

① what are the data used in VBA?

* Integer

* Single

* Double

* Date

* String

* Boolean.

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

In VBA, variable declaration are necessary to define a variable for a certain data type so that it can hold values. any variable not defined in VBA cannot hold values. There is an option to require the `Option Explicit` keyword does variable declaration and variable declaration in VBA.

(ii) variables that are not initialized are not empty. if you do not initialize your variables, they will contain junk values left over from the program that last used the memory they occupy, until such time as the program places a value at that memory location.

③ what is range object in VBA? what is worksheet object?

(i) Range is property in VBA that helps specify a particular cell or 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.

(ii) In worksheet object represents a single worksheet that is a part of the workbook's worksheets collection.

Q) what is the difference between sheets and worksheets?

In 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.

Q) what is the difference between A1 and R1C1 reference style?

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

⑥ When would you use OFFSET in VBA?
OFFSET can be used with any function expecting a reference argument. For example, the formula $\text{sum}(\text{offset}(c2, 1, 2, 3, 1))$ calculates the total value of a 3-row by 1-column range that is 1 row below and 2 columns to the right of cell c2.