Lab 7 - CSCI 1103

For this lab, you will modify the three files that are provided in the “Lab” section of the class website. Make a new project and put the three files inside this project (named Lab7Main, Apartment and Room). One way to get this code into NetBeans is by copy and pasting after you open the files. Remember, the class name needs to be the same as the file name.

The main() method is inside Lab5Main has some example commented code that makes three tenants. Read through the code and figure out how these three classes interact.

**Part 1.** Modify the Apartment class to include a counter for the total number of room occupied in the apartment complex.

**Example:**
Apartment mia = new Apartment("Mia", "two bedroom");
System.out.println("There are " + Apartment.totalRoomsOccupied + " rooms occupied in this building"); // "There are 1 rooms occupied in this building"
Apartment Jay = new Apartment("Jayden ", "two bedroom");
System.out.println("There are " + Apartment.totalRoomsOccupied + " rooms occupied in this building"); // "There are 2 rooms occupied in this building"

Note: totalRoomsOccupied is public in this example for problem description clarity but it would be better as a private variable with a method to get its value.

**Part 2.** Allow the landlord of the apartment complex to give special deals to tenants. In other words, you should add functionality to set the rentPrice to something other than the default rates.

**Example:**
Apartment sophia = new Apartment("Sophia ", "four bedroom");
sophia.setRent(600);

**Part 3.** Modify the code so the user cannot directly access a tenant’s Room class (i.e. avoid leaking information about the private variable “room”). The only way to evict (and possibly setting rent) should be through methods in the Apartment class. Below is an example of what you do not want to be possible. (Note: You may not simply delete the getRoom() method.)
Incorrect example (current code):
Apartment alexander = new Apartment("Alexander", "studio");
Room temp =alexander.getRoom();
temp.evict();
alexander.displayTennant(); // Alexander is evicted

Correct example:
Apartment alexander = new Apartment("Alexander", "studio");
Room temp =alexander.getRoom(); // temp should have the same information as Alexander's room
temp.evict();
alexander.displayTennant(); // Alexander is not evicted