

# **COMPUTER PROGRAMMING**

# **REPETITION (LOOPS) – 1 (Exercise)**

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**Decision Repetition-1 (Exercise)** 

by Lim Kar Sing

Communitising Technology

# Exercise 15 – Do While... Loop (Form and Output)

Form1	💀 Form1	_	×
Button 1	Button 1		2
IstNumbers	1 2 3 4 5 6 7 8 9		
Label1	9		

# Exercise 15 – Do While... Loop (Code)

Private Sub Button1\_Click(ByVal sender As
System.Object, ByVal e As System.EventArgs)
Handles BtnDisplay.Click

'Tabulate the numbers from 1 to 9

Dim num As Integer = 1
Do While num <= 9
IblResult.Text = num
IstNumbers.Items.Add(num)
num += 1 'Add 1 to the value of num
Loop
End Sub</pre>

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## **Exercise 16 – Do... Loop Until (Form)**

🖳 Form1	
Button 1	



# Exercise 16 – Do... Loop Until (Code)

Private Sub Button1\_Click(ByVal sender As
System.Object, ByVal e As System.EventArgs) Handles
Button1.Click

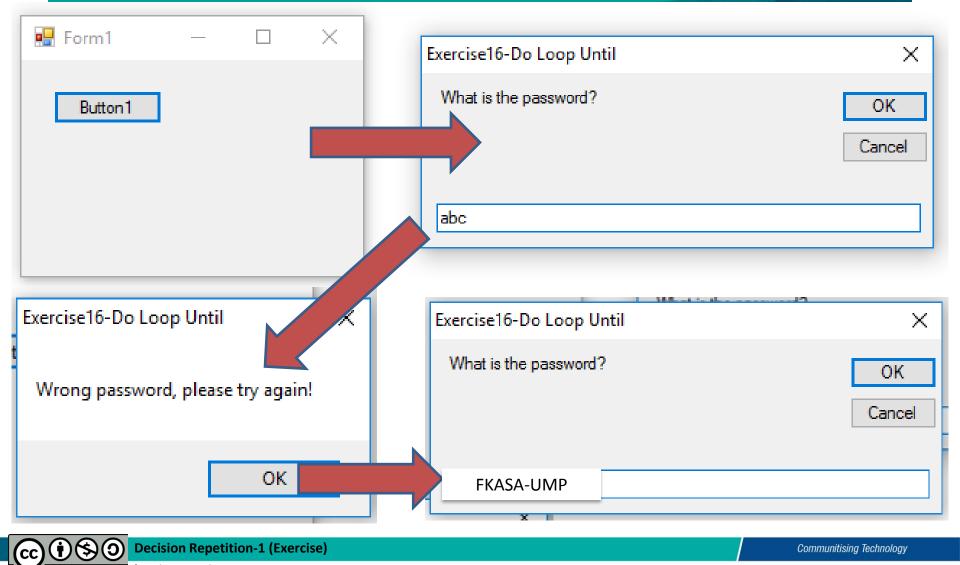
Dim passWord As String = ""

Do

passWord = InputBox("What is the password?")
 MsgBox("Wrong password, please try again!")
 Loop Until passWord = "FKASA-UMP"
End Sub

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# **Exercise 16 – Do... Loop Until (Output)**



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## Exercise 17 – Do Loop (Financial Calculation) Form and Output

🖳 Form1					
Amount Deposited:					
Calculate Years to Become M	lillionaire				
			_		×
	Amount E	eposited:	20000		
	Calculate Years to Become Millionaire				
	In 68 years you will have a million dollars.				



### Exercise 17 – Do Loop (Financial Calculation) Code

```
Private Sub btnCal_Click(ByVal sender As
System.Object, ByVal e As System.EventArgs) Handles
btnCal.Click
```

Dim money As Decimal, Years As Integer

Do

```
money = txtMoney.Text
money += 0.03 * money
Years += 1
Loop Until money >= 1000000
txtDuration.Text = "In " & Years & " years you
will have a million dollars."
```

#### End Sub

# Exercise 18 – For Next... Loop (Form and Output)

Form1	🖶 Form1	_	×
Button 1	Button1		
IstNumbers	1 2 3 4 5 6 7 8 9		
Label1	9		

 Image: Construction of the second system
 Decision Repetition-1 (Exercise)

 BY
 NC
 SA

 by
 Lim
 Kar Sing

# Exercise 18 – For Next... Loop (Form and Output)

Private Sub Button1 Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles BtnDisplay.Click 'Tabulate the numbers from 1 to 9 For counter As Integer = 1 To 9 Label1.Text = counter ListBox1.Items.Add(counter) 'Add 1 to the value of num Loop End Sub

# Exercise 19 – For Next... Loop – With Step Increment (Form and Output)

Form1 🗆 🖾	💀 Form1 — 🗆 🗙
Display Population	<b>Display Population</b>
IstPop	2015> 347782.22229 2017> 358215.6889587 2019> 368962.15962746 2021> 380031.02441628 2023> 391431.95514877 2025> 403174.91380323

# Exercise 19 – For Next... Loop – With Step Increment (Code)

Private Sub btnpop\_Click(ByVal sender As
System.Object, ByVal e As System.EventArgs)
Handles btnPop.Click

**Dim** pop **As Double** = 347782.22229

For Year As Integer = 2015 To 2025 Step 2

lstPop.Items.Add(Year & " -----> " & pop)
pop += 0.03 \* pop

Next

End Sub

# Exercise 19 – For Next... Loop – With –ve Step Increment (Form and Output)

Form1	💀 Form1 — 🗆 🗙
Display Pop Decrease	Display Pop Decrease
IstPop	2025> 347782.22229 2023> 337348.7556213 2021> 327228.29295266 2019> 317411.44416408 2017> 307889.10083915 2015> 298652.42781398

# Exercise 19 – For Next... Loop – With –ve Step Increment (Form and Output)

Private Sub btnPop\_Click(ByVal sender As
System.Object, ByVal e As System.EventArgs)
Handles btnPop.Click

- **Dim** pop **As Double** = 347782.22229
- For Year As Integer = 2025 To 2015 Step -2

lstPop.Items.Add(Year & " -----> " & pop)
pop -= 0.03 \* pop

Next

End Sub