



## 5. Add the Program

**First add a comment to the button event method to document its actions:**

**Go to the Source tab and find the actionPerformed method and add a comment before it. My comment (using the multi-line comment notation):**

```
/* Get the number of hours worked from the form and compute the Salary
 * and display it in a label
 * Programmer: Nancy McCracken
 */
```

**Add the code right after the comment with TODO:**

For each step, add a comment and then on the next line(s), add the programming statement(s) that perform the computational step described.

[These steps correspond to the similar program developed in class:

```
Step 1: // declare variables for hours worked and resulting salary
        Add the declarations for two variables, hours and salary
Step 2: // get the number of hours that the user typed into the textfield
        Add the statement that assigns the input into the hours variable.
Step 3: // if hours are <= 40, pay rate is $10, otherwise it is $15
        Add the if statement that computes the salary
Step 4: // display the salary (as a decimal number) in the second label
        jLabel2.setText("Salary = " + String.valueOf(salary));    ]
```

- **Run this program** by the little green triangle on the top bar.
  - When the program executes, it should bring up the user interface form, and you should type in an integer into the text field. Then click on the button to get the salary.
- **Test your program with three integers:**
  - **Write down what integers you typed in and what the results are here. Make sure that at least one integer is greater than 40. Do the results look plausible?**

Hours	Salary

- Note that NetBeans saves your project as you work.

## Lab Exercise 2 – Modifying the ComputeSalary program – work on your own

### 1. Program Specification

Change the ComputeSalary program so that it also allows the user to type in whether they work the night shift or day shift. The user will either type the text “night” or “day” (type it without the quotes). Then the salary is computed as follows:

The salary is computed with the pay rate of \$10.0 for hours  $\leq$  40  
and pay rate of \$15 for hours  $>$  40 as before.

In addition, if they work the night shift, add a bonus of \$20 to the salary.

### 2. Add to the form:

Add a third label right under the Type hours label to say “Type shift, either night or day” and a second textfield beside it that starts as an empty textfield.

The resulting form will now look something like:

Type number of hours worked:	0 _____
Type shift, either night or day:	_____

| Compute Salary | (Button)

Result Salary (Label)

### 3. Add code to your program.

Go to the actionPerformed function that you wrote before.

Add a third variable declaration for a variable of type String that will represent the shift.

Write a statement that will get the value of shift from the second Textfield (jTextField2)

Note that you don't need to convert the String to a number.

After the *if* statement, add another *if* statement to add to the salary if the user should get a bonus.

the condition of the if statement will compare Strings: (shift.equals (“night”)).

the body of the if statement will add 20.00 into the current value of salary.

### 4. Run this program by the little green triangle on the top bar.

**5. Test your program:**

**Perform the following 4 tests, using the input indicated and show the result.**

<b>Test Run</b>	<b>Hours</b>	<b>Shift</b>	<b>Salary</b>
<b>1</b>	<b>46</b>	<b>day</b>	
<b>2</b>	<b>32</b>	<b>day</b>	
<b>3</b>	<b>46</b>	<b>night</b>	
<b>4</b>	<b>32</b>	<b>night</b>	

**6. Answer the following questions** about the program that you wrote:

Write down the **condition** of the first if statement:

Write down the **condition** of the second if statement:

**Hand in this lab sheet either at the end of class today or by the beginning of class on Tuesday, January 31.**