

Assignment - 19

1. What are the data types used in VBA

* 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. ...
* Double: A longer form of the single variable. ...
* Date: Stores date values.
* String: Stores text. ...
* Boolean: Used to store binary results (True/False, 1/0)

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

Variables are names for different pieces of the data that the macro will be working with.

This guide breaks down VBA variables, Data Types, and Dim. Typically, the very first step after naming your macro is declaring your variables. However, this sometimes proves difficult since it’s hard to plan ahead how many variables will be used in the macro. Eventually, when the macro is written, the user may add or remove certain variables. This will become more apparent further into this guide to writing [VBA macros.](https://corporatefinanceinstitute.com/excel-vba-macros)

The very top of each macro after the sub name is a section called the declarations. Here, the user lists and names all the different variables he or she will use, and declares their data types. This is done by using the “Dim” statement. The “Dim” statement is followed by the name of the variable, and sometimes the statement “as [datatype]”.

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

The VBA Range Object represents a cell or multiple cells in your Excel worksheet. It is Excel VBA's most significant object. You can use the Excel VBA range object to refer to a single cell, a set of cells in a row or column.

The Worksheet object is a member of the Worksheets collection. The Worksheets collection contains all the Worksheet objects in a workbook. The Worksheet object is also a member of the Sheets collection. The Sheets collection contains all the sheets in the workbook (both chart sheets and worksheets).

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

The difference between Sheets and Worksheets In essence, all Worksheets are Sheets, but not all Sheets are Worksheets. There are different types of Sheets: Worksheet – the sheet with the gridlines and cells. Chart – the sheet which contains a single chart.

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

Most of the time, columns are identified by letters (A, B, C), and rows are identified by numbers (1, 2, 3). In Excel, this is known as the A1 reference style. However, some prefer to use a different method where columns are also identified by numbers. This is known as the R1C1 reference style.

Advantages and Disadvantages are:

The default way to reference cells is called A1 because the columns are referred to by letters and the rows by numbers. This default is used by the vast majority of Excel users. The R1C1 reference style actually preceded A1, but is used almost exclusively when writing VBA code. You can read [this](https://excelchamps.com/blog/r1c1-reference-style/) article to learn more about R1C1.

For our purposes, a deep understanding of R1C1 is not necessary; just the knowledge that when using it, many formulas look identical, while they look different in A1 style.

Assume that you have a list of numbers in column A and a formula calculating the running total in B.

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. 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.