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Lab 4. Develop a Java Program to Create an Abstract class named Shaped that contains two integer and an empty method name printArea(). Provide three classes named Rectangle, Triangle and Circle such that each one of the classes extends the class Shape. Each one of the classes contain only the method printArea() that prints the area of the given shape.

```
import java.util.Scanner;
abstract class Shape
{
  int a1, a2;
  Scanner sc = new Scanner(System.in);
  abstract void printArea();
}
class Rectangle extends Shape
{
  void printArea()
  {
    System.out.println("Enter length and breadth
                        of Rectangle:");
    a1 = sc.nextInt();
    a2 = sc.nextInt();
    System.out.println("The area of Rectangle is:"
                       + a1*a2);
  }
}
class Triangle extends Shape
{
  void printArea()
  {
    System.out.println("Enter base and
                        height of triangle:");
```

```
a1 = si.nextInt();
a2 = si.nextInt();
System.out.println("The area of Triangle is:"
                    +(a1*a2)/2f);
}
}
class Circle extends Shape
{
  void printArea()
  {
    System.out.println("Enter radius of
                        Circle:");
    a1 = si.nextInt();
    System.out.println("The area of
                        Circle is:"+a1*a1*3.14f);
  }
}
class PlusheritShape
{
  public static void main(String args[])
  {
    Rectangle r = new Rectangle();
    r.printArea();
    Triangle t = new Triangle();
    t.printArea();
    Circle c = new Circle();
    c.printArea();
  }
}
```