EXCEL ASSIGNMENT 19

1. What are the data types used in VBA?

   Data types used in VBA are:

   - Integer: Used to store number values that won't take on decimal form.
   - Single: Used to store number values that may take on decimal form. Can also contain integers.
   - Double: A longer form of the single variable. Takes up more space, but needed for larger numbers.
   - Date: Stores date values.
   - String: Stores text. Can contain numbers, but will store them as a text (calculations cannot be performed on numbers stored as a string)
   - Boolean: Used to store binary results (True/False, 1/0)

2. What are variables and how do you declare them in VBA? What happens if you don't declare a variable?

   A variable is defined as storage in the computer memory that stores information to execute the VBA Code.

   Variables can be declared as one of the following data types: Boolean, Byte, Integer, Long, Currency, Single, Double, Date, String (for variable length strings), String*length (for fixed-length strings), Object, or Variant.

   When we don't declare the data type of the variable, then VBA treats it as a variant data type, and it is bound to accept any type of data integer like an integer, string, workbook, etc. In the same program, the variant variables can accept string values, integer values, and any other type as well.

3. What is a range object in VBA? What is a worksheet object?

   Range Object: Range is a property in VBA that helps specify a particular cell, a range of cells, a row, a column, or a three-dimensional range. In

the context of the Excel worksheet, the VBA range object includes a single cell or multiple cells spread across various rows and columns.

Worksheet Object: In VBA, the worksheet object represents a single worksheet that is a part of the workbook's worksheets (or sheets) collection. Using the worksheet object, you can refer to the worksheet in a VBA code, and refer to a worksheet you can also get access to the properties, methods, and events related to it.

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4. What is the difference between worksheet and sheet in excel?

   A worksheet is a digital document that allows us to store, manipulate, and analyze data using rows and columns. A sheet is a single tab within a spreadsheet document that contains data organized in rows and columns.

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5. What is the difference between A1 reference style and R1C1 Reference style? What are the advantages and disadvantages of using R1C1 reference style?

   In A1 reference style we can have column name as an alphabet and row name as number and when we select the A1 cell that means we are in column A and row 1. But in R1C1 both column and rows are in numbers.

   Advantage of using R1C1 reference style
   It is useful if we want to compute row and column positions in macros. In the R1C1 style, Excel indicates the location of a cell with an 'R' followed by a number and a 'C' followed by a column number.

   Disadvantages of using R1C1 reference style

   - The RIC1 reference style is not widely used as A1 references, so others may have trouble understanding your formulas.
   - R1C1 references can be difficult to read and comprehend, making it difficult for others to understand or modify your work.
   - It can also be difficult to switch back to the A1 reference style once you have switched to R1C1.

6. When is offset statement used for in VBA? Let's suppose your current highlight cell is A1 in the below table. Using OFFSET statement, write a VBA code to highlight the cell with "Hello" written in it.

	A	B	C
1	25	354	362
2	36	6897	962
3	85	85	Hello
4	96	365	56
5	75	62	2662

VBA Offset function one may use to move or refer to a reference skipping a particular number of rows and columns. The arguments for this function in VBA are the same as those in the worksheet.

Code to highlight the cell 'Hello' written in it

```
Sub highlight_cell()

    Range("A1").Offset(2, 2).Select

End Sub
```