

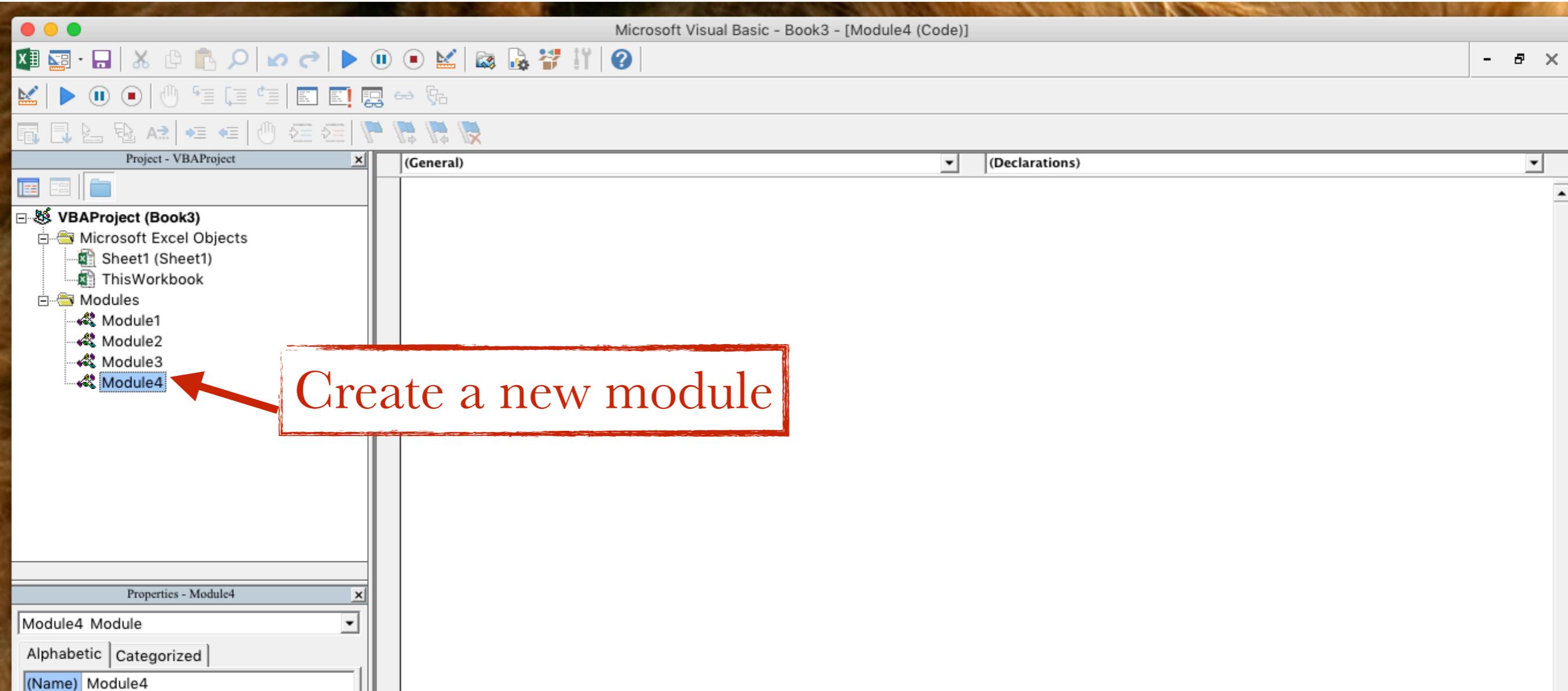
Microsoft Excel

VBA

(continued...)

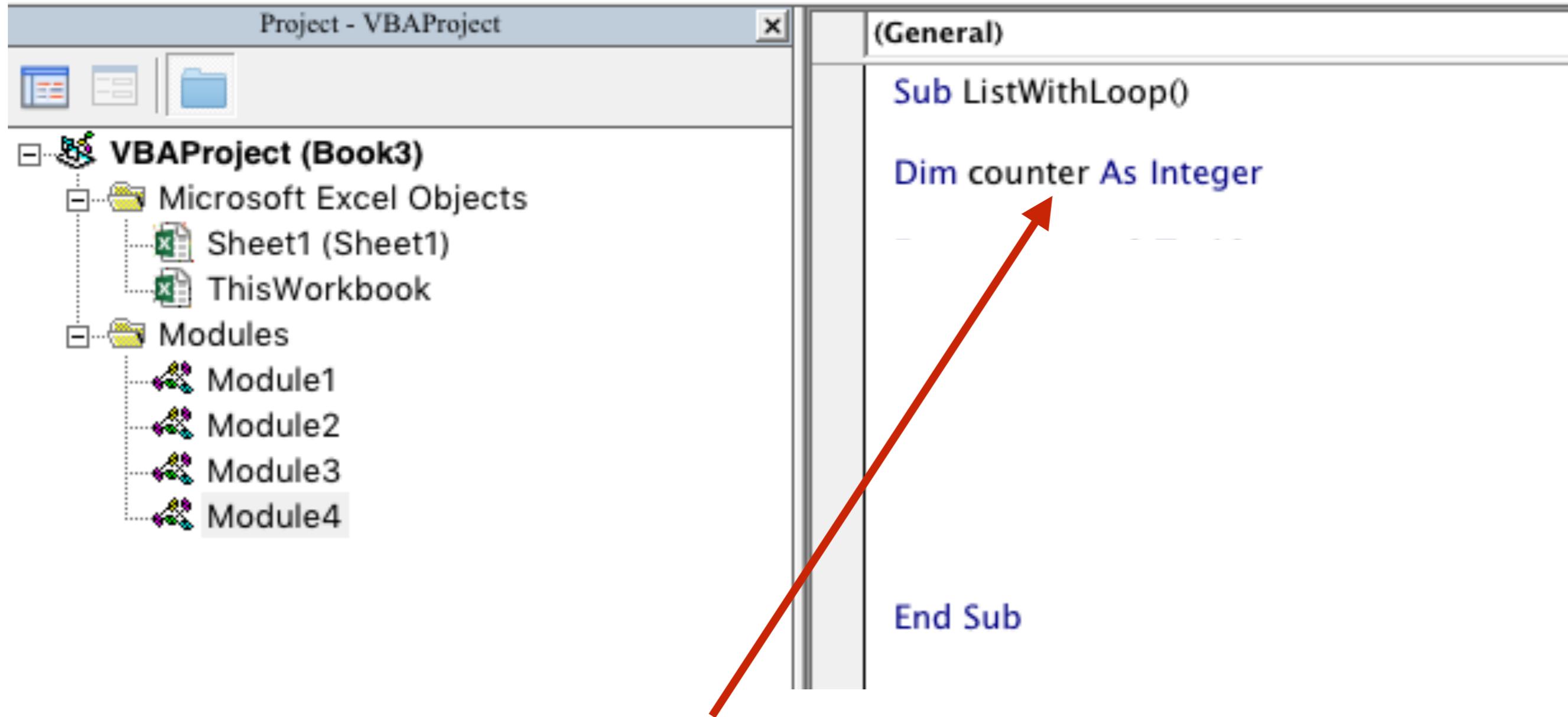
Loops

Loops

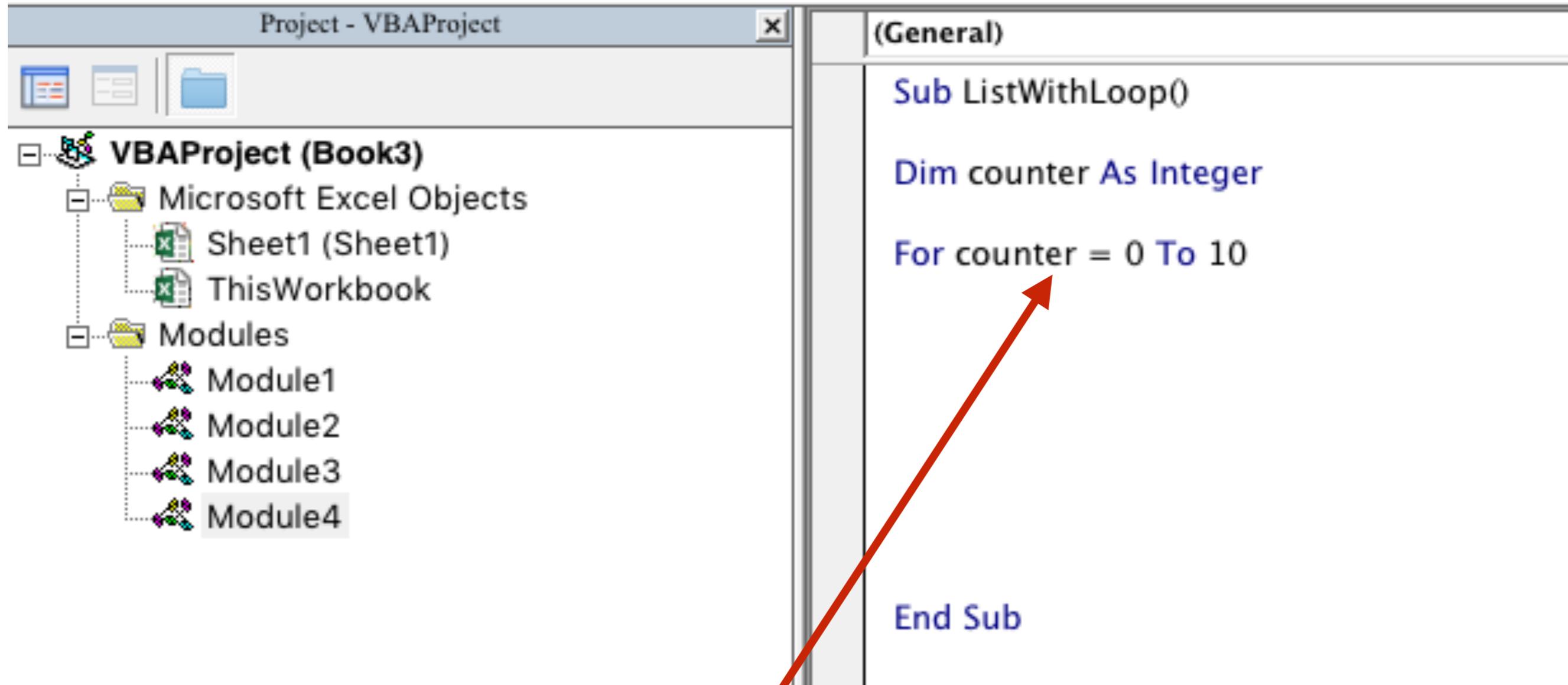


The image shows a screenshot of the VBA Project Explorer and Properties Window in Microsoft Excel. The Project Explorer on the left displays a project named "VBAProject (Book3)". It contains a folder "Microsoft Excel Objects" with sub-items "Sheet1 (Sheet1)" and "ThisWorkbook", and a folder "Modules" with sub-items "Module1", "Module2", "Module3", and "Module4". The Properties Window on the right is set to the "(General)" tab and shows the code for a subprocedure named "Sub ListWithLoop()". The code is currently empty, with "End Sub" visible at the bottom.

```
Sub ListWithLoop()  
  
End Sub
```



Variable declaration: the variable “counter” is declared to be an integer value.

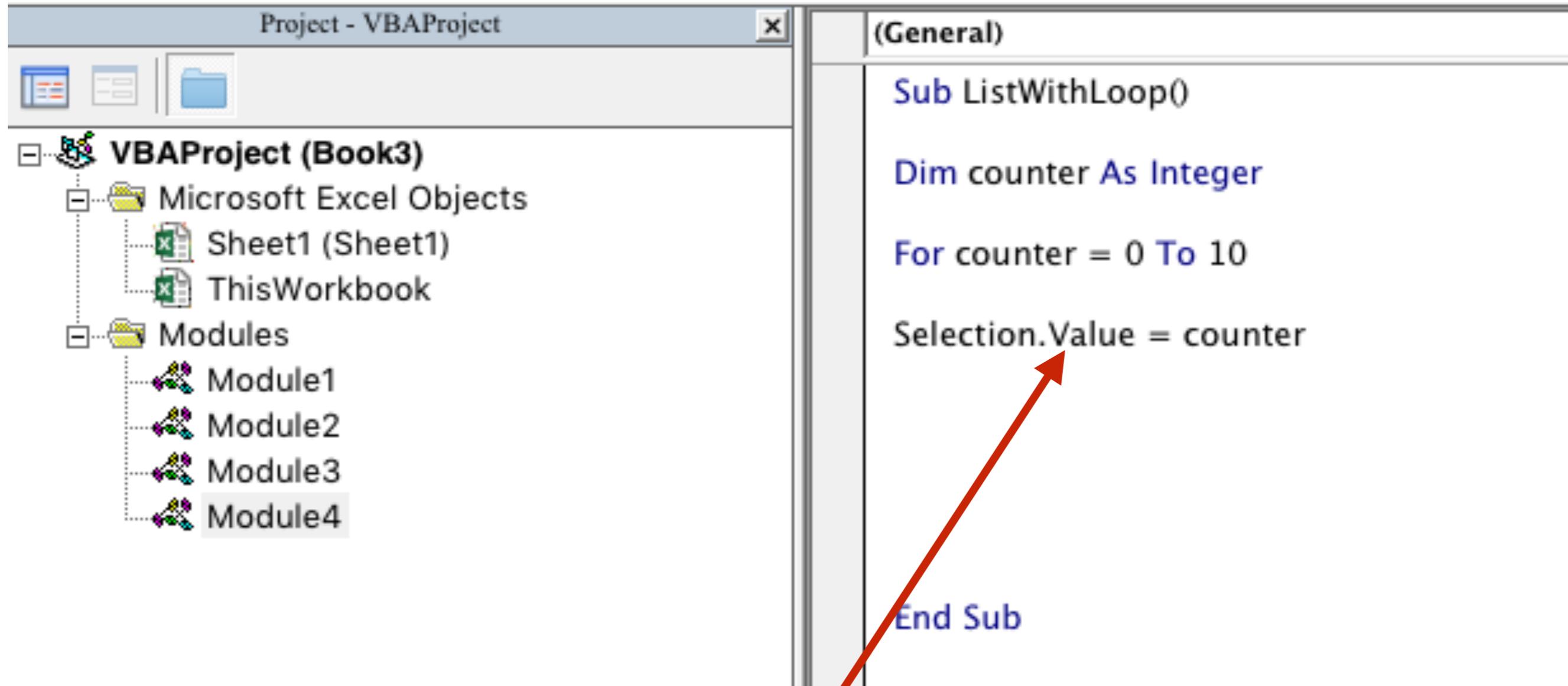


The screenshot shows the VBA Project window for 'Project - VBAProject'. The left pane displays the project structure, including 'VBAProject (Book3)', 'Microsoft Excel Objects' (Sheet1, ThisWorkbook), and 'Modules' (Module1, Module2, Module3, Module4). The right pane shows the code for 'Sub ListWithLoop()' in the 'General' tab. The code is as follows:

```
Sub ListWithLoop()  
    Dim counter As Integer  
    For counter = 0 To 10  
    End Sub
```

A red arrow points from the 'For counter = 0 To 10' line to a text box at the bottom of the slide.

Repeat a set of operations 11 times.
At each new iteration the variable counter is increased by 1

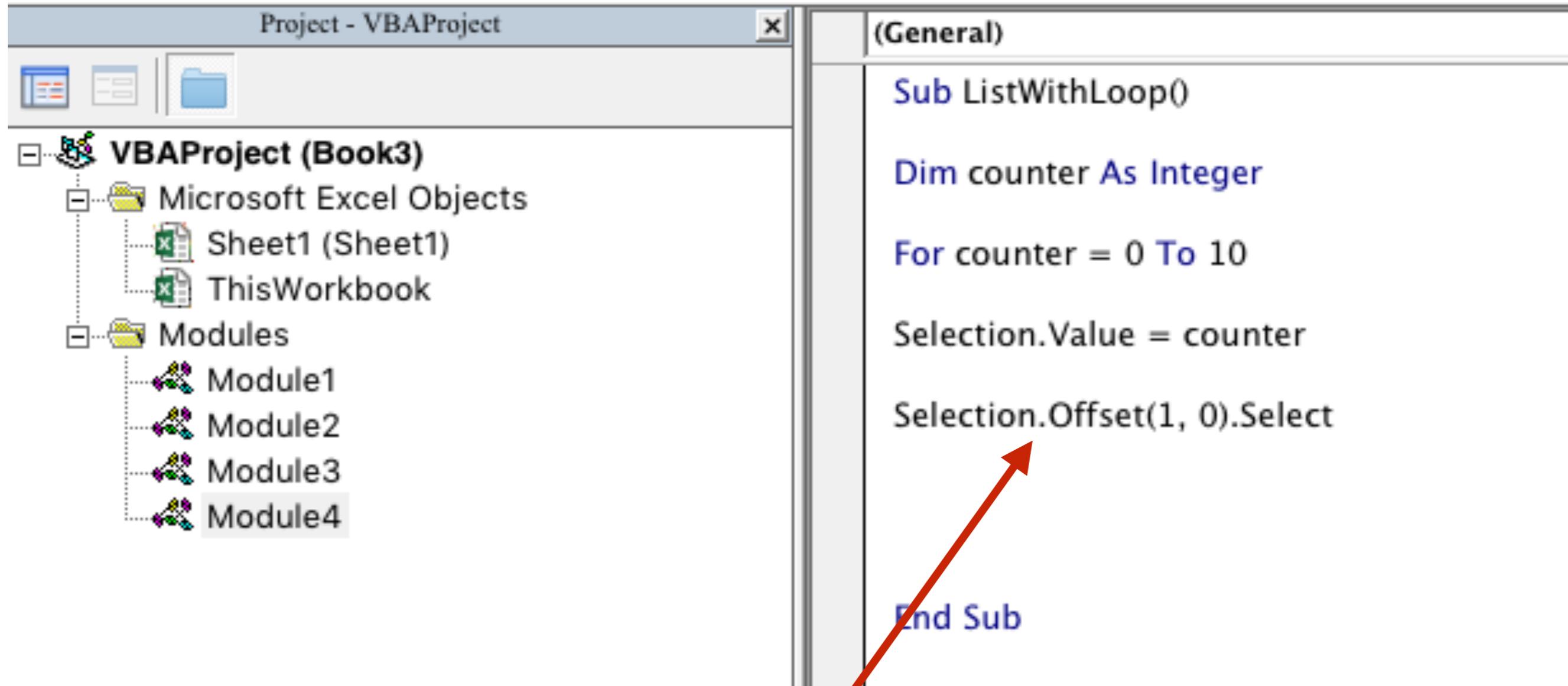


The screenshot shows the VBA Project window for 'Project - VBAProject'. The left pane displays the project structure, including 'VBAProject (Book3)', 'Microsoft Excel Objects' (Sheet1, ThisWorkbook), and 'Modules' (Module1, Module2, Module3, Module4). The right pane shows the code for a sub procedure named 'ListWithLoop()'. The code is as follows:

```
Sub ListWithLoop()  
    Dim counter As Integer  
    For counter = 0 To 10  
        Selection.Value = counter  
    End Sub
```

A red arrow points from the text box below to the line 'Selection.Value = counter' in the code.

Input in the current selected cell the actual value of the counter.

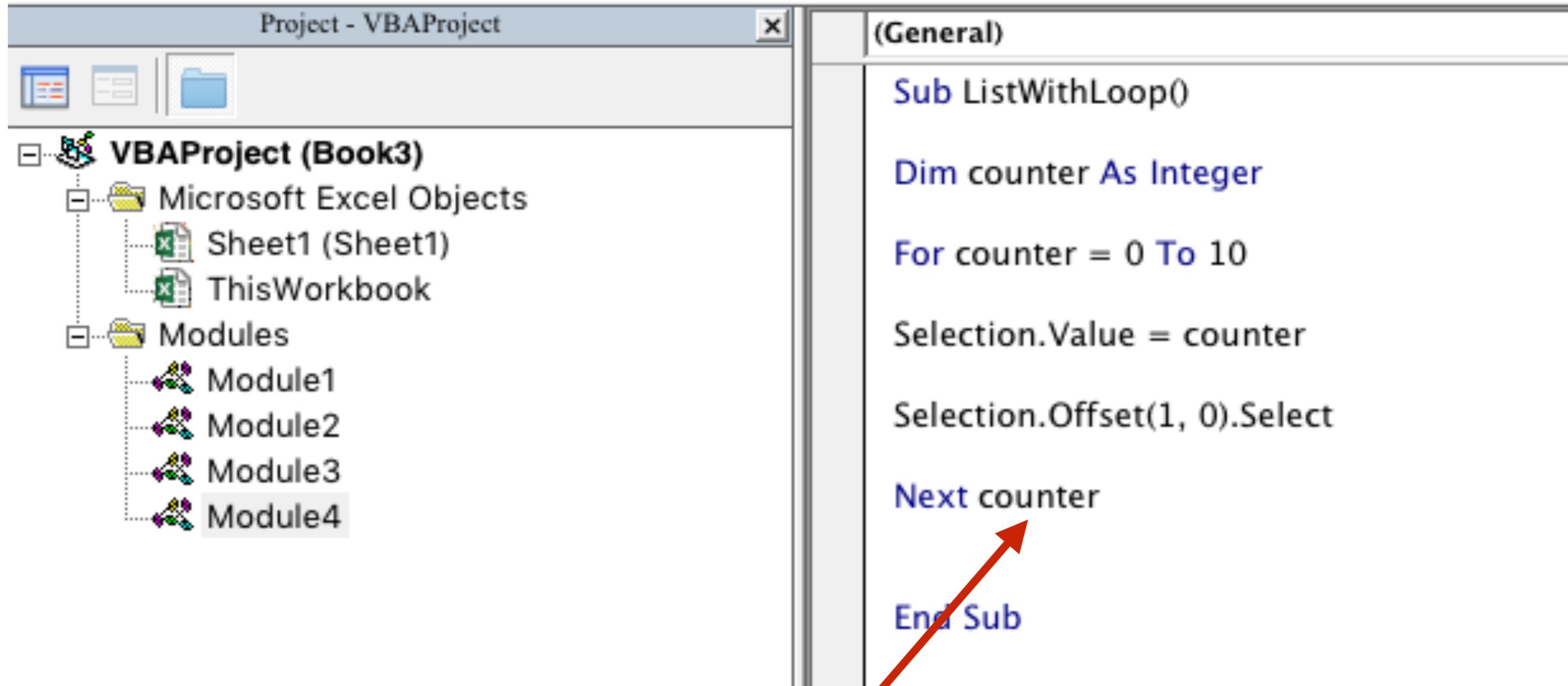


The screenshot shows the VBA Project window for 'Project - VBAProject'. The left pane displays the project structure: 'VBAProject (Book3)' containing 'Microsoft Excel Objects' (Sheet1, ThisWorkbook) and 'Modules' (Module1, Module2, Module3, Module4). The right pane shows the code for 'Sub ListWithLoop()' in the 'General' tab. The code is as follows:

```
Sub ListWithLoop()  
    Dim counter As Integer  
    For counter = 0 To 10  
        Selection.Value = counter  
        Selection.Offset(1, 0).Select  
    End Sub
```

A red arrow points from the bottom of the code block to the text box below.

Move the selected cell from the actual to the next immediately below



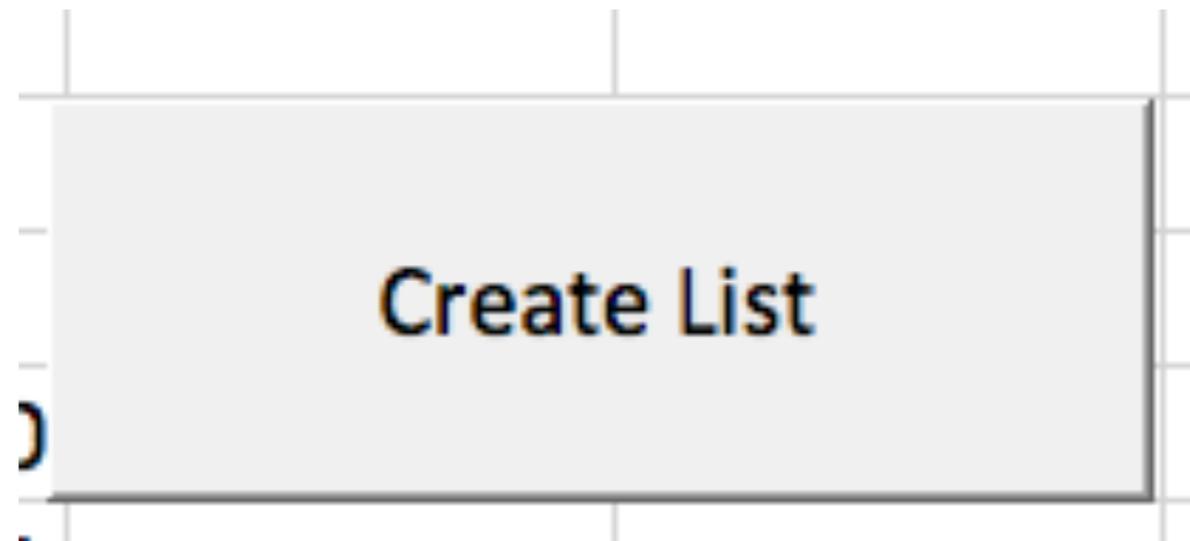
The screenshot shows the VBA Project window for 'Project - VBAProject'. The left pane displays the project structure, including 'VBAProject (Book3)', 'Microsoft Excel Objects' (Sheet1, ThisWorkbook), and 'Modules' (Module1, Module2, Module3, Module4). The right pane shows the code for a sub procedure named 'ListWithLoop()'. The code is as follows:

```
Sub ListWithLoop()  
    Dim counter As Integer  
    For counter = 0 To 10  
        Selection.Value = counter  
        Selection.Offset(1, 0).Select  
    Next counter  
End Sub
```

A red arrow points from the 'Next counter' line to a text box at the bottom of the slide.

Close the loop indicating that the counter is increased by 1

Create a new button and attach it to the new macro



Play with the button

We have a list of names with some “errors”

A
Alice
bob
joe
caMilla
Robert
SuSanne
ophra
edmund
Rosalinde

We have a list of names with some “errors”

A
Alice
bob
joe
caMilla
Robert
SuSanne
ophra
edmund
Rosalinde

Upper and lower case are not consistent

We have a list of names with some “errors”

A
Alice
bob
joe
caMilla
Robert
SuSanne
ophra
edmund
Rosalinde

We want a uniform dataset

Upper and lower case are not consistent

Write this new code

```
Sub uppercase()
```

```
End Sub
```

```
Sub uppercase()
```

```
    Dim listofcells As Range
```

```
End Sub
```



We are declaring the variable **listofcells** as a **Range** variable. This object variable type is used to hold a range of cells from your spreadsheet.

```
Sub uppercase()
```

```
Dim listofcells As Range
```

```
End Sub
```



Which range of cells are we going to attribute to **listofcells** ?

```
Sub uppercase()
```

```
    Dim listofcells As Range
```

```
    Set listofcells = Selection
```

```
End Sub
```



Using the command **Set** we assign to **listofcells** all cells that have been selected in the spreadsheet.

```
Sub uppercase()  
    Dim listofcells As Range  
    Set listofcells = Selection  
    For Each cell In listofcells  
        Next cell  
    End Sub
```



We loop across all the cells in the **listofcells**.

```
Sub uppercase()  
    Dim listofcells As Range  
    Set listofcells = Selection  
    For Each cell In listofcells  
        cell.value = UCase(cell)  
    Next cell  
End Sub
```



We upper-case the content of the cell

```
Sub uppercase()  
    Dim listofcells As Range  
    Set listofcells = Selection  
    For Each cell In listofcells  
        cell.value = UCase(cell)  
    Next cell  
End Sub
```



We pass to the next cell. The loop is iterated until we reach the end of the **listofcells**

Create a new button and attach it to the new macro

A
Alice
bob
joe
caMilla
Robert
SuSanne
ophra
edmund
Rosalinde



A
ALICE
BOB
JOE
CAMILLA
ROBERT
SUSANNE
OPHRA
EDMUND
ROSALINDE

Play with the button



Open the file: » **Sales representative**



The result should be:

Average of Total Sales	Region			
Rep	Central	East	West	Importo totale
Andrews	109,59			109,59
Gill	349,97			349,97
Howard		268,38		268,38
Jardine	562,44			562,44
Jones		295,38		295,38
Kivell	777,36			777,36
Morgan	462,59			462,59
Parent		1034,10		1034,10
Smith	547,14			547,14
Sorvino			320,90	320,90
Thompson			601,56	601,56
Importo totale	464,13	461,70	414,45	456,46

Question: what happens if unit price of desks varies of +1% ?

Average of Total Sales	Region			
Rep	Central	East	West	Importo totale
Andrews	109,59			109,59
Gill	349,97			349,97
Howard		268,38		268,38
Jardine	562,44			562,44
Jones		295,38		295,38
Kivell	777,36			777,36
Morgan	462,59			462,59
Parent		1034,10		1034,10
Smith	547,14			547,14
Sorvino			320,90	320,90
Thompson			601,56	601,56
Importo totale	464,13	461,70	414,45	456,46

Question: what happens if unit price of desks varies of -1% ?



Question: what happens if unit price of desks varies of +1% ?

A	B	C	D	E	F	G
OrderDate	Region	Rep	Item	Units	Unit Cost	Total
9/1/14	Central	Smith	Desk	2	125,00	250,00
6/17/15	Central	Kivell	Desk	5	125,00	625,00
9/10/15	Central	Gill	Pencil	7	1,29	9,03
11/17/15	Central	Jardine	Binder	11	4,99	54,89
10/31/15	Central	Andrews	Pencil	14	1,29	18,06
2/26/14	Central	Gill	Pen	27	19,99	539,73
10/5/14	Central	Morgan	Binder	28	8,99	251,72
12/21/15	Central	Andrews	Binder	28	4,99	139,72
2/9/14	Central	Jardine	Pencil	36	4,99	179,64
8/7/15	Central	Kivell	Pen Set	42	23,95	1.005,90
1/15/15	Central	Gill	Binder	46	8,99	413,54



Question: what happens if unit price of desks varies of +1% ?

A	B	C	D	E	F	G
OrderDate	Region	Rep	Item	Units	Unit Cost	Total
9/1/14	Central	Smith	Desk	2	125,00	250,00
6/17/15	Central	Kivell	Desk	5	125,00	625,00
9/10/15	Central	Gill	Pencil	7	1,29	9,03
11/17/15	Central	Jardine	Binder	11	4,99	54,89
10/31/15	Central	Andrews	Pencil	20	8,99	179,80
2/26/14	Central	Gill	Pen	36	4,99	179,64
10/5/14	Central	Morgan	Binder	42	23,95	1.005,90
12/21/15	Central	Andrews	Binder	46	8,99	413,54
2/9/14	Central	Jardine	Pencil			
8/7/15	Central	Kivell	Pen Set			
1/15/15	Central	Gill	Binder			

Run across this columns looking for occurrences of the word "Desk"



Question: what happens if unit price of desks varies of +1% ?

A	B	C	D	E	F	G
OrderDate	Region	Rep	Item	Units	Unit Cost	Total
9/1/14	Central	Smith	Desk	2	125,00	250,00
6/17/15	Central	Kivell	Desk	5	125,00	625,00
9/10/15	Central	Gill	Pencil	7	1,29	9,03
11/17/15	Central	Jardine	Binder	11	4,99	54,89
10/31/15	Central	Andrews	Pe			18,06
2/26/14	Central	Gill	Pe			539,73
10/5/14	Central	Morgan	Binder	28	8,99	251,72
12/21/15	Central	Andrews	Binder	28	4,99	139,72
2/9/14	Central	Jardine	Pencil	36	4,99	179,64
8/7/15	Central	Kivell	Pen Set	42	23,95	1.005,90
1/15/15	Central	Gill	Binder	46	8,99	413,54

Once found,



Question: what happens if unit price of desks varies of +1% ?

A	B	C	D	E	F	G
OrderDate	Region	Rep	Item	Units	Unit Cost	Total
9/1/14	Central	Smith	Desk	2	125,00	250,00
6/17/15	Central	Kivell	Desk	5	125,00	625,00
9/10/15	Central	Gill	Pencil	7	1,29	9,03
11/17/15	Central	Jardine	Binder	11	4,99	54,89
10/31/15	Central	Andrews	Pe	18	1,00	18,06
2/26/14	Central	Gill	Pe	107	5,04	539,73
10/5/14	Central	Morgan	Binder	28	8,99	251,72
12/21/15	Central	Andrews	Binder	28	4,99	139,72
2/9/14	Central	Jardine	Pencil	36	4,99	179,64
8/7/15	Central	Kivell	Pen Set	42	23,95	1.005,90
1/15/15	Central	Gill	Binder	46	8,99	413,54

Once found, move two cells horizontally...



Question: what happens if unit price of desks varies of +1% ?

A	B	C	D	E	F	G
OrderDate	Region	Rep	Item	Units	Unit Cost	Total
9/1/14	Central	Smith	Desk	2	125,00	250,00
6/17/15	Central	Kivell	Desk	5	125,00	625,00
9/10/15	Central	Gill	Pencil	7	1,29	9,03
11/17/15	Central	Jardine	Binder	11	4,99	54,89
10/31/15	Central	Andrews	Pe	20	0,90	18,06
2/26/14	Central	Gill	Pe	597	0,90	539,73
10/5/14	Central	Morgan	Binder	26	9,68	251,72
12/21/15	Central	Andrews	Bir	15	9,31	139,72
2/9/14	Central	Jardine	Pe	19	9,45	179,64
8/7/15	Central	Kivell	Pen set	12	20,00	1.005,90
1/15/15	Central	Gill	Binder	46	8,99	413,54

Once found, move two cells horizontally...

... and increase the value of the cell of +1%.

```
Sub Shockpos()
```

```
For Each cell In Range("D:D")
```

Write this code

```
Next cell
```

```
End Sub
```

```
Sub Shockpos()
```

```
For Each cell In Range("D:D")
```



we let the variable **cell** run between the first and the last cell of column **D**

```
Next cell
```

```
End Sub
```

```
Sub Shockpos()
```

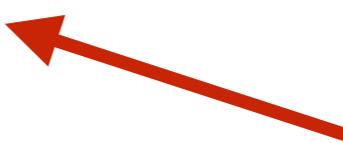
```
For Each cell In Range("D:D")
```

```
If cell.Value = "Desk" Then
```

```
End If
```

```
Next cell
```

```
End Sub
```



if the value of **cell** coincides with the string “**Desk**” then...

```
Sub Shockpos()
```

```
For Each cell In Range("D:D")
```

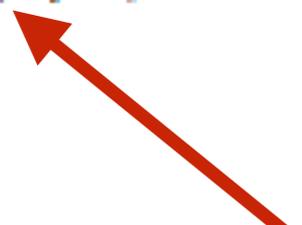
```
If cell.Value = "Desk" Then
```

```
cell.Offset(0, 2).Value = cell.Offset(0, 2).Value + 0.01 * cell.Offset(0, 2).Value
```

```
End If
```

```
Next cell
```

```
End Sub
```



Move of +2 cells horizontally

Sub Shockpos()

For Each cell In Range("D:D")

If cell.Value = "Desk" Then

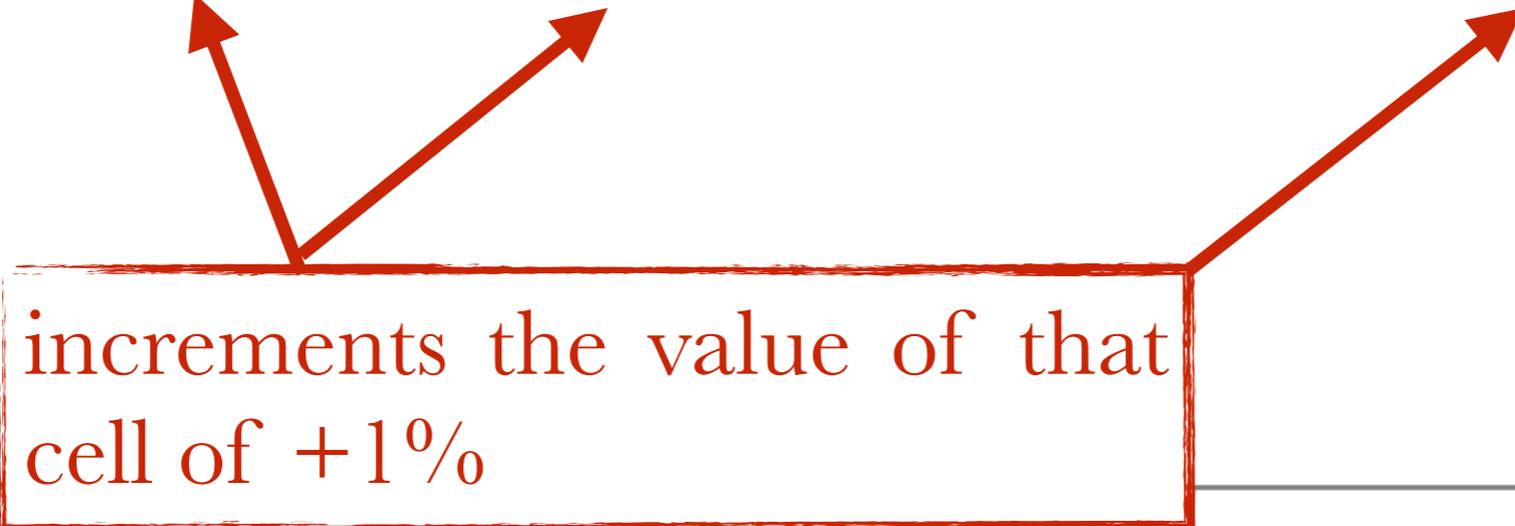
cell.Offset(0, 2).Value = cell.Offset(0, 2).Value + 0.01 * cell.Offset(0, 2).Value

End If

Next cell

End Sub

increments the value of that
cell of +1%



```
Sub Shockpos()
```

```
For Each cell In Range("D:D")
```

```
If cell.Value = "Desk" Then
```

```
cell.Offset(0, 2).Value = cell.Offset(0, 2).Value + 0.01 * cell.Offset(0, 2).Value
```

```
End If
```

```
Next cell
```

```
End Sub
```



close the if statement

```
Sub Shockpos()
```

```
For Each cell In Range("D:D")
```

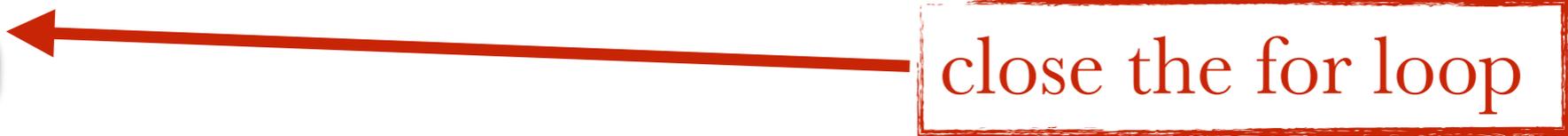
```
If cell.Value = "Desk" Then
```

```
cell.Offset(0, 2).Value = cell.Offset(0, 2).Value + 0.01 * cell.Offset(0, 2).Value
```

```
End If
```

```
Next cell
```

```
End Sub
```



close the for loop

```
Sub Shockpos()
```

```
For Each cell In Range("D:D")
```

```
If cell.Value = "Desk" Then
```

```
cell.Offset(0, 2).Value = cell.Offset(0, 2).Value + 0.01 * cell.Offset(0, 2).Value
```

```
End If
```

```
Next cell
```

```
End Sub
```

same, but negative shock.



```
Sub Shockneg()
```

```
For Each cell In Range("D:D")
```

```
If cell.Value = "Desk" Then
```

```
cell.Offset(0, 2).Value = cell.Offset(0, 2).Value - 0.01 * cell.Offset(0, 2).Value
```

```
End If
```

```
Next cell
```

create two buttons, one for each macro

OrderDate	Region	Rep	Item	Units	Unit Cost	Total		
9/1/14	Central	Smith	Desk	2	125,00	250,00		
6/17/15	Central	Kivell	Desk	5	125,00	625,00		
9/10/15	Central	Gill	Pencil	7	1,29	9,03		
11/17/15	Central	Jardine	Binder	11	4,99	54,89		
10/31/15	Central	Andrews	Pencil	14	1,29	18,06		
2/26/14	Central	Gill	Pen	27	19,99	539,73		
10/5/14	Central	Morgan	Binder	28	8,99	251,72		
12/21/15	Central	Andrews	Binder	28	4,99	139,72		
2/9/14	Central	Jardine	Pencil	36	4,99	179,64		
8/7/15	Central	Kivell	Pen Set	42	23,95	1.005,90		
1/15/15	Central	Gill	Binder	46	8,99	413,54		
1/23/14	Central	Kivell	Binder	50	19,99	999,50		
3/24/15	Central	Jardine	Pen Set	50	4,99	249,50		
5/14/15	Central	Gill	Pencil	53	1,29	68,37		
7/21/15	Central	Morgan	Pen Set	55	12,49	686,95		
4/10/15	Central	Andrews	Pencil	66	1,99	131,34		
12/12/14	Central	Smith	Pencil	67	1,29	86,43		
4/18/14	Central	Andrews	Pencil	75	1,99	149,25		
5/31/15	Central	Gill	Binder	80	8,99	719,20		
							Sum of Total	Region
							Rep	Central
							Andrews	109,5925
							Gill	349,974
							Howard	
							Jardine	562,438
							Jones	
							Kivell	777,36
							Morgan	462,59
							Parent	
							Smith	547,1433333
							Sorvino	
							Thompson	
							Importo totale	464,1279167

+1%

-1%

Visual Basic Componenti aggiuntivi Controlli modulo

Macro Registra Riferimento relativo Componenti aggiuntivi Pulsante Pulsante di opzione Casella di gruppo Casella di riepilogo combinata

✓ Casella di controllo Casella di riepilogo Etichetta Menu a discesa combinato

hit the shock!

A	B	C	D	E	F	G	H	I
OrderDate	Region	Rep	Item	Units	Unit Cost	Total		
9/1/14	Central	Smith	Desk	2	125,00	250,00		
6/17/15	Central	Kivell	Desk	5	125,00	625,00	+1%	-1%
9/10/15	Central	Gill	Pencil	7	1,29	9,03		
11/17/15	Central	Jardine	Binder	11	4,99	54,89	Sum of Total	Region
10/31/15	Central	Andrews	Pencil	14	1,29	18,06	Rep	Central
2/26/14	Central	Gill	Pen	27	19,99	539,73	Andrews	109,5925
10/5/14	Central	Morgan	Binder	28	8,99	251,72	Gill	349,974
12/21/15	Central	Andrews	Binder	28	4,99	139,72	Howard	
2/9/14	Central	Jardine	Pencil	36	4,99	179,64	Jardine	562,438
8/7/15	Central	Kivell	Pen Set	42	23,95	1.005,90	Jones	
1/15/15	Central	Gill	Binder	46	8,99	413,54	Kivell	777,36
1/23/14	Central	Kivell	Binder	50	19,99	999,50	Morgan	462,59
3/24/15	Central	Jardine	Pen Set	50	4,99	249,50	Parent	
5/14/15	Central	Gill	Pencil	53	1,29	68,37	Smith	547,1433333
7/21/15	Central	Morgan	Pen Set	55	12,49	686,95	Sorvino	
4/10/15	Central	Andrews	Pencil	66	1,99	131,34	Thompson	
12/12/14	Central	Smith	Pencil	67	1,29	86,43	Importo totale	464,1279167
4/18/14	Central	Andrews	Pencil	75	1,99	149,25		
5/31/15	Central	Gill	Binder	80	8,99	719,20		

New unit costs.

A	B	C	D	E	F	G	H
OrderDate	Region	Rep	Item	Units	Unit Cost	Total	
9/1/14	Central	Smith	Desk	2	126,25	252,50	
6/17/15	Central	Kivell	Desk	5	126,25	631,25	+1%
9/10/15	Central	Gill	Pencil	7	1,29	9,03	
11/17/15	Central	Jardine	Binder	11	4,99	54,89	Sum of Total
10/31/15	Central	Andrews	Pencil	14	1,29	18,06	Rep
2/26/14	Central	Gill	Pen	27	19,99	539,73	Andrews
10/5/14	Central	Morgan	Binder	28	8,99	251,72	Gill
12/21/15	Central	Andrews	Binder	28	4,99	139,72	Howard
2/9/14	Central	Jardine	Pencil	36	4,99	179,64	Jardine
8/7/15	Central	Kivell	Pen Set	42	23,95	1.005,90	Jones
1/15/15	Central	Gill	Binder	46	8,99	413,54	Kivell

Total sales update accordingly

A	B	C	D	E	F	G	H
OrderDate	Region	Rep	Item	Units	Unit Cost	Total	
9/1/14	Central	Smith	Desk	2	126,25	252,50	
6/17/15	Central	Kivell	Desk	5	126,25	631,25	
9/10/15	Central	Gill	Pencil	7	1,29	9,03	+1%
11/17/15	Central	Jardine	Binder	11	4,99	54,89	Sum of Total
10/31/15	Central	Andrews	Pencil	14	1,29	18,06	Rep
2/26/14	Central	Gill	Pen	27	19,99	539,73	Andrews
10/5/14	Central	Morgan	Binder	28	8,99	251,72	Gill
12/21/15	Central	Andrews	Binder	28	4,99	139,72	Howard
2/9/14	Central	Jardine	Pencil	36	4,99	179,64	Jardine
8/7/15	Central	Kivell	Pen Set	42	23,95	1.005,90	Jones
1/15/15	Central	Gill	Binder	46	8,99	413,54	Kivell

update the Pivot table to see the results

Sum of Total	Region ▼			
Rep ▼	Central	East	West	Importo totale
Andrews	109,5925			109,5925
Gill	349,974			349,974
Howard		268,375		268,375
Jardine	562,438			562,438
Jones		295,38		295,38
Kivell	778,9225			778,9225
Morgan	462,59			462,59
Parent		1034,1		1034,1
Smith	547,9766667			547,9766667
Sorvino			322,965	322,965
Thompson			601,555	601,555
Importo totale	464,4925	461,6992308	415,8283333	456,8576744

An error has been made!

A	B	C	D	E	F	G
OrderDate	Region	Rep	Item	Units	Unit Cost	Total
9/1/14	Central	Smith	Desk	2	125,00	250,00
6/17/15	Central	Kivell	Desk	5	125,00	625,00
9/10/15	Central	Gill	Pencil	7	1,29	9,03
11/17/15	Central	Jardine	Binder	11	4,99	54,89
10/31/15	Central	Andrews	Pencil	14	1,29	18,06
2/26/14	Central	Gill	Pen	27	19,99	539,73
10/5/14	Central	Morgan	Binder	28	8,99	251,72
12/21/15	Central	Andrews	Binder	28	4,99	139,72
2/9/14	Central	Jardine	Pencil	36	4,99	179,64
8/7/15	Central	Kivell	Pen Set	42	23,95	1.005,90
1/15/15	Central	Gill	Binder	46	8,99	413,54
1/23/14	Central	Kivell	Binder	50	19,99	999,50
3/24/15	Central	Jardine	Pen Set	50	4,99	249,50
5/14/15	Central	Gill	Pencil	53	1,29	68,37
7/21/15	Central	Morgan	Pen Set	55	12,49	686,95
4/10/15	Central	Andrews	Pencil	66	1,99	131,34
12/12/14	Central	Smith	Pencil	67	1,29	86,43
4/18/14	Central	Andrews	Pencil	75	1,99	149,25
5/31/15	Central	Gill	Binder	80	8,99	719,20

An error has been made!

All units sold by **Smith** must be decreased of **1 unit**.

A	B	C	D	E	F	G
OrderDate	Region	Rep	Item	Units	Unit Cost	Total
9/1/14	Central	Smith	Desk	2	125,00	250,00
6/17/15	Central	Kivell	Desk	5	125,00	625,00
9/10/15	Central	Gill	Pencil	7	1,29	9,03
11/17/15	Central	Jardine	Binder	11	4,99	54,89
10/31/15	Central	Andrews	Pencil	14	1,29	18,06
2/26/14	Central	Gill	Pen	27	19,99	539,73
10/5/14	Central	Morgan	Binder	28	8,99	251,72
12/21/15	Central	Andrews	Binder	28	4,99	139,72
2/9/14	Central	Jardine	Pencil	36	4,99	179,64
8/7/15	Central	Kivell	Pen Set	42	23,95	1.005,90
1/15/15	Central	Gill	Binder	46	8,99	413,54
1/23/14	Central	Kivell	Binder	50	19,99	999,50
3/24/15	Central	Jardine	Pen Set	50	4,99	249,50
5/14/15	Central	Gill	Pencil	53	1,29	68,37
7/21/15	Central	Morgan	Pen Set	55	12,49	686,95
4/10/15	Central	Andrews	Pencil	66	1,99	131,34
12/12/14	Central	Smith	Pencil	67	1,29	86,43
4/18/14	Central	Andrews	Pencil	75	1,99	149,25
5/31/15	Central	Gill	Binder	80	8,99	719,20

An error has been made!

All units sold by **Smith** must be decreased of **1 unit**.

All pencils sold by **Gill** must be increased of 2 units.

A	B	C	D	E	F	G
OrderDate	Region	Rep	Item	Units	Unit Cost	Total
9/1/14	Central	Smith	Desk	2	125,00	250,00
6/17/15	Central	Kivell	Desk	5	125,00	625,00
9/10/15	Central	Gill	Pencil	7	1,29	9,03
11/17/15	Central	Jardine	Binder	11	4,99	54,89
10/31/15	Central	Andrews	Pencil	14	1,29	18,06
2/26/14	Central	Gill	Pen	27	19,99	539,73
10/5/14	Central	Morgan	Binder	28	8,99	251,72
12/21/15	Central	Andrews	Binder	28	4,99	139,72
2/9/14	Central	Jardine	Pencil	36	4,99	179,64
8/7/15	Central	Kivell	Pen Set	42	23,95	1.005,90
1/15/15	Central	Gill	Binder	46	8,99	413,54
1/23/14	Central	Kivell	Binder	50	19,99	999,50
3/24/15	Central	Jardine	Pen Set	50	4,99	249,50
5/14/15	Central	Gill	Pencil	53	1,29	68,37
7/21/15	Central	Morgan	Pen Set	55	12,49	686,95
4/10/15	Central	Andrews	Pencil	66	1,99	131,34
12/12/14	Central	Smith	Pencil	67	1,29	86,43
4/18/14	Central	Andrews	Pencil	75	1,99	149,25
5/31/15	Central	Gill	Binder	80	8,99	719,20

An error has been made!

All units sold by **Smith** must be decreased of **1 unit**.

All pencils sold by **Gill** must be increased of 2 units.

Which is the average of total sales per representative after the adjustment?

A	B	C	D	E	F	G
OrderDate	Region	Rep	Item	Units	Unit Cost	Total
9/1/14	Central	Smith	Desk	2	125,00	250,00
6/17/15	Central	Kivell	Desk	5	125,00	625,00
9/10/15	Central	Gill	Pencil	7	1,29	9,03
11/17/15	Central	Jardine	Binder	11	4,99	54,89
10/31/15	Central	Andrews	Pencil	14	1,29	18,06
2/26/14	Central	Gill	Pen	27	19,99	539,73
10/5/14	Central	Morgan	Binder	28	8,99	251,72
12/21/15	Central	Andrews	Binder	28	4,99	139,72
2/9/14	Central	Jardine	Pencil	36	4,99	179,64
8/7/15	Central	Kivell	Pen Set	42	23,95	1.005,90
1/15/15	Central	Gill	Binder	46	8,99	413,54
1/23/14	Central	Kivell	Binder	50	19,99	999,50
3/24/15	Central	Jardine	Pen Set	50	4,99	249,50
5/14/15	Central	Gill	Pencil	53	1,29	68,37
7/21/15	Central	Morgan	Pen Set	55	12,49	686,95
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12/12/14	Central	Smith	Pencil	67	1,29	86,43
4/18/14	Central	Andrews	Pencil	75	1,99	149,25
5/31/15	Central	Gill	Binder	80	8,99	719,20

Sub correct()

End Sub

Sub correct()

For Each cell In Range("C2", "C44")

Next cell

End Sub

Sub correct()

For Each cell In Range("C2", "C44")

If cell.Value = "Smith" Then

End If

Next cell

End Sub

Sub correct()

For Each cell In Range("C2", "C44")

If cell.Value = "Smith" Then

cell.Offset(0, 2).Value = cell.Offset(0, 2).Value - 1

End If

Next cell

End Sub

Sub correct()

For Each cell In Range("C2", "C44")

If cell.Value = "Smith" Then

cell.Offset(0, 2).Value = cell.Offset(0, 2).Value - 1

Elseif cell.Value = "Gill" And cell.Offset(0, 1).Value = "Pencil" Then

End If

Next cell

End Sub

Sub correct()

For Each cell In Range("C2", "C44")

If cell.Value = "Smith" Then

cell.Offset(0, 2).Value = cell.Offset(0, 2).Value - 1

Elseif cell.Value = "Gill" And cell.Offset(0, 1).Value = "Pencil" Then

cell.Offset(0, 2).Value = cell.Offset(0, 2).Value + 2

End If

Next cell

End Sub

Before

Average total sales	
Rep	Totale
Andrews	109,5925
Gill	349,974
Howard	268,375
Jardine	562,438
Jones	295,38
Kivell	777,36
Morgan	462,59
Parent	1034,1
Smith	547,1433333
Sorvino	320,9025
Thompson	601,555
Importo totale	456,4623256

After

Average total sales	
Rep	Totale
Andrews	109,5925
Gill	351,006
Howard	268,375
Jardine	562,438
Jones	295,38
Kivell	777,36
Morgan	462,59
Parent	1034,1
Smith	500,0466667
Sorvino	320,9025
Thompson	601,555
Importo totale	453,2965116

Before

Average total sales	
Rep	Totale
Andrews	109,5925
Gill	349,974
Howard	268,375
Jardine	562,438
Jones	295,38
Kivell	777,36
Morgan	462,59
Parent	1034,1
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Importo totale	456,4623256

After

Average total sales	
Rep	Totale
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Howard	268,375
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Jones	295,38
Kivell	777,36
Morgan	462,59
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Smith	500,0466667
Sorvino	320,9025
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Importo totale	453,2965116