**LAB ASSIGNMENT 3**

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**Main Class:**

public class Main {  
 public static void main(String args[]){  
  
 Circle circle=new Circle("C1",5.0);  
 System.*out*.println("Name: "+circle.getName());  
 System.*out*.println("Radius: "+circle.getRadius());  
 System.*out*.println("Area:"+circle.area());  
  
 Rectangle rectangle=new Rectangle("R1",5.0,7.0);  
 System.*out*.println("Name: "+rectangle.getName());  
 System.*out*.println("Area: "+rectangle.area());  
  
 Cube cube=new Cube("Cube1",7.0);  
 System.*out*.println("Name: "+cube.getName());  
 System.*out*.println("Area: "+cube.area());  
 System.*out*.println("Volume: "+cube.Volume());  
  
 Sphere sphere=new Sphere("S1",8.0);  
 System.*out*.println("Name: "+sphere.getName());  
 System.*out*.println("Area: "+sphere.area());  
 System.*out*.println("Volume: "+sphere.Volume());  
 Shape shapes[]=new Shape[20];  
 for(int i=0;i<=4;i++){  
 shapes[i]=new Circle("circle",6.0);  
 }  
 for(int i=5;i<=9;i++){  
 shapes[i]=new Rectangle("rec",9.0,6.0);  
 }  
 for(int i=10;i<=14;i++){  
 shapes[i]=new Cube("cube",8.0);  
 }  
 for(int i=15;i<=19;i++){  
 shapes[i]=new Sphere("sphere",3.0);  
 }  
  
  
 ShapeUtils.*displayshapes*(shapes);  
 ShapeUtils.*increaseRectangleLength*(shapes);  
 }

**OUTPUT:**

A screenshot of a computer

AI-generated content may be incorrect.



