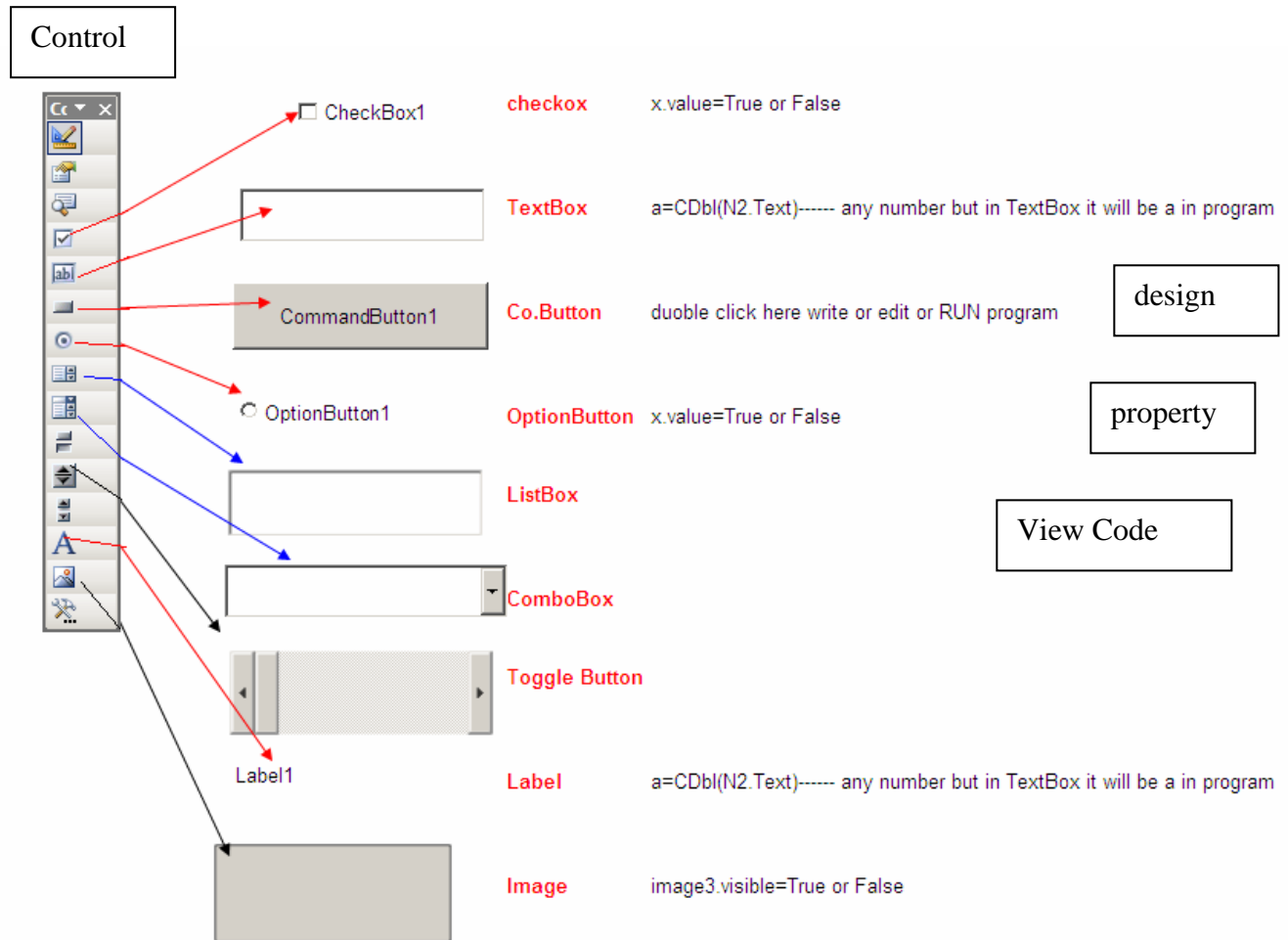


# VB in Excel

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x.value=True or False

a=Cdbl(N2.Text)----- any number but in TextBox it will be a in program

duoble click here write or edit or RUN program

x.value=True or False

a=Cdbl(N2.Text)----- any number but in TextBox it will be a in program

image3.visible=True or False

**Example:1**

Get two number N and M and add them

choose three TextBox N and M and result and choose on CommandButton Add

```
private Sub Add_Click()  
    Dim a,b,c As Double  
    a= Cdbl(N.Text)  
    b=Cdbl(M.Text)  
    c=a+b  
result.Text=CStr(c)  
End Sub
```

**Example:2**

Print number and name in Excel cell ( Row,Colmun)

Choose one CommandButton name show double click and write this program

```
private Sub show_Click()  
    Cells(5,10).value=10  
    Cells(10,5).value=" jalal "  
End Sub
```

**Example:3**

Change color for Examples:2

```
private Sub show_Click()  
  
cells(10,5).Font.Color=RGB(225,0,0)  
cells(5,10).Font.Color=RGB(0,225,0)  
  
Cells(5,10).value=10  
Cells(10,5).value=" jalal "  
End Sub
```

**Example:4**

Print Hello in Box

Choose CommandButton show name and write this program

```
private Sub show_Click()  
MsgBox("Hello")  
End Sub
```

### Example:5

CheckBox

Choose CommandButton name checkname, choose checkBox name person

If check on JALAL if check off SABA in two Ecel cells

```
private Sub chechname_Click()  
if person.value=True then  
cells(10,3).value="JALAL"  
Else  
Cells(10,5).value="SABA"  
End if  
End Sub
```

\*\*\*\* OptionButton it is same CheckBox \*\*\*\*

\*\*\*\* This mark ( ' ) front statements just for show no active green \*\*\*\*

### Example:6

Read two numbers from Ecel cells and add them and show in other Ecel cell

```
private Sub addcell_Click()  
x=cells(5,2).value  
y=cells(5,3).value  
'show result  
cells(5,5).value=x+y
```

End Sub

\*Can put results in Ecel cells and then insert all in chart to show graph

\*If we want to show the result in split Ecel worksheet

Firt give to Ecel sheet Name

Draw  $x^2$  on chart and show on split sheet

Choose commansButton name Drawr

Result in Excel cells from (1,1) to (1,20)

Woekshhet name result

```
private Sub Draw_Click()
```

```
n=0
```

```
for i=-10 to 10
```

```
n=n+1
```

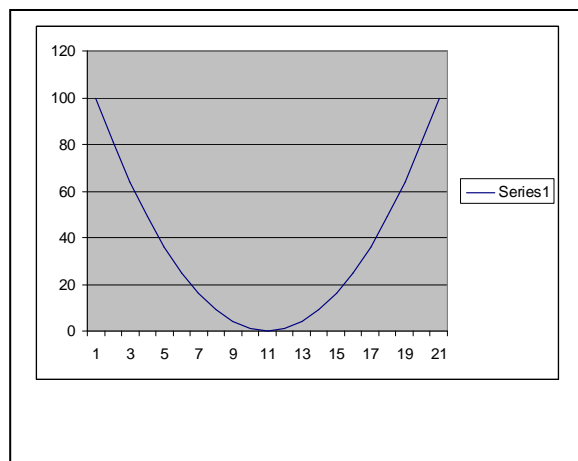
```
cells(1,n).value=i^2
```

```
next i
```

```
worksheets("result").Activate
```

End Sub

\*\*\*\* select all result cell and insert chart in worksheet result



## Image

To show image we must choose Image from control bare and from **property** can download picture from Drive. We can show or hidden picture on screen by choose True or False Visible from property.

### Example:7

Choose 4 image boxes from control name of images m1, m2, m3, m4 . all picture False visible in property.

Choose CommandButton name show

The program first invisible all pictures, put number in (1,1) Excel Cell the number refer to one picture if 1 to m1 and, if 2 to m2, if 3 to m3, if 4 to m4 .

```
Private Sub show_Click()
```

```
m1.Visible = False
```

```
m2.Visible = False
```

```
m3.Visible = False
```

```
m4.Visible = False
```

```
n = Cells(1, 1).Value
```

```
s = 1 + (n - Int(n / 4) * 4)
```

```
If s = 1 Then
```

```
m1.Visible = True
```

```
Else
```

```
End If
```

```
If s = 2 Then
```

```
m2.Visible = True
```

```
Else
```

```
End If
```

```
If s = 3 Then
```

```
m3.Visible = True
```

```
Else
```

```
End If
```

```
If s = 4 Then
```

```
m4.Visible = True
```

```
Else
```

```
End If
```

```
End Sub
```

Single	Similar to Double but use less memory, with little accuracy
Integer	Whole numbers
String	Characters like "Hello"
Boolean	True or False

\*Double is a number

\*Integer is process faster than other data type.

\*Long whole numbers up to 2000000

\*When use **Dim** need to define variable as:

Dim I, factor As Double

..... And so on

## Some Commands

```
For i= 1 To 100000 Step 2
```

```
  j=1
```

```
  Do
```

```
    N=j*2+1
```

```
    j=j+1
```

```
  Loop Until i=8
```

If we want to stop program but not ended it.

```
Exit Sub
```

## Label and TextBox

We can make Lable visible and not visible by choose True or False for irt in program

If we select lable name **primenumber** then

```
Primenumber.visible=True
```

It will be showed on screen but if choose False it will be hidden.

\*\* the different bettween TextBox and Label

Can insert number or show result in TextBox

Label only for insert Text in it Edit ( to show or Hidden)

Choose two TextBox m and n to insert two number and one TextBox name r to show result and one Label to show End of Calculation when the summation of m and n is 100 ( this label is hidden from choose False visible from property and by Edit label write on label End Calculation)

```
Private Sub add_Click()
```

```
  a = Val(m.Text)
```

```
  b = Val(n.Text)
```

```
  c = a + b
```

```
  r.Text = Str$(c)
```

```
  If c = 100 Then
```

```
    Label1.Visible = True
```

```
  Else
```

```
  End If
```

```
End Sub
```

# Change Excel cells Colours

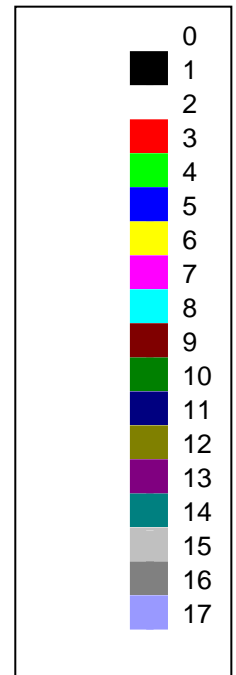
```
Private Sub CommandButton1_Click()
```

```
' use IF in Excel Cells
```

```
If Cells(1, 1) = "" Then
    Cells(1, 1).Select
    ActiveCell.FormulaR1C1 = "blank"
End If
```

```
' Change Excel Cells Background
```

```
Worksheets("Sheet1").Range("C1").Interior.ColorIndex = 0 ' white
Worksheets("Sheet1").Range("C2").Interior.ColorIndex = 1 ' black
Worksheets("Sheet1").Range("C3").Interior.ColorIndex = 2 ' white
Worksheets("Sheet1").Range("C4").Interior.ColorIndex = 3 ' red
Worksheets("Sheet1").Range("C5").Interior.ColorIndex = 4 ' green
Worksheets("Sheet1").Range("C6").Interior.ColorIndex = 5 ' blue
```



```
End Sub
```

## Change cells colours

If we want to change cells colour automatically by gave Cell location (i,j), so this active in loop.

```
Private Sub CommandButton1_Click()
```

```
'change cell (1,1) to Green color
```

```
i = 1
```

```
j = 1
```

```
Worksheets("Sheet1").Cells(i, j).Interior.Color = vbGreen
```

```
End Sub
```

Constant	Value	Description
<b>vbBlack</b>	0x0	Black
<b>vbRed</b>	0xFF	Red
<b>vbGreen</b>	0xFF00	Green
<b>vbYellow</b>	0xFFFF	Yellow
<b>vbBlue</b>	0xFF0000	Blue
<b>vbMagenta</b>	0xFF00FF	Magenta
<b>vbCyan</b>	0xFFFF00	Cyan
<b>vbWhite</b>	0FFFFFFF	White

## Use condition in Excel cells

For this example if we type jalal in cell(1,1) then automatically program will type albadry in cell(10,10)

```
Private Sub CommandButton1_Click()  
If Cells(1, 1) = "jalal" Then  
    Cells(8, 5).Select  
    ActiveCell.FormulaR1C1 = "albadry"  
End If  
  
End Sub
```

So can use IF condition in this form

if cell(1,1) is empty then program will type \* in cell(5,5)

```
Private Sub CommandButton1_Click()  
If Cells(1, 1) = "" Then  
    Cells(5, 5).Select  
    ActiveCell.FormulaR1C1 = "*"   
End If  
  
End Sub
```

## Use Mathematic functions

The statement for this is

Math.sin()

Math.cos()

Math.log()

## Example

If cell(1,1) is empty then take angle in degree from cell(1,4) and calculate SIN and show in cell(5,5)

```
Private Sub CommandButton1_Click()  
    'change degree to radiant  
D = (3.1416 / 180) * Cells(1, 4)  
If Cells(1, 1) = "" Then  
    Cells(5, 5).Select  
    ActiveCell.FormulaR1C1 = Math.Sin(D)  
End If  
  
End Sub
```

## Example

If we use this program we will can calculate sin when we push on any cell the angle in degree in cell(1,4)

```
Private Sub CommandButton1_Click()  
    'change degree to radyant  
D = (3.1416 / 180) * Cells(1, 4)  
    ActiveCell.FormulaR1C1 = Math.Sin(D)  
End Sub
```

## Call program

We can write many programs and call them in main program.

In this **Example** we get to number from cells(1,1) and cells(2,1) and do some mathematic calculation in add program then show result in cells(3,1)

```
Private Sub CommandButton1_Click()  
m = Cells(1, 1)  
n = Cells(2, 1)  
Cells(3, 1) = add(m, n)  
End Sub
```

---

```
Private Function add(a, b)  
add = (a + b) ^ 3 + (a ^ 2 + b ^ 2)  
End Function
```

---

## Active cell

### Example

```
Private Sub CommandButton1_Click()
```

'on any cell we click when press button the number 35 appear

```
Worksheets("Sheet1").Activate  
ActiveCell.Value = 35  
End Sub
```

### Example

```
Private Sub CommandButton1_Click()
```

' when press button the random numbers appear in the  
'cells A1, A2, A3, B1, B2, B3

```
Worksheets("Sheet1").Range("A1:B3").Formula = "=RAND()  
End Sub
```

### Example

```
Private Sub CommandButton1_Click()
```

' when press button the logarithm numbers read from cell (1,3) to (20,3)  
'and put in cell A1 to A20 we must ignore B cells

```
For i = 1 To 20  
Cells(i, 3) = i  
Next i
```

```
Worksheets("Sheet1").Range("A1:b20").Formula = "=log10(c1)"
```

```
End Sub
```



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