**Advance Excel Assignment –2**

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

In Microsoft Excel, the dollar sign ($) is used to make a cell reference absolute, which means that the reference will not change when the formula is copied or moved to another cell.

When you create a formula in Excel that references a cell, Excel automatically adjusts the cell references relative to the new location of the formula when it is copied or moved to another cell. For example, if you have a formula that adds the values in cells A1 and A2 and you copy it to cell B2, the formula in cell B2 will automatically adjust to add the values in cells B1 and B2.

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

To change a cell reference from relative to absolute or mixed in Microsoft Excel, you can use the dollar sign ($) to modify the cell reference in the formula. Here are the steps:

1. Select the cell that contains the formula you want to modify.
2. In the formula bar at the top of the screen, click on the cell reference that you want to change.
3. Place the cursor in front of the column letter or row number that you want to modify.
4. To make the entire cell reference absolute, add a dollar sign ($) before the column letter and the row number. For example, if the original cell reference was A1, you would change it to $A$1.
5. To make the column or row reference absolute, add a dollar sign ($) before either the column letter or the row number, depending on which part of the reference you want to make absolute. For example, if you want to make the column reference absolute but keep the row reference relative, you would change the cell reference from A1 to $A1.
6. Once you have modified the cell reference, press Enter to update the formula.

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

The order of operations in Excel is the set of rules that determines the sequence in which mathematical operators and functions are evaluated in a formula. This sequence is important because it can affect the result of the formula.

The order of operations in Excel is as follows:

* Parentheses: Excel evaluates expressions inside parentheses first. If a formula has nested parentheses, it starts with the innermost pair and works its way out.
* Exponents: Excel evaluates exponentiation, or raising a number to a power, next. Exponents are denoted by the ^ symbol in Excel.
* Multiplication and Division: Excel evaluates multiplication and division operations next, from left to right. These operations are denoted by the \* and / symbols in Excel, respectively.
* Addition and Subtraction: Excel evaluates addition and subtraction operations last, from left to right. These operations are denoted by the + and - symbols in Excel, respectively.

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

* SUM: Adds a series of numbers together. Syntax: =SUM(number1, [number2], [number3], ...)
* AVERAGE: Calculates the average of a series of numbers. Syntax: =AVERAGE(number1, [number2], [number3], ...)
* IF: Tests a logical condition and returns one value if the condition is true and another value if it is false. Syntax: =IF(logical\_test, [value\_if\_true], [value\_if\_false])
* VLOOKUP: Searches for a value in the first column of a table and returns a corresponding value in the same row from a specified column. Syntax: =VLOOKUP(lookup\_value, table\_array, col\_index\_num, [range\_lookup])
* CONCATENATE: Joins two or more text strings into one string. Syntax: =CONCATENATE(text1, [text2], [text3], ...)

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

The SUBTOTAL function in Excel is used to calculate subtotals within a range of data. It is particularly useful when you have a large dataset and want to calculate subtotals based on certain categories or criteria. The SUBTOTAL function can be used instead of SUM, AVERAGE, COUNT, MAX, MIN, and other functions, and it provides additional features that these functions do not.

The SUBTOTAL function has two arguments: function\_num and ref1. The function\_num argument specifies which function to use for the calculation, and the ref1 argument is the range of cells that you want to calculate the subtotals for.

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

VLOOKUP: Searches for a value in the first column of a table and returns a corresponding value in the same row from a specified column. Syntax: =VLOOKUP(lookup\_value, table\_array, col\_index\_num, [range\_lookup])

**Lookup\_value which value you need to search**

**table\_array for first column of table should match with lookup-value column**

**col\_index\_num**: The column number in the table that contains the data you want to retrieve. The leftmost column of the table is column 1, the next column to the right is column 2, and so on.

Range\_lookup logical value type true means approximate matchup

False value means it will be matched exact value