
VBA - VARIABLES

DATA TYPES TABLE

Data Type	Stores	Example
Integer	Whole numbers	100
Long	Large whole numbers	999999
Double	Decimal numbers	3.14159
String	Text	"Hello"
Boolean	True/False	True
Date	Dates and times	#1/1/2025#
Variant	Any type (default)	Any value

1. SIMPLE VARIABLES

```
Sub VariableExample1()
    Dim age As Integer
    Dim name As String
    Dim JoiningDate As Date

    ' Assign values
    age = 30
    name = "Akshay"
    JoiningDate = #1/1/2025#

    ' Show in message
    MsgBox "Name: " & name & vbCrLf & _
        "Age: " & age & vbCrLf & _
        "Joining Date: " & JoiningDate
End Sub

Dim = declare variable
As = specify type
= assign value
vbCrLf = line break
& = combine text
```

2. CALCULATIONS WITH VARIABLES

```
Sub VariableExample2()
    Dim num1 As Double, num2 As Double, total As Double

    num1 = 10.5
    num2 = 20
    total = num1 + num2

    MsgBox "The sum is: " & total
End Sub

Multiple declarations on one line
Can use +, -, *, /
Store result in variable
```

3. BOOLEAN VARIABLE

```
-----  
Sub VariableExample3()  
    Dim isCompleted As Boolean  
  
    isCompleted = False  
  
    If isCompleted = True Then  
        MsgBox "Task completed!"  
    Else  
        MsgBox "Task not completed!"  
    End If  
End Sub
```

Boolean = True or False only
Use in If conditions
True = 1, False = 0

QUICK REFERENCE

Declare:
Dim age As Integer
Dim name As String
Dim price As Double

Assign:
age = 25
name = "John"
price = 99.99

Use:
MsgBox age
Range("A1").Value = name

Combine:
msg = "Age is " & age

Multiple:
Dim a As Integer, b As Integer

KEY POINTS

- ✓ Dim = declare variable
 - ✓ As Type = specify data type
 - ✓ Option Explicit = must declare variables
 - ✓ Integer = -32,768 to 32,767
 - ✓ Long = larger numbers
 - ✓ Double = decimals
 - ✓ String = text (in quotes)
 - ✓ Boolean = True/False
 - ✓ Date = #date#
 - ✓ & = join text/values
 - ✓ vbCrLf = new line
 - ✓ Variant = any type
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COMMON MISTAKES

Wrong: Dim age As Integer = 25

Right: Dim age As Integer: age = 25

Wrong: name = "John (missing quotes)

Right: name = "John"

Wrong: total = "100" + "50" (text)

Right: total = 100 + 50 (numbers)

Wrong: MsgBox name age

Right: MsgBox name & " " & age

Wrong: No Dim statement

Right: Option Explicit at top

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