

**Name: Keerthana Dinesh A**

**Roll No: 11**

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**Object Oriented Programming LAB**

**Experiment No: 15**

**Aim**

Create an interface having prototypes of functions area() and perimeter(). Create two classes circle and rectangle which implements the above interface. Create a menu driven program to find area and perimeter of objects.

**Procedure**

import java.util.Scanner;

interface Part

{ void area();

void perimeter();

}

class Rectangle implements Part

{ int l,b,ra,rp;

public void area()

{ Scanner sc = new Scanner(System.in);

System.out.print("\nEnter the length :");

l = sc.nextInt();

System.out.print("Enter the breadth :");

b = sc.nextInt();

ra = l\*b;

System.out.println("\nArea of the rectangle: "+ra);

}

public void perimeter()

{ rp = 2\*(l+b);

System.out.print("Perimeter of the rectangle : "+rp);

System.out.print("\n");

}

}

class Circle implements Part

{ double r,ca,cp;

public void area()

{ Scanner sr = new Scanner(System.in);

System.out.print("\nEnter the radius :");

r = sr.nextInt();

ca = 3.14\*r\*r;

System.out.println("\nArea of the circle : "+ca);

}

public void perimeter()

{ cp = 2\*3.14\*r;

System.out.print("Perimeter of the circle : "+cp);

System.out.print("\n");

}

}

public class Shape

{ public static void main(String args[])

{ Scanner s = new Scanner(System.in);

Part ci = new Circle();

Part r = new Rectangle();

while(true)

{ int c;

System.out.print("\nMENU : ");

System.out.print("\n1.Rectangle\n2.Circle\n3.Exit\nEnter the choice :");

c=s.nextInt();

switch(c)

{ case 1: r.area();

r.perimeter();

break;

case 2: ci.area();

ci.perimeter();

break;

case 3:System.exit(0);

default: System.out.println("\*\*\*\*\*\*\*\*\*\*\*\*Wrong Entry\*\*\*\*\*\*\*\*\*\*\*\*\*");

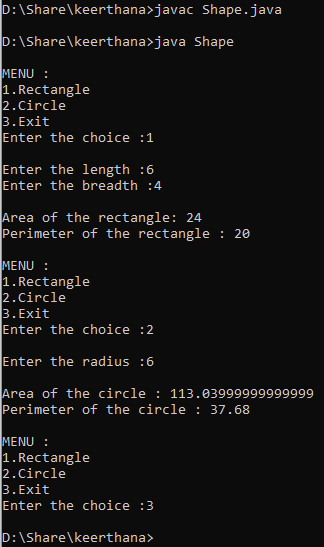
}

}

}

}

**Output**

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