**Tutorial # 2**

**Question#1:** What is the output of the following programs?

1 Dim number As Integer

2

3 number = 1234

4

5 ' extract digits

6 digit1Label.Text = number \ 1000

7 digit2Label.Text = (number Mod 1000) \ 100

8 digit3Label.Text = (number Mod 100) \ 10

9 digit4Label.Text = number Mod 10

digit1Label.Text =…., digit2Label.Text =.…, digit3Label.Text =…., digit4Label.Text=…..

1 Private Sub donationButton\_Click(ByVal sender As

2 System.Object, ByVal e As System.EventArgs) \_

3 Handles donationButton.Click

4

5 Select Case Val(donationTextBox.Text)

6 Case 0

7 messageLabel.Text = "Please consider donating to our cause."

8 Case 1 To 100

9 messageLabel.Text = "Thank you for your donation."

10 Case Is > 100

11 messageLabel.Text = "Thank you very much for your donation!"

12 Case Else

13 messageLabel.Text = "Please enter a valid amount."

14 End Select

15 End Sub

|  |  |
| --- | --- |
| **Input (donationTextBox.Text)** | **Output (messageLabel.Text)** |
| Hello |  |
| 179 |  |
| 0 |  |
| 100 |  |

1 Dim age As Integer

2

3 age = ageTextBox.Text

4

5 If age < 0 Then

6 ageLabel.Text = "Enter a value greater than or equal to zero."

7 ElseIf age < 13 Then

8 ageLabel.Text = "Child"

9 ElseIf age < 20 Then

10 ageLabel.Text = "Teenager"

11 ElseIf age < 30 Then

12 ageLabel.Text = "Young Adult"

13 ElseIf age < 65 Then

14 ageLabel.Text = "Adult"

15 Else

16 ageLabel.Text = "Senior Citizen"

17 End If

|  |  |
| --- | --- |
| **Input (**ageTextBox.Text**)** | **Output (**ageLabel.Text**)** |
| 75 |  |
| 13 |  |
| 25 |  |
| -100 |  |

**Question#2: Determine the order of execution for the following statements:**

1. If (x+y) and 6 <= z\3\*4 Then ....EndIf
2. x^=(y+4 Mod 2)

**Question#3:** What is the output of the following programs?

1. 1 For row = 1 To 10

 2 For star = 1 To 10 - row

 3 outputTextBox.AppendText("\*")

 4 Next star

 5 outputTextBox.AppendText(vbCrLf)

 6 Next row



outputTextBox

What will be displayed here?

1. 1 Dim y As Integer

2 Dim x As Integer

3 Dim mysteryValue As Integer

4

5 x = 1

6 mysteryValue = 0

7

8 Do

9 y = x ^ 2

10 displayListBox.Items.Add(y)

11 mysteryValue += 1

12 x += 1

13 Loop While x <= 10

14

15 resultLabel.Text = mysteryValue



What will be displayed here?

1. 1 Dim power As Integer = 5

2 Dim number As Integer = 10

3 Dim result As Integer = number

4

5 For i As Integer = 1 To (power - 1)

6 result \*= number

7 Next

Trace the values of the following variables throughout the loop:

|  |  |
| --- | --- |
| i | result |
|  |  |
|  |  |
|  |  |
|  |  |

**Question#4: What is wrong with the following codes?**

1. 1 Dim y As Integer = 5

2 Dim z As Integer = 10

3 Do

4 z \*= y

5 Loop While y >= 1

6 y -= 1

7 resultLabel.Text = z

|  |  |  |  |
| --- | --- | --- | --- |
| **Line#** | **Error Description** | **Error Type (Syntax or Runtime)** | **Correction** |
|  |  |  |  |

1. 1 Dim num As Integer = 5

2

3 For i As Integer = 100 To (num ^ 2) step 2

4 result \*= num

5 Next

6 i = i ^ num

|  |  |  |  |
| --- | --- | --- | --- |
| **Line#** | **Error Description** | **Error Type (Syntax or Runtime)** | **Correction** |
|  |  |  |  |
|  |  |  |  |