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**Batch:MCA-B**

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**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: 14**

**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.io.\*;

import java.util.\*;

interface Shape

{

final double pi=3.14;

void Area(float l ,float b);

void Perimeter(float l , float b);

}

class Circle implements Shape

{

public void Area(float r,float x)

{ double area=pi\*r\*r;

System.out.println("Area Of circle=" + area);

}

public void Perimeter (float r,float x)

{

double Peri=2\*pi\*r;

System.out.println("Perimeter of the circle=" + Peri);

}

}

class Rectangle implements Shape

{

public void Area(float l,float b)

{

float area=l\*b;

System.out.println("Area Of Rectangle=" + area);

}

public void Perimeter (float l,float b)

{ float Peri=2\*(l+b);

System.out.println("Perimeter of the Rectangle=" + Peri );

}

}

public class MainClass2

{

public static void main(String Args[])

{int ch;

float r,l,b;

Circle C=new Circle();

Rectangle R=new Rectangle();

Scanner in=new Scanner(System.in);

do

{

System.out.println("\_\_\_\_\_\_\_\_Menu\_\_\_\_\_\_\_\_\_\_");

System.out.println("1.Area of Circle");

System.out.println("2. Perimeter of Circle");

System.out.println("3. Area of Rectangle");

System.out.println("4. Perimeter of Rectangle");

System.out.println("enter the choice=");

ch=in.nextInt();

switch(ch)

{

case 1:

C.Area(5,5);

break;

case 2:

C.Perimeter(5,5);

break;

case 3:

R.Area(5,7);

break;

case 4:

R.Perimeter(5,7);

break;

case 5: System.exit(0);

break;

}

}while(ch!=5);

}

}

**Output Screenshot**

