

VBA - VARIABLES

Variable is a named memory location used to hold a value that can be changed during the script execution. Below are the basic rules for naming a variable. Listed below are the rules for naming a variable.

- You must use a letter as the first character.
- You can't use a space, period . , exclamation mark !, or the characters @, &, \$, # in the name.
- Name can't exceed 255 characters in length.
- Cannot use Visual Basic reserved keywords as variable name.

Syntax

In VBA, we need to declare the variables before using them.

```
Dim <>variable_name>> As <>variable_type>>
```

Data Types

There are many VBA data types, which can be grossly divided into two main categories namely numeric and non-numeric data types.

Numeric Data-Types

Below table displays the numeric data types and allowed range of values.

Type	Range of Values
Byte	0 to 255
Integer	-32,768 to 32,767
Long	-2,147,483,648 to 2,147,483,648
Single	-3.402823E+38 to -1.401298E-45 for negative values 1.401298E-45 to 3.402823E+38 for positive values.
Double	-1.79769313486232e+308 to -4.94065645841247E-324 for negative values 4.94065645841247E-324 to 1.79769313486232e+308 for positive values.
Currency	-922,337,203,685,477.5808 to 922,337,203,685,477.5807
Decimal	+/- 79,228,162,514,264,337,593,543,950,335 if no decimal is used +/- 7.9228162514264337593543950335 28decimalplaces.

Non-Numeric Data Types

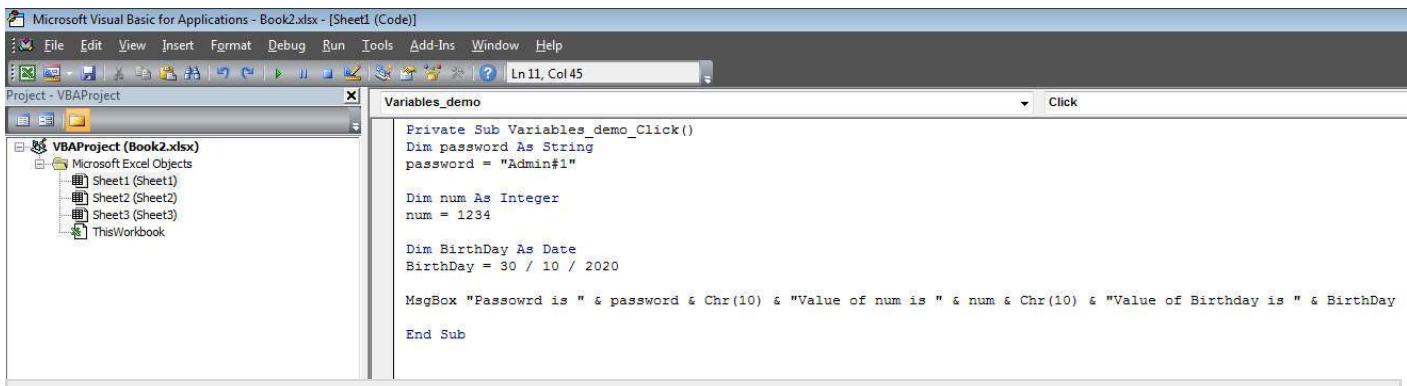
Below table displays the Non-numeric data types and allowed range of values.

Type	Range of Values
String _{fixedlength}	1 to 65,400 characters
String _{variablelength}	0 to 2 billion characters

Date	January 1, 100 to December 31, 9999
Boolean	True or False
Object	Any embedded object
Variantnumeric	Any value as large as Double
Varianttext	Same as variable-length string

Example

Let us create a button and name it as 'Variables_demo' to demonstrate the use of variables.



```

Private Sub Variables_demo_Click()
Dim password As String
password = "Admin#1"

Dim num As Integer
num = 1234

Dim BirthDay As Date
BirthDay = 30 / 10 / 2020

MsgBox "Passowrd is " & password & Chr(10) & "Value of num is " & num & Chr(10) &
"Value of Birthday is " & BirthDay

End Sub

```

Output

Upon Executing the script, the output will be as shown below.

