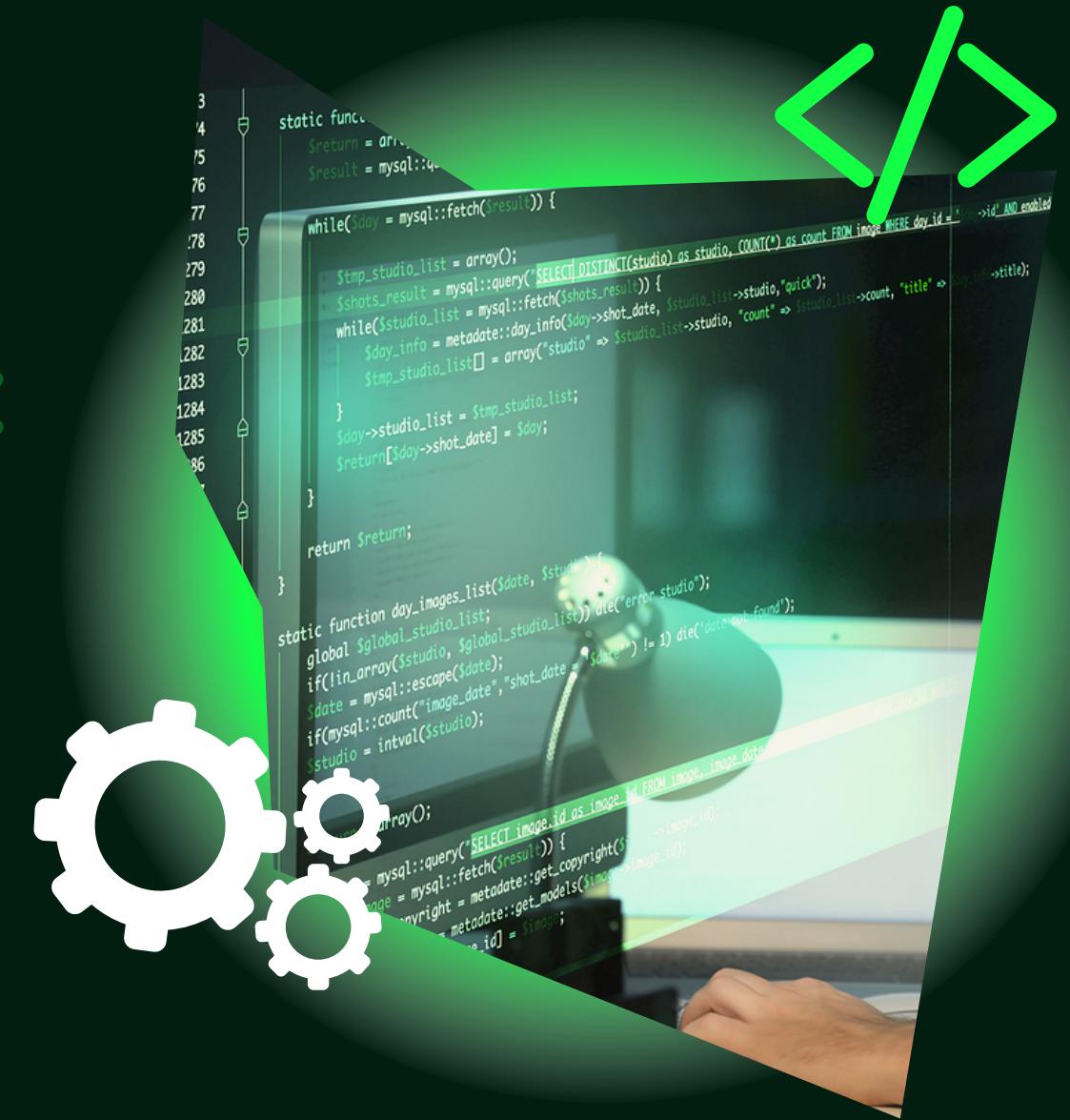


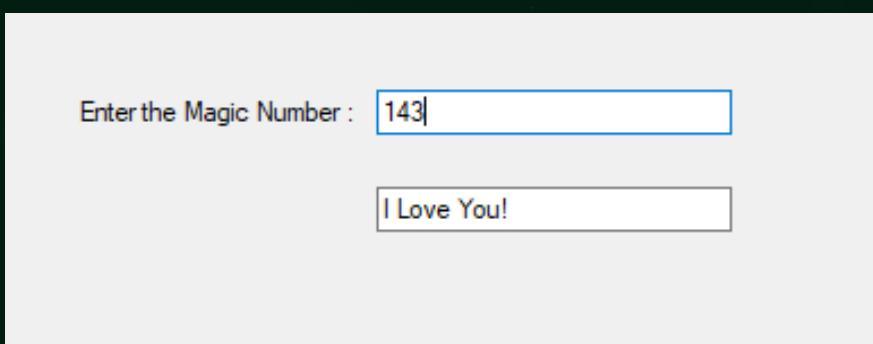
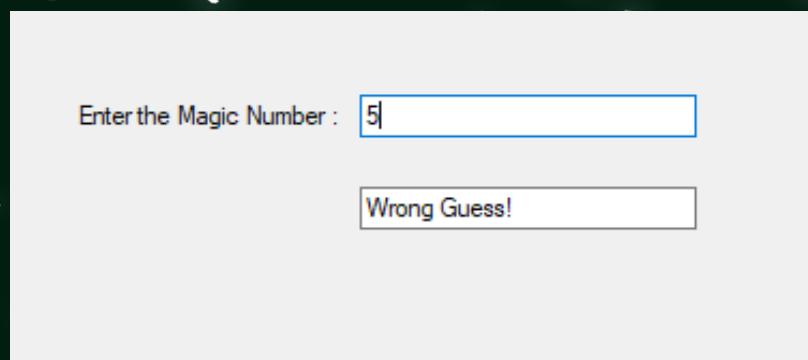
12 - ICT

# Visual Basic : Chapter 4

SUBMITTED BY : JOHN MATHEW C. PAROCHA



```
VB Chapter4 Example 1
1  Public Class Form1
2    References
3    Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
4      End Sub
5
6    References
7    Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
8      If TextBox1.Text = "143" Then
9        TextBox2.Text = "I Love You!"
10       Else
11         TextBox2.Text = "Wrong Guess!"
12       End If
13     End Sub
14   End Class
15
```



# Example 1



Design and develop a simple application program that determines if the input number at Text box 1 is equivalent to the magic words: “I love you” or not. Display the result “I love you!” at the Text box 2 if the input number is 143, and “Wrong guess!” if it is not. Follow the given figure below in designing and developing the application system. Now try to enter a number “143” at text box 1 and see what happens. Then try another number. You will see that the output message at text box 2 changes as you enter another number on text box 1.

```
Chapter4 Example 2
 3 reference
1 Public Class Form1
2   0 references
3     Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
4       End Sub
5
6     0 references
7     Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
8       If Val(TextBox1.Text) >= 0 Then
9         TextBox2.Text = "Positive Number!"
10        ElseIf Val(TextBox1.Text) < 0 Then
11          TextBox2.Text = "Negative Number!"
12        Else
13          TextBox2.Text = "Please enter a valid number!"
14        End If
15      End Sub
16
17     0 references
18     Private Sub TextBox2_TextChanged(sender As Object, e As EventArgs) Handles TextBox2.TextChanged
19       End Sub
20     End Class
21
```

Enter a Number : -9

Negative Number!

Enter a Number : 6

Positive Number!

## Example 2



Design and develop a simple application program that determines if the input number is Positive or Negative. Consider 0 as positive number. Follow the given figure below in designing and developing the application system. Now try to enter a -5 number at text box 1 and see what happens. Then try another number. You will see that the output message at text box 2 changes as you enter another number on text box 1.

```
VB Chapter4 Example 3
1  Public Class Grade
2      0 references
3      Private Sub Grade_Load(sender As Object, e As EventArgs) Handles MyBase.Load
4          End Sub
5
6      0 references
7      Private Sub Label1_Click(sender As Object, e As EventArgs) Handles Label1.Click
8          End Sub
9
10     0 references
11     Private Sub TextBox2_TextChanged(sender As Object, e As EventArgs) Handles TextBox2.TextChanged
12
13     End Sub
14
15     0 references
16     Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
17
18         If Val(TextBox1.Text) >= 90 Then
19             TextBox2.Text = "A"
20
21         ElseIf Val(TextBox1.Text) >= 80 And Val(TextBox1.Text) <= 89 Then
22             TextBox2.Text = "B"
23
24         ElseIf Val(TextBox1.Text) >= 70 And Val(TextBox1.Text) >= 79 Then
25             TextBox2.Text = "C"
26
27         ElseIf Val(TextBox1.Text) >= 60 And Val(TextBox1.Text) >= 59 Then
28             TextBox2.Text = "D"
29
30         ElseIf Val(TextBox1.Text) < 60 Then
31             TextBox2.Text = "F"
32
33     End If
34
35     End Sub
36     End Class
```

The screenshot shows a Windows application window titled 'Grade Events'. It contains two text boxes: 'Enter a grade :' with the value '94' and 'Your grade in letter form is :' with the value 'A'. A second window titled 'Grade Events' is open, showing 'Enter a grade :' with the value '85' and 'Your grade in letter form is :' with the value 'B'.

# Example 3



Design and develop a simple application program that will assist a teacher in converting a range of numerical grade into its equivalent letter form grade, based on the given scale:

Range	Grade
90 and above	A
80 - 89	B
70 - 79	C
60 - 69	D
below 60	F

```
VB Chapter4 Example 4
 1  ' reference
 2  Public Class Form1
 3    ' References
 4    Private Sub Label1_Click(sender As Object, e As EventArgs) Handles Label1.Click
 5
 6      ' references
 7      Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
 8
 9        If TextBox1.Text = "B" Or TextBox1.Text = "b" Then
10          TextBox2.Text = "Blue!"
11
12        ElseIf TextBox1.Text = "R" Or TextBox1.Text = "r" Then
13          TextBox2.Text = "Red!"
14
15        ElseIf TextBox1.Text = "G" Or TextBox1.Text = "g" Then
16          TextBox2.Text = "Green!"
17
18        ElseIf TextBox1.Text = "Y" Or TextBox1.Text = "y" Then
19          TextBox2.Text = "Yellow!"
20
21        Else
22          TextBox2.Text = "Unknown Color"
23        End If
24
25      ' references
26      Private Sub TextBox2_TextChanged(sender As Object, e As EventArgs) Handles TextBox2.TextChanged
27
28        End Sub
29
30      ' References
31      Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
32
33        End Sub
34      End Class
```

Enter a letter :

Enter a letter :

# Example 4



Design and develop a simple application program that displays an equivalent color once an input letter matches its first character. For example b for Blue, r for Red, and so on. Here is the given criteria:

Letters	Colors
'B' or 'b'	Blue
'R' or 'r'	Red
'G' or 'g'	Green
'Y' or 'y'	Yellow
etc.	Unknown Color

The screenshot shows the Microsoft Visual Studio IDE with the title bar "Chapter4 Example 5". The code editor displays the following VB.NET code:

```
1  Public Class Form1
2      References
3      Private Sub Label1_Click(sender As Object, e As EventArgs) Handles Label1.Click
4          End Sub
5
6      References
7      Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
8          Dim sColor As String
9          sColor = TextBox1.Text
10
11         Select Case sColor
12             Case "B", "b"
13                 TextBox2.Text = "Blue!"
14             Case "R", "r"
15                 TextBox2.Text = "Red!"
16             Case "G", "g"
17                 TextBox2.Text = "Green!"
18             Case "Y", "y"
19                 TextBox2.Text = "Yellow!"
20             Case Else
21                 TextBox2.Text = "Unknown Color!"
22
23         End Select
24
25     End Sub
26
27     References
28     Private Sub TextBox2_TextChanged(sender As Object, e As EventArgs) Handles TextBox2.TextChanged
29     End Sub
30
31     References
32     Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
33         End Sub
34
35     End Class
```

The screenshot shows a Windows application window titled "Chapter4 Example 5". It contains two text boxes and a label. The first text box is labeled "Enter a letter :" and contains the letter "R". The second text box is also labeled "Enter a letter :" and contains the letter "B". Below the first text box is a label box containing the text "Red!". Below the second text box is a label box containing the text "Blue!".

# Example 5



Design and develop a simple application program that displays an equivalent color once an input letter matches its first character. For example b for Blue, r for Red, and so on. This time, use the Select Case conditional statement instead of If/Else conditional statement. Here is the given criteria:

Letters	Colors
'B' or 'b'	Blue
'R' or 'r'	Red
'G' or 'g'	Green
'Y' or 'y'	Yellow
etc.	Unknown Color

```
Chapter4 Example 6
1 1 reference
2 Public Class Form1
3 0 references
4 Private Sub Label1_Click(sender As Object, e As EventArgs) Handles Label1.Click
5 End Sub
6
7 0 references
8 Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
9
10 Dim nYearEntry As Integer
11 nYearEntry = Val(TextBox1.Text)
12 Select Case nYearEntry
13 Case 1
14     TextBox2.Text = "Freshman!"
15 Case 2
16     TextBox2.Text = "Sophomore!"
17 Case 3
18     TextBox2.Text = "Junior!"
19 Case 4
20     TextBox2.Text = "Senior!"
21 Case Else
22     TextBox2.Text = "Out-Of-School!"
23 End Select
24
25 0 references
26 Private Sub TextBox2_TextChanged(sender As Object, e As EventArgs) Handles TextBox2.TextChanged
27 End Sub
28
29 0 references
30 Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
31 End Sub
32 End Class
```

The screenshot shows a Windows application window with two text boxes. The first text box contains the text "Enter Year-entry number :". The second text box contains the value "4". Below the second text box, the output "Senior!" is displayed in a text box. In another part of the application, a second set of text boxes shows "Enter Year-entry number :" followed by "8", and the output "Out-Of-School!" is displayed.

# Example 6



Design and develop a simple application program to display the high school level of a student, based on its year-entry number. For example, the year-entry 1 means the student is a freshman, 2 for sophomore, and so on. Here is the given criteria:

Year-entry number	High-School Level
1	Freshman
2	Sophomore
3	Junior
4	Senior
Other entry no.	Out-Of-School

```
VB Chapter4 Example 7
Public Class Form1
    Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
        :
    End Sub

    Private Sub RadioButton1_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton1.CheckedChanged
        CheckBox1.Checked = 1
        CheckBox2.Checked = 0
        CheckBox3.Checked = 1
        CheckBox4.Checked = 0
        CheckBox5.Checked = 1
        CheckBox6.Checked = 0
        CheckBox7.Checked = 0
        TextBox1.Text = "185"
    End Sub

    Private Sub RadioButton2_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton2.CheckedChanged
        CheckBox1.Checked = 1
        CheckBox2.Checked = 1
        CheckBox3.Checked = 1
        CheckBox4.Checked = 1
        CheckBox5.Checked = 1
        CheckBox6.Checked = 0
        CheckBox7.Checked = 0
        TextBox1.Text = "250"
    End Sub

    Private Sub RadioButton3_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton3.CheckedChanged
        CheckBox1.Checked = 1
        CheckBox2.Checked = 1
        CheckBox3.Checked = 1
        CheckBox4.Checked = 1
        CheckBox5.Checked = 1
        CheckBox6.Checked = 1
        CheckBox7.Checked = 1
        TextBox1.Text = "290"
    End Sub
End Class
```

Pizza Assessment System

Pizza

Deluxe

Special

Primo

Price : 185

Ingredients

Cheese  
Pepper  
Bacon and Ham  
Mushroom  
Onions and Chili  
Tomato and P-Apple  
Salami

Pizza

Deluxe

Special

Primo

Price : 250

Ingredients

Cheese  
Pepper  
Bacon and Ham  
Mushroom  
Onions and Chili  
Tomato and P-Apple  
Salami

Pizza

Deluxe

Special

Primo

Price : 290

Ingredients

Cheese  
Pepper  
Bacon and Ham  
Mushroom  
Onions and Chili  
Tomato and P-Apple  
Salami

# Example 7



Design and develop a simple application system that when the user chooses the Deluxe pizza option, the ingredients to be checked are: Cheese, Bacon & Ham, and Onion & Chili; its corresponding price is 185 pesos (to be displayed at text box). When the user chooses the Special pizza option, the ingredients to be checked are: Cheese, Pepper, Bacon & Ham, Mushroom, and Onions & Chili; its price is 250 pesos. Now if the user chooses the Primo pizza option, all ingredients should be marked with a check, and its price is 290 pesos.

```

VB Chapter4 Example 8
Public Class Form1
    'Event Subs
    Private Sub RadioButton1_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton1.CheckedChanged
        CheckBox1.Checked = 1
        CheckBox2.Checked = 0
        CheckBox3.Checked = 1
        CheckBox4.Checked = 0
        CheckBox5.Checked = 1
        CheckBox6.Checked = 0
        CheckBox7.Checked = 0
        TextBox3.Text = "185"
        TextBox3.Text = "185"
    End Sub

    Private Sub RadioButton2_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton2.CheckedChanged
        CheckBox1.Checked = 1
        CheckBox2.Checked = 1
        CheckBox3.Checked = 1
        CheckBox4.Checked = 1
        CheckBox5.Checked = 1
        CheckBox6.Checked = 0
        CheckBox7.Checked = 0
        TextBox3.Text = "250"
        TextBox3.Text = "250"
    End Sub

    Private Sub RadioButton3_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton3.CheckedChanged
        CheckBox1.Checked = 1
        CheckBox2.Checked = 1
        CheckBox3.Checked = 1
        CheckBox4.Checked = 1
        CheckBox5.Checked = 1
        CheckBox6.Checked = 1
        CheckBox7.Checked = 1
        TextBox3.Text = "290"
        TextBox3.Text = "290"
    End Sub

    'Text Box Event
    Private Sub TextBox3_TextChanged(sender As Object, e As EventArgs) Handles TextBox3.TextChanged
        Dim Pizza, Qty As Double
        Pizza = Val(TextBox3.Text)
        Qty = Val(TextBox3.Text)
        TextBox2.Text = Pizza * Qty
    End Sub
End Class

```

Pizza Assessment System

**Pizza**

- Deluxe
- Special
- Primo

Price : 290

Quantity : 3

Amount : 870

**Ingredients**

- Cheese
- Pepper
- Bacon and Ham
- Mushroom
- Onions and Chili
- Tomato and P-Apple
- Salami

Pizza Assessment System

**Pizza**

- Deluxe
- Special
- Primo

Price : 250

Quantity : 4

Amount : 500

**Ingredients**

- Cheese
- Pepper
- Bacon and Ham
- Mushroom
- Onions and Chili
- Tomato and P-Apple
- Salami

Pizza Assessment System

**Pizza**

- Deluxe
- Special
- Primo

Price : 185

Quantity : 5

Amount : 925

**Ingredients**

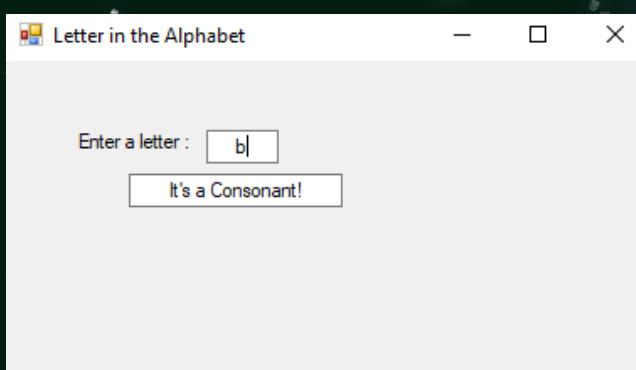
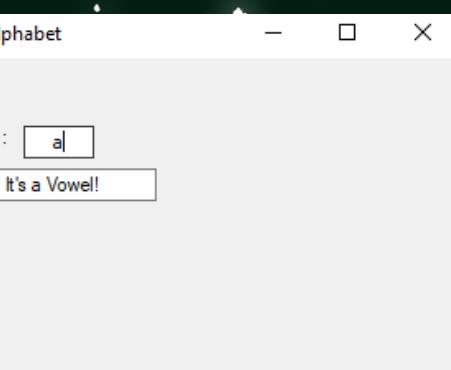
- Cheese
- Pepper
- Bacon and Ham
- Mushroom
- Onions and Chili
- Tomato and P-Apple
- Salami

# Example 8



Design and develop a simple application system that when the user chooses the Deluxe pizza option, the ingredients to be marked are Cheese, Bacon & Ham, and Onions & Chili. Its price is P 185 pesos. If the user inputs 2 in the Qty (Quantity) box, the Amt (Amount) to be displayed should be 270, because  $185 \times 2$  is equal to P 270 pesos. If the input quantity is 3 then the amount to be displayed is 455 pesos, and so on. When the user chooses the Special pizza option, the ingredients to be checked are Cheese, Pepper, Bacon & Ham, Mushroom, and Onions & Chili. Its price is P250 pesos. If the user inputs 2 at the Qty box, the Amt to be displayed is P500 pesos. If the input quantity is 3 then the amount to be displayed is P750 pesos, and so on. When the user chooses the Primo pizza option, all ingredients should be marked with a check. Its price is P290 pesos. If the user inputs 2 at the quantity box, the amount to be displayed is P380 pesos. If the input quantity is 3 then the amount to be displayed is P870, and so on.

```
Chapter4LabAct
1 reference
1 Public Class Form1
2     0 references
3     Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
4         End Sub
5
6     0 references
7     Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
8
9
10    If TextBox1.Text = "A" Or TextBox1.Text = "a" Then
11        TextBox2.Text = "It's a Vowel!"
12    ElseIf TextBox1.Text = "E" Or TextBox1.Text = "e" Then
13        TextBox2.Text = "It's a Vowel!"
14    ElseIf TextBox1.Text = "I" Or TextBox1.Text = "i" Then
15        TextBox2.Text = "It's a Vowel!"
16    ElseIf TextBox1.Text = "O" Or TextBox1.Text = "o" Then
17        TextBox2.Text = "It's a Vowel!"
18    ElseIf TextBox1.Text = "U" Or TextBox1.Text = "u" Then
19        TextBox2.Text = "It's a Vowel!"
20    ElseIf IsNumeric(TextBox1.Text) Then
21        TextBox2.Text = "It's a Number!"
22    Else
23        TextBox2.Text = "It's a Consonant!"
24    End If
25
26 End Sub
27
28     0 references
29     Private Sub TextBox2_TextChanged(sender As Object, e As EventArgs) Handles TextBox2.TextChanged
30
31     End Sub
32 End Class
```

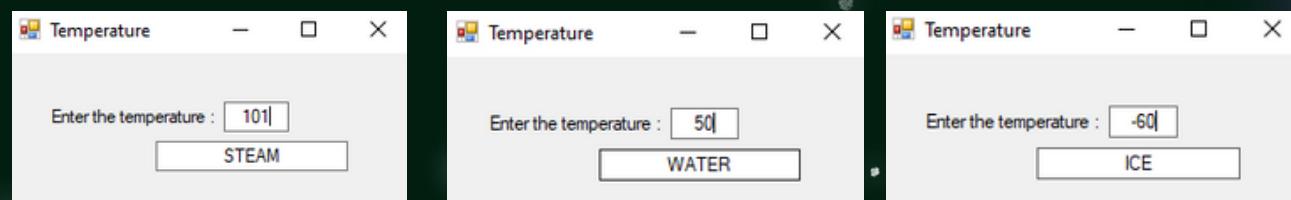


## Chapter 4 : Lab Act #1



Design and develop a simple application program that determines if the input letter at text box 1 (Text1) is a Vowel or Consonant. The output message should be displayed at text box 2 (Text2). The Vowels are: A E I O U; while the remaining letters are Consonants. Your program must be able to handle an uppercase or lowercase input letter. Follow the given figure below in designing and developing the application program:

```
VB Chapter4 LabAct2
1 reference
1 Public Class Form1
2
3     Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
4
5         If IsNumeric(TextBox1.Text) Or TextBox1.Text = "-" Then
6
7             Dim nTemp As Double
8             nTemp = Val(TextBox1.Text)
9
10            If nTemp < 0 Then
11                TextBox2.Text = "ICE"
12            ElseIf nTemp >= 0 And nTemp <= 100 Then
13                TextBox2.Text = "WATER"
14            ElseIf nTemp > 100 Then
15                TextBox2.Text = "STEAM"
16            ElseIf Not IsNumeric(TextBox1.Text) Then
17                TextBox2.Clear()
18                MsgBox("Please put a number.", MsgBoxStyle.Critical)
19            End If
20
21            Else
22                TextBox1.Clear()
23                TextBox2.Clear()
24                MsgBox("Please put a number.", MsgBoxStyle.Critical)
25            End If
26
27        End Sub
28
29     Private Sub TextBox2_TextChanged(sender As Object, e As EventArgs) Handles TextBox2.TextChanged
30
31     End Sub
32 End Class
```

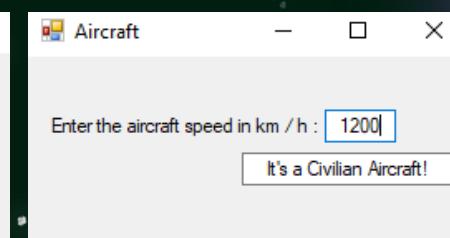
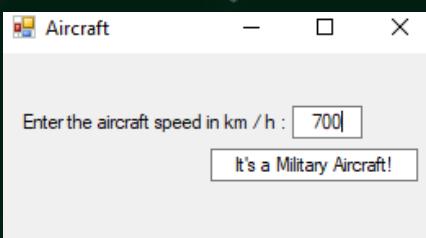
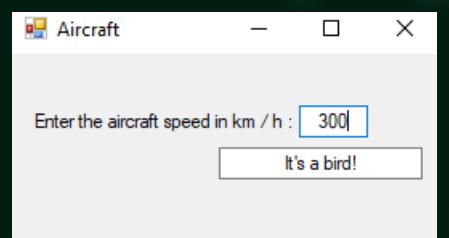


## Chapter 4 : Lab Act #2



Design and develop a simple application program that determines if the input letter at text box 1 (Text1) is a Vowel or Consonant. The output message should be displayed at text box 2 (Text2). The Vowels are: A E I O U; while the remaining letters are Consonants. Your program must be able to handle an uppercase or lowercase input letter. Follow the given figure below in designing and developing the application program:

```
Chapter 4 LabAct3
1 reference
2
3 Public Class Form1
4
5     References
6     Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
7
8         If IsNumeric(TextBox1.Text) Then
9             Dim nSpeed As Double
10            nSpeed = Val(TextBox1.Text)
11            If nSpeed > 1100 Then
12                TextBox2.Text = "It's a Civilian Aircraft!"
13            ElseIf nSpeed >= 500 And nSpeed <= 1100 Then
14                TextBox2.Text = "It's a Military Aircraft!"
15            ElseIf nSpeed < 500 Then
16                TextBox2.Text = "It's a bird!"
17            End If
18
19        Else
20            TextBox1.Clear()
21            TextBox2.Clear()
22            MsgBox("Please put a number.", MsgBoxStyle.Critical)
23        End If
24
25    End Sub
26
27
28    References
29    Private Sub TextBox2_TextChanged(sender As Object, e As EventArgs) Handles TextBox2.TextChanged
30
31    End Sub
32
33
34    References
35    Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
36
37        End Sub
38    End Class
```

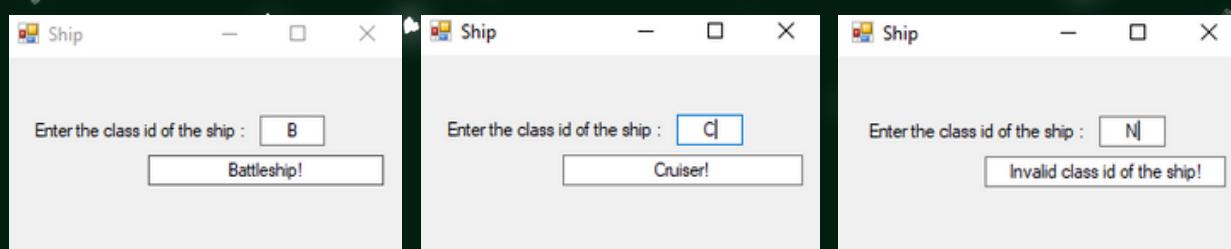


## Chapter 4 : Lab Act #3



Design and develop a simple program for the Air Force to label an aircraft as military or civilian. The program is to be given the plane's observed speed in km/h (kilometer per hour).The speed will serve as its input at text box 1 (Text1). For planes traveling in excess of 1100 km/h, you should label them as "civilian" aircraft; between 500 km/h to 1100 km/h, label them as "military" aircraft and for planes traveling at more slower speed – less than 500 km/h, you should label them as an "It's a bird!" message. The labeled message should be displayed at text box 2 (Text2). Follow the given figure below in designing and developing the application program:

```
VB Chapter4 LabAct4
 1 reference
 1 Public Class Form1
 2   0 references
 3     Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
 4       End Sub
 5
 6     0 references
 7     Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
 8
 9
10       If TextBox1.Text = "B" Or TextBox1.Text = "b" Then
11         TextBox2.Text = "Battleship!"
12       ElseIf TextBox1.Text = "C" Or TextBox1.Text = "c" Then
13         TextBox2.Text = "Cruiser!"
14       ElseIf TextBox1.Text = "D" Or TextBox1.Text = "d" Then
15         TextBox2.Text = "Destroyer!"
16       ElseIf TextBox1.Text = "F" Or TextBox1.Text = "f" Then
17         TextBox2.Text = "Frigate!"
18       Else
19         TextBox2.Text = "Invalid class id of the ship!"
20       End If
21     End Sub
22
23     0 references
24     Private Sub TextBox2_TextChanged(sender As Object, e As EventArgs) Handles TextBox2.TextChanged
25       End Sub
26   End Class
27
```



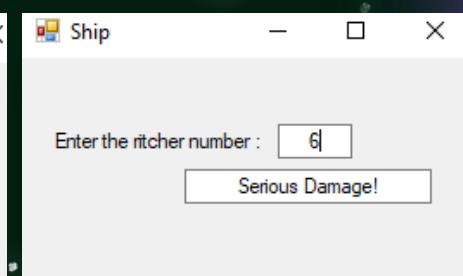
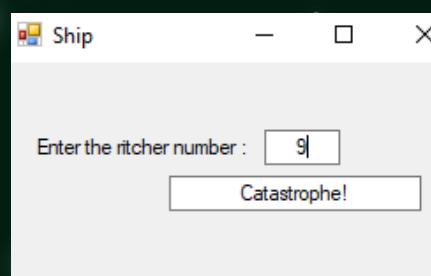
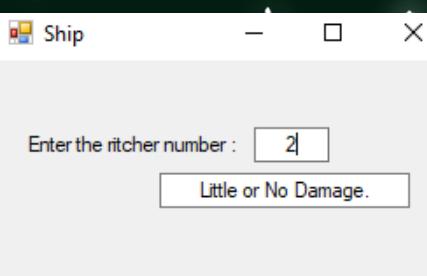
## Chapter 4 : Lab Act #4

Design and develop a simple program that determines the class of the Ship depending on its class ID (identifier). Here is the criteria. The class ID serves as the input data at text box 1 (Text1) and the class of the ship serves as the output information at text box 2 (Text2). Your program should be able to handle both capital or lower case letter as an input data.

Class ID	Ship Class
B or b	Battleship
C or c	Cruiser
D or d	Destroyer
F or f	Frigate

```
Chapter4LabAct5
1 reference
1 Public Class Form1
2     0 references
3     Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
4         End Sub
5
6     References
7     Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
8
9         If IsNumeric(TextBox1.Text) Then
10
11             Dim nNumber As Double
12             nNumber = Val(TextBox1.Text)
13
14             If nNumber < 5 Then
15                 TextBox2.Text = "Little or No Damage."
16             ElseIf nNumber >= 5 And nNumber <= 5.5 Then
17                 TextBox2.Text = "Some Damage!"
18             ElseIf nNumber >= 5.6 And nNumber <= 6.5 Then
19                 TextBox2.Text = "Serious Damage!"
20             ElseIf nNumber >= 6.6 And nNumber <= 7.5 Then
21                 TextBox2.Text = "Disaster!"
22             ElseIf nNumber > 7.5 Then
23                 TextBox2.Text = "Catastrophe!"
24             End If
25
26             Else
27                 TextBox1.Clear()
28                 TextBox2.Clear()
29                 MsgBox("Please put a number.", MsgBoxStyle.Critical)
30             End If
31
32     End Sub
33
34     References
35     Private Sub TextBox2_TextChanged(sender As Object, e As EventArgs) Handles TextBox2.TextChanged
36
37     End Sub
38 End Class
```



## Chapter 4 : Lab Act #5



The National Earthquake Information Center has the following criteria to determine the earthquake's damage. Here is the given richter scale criteria and its corresponding characterization. The richter scale serves as an input data at text box 1 (Text1) and the characterization as an output information at text box 2 (Text2).

Richter Number	Characterization
Less than 5	Little or No Damage
5 up to 5.5	Some Damage
5.6 up to 6.5	Serious Damage
6.6 up to 7.5	Disaster
Higher than 7.5	Catastrophe

```

VB Chapter4LabAct6
1 reference
1 Public Class Form1
0 references
2 Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
3
4 End Sub
0 references
5
6 Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles TextBox1.TextChanged
7
8     If IsNumeric(TextBox1.Text) Then
9
10         Dim nNumber As Double
11         nNumber = Val(TextBox1.Text)
12
13         If nNumber >= 98 Then
14             TextBox2.Text = "1.00"
15         ElseIf nNumber >= 95 And nNumber <= 97 Then
16             TextBox2.Text = "1.25"
17         ElseIf nNumber >= 92 And nNumber <= 94 Then
18             TextBox2.Text = "1.50"
19         ElseIf nNumber >= 89 And nNumber <= 91 Then
20             TextBox2.Text = "1.75"
21         ElseIf nNumber >= 85 And nNumber <= 88 Then
22             TextBox2.Text = "2.00"
23         ElseIf nNumber >= 82 And nNumber <= 84 Then
24             TextBox2.Text = "2.25"
25         ElseIf nNumber >= 80 And nNumber <= 81 Then
26             TextBox2.Text = "2.50"
27         ElseIf nNumber >= 77 And nNumber <= 79 Then
28             TextBox2.Text = "2.75"
29         ElseIf nNumber >= 75 And nNumber <= 76 Then
30             TextBox2.Text = "3.00"
31         Else
32             TextBox2.Text = "Out of Range!"
33         End If
34     Else
35         TextBox1.Clear()
36         TextBox2.Clear()
37         MsgBox("Please put a number.", MsgBoxStyle.Critical)
38     End If
39
40 End Sub
41
42 End Class

```

Grading System

Enter a grade in percentage :

Grading System

Enter a grade in percentage :

Grading System

Enter a grade in percentage :

# Chapter 4 : Lab Act #6



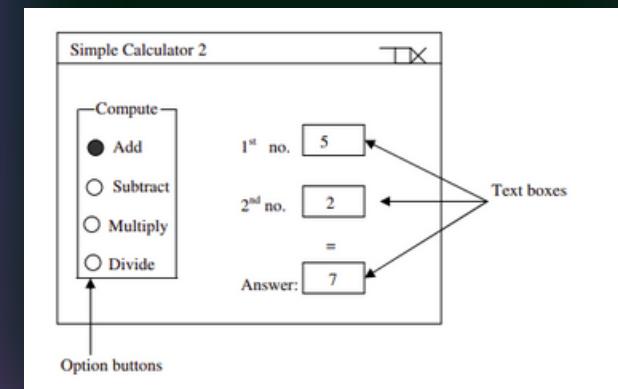
Design and develop a simple application program that accepts an input grade in percentile form at text box 1 (Text1) and output its grade equivalent at text box 2 (Text2) based on the given range of percentile and grade equivalent table below:

Range in Percentile	Form Grade in Transcript
98 - 100	1.00
95 - 97	1.25
92 - 94	1.50
89 - 91	1.75
85 - 88	2.00
82 - 84	2.25
80 - 81	2.50
77 - 79	2.75
75 - 76	3.00
Other Grades	"Out - Of-Range"

# Chapter 4 : Lab Act #7



Design and develop a simple application program that adds, subtracts, multiplies, or divides two input numbers using the option buttons. Follow the given figure below in designing and developing the application program:



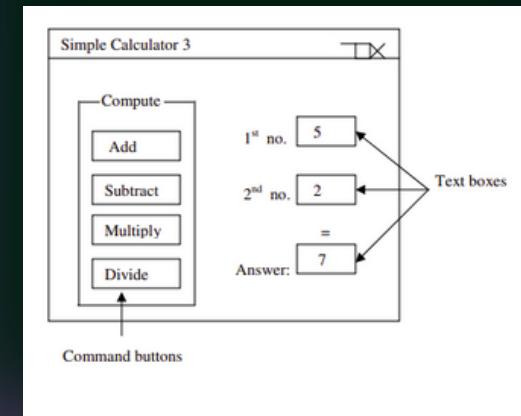
```
Chapter4LabAc7
1 reference
1 Public Class Form1
2     Dim N1, N2 As Double
3     Dim Answer As String
4     References
5     Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
6         RadioButton1.Checked = False
7         RadioButton2.Checked = False
8         RadioButton3.Checked = False
9         RadioButton4.Checked = False
10    End Sub
11
12    References
13    Private Sub RadioButton1_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton1.CheckedChanged
14        N1 = Val(TextBox1.Text)
15        N2 = Val(TextBox2.Text)
16        Answer = N1 + N2
17        TextBox3.Text = (" " + Answer)
18    End Sub
19
20    References
21    Private Sub RadioButton3_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton3.CheckedChanged
22        N1 = Val(TextBox1.Text)
23        N2 = Val(TextBox2.Text)
24        Answer = N1 - N2
25        TextBox3.Text = (" " + Answer)
26    End Sub
27
28    References
29    Private Sub RadioButton4_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton4.CheckedChanged
30        N1 = Val(TextBox1.Text)
31        N2 = Val(TextBox2.Text)
32        Answer = N1 * N2
33        TextBox3.Text = (" " + Answer)
34    End Sub
35
36    References
37    Private Sub RadioButton2_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton2.CheckedChanged
38        N1 = Val(TextBox1.Text)
39        N2 = Val(TextBox2.Text)
40        Answer = N1 / N2
41        TextBox3.Text = (" " + Answer)
42    End Sub
43
44 End Class
```

The image shows three screenshots of the "Simple Calculator" application. The first screenshot shows the initial state with "Add" selected, "1st No." as 55, "2nd No." as 5, and "Answer:" as 60. The second screenshot shows "Multiply" selected, "1st No." as 55, "2nd No." as 5, and "Answer:" as 275. The third screenshot shows "Divide" selected, "1st No." as 55, "2nd No." as 5, and "Answer:" as 11.

# Chapter 4 : Lab Act #8



Design and develop a simple application program that adds, subtracts, multiplies, or divides two input numbers using the option buttons. Follow the given figure below in designing and developing the application program:



```
Chapter4LabAct8
1 reference
1 Public Class Form1
2     Dim N1, N2 As Double
3     Dim Answer As String
4     0 references
5     Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
6
7     End Sub
8     0 references
9     Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
10        N1 = Val(TextBox1.Text)
11        N2 = Val(TextBox2.Text)
12        Answer = N1 - N2
13        TextBox3.Text = (" " + Answer)
14    End Sub
15     0 references
16     Private Sub Button3_Click(sender As Object, e As EventArgs) Handles Button3.Click
17        N1 = Val(TextBox1.Text)
18        N2 = Val(TextBox2.Text)
19        Answer = N1 * N2
20        TextBox3.Text = (" " + Answer)
21    End Sub
22     0 references
23     Private Sub Button4_Click(sender As Object, e As EventArgs) Handles Button4.Click
24        N1 = Val(TextBox1.Text)
25        N2 = Val(TextBox2.Text)
26        Answer = N1 / N2
27        TextBox3.Text = (" " + Answer)
28    End Sub
29     0 references
30     Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
31        N1 = Val(TextBox1.Text)
32        N2 = Val(TextBox2.Text)
33        Answer = N1 + N2
34        TextBox3.Text = (" " + Answer)
35    End Sub
36
37 End Class
```

The image displays three screenshots of the 'Simple Calculator' application. The first screenshot shows the interface with buttons for Compute, Add, Subtract, Multiply, and Divide. The second screenshot shows the application performing 5 + 5 = 10. The third screenshot shows the application performing 5 - 5 = 0. The fourth screenshot shows the application performing 5 \* 5 = 25. The fifth screenshot shows the application performing 5 / 5 = 1.

# Chapter 4 : Lab Act #9



Design and develop a simple application system so that when the user chooses the Economy accommodation, the Toilet and Meals amenities should be marked with a check and the fare is P1,500. When the user chooses the Tourist accommodation, the Toilet, Aircon, Bed sheets, and Meals amenities should be marked with a check and the fare is P1,700. When the user chooses the Cabin accommodation, all amenities should be marked with a check and the fare is P2,000 pesos. . Design and develop a simple application program that adds, subtracts, multiplies, or divides two input numbers using the option buttons. Follow the given figure below in designing and developing the application program:

```
VB Chapter4LabAct9
 1 reference
1 Public Class Form1
2
3     0 references
4     Private Sub RadioButton1_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton1.CheckedChanged
5         CheckBox1.Checked = True
6         CheckBox5.Checked = True
7         TextBox1.Text = "PHP 1500"
8     End Sub
9
10    0 references
11    Private Sub RadioButton3_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton3.CheckedChanged
12        CheckBox1.Checked = True
13        CheckBox2.Checked = True
14        CheckBox4.Checked = True
15        CheckBox5.Checked = True
16        TextBox1.Text = "PHP 1700"
17    End Sub
18
19    0 references
20    Private Sub RadioButton4_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton4.CheckedChanged
21        CheckBox1.Checked = True
22        CheckBox2.Checked = True
23        CheckBox3.Checked = True
24        CheckBox4.Checked = True
25        CheckBox5.Checked = True
26        CheckBox6.Checked = True
27        TextBox1.Text = "PHP 2000"
28    End Sub
29 End Class
```

The application window has two main sections: 'Accommodation' and 'Amenities'.

- Accommodation:** Contains three radio buttons: 'Economy' (selected), 'Tourist', and 'Cabin'.
- Amenities:** Contains a list of checkboxes:
  - Toilet (checked)
  - Aircon (unchecked)
  - Television (unchecked)
  - Bed Sheets (unchecked)
  - Meals (checked)
  - VIP Lounge (unchecked)
- Fare:** A text box showing the fare amount.

In the first screenshot (Economy selected):

- Toilet: checked
- Aircon: unchecked
- Television: unchecked
- Bed Sheets: unchecked
- Meals: checked
- VIP Lounge: unchecked
- Fare: PHP 1500

In the second screenshot (Tourist selected):

- Toilet: checked
- Aircon: checked
- Television: unchecked
- Bed Sheets: checked
- Meals: checked
- VIP Lounge: unchecked
- Fare: PHP 1700

In the third screenshot (Cabin selected):

- Toilet: checked
- Aircon: checked
- Television: checked
- Bed Sheets: checked
- Meals: checked
- VIP Lounge: checked
- Fare: PHP 2000

```
ChapterLabAct1
1 reference
Public Class Form1
2
3     Dim MOP As Double
4
5     Private Sub RadioButton1_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton1.CheckedChanged
6         MOP = 0.1
7         TextBox1.Clear()
8         TextBox2.Clear()
9     End Sub
10
11     Private Sub RadioButton3_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton3.CheckedChanged
12         MOP = 0.05
13         TextBox1.Clear()
14         TextBox2.Clear()
15     End Sub
16
17     Private Sub RadioButton2_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton2.CheckedChanged
18         MOP = 0.1
19         TextBox1.Clear()
20         TextBox2.Clear()
21     End Sub
22
23     Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
24
25         Dim t1, t2, t3 As Double
26         t1 = Val(TextBox1.Text)
27
28         If RadioButton1.Checked = True Then
29             t2 = t1 * MOP
30             t3 = t1 - t2
31             TextBox2.Text = t3
32         ElseIf RadioButton2.Checked = True Then
33             t2 = t1 * MOP
34             t3 = t1 + t2
35             TextBox2.Text = t3
36         ElseIf RadioButton3.Checked = True Then
37             t2 = t1 * MOP
38             t3 = t1 + t2
39             TextBox2.Text = t3
40         End If
41
42     End Sub
43
44 End Class
```

The figure displays three windows of a Windows application titled "Tuition Fee Assessment System". Each window has a title bar and a standard Windows-style border.

- Window 1:** Shows Mode of Payments as "Cash (10% Discount)" selected. Enter tuition fee: 5000. Compute button. Your total tuition fee: 4500.
- Window 2:** Shows Mode of Payments as "Two Payments (5% Interest)" selected. Enter tuition fee: 7000. Compute button. Your total tuition fee: 7350.
- Window 3:** Shows Mode of Payments as "Three Payments (10% Interest)" selected. Enter tuition fee: 20000. Compute button. Your total tuition fee: 22000.

## Chapter 4 : Lab Act #10



Design and develop this simple application system. Here in our program, we will input the tuition fee. Now if the user clicks the Compute command button, the total tuition fee will be displayed at Text box 2 (Text2). In our sample input data, we input the 30,000 tuition fee, now its 5 % (percent) interest is 1,500. Thus, output at text box 2 (Text2) is 31,500 ( $30,000 + 1,500$ ). Now for example we enter a tuition fee of 20,000 and then we select the Cash as the mode of payment, the output at text box 2 (Text2) should be 18,000 since there is a 10 % (percent) discount for paying a Cash tuition fee. Follow the given figure below in designing and developing the application system:

# Chapter 4 : Lab Act #ll



Design and develop a simple application system that if the user selects CT Scan, only the Head body parts is marked with a check. If X-Ray is chosen, only the Body will be marked with a check. And if the Physical exam is chosen, then all the body parts are marked with a check. In our example, we chose the X-ray as the Medical exam chosen, and since the number of Medical exam is 2, therefore, the Bill is 2000 ( $1000 * 2$ ).

```
Chapter4LabAct11
Form1
Public Class Form1
    Dim Medical_Exam As Double
    Private Sub RadioButton1_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton1.CheckedChanged
        CheckBox1.Checked = True
        CheckBox2.Checked = False
        CheckBox3.Checked = False
        CheckBox4.Checked = False
        Medical_Exam = 12000
        TextBox1.Clear()
        TextBox2.Clear()
    End Sub

    Private Sub RadioButton3_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton3.CheckedChanged
        CheckBox1.Checked = True
        CheckBox2.Checked = True
        CheckBox3.Checked = True
        CheckBox4.Checked = True
        Medical_Exam = 1000
        TextBox1.Clear()
        TextBox2.Clear()
    End Sub

    Private Sub RadioButton2_CheckedChanged(sender As Object, e As EventArgs) Handles RadioButton2.CheckedChanged
        CheckBox1.Checked = False
        CheckBox2.Checked = False
        CheckBox3.Checked = True
        CheckBox4.Checked = False
        Medical_Exam = 700
        TextBox1.Clear()
        TextBox2.Clear()
    End Sub

    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
        Dim nExam, Bill As Double
        nExam = Val(TextBox1.Text)
        Bill = nExam * Medical_Exam
        TextBox2.Text = Bill
    End Sub
End Class
```

Patient Record Assessment System

Medical Exam

- CT - Scan (P12,000)
- X - Ray (P1,000)
- Physical Exam (P700)

Body Parts

- Head
- Mouth
- Body
- Urine

No. of M. Exam : 2

Bill : 24000

Compute

Patient Record Assessment System

Medical Exam

- CT - Scan (P12,000)
- X - Ray (P1,000)
- Physical Exam (P700)

Body Parts

- Head
- Mouth
- Body
- Urine

No. of M. Exam : 2

Bill : 2000

Compute

Patient Record Assessment System

Medical Exam

- CT - Scan (P12,000)
- X - Ray (P1,000)
- Physical Exam (P700)

Body Parts

- Head
- Mouth
- Body
- Urine

No. of M. Exam : 2

Bill : 1400

Compute