



In this exercise, **Shape** shall be defined as an **abstract** class, which contains:

- Two **protected** instance variables **color(String)** and **filled(boolean)**.
The **protected** variables can be accessed by its subclasses and classes in the same package. They are denoted with a '#' sign in the class diagram.
- Getter and setter for all the instance variables, and **toString()**.
- Two **abstract** methods **getArea()** and **getPerimeter()** (shown in italics in the class diagram).

-Subclasses **Circle** and **Rectangle** shall *override* the **abstract** methods **getArea()** and **getPerimeter()** and provide the proper implementation. They also *override* the **toString()**.