

CSC 220 – Lab 11

Objective:

Exercise inheritance in Java.

Java program:

1. Create a class named `Rectangle` that has instance variables `height` and `width`. Provide a constructor that initializes the instance variables based on parameter values, getter and setter methods for the instance variables, a `toString` method, and a method named `computeSurfaceArea()`, that returns the surface area of the rectangle.
2. Create a child class named `RectPrism` that contains an additional instance variable named `depth`. Provide a constructor, getter and setter methods for the new instance variable, and a method named `computeVolume()`, that returns the volume of the rectangular prism. Override the `toString()` and the `computeSurfaceArea()` methods.
3. Write an application called `Demo`, that instantiates a rectangle and a rectangular prism, and tests all the methods.

Make sure you indent and comment your code based on the examples in the textbook. Don't forget to include your name, the course number, title of the assignment, and today's date.

What to turn in:

JAR your `*.java` files into a file called `Lab11.jar`. When you're done, upload the JAR file to Canvas by the deadline. No extensions.