CIS280 Project #2 (Chapter 3)

Name(s):_____ Due: _____

Personalization and Commenting Requirements:

- ***All source code must contain a comment with the source file name, programmer(s) names(s) and date created***
- ***Commenting at top should include the purpose of the program***
- ***Appropriate, clear commenting must be used throughout the code; be professional and pay attention to spelling***
- ***All applications should start with an output to the screen that contains the name of the application and the programmer(s***)
- ***Name the programs as shown on this project sheet***

Chapter 3 Requirements

1. *Student.java* and *DemoStudent.java*
    a. *Student.java* is a class that should contain the following:
        i. Private instance fields:
            1. Student Number
            2. Student Last Name
            3. Student First Name
            4. Student's Major
            5. Number of credits being taken by student

        ii. Constructors
            1. A "no-arg" constructor that initializes values as follows:
                a. Student Number set to zero
                b. Student Last Name set to "NoLast"
                c. Student First Name set to "NoFirst"
                d. Student Major set to "Unspecified"
                e. Number of credits being taken by student set to zero

            2. A constructor that accepts arguments for all of the instance fields

        iii. Getters and Setters
            1. For *every* instance field, there should be a "get" and a "set" method.

        iv. *calcStudyTime* method
            1. This method returns the amount of study time expected (3 times the number of credits)

b. DemoStudent.java

1. Create an object referenced as *firstStudent* by using the "no-arg" constructor.
2. Display the data from *firstStudent*. This will require the use of your "get" methods along with System.out.println.
3. Create an object referenced as *secondStudent* by using the constructor that accepts arguments, passing it your own student number, your own last name, your own first name, your own major, and your own number of credits being taken. Pass these as literals, for example: *101, "Parker", "Char", "CIS", 15*
4. Display the data from *secondStudent*. This will require the use of your "get" methods along with System.out.println.
5. Display the amount of study time expected for *secondStudent* by calling the *calcStudytime* method.
6. Add variables as needed to enable you to ask your user to input the student number, last name, first name, major, and number of credits being taken. Write the code needed to ask your user for this data and store it in the variables. Use the Scanner class and its methods for this.
7. Create an object referenced as *thirdStudent* by using the "no-arg" constructor.
8. Call your "set" methods for the student number, last name, first name, major, and number of credits being taken, passing the data just collected from your user to each set method to populate *thirdStudent* with this data.
9. Display the data from *thirdStudent*. This will require the use of your "get" methods along with System.out.println.
10. Display the amount of study time expected for *thirdStudent* by calling the *calcStudytime* method.

2. *YourChoice.java* and *DemoYourChoice.java:*

a. Create a class named *YourChoice.java*, which represents an object of your choice. Data fields should include variables that are appropriate for your object. Include set (mutator) and get (accessor) methods for each data field. Include a no-arg constructor that initializes an object to whatever values you decide upon. Save this as *YourChoice.java.*

b. Create an application called *DemoYourChoice.java* . This application should create three objects from your *YourChoice* class. Populate each one with data, and display the data from each one.

c. Extra credit for using GUI dialog boxes to prompt the user for the data rather than just using literals/constants. If you choose to do this, you will also need to display your output as a GUI box rather than System.out.println.

Submission Requirements

- Zip your .java source files into a folder labeled with your name(s) and project number. Submit this zipped folder in Blackboard. Please use the onboard zip utility in Windows rather than a third-party application.