



CSE 215: Programming Language II Lab

Lab – 13

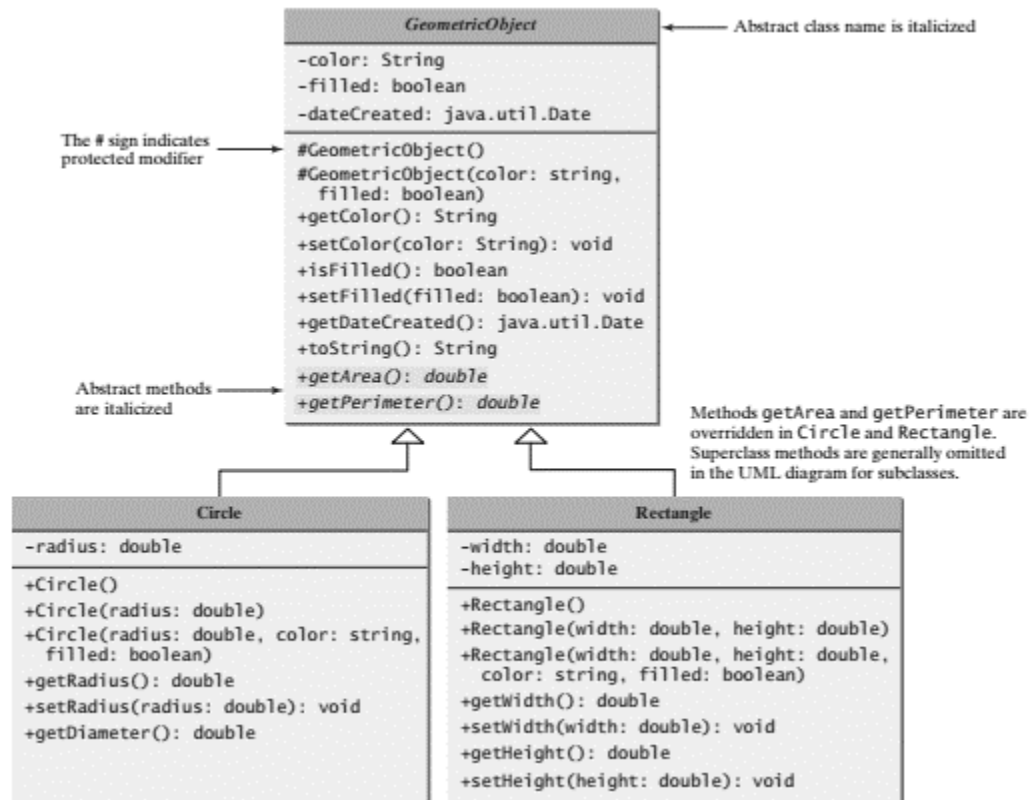
Abstract Class

Objective:

- To understand abstract class and its usage
- To utilize abstract method to ensure reusability of existing code

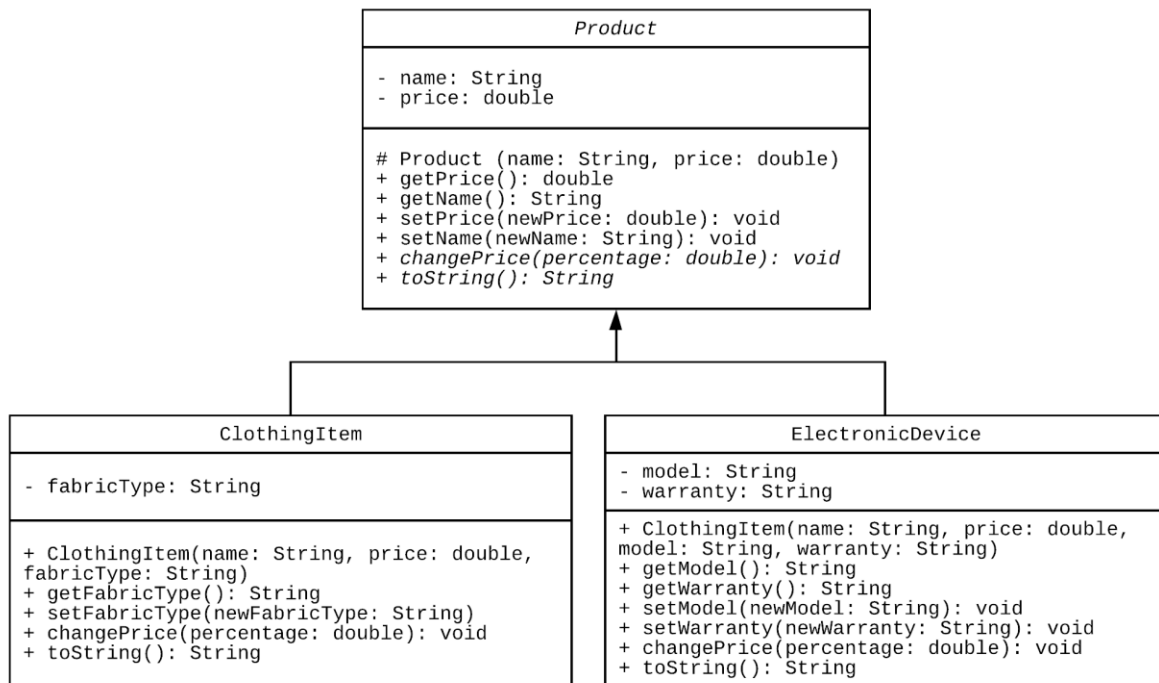
An abstract method is a method that is declared without an implementation (without braces, and followed by a semicolon). An abstract class is a class that is declared abstract. It may or may not include abstract methods. Abstract classes cannot be instantiated, but they can have subclasses.

Abstract method	Abstract class
Modifier abstract return-type methodName(); public abstract double getArea();	<pre>public abstract class Shape { // declare fields and non //abstract methods public abstract double getArea(); }</pre>



Lab Task

Implement the following classes:



From main method, implement the following tasks:

- Create a new **ElectronicDevice** object p1 with reference type **Product**.
- Create a new **ClothingItem** object p2 with reference type **ClothingItem**.
- Create a new **ElectronicDeice** object p3 with reference type **ElectronicDevice**.
- Add 10% tax with p3 and 20% discount with p2.
- Now, reset warranty of p1 as “6 months” (**Hint:** You’ll need **explicit casting** here)
- Now, create an **ArrayList** of type **Product** and add p1, p2 and p3 in that ArrayList.
- Invoke **toString()** method for all elements in ArrayList.