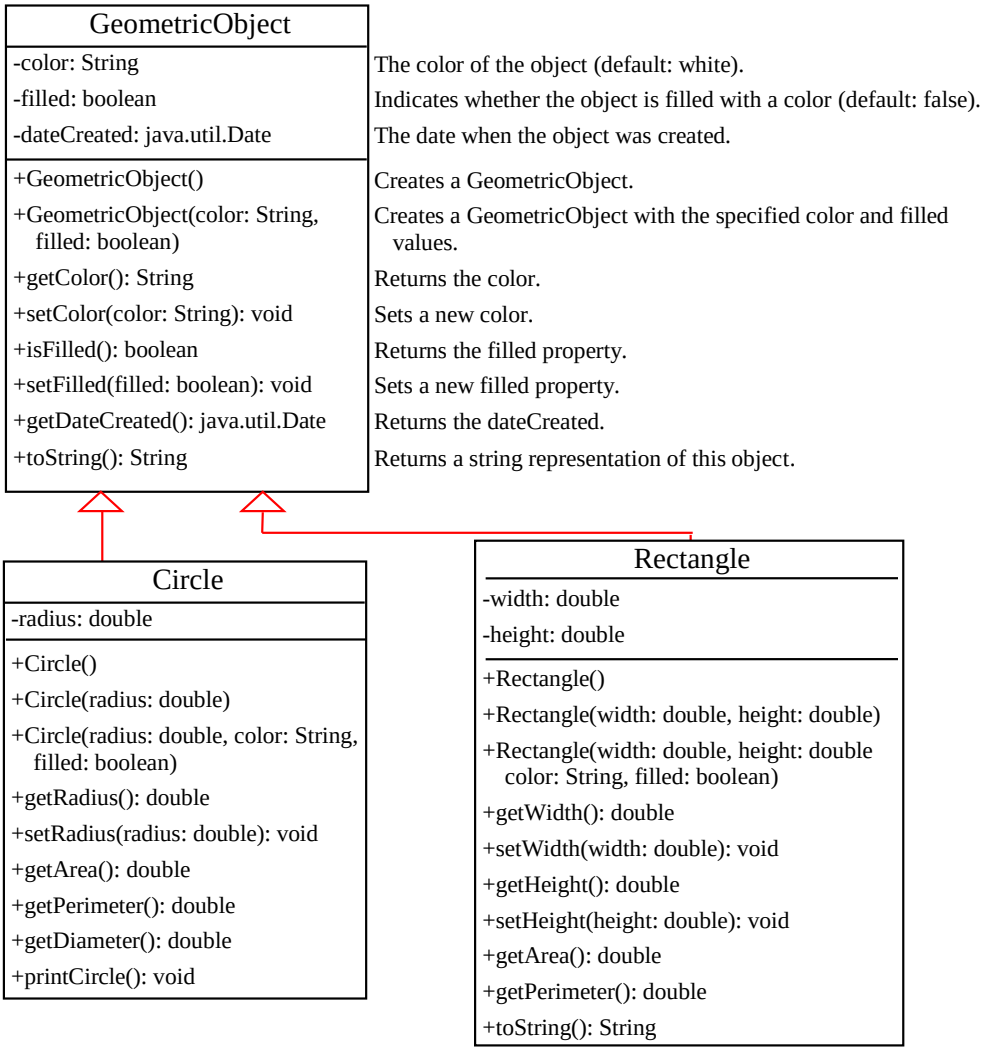
1. Following the UML:
   - Create 3 classes, GeometricObject, Circle and Rectangle. Classes Circle and Rectangle extend the GeometricObject class.
   - Write a separate test class, TestCricleRectangel, to create different circles and rectangles.



2. Design a class named Triangle that extends GeometricObject. The class contains:
   - Three double data fields named side1, side2 and side3 with default values 1.0 to denote three sides of the triangle.
   - A no-arg constructor that creates a default triangle.
   - A constructor that creates a triangle with the specified side1, side2, and side3.
   - The setter and getter methods for all three data fields.
   - A method named getArea() that returns the area of this triangle.
   - A method named getPrimeter() that returns the perimeter of this triangle.
   - A method named toString() that returns a string description for the triangle (date created, color, filled, sides, area and perimeter).

After writing Triangle class, write a test program that prompts the user to enter three sides of triangle, a color, and a Boolean value to indicate whether the triangle is filled. The program should create a Triangle object with these sides and set the color and filled properties using the input. The program should display the area, perimeter, color and true or false to indicate whether it is filled or not.

Hint:

The area of a rectangle based on three sides:

$$s = (side1 + side2 + side3)/2;$$

$$area = \sqrt{s(s - side1)(s - side2)(s - side3)}$$