**Coding Assignment 1**

You can work individually or in groups of 2.

**Problem**

You will write the 13 tests for *getPay()* for the *Employee* class from the *Testing Example* handout as JUnit tests.

**Steps**

1. You will keep a Time Log for this (and all) assignments. Please see the *Time Log* section below.
2. Specify the test values and expected output by supplying the exact values you will use for WDH, WDW, and WEW and the expected results in the gray cells in the table below.

After you have run your test cases (step 6 below) with the code I supplied, how many of your test cases failed?

|  |  |
| --- | --- |
|  | Out of 21 initially failed |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Specification** | | | | **Test Values** |  |
| **Case** | **PS** | **WDH** | **WDW** | **WEW** | ***hours* Array** | **Expected Output** |
| 1 | NNN | <40 | 0 | 0 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 2 |  | <40 | 4 | 0 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 3 |  | <40 | 5 | 0 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 4 |  | =40 | 4 | 0 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 5 |  | =40 | 5 | 0 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 6 | NYN | <40 | 0 | 1 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 7 |  | <40 | 0 | 2 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 8 |  | <40 | 4 | 1 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 9 |  | <40 | 4 | 2 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 10 |  | <40 | 5 | 1 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 11 |  | =40 | 4 | 1 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 12 |  | =40 | 4 | 2 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 13 |  | =40 | 5 | 1 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 14 | NYY | <40 | 5 | 2 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 15 |  | =40 | 5 | 2 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 16 | YNN | >40 | 4 | 0 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 17 |  | >40 | 5 | 0 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 18 | YYN | >40 | 4 | 1 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 19 |  | >40 | 4 | 2 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 20 |  | >40 | 5 | 1 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |
| 21 | YYY | >40 | 5 | 2 | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |

1. Email me the completed table (use Subject:CS 4322-CA 1, expected results), I will email you a zip file with the *Employee* class.
2. Open Eclipse and create a project named, *hw01* and create a package named *prob1*, and drag the *Employee* class there.
3. Create a JUnit test class named, *EmployeeTest.* (File, New, JUnit Test Case)
4. Write the 21 tests above as JUnit 5 tests. Above the table, answer how many initially failed. You will NOT be penalized for this number. It is for you to see how accurate you read the requirements for the method.
5. The *getPay* method supplied to you is correct. So, if some of your answers are not correct then this means that your expected result in the table above is incorrect. Fix the JUnit values so that they all pass.

**Deliverables**

1. Code – zip the *prob1* package which includes:
2. Your JUnit test class, *EmployeeTest*
3. The *Employee* class
4. This document with the question answered (from step 6)
5. Time log(s)

into a file named: LastName1\_LastName2.zip and submit on Blazeview in the dropbox named, *CA 1*. Only one person should submit.

**Time Log**

I am not grading you on your time, just the quality of what you produce. I’m requiring you to track your time because: (a) it is good practice to break your work into tasks and keep track of time, (b) I want feedback on the amount of time these assignments take.

If working in a group, each person should make a Time Log. They can be submitted as separate files or both on one page. If submitting with separate files, name the file: ca1\_lastName \_timelog.docx

**Track your time using this table. Delete empty rows, add if needed. Put the total time at bottom. Delete everything above and submit (in your *prob1* folder) everything below saved as a word document.**

**Coding Assignment 1 - Time Log**

Name:

|  |  |
| --- | --- |
| **Time (hrs)** | **Task** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  | **Total Time (hrs)** |