**Advance Excel Assignment 2**

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

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| In Microsoft Excel, the dollar sign is used in cell references to create absolute references. An absolute reference is a cell reference that doesn't change when it's copied or filled to other cells. A cell reference with a dollar sign before the row and column letter, such as "$A$1", is an absolute reference to cell A1. A cell reference with a dollar sign only before the row or column letter, such as "A$1" or "$A1", is a mixed reference with the fixed row or column (see below). |

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

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| To change a cell reference from relative to absolute (or mixed) in Microsoft Excel:   1. Select the cell(s) containing the relative reference(s) that we want to change. 2. Click on the cell reference in the formula bar to activate it. 3. Add the dollar sign ($), before the row and/or column letter, depending on the type of reference we want to create:  * To create an absolute reference, add the dollar sign before both the column letter and row number, for example: $A$1 * To create a mixed reference, add the dollar sign before either the column letter or row number, for example: A$1 or $A1  1. Press Enter to apply the change.   Note: We can also press the F4 key while a cell reference is selected to cycle through different reference types in Excel. |

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

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| The order of operations in Microsoft Excel determines the sequence in which calculations are performed within a formula. This order is also known as the "operator precedence". The order of operations in Excel is as follows:  Calculation within parentheses  Exponentiation (^)  Multiplication and division (from left to right)  Addition and subtraction (from left to right)  It's important to understand the order of operations when working with complex formulas in Excel to ensure that calculations are performed correctly. To change the order of operations, we can use parentheses to force the calculation of specific parts of the formula first. |

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

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| The top 5 functions in Microsoft Excel, based on their popularity and versatility, are:   1. SUM 2. AVERAGE 3. IF 4. VLOOKUP 5. INDEX/MATCH   Here is a basic syntax for two of these functions:  SUM function: SUM(number1, [number2, ...]) - adds up a range of values and returns the sum.  IF function: IF(condition, [value\_if\_true], [value\_if\_false]) - tests a condition and returns one value if the condition is true and another value if the condition is false.  For example, to find the sum of values in cells A1 to A10, we can use the formula:  =SUM(A1:A10)  To check if the value in cell A1 is greater than 100 and return "Greater" if true and "Less" if false, we can use the formula:  =IF(A1>100, "Greater", "Less") |

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

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| The SUBTOTAL function in Microsoft Excel is used to perform calculations, such as sum, average, count, etc., on a filtered set of data. The SUBTOTAL function is useful when we want to perform calculations on a subset of data in a list or table, and exclude the values that are hidden due to filtering.  For example, if we have a large data set with multiple columns and we want to sum a particular column while excluding the values in hidden rows, we can use the SUBTOTAL function instead of the SUM function. The SUBTOTAL function will automatically exclude the hidden values and only sum the visible values.  *The syntax for the SUBTOTAL function is:*  SUBTOTAL(function\_num, range)  where:  function\_num is a number that specifies the type of calculation to perform.  range is the range of cells that we want to include in the calculation.  So, to find the sum of values in column A while excluding the values in hidden rows, we can use the formula:  =SUBTOTAL(9, A:A) |

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

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| The VLOOKUP function in Microsoft Excel is used to search for a specific value in the first column of a table and return a corresponding value from a specified column in the same row. The basic syntax of the VLOOKUP function is:  VLOOKUP(lookup\_value, table\_array, col\_index\_num, [range\_lookup])  where:  lookup\_value: The value we want to look up in the first column of the table\_array.  table\_array: The range of cells that makes up the lookup table.  col\_index\_num: The column number in the table\_array from which the matching value should be returned.  [range\_lookup]: An optional argument that specifies whether we want an exact match (FALSE) or an approximate match (TRUE). If the range\_lookup argument is omitted, the default value is TRUE (approximate match). |

#THANK YOU!