table\_array**: This is the range of cells that contains the data you want to search through. The first column of this range will be used for the lookup. The table\_array can be a reference to a range (e.g., A1:D10) or a named range.

**col\_index\_num**: This is the column number (starting from 1) in the table\_array from which you want to retrieve the corresponding value. For example, if you want to retrieve data from the third column of the table\_array, col\_index\_num should be 3.

**range\_lookup**: This is an optional argument that specifies whether you want an exact match or an approximate match for the lookup\_value.

* If range\_lookup is TRUE or omitted, Excel will assume an approximate match. In this case, the first column of the table\_array must be sorted in ascending order. If an exact match is not found, Excel will return the closest value less than the lookup\_value.
* If range\_lookup is FALSE, Excel will look for an exact match. In this case, the first column of the table\_array can be unsorted, and Excel will return the exact match, or an error if no match is found.