Program No. 3

Create a base class box with height, depth and width. Add a method to calculate volume. Write all possible constructors. Create a derived class with additional data members weight and colour. Make usage of the keyword super.

```
import java.util.*;
class Box {
  double width, height, depth;
  Box(double wid, double hei, double dep) {
    this.width = wid;
    this.height = hei;
    this.depth = dep;
  }
  public void volume() {
    System.out.println("The volume = " + (width * height * depth));
  }
}
class Shape extends Box {
  String color;
  double weight;
  Shape(double wid, double hei, double dep, double wei, String col)
{
    super(wid, hei, dep);
    this.color = col;
    this.weight = wei;
  }
  public void showInfo() {
    System.out.println("Weight = " + weight);
    System.out.println("Color = " + color);
    volume();
  }
}
public class ShapeOperations {
  public static void main(String args[]) {
    double h, w, wei, d;
    String colour;
    Scanner ob = new Scanner(System.in);
    Shape S;
    System.out.print("Enter the height: ");
    h = ob.nextDouble();
    System.out.print("Enter the width: ");
    w = ob.nextDouble();
    System.out.print("Enter the depth: ");
    d = ob.nextDouble();
    System.out.print("Enter the weight of the shape: ");
    wei = ob.nextDouble();
    System.out.print("Enter the color of the shape: ");
```

```
    colour = ob.next();
    S = new Shape(w, h, d, wei, colour);
    S.showInfo();
    ob.close();
  }
}
```

Output:

```
D:\4th sem\Java\lab>javac ShapeOperations.java

D:\4th sem\Java\lab>java ShapeOperations
Enter the height: 10
Enter the width: 20
Enter the depth: 15
Enter the weight of the shape: 30
Enter the color of the shape: Blue
Weight = 30.0
Color = Blue
The volume = 3000.0
```