

CSCI-101 Programming 1

Lab 10a

INSTRUCTIONS

Create a directory named **lab10** directory. Inside **lab10** directory create a class named **Student** that models a student. The Student class should have the following:

1. Private fields
 - a. a field named **firstName** that holds a String.
 - b. a field named **lastName** that holds a String.
 - c. a field named **studentID** that holds an integer.
2. A constructor
 - a. The constructor has two Strings and an integer as parameters.
 - b. The constructor sets the **firstName**, **lastName** and **studentID** fields using the data passed into the constructor.
 - c. If the student ID value passed to the constructor is less than or equal to zero the **studentID** field is set to **-1**.
3. Create getter and setters for each field.
 - a. If the student ID value passed to the studentID field's setter method is less than or equal to zero the **studentID** field is set to **-1**.
4. Override the **Object** class' **toString** method so that it returns a string containing the student's id, last name, and first name (in that order) separated by commas.
5. Override the **Object** class' **equals** method so that it returns true if and only if the object passed in has the same **studentID** as the instance on which the method is called.

In the **main** method in **Lab10a.java** do the following.

- a. Ask the user to enter a first name, last name and student ID.
- b. Read in the data from the keyboard and store the data in local variables.
- c. Create an instance of the **Student** class using the data read from the keyboard.
- d. Print to the screen the string that is returned by the instance's **toString** method.
- e. Print to the screen the student's last name using the instance's getter method.
- f. Print to the screen the student's first name using the instance's getter method.
- g. Print to the screen the student's ID using the instance's getter method.
- h. Set the student's last name to **"Bunny"** using the instance's setter method.
- i. Set the student's first name to **"Bugs"** using the instance's setter method.
- j. Set the student's ID to **3000** using the instance's setter method.
- k. Print to the screen the string that is returned by the instance's **toString** method.
- l. Set the student's ID to **0** using the instance's setter method.
- m. Print to the screen the string that is returned by the instance's **toString** method.