

# Lecture 9 In-class Lab

Name: \_\_\_\_\_



You will be working through tutorial 4-10 (Health Club Membership Fee Calculator) in chapter 4 (pp. 254-258). To speed things up, I've completed the layout of the form, and set the control properties as described in steps 1 and 2. The partial project is at: P:\Math-CS\810-030\common\Partial Tutorial 4-10 copy it to your Desktop, or download it from <http://www.cs.uni.edu/~fienup/cs030f09/lectures/index.htm>

Double-click on

Health Club Membership Calculator.vbproj  
to open the project.

**Step 3:** At the top of the form under the long block of comments/remarks, create the class-level constants used to calculate discounts:

```
' The following class-level constants are used to calculate discounts.  
Const decDiscount4to6 As Decimal = 0.05D           ' 4 to 6 months  
Const decDiscount7to9 As Decimal = 0.08D           ' 7 to 9 months  
Const decDiscount10orMore As Decimal = 0.1D         ' 10 or more mo.
```

**Step 4:** Add the following code to the btnCalculate\_Click event procedure. The first If...Then statement prevents a run-time error if the user enters a nonnumeric value in the txtMonths control. The second If...Then statement checks the range of intMonths so it will always be between 1 and 24.

```
If Not Integer.TryParse(txtMonths.Text, intMonths) Then  
    MessageBox.Show("Months must be a valid integer", _  
        "Input Error")  
    Return  
End If  
  
' Check the month range: must be 1-24.  
If (intMonths < 1) Or (intMonths > 24) Then  
    MessageBox.Show("Enter a value in the range of " _  
        & "1 - 24 for months.", "Input Error")  
    Return  
End If
```

**Step 5:** Below the code you just added, insert the following code to calculate the base monthly fee from the radio buttons: radAdult, radChild, radStudent, and radSenior.

```
If radAdult.Checked = True Then  
    decBaseFee = 40  
ElseIf radChild.Checked = True Then  
    decBaseFee = 20  
ElseIf radStudent.Checked = True Then  
    decBaseFee = 25  
ElseIf radSenior.Checked = True Then  
    decBaseFee = 30  
End If
```

**Step 6:** Below the code you just added, insert the following code to calculate cost of additional services by examining each the check boxes: chkYoga, chkKarate, and chkTrainer.

```
If chkYoga.Checked = True Then  
    decBaseFee += 10  
End If  
If chkKarate.Checked = True Then  
    decBaseFee += 30  
End If  
If chkTrainer.Checked = True Then  
    decBaseFee += 50  
End If
```

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**Step 7:** Below the code you just added, insert the following code to determine the amount of discount the member should receive.

```
Select Case intMonths
    Case Is <= 3
        decDiscount = 0
    Case 4 To 6
        decDiscount = decBaseFee * decDiscount4to6
    Case 7 To 9
        decDiscount = decBaseFee * decDiscount7to9
    Case Is >= 10
        decDiscount = decBaseFee * decDiscount10orMore
End Select
```

**Step 8:** Below the code you just added, insert the following code to subtract the discount from the base fee and calculate the total fee. Assign the base fee and monthly fee to labels.

```
decBaseFee -= decDiscount
decTotalFee = decBaseFee * intMonths

' Display the fees.
lblMonthlyFee.Text = decBaseFee.ToString("c")
lblTotalFee.Text = decTotalFee.ToString("c")
```

**Step 9:** Add the following code to the btnClear\_Click event procedure. The code clears the form, resets the buttons, and check boxes.

```
radAdult.Checked = True
chkYoga.Checked = False
chkKarate.Checked = False
chkTrainer.Checked = False
txtMonths.Clear()
lblMonthlyFee.Text = String.Empty
lblTotalFee.Text = String.Empty
```

**Step 10:** Add the following code to the btnExit\_Click event procedure to exit the form.

```
Me.Close()
```

**Step 11:** Build the project and correct any syntax errors that result. Save All from the File menu to save your code on the Desktop.

**Step 12:** Run the application to debug your errors. Use the following test data to confirm that it displays the correct output.

Type of Membership	Monthly Fee	Total
Standard adult with yoga, karate, and personal trainer for 6 months	\$123.50	\$741.00
Child with karate for 3 months	\$50.00	\$150.00
Student with yoga for 12 months	\$31.50	\$378.00
Senior citizen with karate and personal trainer for 8 months	\$101.20	\$809.60

**Step 13:** End the application and exit Visual Studio

Copy the folder containing your code to the P: drive in your folder. **You might also want to also store your VB application folder on a USB flash drives, too.**

**Step 14:** Zip the Partial Tutorial 4-10 folder and submit it electronically at:

[http://math-cs.cns.uni.edu/~schafer/submit/which\\_course.cgi](http://math-cs.cns.uni.edu/~schafer/submit/which_course.cgi)

**Make sure as you leave that you signed the attendance sheet to indicate that you were in class.**