Consider an application that deals with different shapes, we may need to define a circle class, a square class and a triangle class etc.

All of these classes have some common data property such as colour, and common methods such as getting the colour and finding the area of the shape

1. Define a super class called Shape which includes the instance variables colour, and methods getColour, setColour and findArea. Set the return type of findArea() as double. Set the colour as “Red”
2. Define a Class Square that extends Shape class. Create an instance variable called length and provide getters and setters for it.
3. Define the findArea(). The area of a square is length\*length.
4. The main method should create a new object of square and set the length to 5.
5. Then, print the area of the square after the calculation. It should also print the colour.
6. Define a class called Rectangle that extends the shape class. Create two instance variables called breadth and length.
7. Define getters and setters for them.
8. Define the findArea(). The area of the rectangle is length\*breadth.
9. The main method should create an object of the Rectangle class and set the values, calculate and return the area. It should also print the colour.
10. Create a class called Circle. Create an instance variable called radius and a constant PI which takes the value 3.1415926535.
11. Define getters and setters and the findArea().Area of the circle is PI\*r\*r
12. The main method should create an object of the Circle class and set the values, calculate and return the area. It should also print the colour.