In-class lab

Design a class called **Student**. Include the appropriate comments for each class element. All students have the following attributes:

* student name
* student ID
* test score
* course fees in CAD
* is eligible for a discount

Choose appropriate data types and make sure the instance variables are all private.

Provide a constructor for the Student class. The constructor takes parameters to initialize (**only** studentName, studentID, testScore and courseFeesInCAD). The parameters of testScore and courseFeesInCAD will be validated and used only if they were positive, otherwise, an IllegalArgumentException will be thrown with a message explaining the problem. Parameters of studentName and studentID will be validated and used only if they were not null, otherwise an IllegalArgumentException will be thrown with a message explaining the problem. isEligibleForADiscount should be set to false.

Provide accessor method for each instance variable also provide appropriate Javadoc comments for each method

Provide a mutator method for the instance variables studentName, studentID, testScore and courseFeesInCAD. The mutator methods of each of testScore and courseFeesInCAD will validate and use the passed parameters only if it was positive otherwise, an IllegalArgumentException will be thrown with a message explaining what the problem is. The mutators of each of studentName and studentID will validate the passed parameter and uses it only if it was not null. If the passed parameter was null an IllegalArgumentException will be thrown with a message explaining what the problem is.

Provide a method with the following signature:

**public void checkForDiscount ()**

This method checks the courseFeesInCAD. If the courseFeesInCAD was greater than or equal to $700 then a 15 % discount of the course fees will be applied, adjust courseFeesInCAD to the new fee (deduct 15% of the course fees) also isEligibleForADiscount will be set to true. If the student does not get a discount, isEligibleForADiscount will be set to false.

Provide a method with the signature

**public void printStudentDetails()**

This method displays the student details as illustrated in the following example:

Student Name: John Brown

StudentID: A00123456

Test Score: 70

Course Fees: 850

This student got a discount of 15 %

Alternatively, if the student does not get a discount the message:

“This student does not get a discount” instead of this student gets a discount of 15 % will be displayed.

When you test your project, invoke method checkForDiscount() before method printStudentDetails() to get the correct result

Demonstrate your completed project to your instructor or TA before leaving the lab. A suggested solution will be given during the next class and labs that have not been checked off before the stated deadline will not receive any points. Once you have completed your lab, zip the lab folder and upload it to D2L drop box before the deadline.