



Al-Mustaqbal University

College of Engineering and Technology

Department of Medical Instrumentation Techniques Engineering

Class: Second Class

Subject: Computer Applications/2

Lecturer: Assistant Lecturer Dheyauldeen Faaiz Sahib

Lecture Address: Conditional statements

2023 - 2024



Conditional statements

There are two types of conditional statements:

1- **If statement**

2- **Select case**

1- If statement: The comparison operations are used with Conditional statements.

There are four structures for if statement.

a) Simple structure If..then:

Used for running one programming statement only if the required condition satisfied.

The general form is:

If condition then statement

Example 9.1: write a program to enter a mark of a student then print

(عاشت ايدك يا شاطر) if he successful.



Sol:

```
Dim a as integer
```

```
Private sub Button1_click()
```

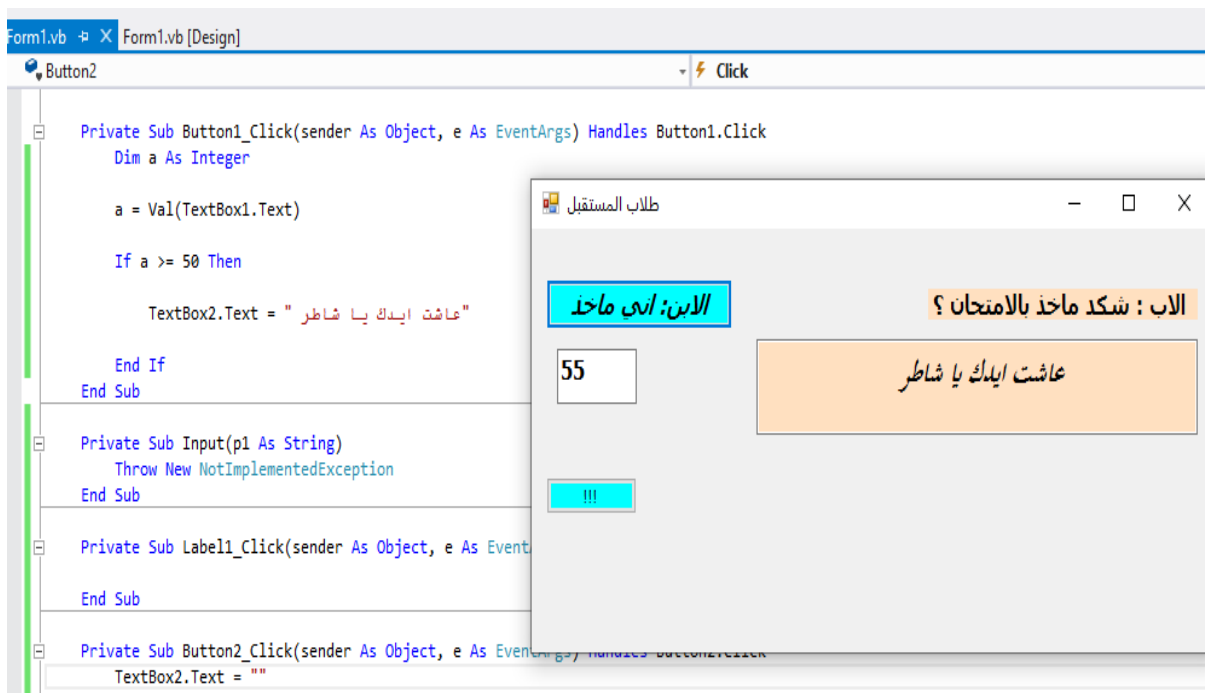
```
A = Val(textbox1.text)
```

```
If a >= 50 then
```

```
textbox2.text= "pass"
```

```
End if
```

```
End sub
```



b) If block structure: Used for running many programming statements if the required condition satisfied.

The general form is:

If **condition** then **statements**

End If



Example 9.2: write a program to enter a mark of a student then print (عاشت ايدك يا شاطر) and change the background of form to green if he successful.

Sol:

```
Dim a as integer
```

```
Private sub Button1_click()
```

```
A = Val(textbox1.text)
```

```
If a >= 50 then
```

```
textbox2.text= "pass"
```

```
Me.backColor = Color. LightSeaGreen
```

```
End if
```

```
End sub
```

The screenshot displays a Visual Basic IDE with a code editor on the left and a running application window on the right. The code editor shows the following code:

```
Public Class Form1
    Private Sub Button1_Click(sender As Object, e As EventArgs)
        Dim a As Integer

        a = Val(TextBox1.Text)

        If a >= 50 Then
            TextBox2.Text = "عاشت ايدك يا شاطر"
            Me.BackColor = Color.LightSeaGreen
        End If
    End Sub
    Private Sub Button2_Click(sender As Object, e As EventArgs)
        TextBox2.Text = ""
        Me.BackColor = Color.Empty
    End Sub
End Class
```

The running application window, titled "طلاب المستقبل", has a light green background. It contains a text box with the number "55" entered. Above the text box is a label "الابن: اني ماخذ". To the right of the text box is a label "الاب: شكذ ماخذ بالامتحان؟". Below the text box is a button with "!!!". A large orange box on the right side of the window contains the text "عاشت ايدك يا شاطر".



c) If.. Then.. Else structure: Used for running many programming statements if the required condition satisfied. And running another programming statements (**after else**) if the required condition not satisfied.

The general form is:

If **condition** then **statement1**

Else

Statement2

End If

Example9.3: write a program to enter a mark of a student then print (عاشت ايدك يا شاطر) if he successful and print (fail) otherwise.

Sol:

```
Dim x As Integer
```

```
Private Sub Button1_click()
```

```
A=Val(Textbox1.Text)
```

```
If a >= 50 Then
```

```
TextBox2.Text = "عاشت ايدك يا شاطر"
```

```
Else
```

```
TextBox2.Text = "طبعا اذا انت حاير بالسئوريات والمسئعات"
```

```
End If
```

```
End Sub
```



Form1.vb [Design] Undo (Ctrl+Z)

Form1 (Declarations)

```
Public Class Form1
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        Dim a As Integer

        a = Val(TextBox1.Text)

        If a >= 50 Then

            TextBox2.Text = "عاشت ايدك يا شاطر"

            ' Me.BackColor = Color.LightSeaGreen

        Else : TextBox2.Text = "طبعا اذا انت حابر بالستوريات والمسلعات"

        End If
    End Sub
    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
        TextBox2.Text = ""
    End Sub
End Class
```

طلاب المستقبل

الاب : شكرا ماخذ بالامتحان ؟

الابن: اني ماخذ

45

طبعا اذا انت حابر بالستوريات والمسلعات

!!!

d) If.. Then..Elseif.. Else structure:

Used if we have many conditions to be satisfied

```
If condition1 then statement n
Elseif
Condition2 then Statement n
.
.
Else
Statement n
End if
```



Example 9.4: write a program to enter a mark of a student then print (pass) if he successful and print (fail) otherwise.

The screenshot shows a Windows application window titled "Form1". Inside the window, there are three text boxes arranged vertically. The first text box is labeled "a" and contains the number "5". The second text box is labeled "b" and contains the number "2". The third text box is labeled "result" and contains the text "a>b". Below these text boxes, there are two buttons: "ok" and "clear".

```
Private Sub Command1_Click()
```

```
Dim a,b as integer
```

```
a = Val(TextBox1.Text)
```

```
b = Val(TextBox2.Text)
```

```
If a > b Then
```

```
TextBox3.Text = "a>b"
```

```
Elseif a < b Then
```

```
TextBox3.Text = "a<b"
```

```
Else
```

```
TextBox3. Text= "a = b"
```

```
End If
```

```
End Sub
```

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Exp.H.W : Explain, what is the meaning of the program code below?

The screenshot shows a Visual Basic IDE with a code editor and a running application window. The code in the code editor is as follows:

```
Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
    Dim a As Integer

    a = Val(TextBox1.Text)
    If a >= 80 Then
        TextBox2.Text = "عقبه يا بطل، طالع علي ابوك"
        Me.BackColor = Color.AliceBlue

    ElseIf a >= 50 Then
        TextBox2.Text = "عاشت ايدك يا شاطر"
        Me.BackColor = Color.LightSeaGreen

    ElseIf a > 10 Then
        TextBox2.Text = "طبعا اذا انت حابر بالمستوريات والمسلمات"
        Me.BackColor = Color.Orange

    Else : TextBox2.Text = "موصوذك يا بوية، صوح الي يدفعلك القسط يا ذكي"
        Me.BackColor = Color.Red
    End If
End Sub

Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
    TextBox2.Text = ""
End Sub
```

The running application window, titled "طلاب المستقبل", has a red background. It contains a text box with the number "10", a button with "!!!", and a label with the text "الاب : شكك ماخذ بالامتحان؟". Another label at the top left says "الابن: انى ماخذ". The text in the main text box is "موصوذك يا بوية، صوح الي يدفعلك القسط يا ذكي".