

IST 256
Lab Week 3, Part 2 – January 28, 2009

1. Compute Salary – extending the compute salary program

For this application, you should open Visual Studio and create a new project named something like ComputeSalary. This new project should be in the same lab projects folder as usual.

In the **initial form**, change the text property of the form for the new ComputeSalary project.

Version 1 – In-class:

In class, an application was developed for a simpler version of the ComputeSalary program. The application description was:

Write an application that allows the user to type in the number of hours that they worked in a week. Then they can click on a button to compute the salary for that week. The salary is computed as follows: if the number of hours per week is less than or equal to 40, then the pay rate is \$10 per hour and otherwise it is \$15 per hour. Display the salary and allow the user to close the application (but do not allow the user to type in more hours).

In the form design, there was a label with instructions to the user: “Type number of hours worked” next to a textbox. There was an (initially invisible) label to display the salary. There were two buttons, one with “Compute Salary” and the other with “Close”.

In the program, there were

- two variables: Hours and Salary, both of type single to allow for decimal numbers.
- code for the Compute Salary button was to get the hours from the textbox. If the hours were ≤ 40 , then salary was computed as $\text{hours} * \$10$ and otherwise the salary was computed as $\text{hours} * \$15$.
- code for the Close button ends the program.

Here is the program:

‘ The ComputeSalary program takes hours worked and computes salary

‘ using hourly pay rates

‘ Programmer: Nancy McCracken

```
Public Class Form1
    ' User will type in hours, salary will be computed
    Dim Hours, Salary As Single

    ' Compute the Salary from the number of hours worked
    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click
        ' get the hours from the textbox
        Hours = CSng(TextBox1.Text)

        ' if hours <= 40, pay rate is $10 otherwise rate is $15
        If Hours <= 40 Then
            Salary = Hours * 10.0
        Else
            Salary = Hours * 15.0
        End If

        ' make label text with the salary and display
        Label2.Text = "Salary = " & Format(Salary, "currency")
        Label2.Visible = True
        ' make other objects not visible
        Label1.Visible = False
        TextBox1.Visible = False
    End Sub

    ' Close the form
    Private Sub Button2_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button2.Click
        Close( )
    End Sub
End Class
```

Version 2: Lab

For lab today, you are to design another Compute Salary application that is extended from this one. This application description is as follows:

Write an application that allows the user to type in the number of hours that they worked in a week. Then they should type in a 0 if they worked the day shift or a 1 if they worked the night shift. Then they can click on a button to compute the salary for that week. The salary is computed as follows:

if the number of hours per week is ≤ 40 , then the pay rate is \$10

and otherwise the pay rate is \$15

if they work the night shift, then they get a bonus of \$20 added to their salary

Display the salary and allow the user to close the application.

First decide on what additional objects you need to put on the form. One more label and one more textbox?

Next you will need an additional variable to hold their day/night shift status. This variable can be declared as an integer, possibly called status.

Add code to the Compute Salary button to use both the hours and the status to compute the salary as described in the application description.

Test your program with different values and show the results here. Is it working?

Test Runs	Hours	Status	Salary
1	46	0	
2	32	0	
3	46	1	
4	32	1	

Print the Form1.vb page of your program. Staple together the Monday's lab pages, today's lab pages, and the program and hand it all in.