Object Oriented Programming in JAVA

Practical No. :- 4

Q.4] A circle has a radius. Its area can be calculated. The area is a double number. Its perimeter can be calculated as 2pi. The perimeter is a double number. Given two circles one can find out which is large and which is small. Create two circles c1 and c2 with radius as 10 and 7 respectively. Calculate the area and perimeter of each. Compare two circles with each other and display which is large and which is small.

Code :-

```
public class Main {

   public static void main(String[] args) {

      Circle c1= new Circle();
      c1.r=23;
      c1.pi=3.14;

      System.out.println("Area of circle 1 is: "  +  c1.getArea());
      System.out.println("Perimeter of circle 1 is: " + c1.getPerimeter());


      Circle c2= new Circle();
      c2.r=58;
      c2.pi=3.14;

      System.out.println("Area of circle 2 is: "  +  c2.getArea());
      System.out.println("Perimeter of circle 2 is: " + c2.getPerimeter());

      if (c1.getArea()>c2.getArea())
         System.out.println("Circle c1 is Larger.");

      else
         System.out.println("Circle c2 is Larger.");

   }
}


public class Circle {

   public double r;
   public double pi;

   public double getArea(){

      double area=pi*r*r;
      return area;
   }

   public double getPerimeter(){

      double perimeter=2*pi*r;
      return perimeter;


   }


}
```

Output :-

```
"C:\Program Files\Java\jdk1.8.0_212\bin\java" ...
Area of circle 1 is: 1661.06
Perimeter of circle 1 is: 144.44
Area of circle 2 is: 10562.960000000001
Perimeter of circle 2 is: 364.24
Circle c2 is Larger.

Process finished with exit code 0
```