

Recitation 3 Practice

Follow the directions below.

1. Log into your AWS server.
2. Make a directory named **r3** in your **csci102** directory.
3. Change your working directory to your **csci102/r3** directory.
4. Create the classes described below in your **csci102/r3** director.

Program Requirements

Person.java

Write a class named **Person** that represents a person.

- a. The Person class should have fields for first name (String), middle name (String), and last name (String).
- b. The class should set all of its fields in the constructor using arguments passed to the constructor.
- c. The class should only have getter methods for each field.

Student.java

Write a class named **Student** that inherits from the **Person** class.

- a. The Student class should include fields for student ID (int) and major (String). A student's default major should be "undecided".
- b. The class' constructor should set the student ID field (but not the major field) and the superclass fields using arguments passed to the constructor.
- c. The class should only have a getter method for the student ID field, and both getter and setter methods for the major field.
- d. The class should override **equals()** and **hashCode()** from the Object class and consider the student ID as the only significant field.

TransferStudent.java

Write a class named **TransferStudent** that is a subclass of **Student**.

- a. The TransferStudent class has fields for an incoming GPA (double) and number of transfer credits (int).
- b. The constructor should set all of the class and required superclass fields using the values of the arguments passed into the constructor.
- c. The class should only have getter methods for each field.
- d. The class should override the **toString()** method. The **toString()** method should return a comma separated list of the values stored in each local field and superclass. The returned string should not contain labels.

Driver.java

Write a driver that creates objects representing the following students.

- a. John Jacob Javits is a CS major with student ID 3001.
- b. Betty B. Brown is a Physics major with student ID 6123 and who transferred in with a GPA of 3.7 and 60 credits.

The driver should use the two objects described above to test all of the methods in each class.