COSC 2436 Lab 4 Instructions

**Payroll Class** (Chapter 6 Programming Challenge 5)

Design a Payroll class that has fields for an employee's name, ID number, hourly pay rate, and number of hours worked. Write the appropriate accessor and mutator methods and a constructor that accepts the employee's name and ID number as arguments. The class should also have a method that returns the employee's gross pay, which is calculated as the number of hours worked multiplied by the hourly pay rate. Write a program that demonstrates the class by creating a Payroll object, then asking the user to enter the data for an employee. The program should display the amount of gross pay earned.

**Solution is given**

*Now Start your Lab 4…*

**Payroll Class Exceptions**

Programming Challenge 5 of Chapter 6 required you to write a Payroll class that calculates an employee’s payroll. Write exception classes for the following error conditions:

* An empty string is given for the employee's name.
* An invalid value is given for the employee's ID number. If you implemented this field as a string, then an empty string would he invalid. If you implemented this field as a numeric variable, then a negative number or zero would be invalid.
* An invalid number is given for the number of hours worked. This would be a negative number or a number greater than 84.
* An invalid number is given for the hourly pay rate. This would be a negative number or a number greater than 25.

Modify the given Payroll class so that it throws the appropriate exception when any of these errors occurs. Demonstrate the exception classes in a program.

**Resource:**

* Solution to Chapter 6 Programming Challenge 5
* Week 4 Example Program
* Week 4 Example Program Video

Deliverables:

* InvalidNameException.java (10 %)
* InvalidIDException.java (10%)
* InvalidHoursException.java (10%)
* InvalidHourlyRateException.java (10%)
* Payroll.java (25%)
* PayrollDemo.java (25%)
* Screenshot (10%)

Note: Sparingly comment your java source code, save all the files in ***your\_lastname\_lab\_4*** folder, zip it, and upload for grading.

Thank you!