Lecture 14

Visual Basic 6.0
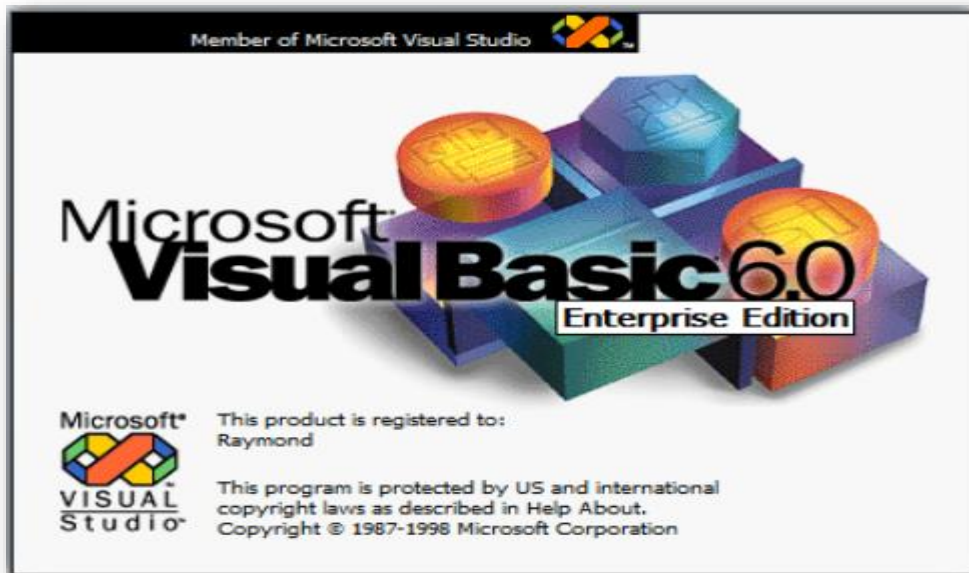
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Control Statements

١١. الجمل الشرطية (conditional statements):

هناك نوعين من الجمل الشرطية

١- جملة اذا (if statement)

٢- جملة الاختيار (select case)

١– جملة اذا (if statement):

تستخدم مع if الشرطية عمليات المقارنة and, or ، =, <>, >=, <=, >, < في جملة الشرط،

ويوجد اربعة انواع من التراكيب الخاصة بعبارة if الشرطية.

١) التركيب البسيط If ..Then

الصيغة العامة هي:

If condition **then** statement

Q1) Write a program to enter the student's grade and then print the word pass if the student is successful.

الحل:

التصميم:

```
Form1                    _ □ ×
        ┌──────────┐
        │          │   الدرجة
        └──────────┘
        ┌──────────┐
        │          │   النتيجة
        └──────────┘
           ┌──────┐
           │  ok  │
           └──────┘
```

الشفرة:

```
Dim x as integer
Private sub command1_click()
X= cint(text1.text)
If x>= 50 then text2.text= "pass"
End sub
```

٢) التركيب If block

ويأخذ الصيغة التالية:

```
If condition then
    Statements
End if
```

Q2) Write a program to enter the student's grade and then print the word pass with changing the font size if the student is successful.

```
Dim x as integer
Private sub command1_click()
X= cint(text1.text)
If x>= 50 then
text2.text= "pass"
text2.fontsize=18
end if
End sub
```

٣) التركيب **If.. Then.. Else**

ويأخذ الصيغة التالية:

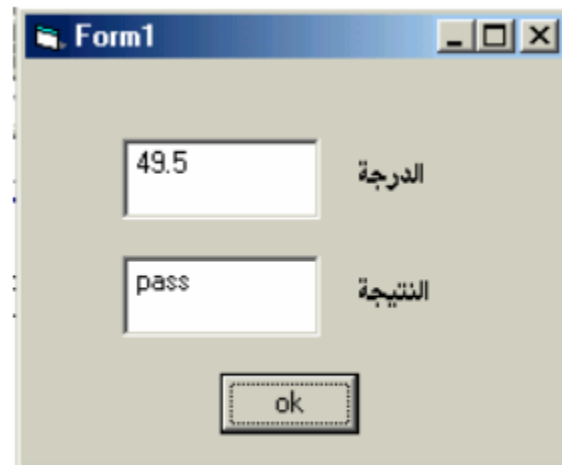**If** condition **then**
    Statements
Else
    Statements
End if

Q3) Write a program to enter a student's grade and then print the word successful if his grade is greater than or equal to 50 and print the word fail otherwise.

```
Dim x As Integer
Private Sub command1_click()
x = CInt(Text1.Text)
If x >= 50 Then
Text2.Text = "pass"
Else
Text2.Text = "fail"
End If
End Sub
```

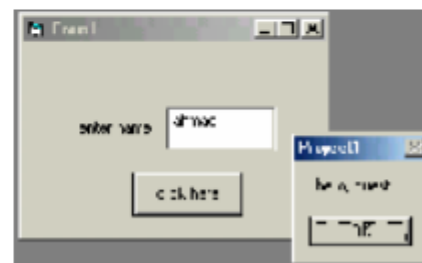٤) التركيب **If.. then.. Elseif ..Else**
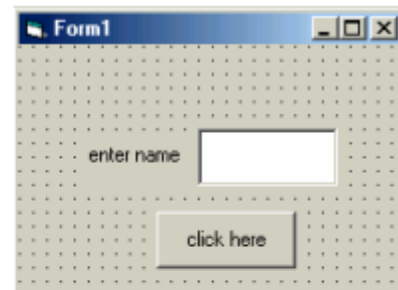
ويأخذ الصيغة التالية:

If condition **then**
   Statements
Elseif condition **then**

    Statements
  Else
    Statements
  End if

Q) Write a program to enter the user's name, then write a welcome message for him, the first by welcoming Muhammad .The second is good and the third is to welcome any other user as a guest.

```
Dim x As String
Private Sub command1_click()
x = text1.Text
If x = "Muhammad" Then
MsgBox "hello, Muhammad"
ElseIf x = "hasan" Then
MsgBox "hello,hasan"
Else
MsgBox "hello, guest"
End If
End Sub
```

-جملة If المتداخلة (nested if)

```
If condition then
   If condition then
   Statements
   Else
   Statements
   Elseif
Else
   Statements
End if
```

Q) Write a program to enter two numbers and then calculate multiplication and division using (button option) Displaying the phrase (operation division illegal) when the divisor is zero.

```
Dim a, b, c As Single
Private Sub command1_click()
a = Val(Text1    .Text)
b = Val(Text2.Text)
If Option1.Value Then
c = a * b
Text3.Text = CStr(c)
Else
```

If b <> 0 Then
Text3.Text = CStr(c)
Else
Text3.Text = "illegal division operation"
End If
End If
End Sub
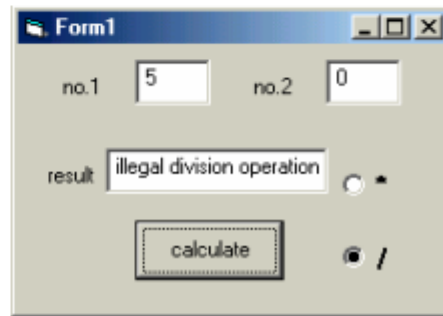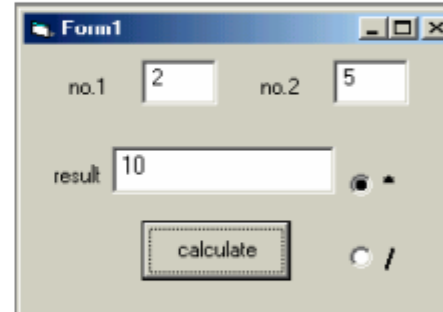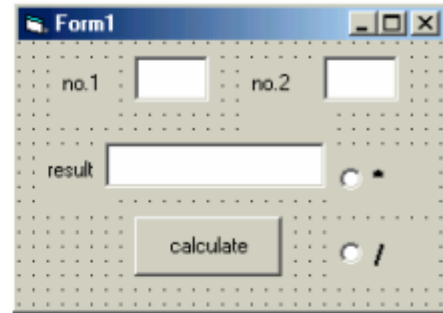
❖ اختبار ذاتي :

Write program to calculate :
        y= x^2 + x - 5   if n=1
        y= x^3 +x^2   if n=2
        y=x^4 -2*x   if n=3
        other   y=10

Using IF-ElSE
Note : Enter the value of n and x using inputbox

5- NESTED IF

الصيغة العـــــامة

```
IF  condition  THEN
        IF  condition  THEN
              IF  condition  THEN
              Statement (s)
        Else
              Statement (s)
ENDIF
        ENDIF
              ENDIF
```

Example:

```
Dim grade As Integer
grade = InputBox("Enter Grade", Grade)

If grade >= 90 And grade <= 100 Then
text1 = "Excelent"
ElseIf grade >= 80 Then
text1 = "Very Good"
ElseIf grade >= 70 Then
text1 = "Good"
ElseIf grade >= 60 Then

text1 = "Fair"
ElseIf grade >= 50 Then
text1 = "Pass"
Else
text1 = "Fail"
End If
MsgBox text1, , "Evaluation"
```

❖ اختبار ذاتي :
في المثال السابق لو ادخالنا قيمة اكبر من 100 سوف تظهر نتيجة خاطئة . قوم باعادة حل المثال بحيث
تكون النائج صحيحة

٢-جملة الاختيار Select Statement

نستخدمها عندما نريد ان ننفذ مجموعة من الجمل والتي تعتمد على قيمة متغير واحد وتنفذ بالشكل

التالي:

```
Select case variables
    Case value1
        Statements
    Case value2
        Statements
        .
        .
        .
    Case else
        Statements
End select
```

Q) Design a form to print the names of the days of the week when entering its number.

```
Dim x As Integer
Private Sub Command1_Click()
x = CInt(Text1.Text)
Select Case x
Case 1
MsgBox ("Sunday")
Case 2
MsgBox ("Monday")
Case 3
MsgBox ("Tuesday")
```
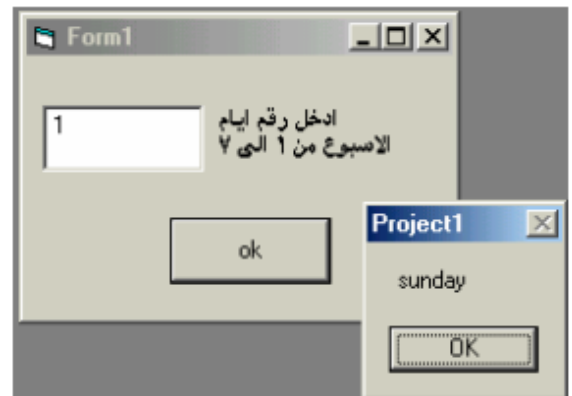
```
Case 4
MsgBox ("Thursday")
Case 5
MsgBox ("Wednesday")
Case 6
MsgBox ("Friday")
Case 7
MsgBox ("Saturday")
End Select
End Sub
```

Example1:

Write program to calculate :

$$y= x^2 + x -5 \qquad \text{if n=1}$$
$$y= x^3 +x^2 \qquad \text{if n=2}$$
$$y=x^4 -2*x \qquad \text{if n=3}$$
$$\text{other} \quad y=10$$

use SELECT CASE

Note: enter the value of n and x using inputbox and the output of y through textbox

```
Private Sub Command1_Click()

    Dim x, y, n As Integer

    b = InputBox("enter n"):        n = Val(b)

    c = InputBox("enter x"):        x = Val(c)
```

```
        Select Case n

            Case 1: y = x ^ 2 + x - 5

            Case 2: y = x ^ 3 + x ^ 2

            Case 3: y = x ^ 4 - 2 * x

            Case Else:  y = 10

        End Select

         Text1.Text = y

End Sub
```