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SYCOMP SCET

Skill Development Core Java
Assignment 13

CODE:

//Program to calculate area of different shapes

```java
import java.util.Scanner;
public class Shape
{
        double length;
        double breadth;
        double radius;
        double base;
        double height;
        double area;

        //Respective functions for area calculation
        public void rectangle(double l, double b)
        {
                length=l;
                breadth=b;
                area=l*b ;
                System.out.println("Area of rectangle is "+ area);
        }
```

```java
public void circle(double circle)
{
        area=Math.PI*radius*radius ;
        System.out.println("Area of circle is "+ area);
}


public void square(double length)
{
        area=length*length ;
        System.out.println("Area of square is "+ area);
}


public void triangle(double base, double height)
{
        area= base*height*(1/2);
        System.out.println("Area of triangle is "+ area);
}


public static void main(String[] args)
{
        Scanner i=new Scanner(System.in);    //scanner class object
        Shape area= new Shape();             //shape class object


System.out.println("1.Rectangle\n2.Circle\n3.Square\n4.Triangle\n");

        //for iterating desired times
        char c='y';
        while(c=='y')
        {
                System.out.println("Choose shape for area:");
```

```java
int choice=i.nextInt();
switch(choice)
{
case 1:
        System.out.print("Length of rectangle:");
        area.length= i.nextDouble();
        System.out.print("Breadth of rectangle:");
        area.breadth= i.nextDouble();
        area.rectangle(area.length,area.breadth);
        break;

case 2:
        System.out.print("Radius of circle:");
        area.radius= i.nextDouble();
        area.circle(area.radius);
        break;

case 3:
        System.out.print("Side of square:");
        area.length= i.nextDouble();
        area.square(area.length);
        break;

case 4:
        System.out.print("Base of triangle:");
        area.base= i.nextDouble();
        System.out.print("Height of triangle:");
        area.height= i.nextDouble();
        area.triangle(area.base,area.height);
        break;
```

```java
                default:

                        System.out.println("Wrong choice.");


                }
                System.out.println("If you wish to choose another shape
press y, otherwise press enter.");
                c=i.next().charAt(0);


        }
        i.close();  //closing scanner object
    }
}
```

OUTPUT


```
C:\Users\DELL\Desktop\Javaprgs>javac Shape.java

C:\Users\DELL\Desktop\Javaprgs>java Shape
1.Rectangle
2.Circle
3.Square
4.Triangle

Choose shape for area:
1
Length of rectangle:4
Breadth of rectangle:3
Area of rectangle is 12.0
If you wish to choose another shape press y, otherwise press enter.
y
Choose shape for area:
2
Radius of circle:5
Area of circle is 78.53981633974483
If you wish to choose another shape press y, otherwise press enter.
y
Choose shape for area:
3
Side of square:5
Area of square is 25.0
If you wish to choose another shape press y, otherwise press enter.
y
Choose shape for area:
4
Base of triangle:4
Height of triangle:3
Area of triangle is 6.0
If you wish to choose another shape press y, otherwise press enter.
```