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| A picture containing drawing, stop, room  Description automatically generated | Core Java  Practical #5 | | |
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| **Subject/Course:** | Core Java | | |
| **Topic** | Interface, Package | | |
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| **Interface** | | | |
| 1. Write a Java program to create an interface Area with one method AreaCompute() with 2 float parameters. Design 2 classes Rectangle and Circle implementing the Area Interface. Input should be taken from the user using Buffered Reader class. | | | |
| **-->Area Interface**  package practical\_6;  public interface Area {  public void AreaCompute(float l,float b);  }  **-->Rectangle class:**  package practical\_6;  public class Rectangle implements Area{  @Override  public void AreaCompute(float l, float b) {  float a=l\*b;  System.out.println("Area of Rectangle:"+a);  }  }  **-->Triangle class:**  package practical\_6;  public class Triangle implements Area {  @Override  public void AreaCompute(float l, float b) {  float a=(l\*b)/2;  System.out.println("Area of Triangle:"+a);  }  }  **-->Driver class(Using Scanner Class):**  package practical\_6;  import java.util.\*;  public class Practical\_6 {  public static void main(String[] args) {  Scanner sc=new Scanner(System.in);  System.out.println("Enter length and breadth for Rectangle:");  float l=sc.nextFloat();  float b=sc.nextFloat();  Rectangle r=new Rectangle();  r.AreaCompute(l, b);    System.out.println("Enter height and base for Triangle:");  float h=sc.nextFloat();  float b=sc.nextFloat();  Triangle t=new Triangle();  t.AreaCompute(h, b);  }  }    **-->Driver class(Using BufferedReader):**  package practical\_6;  import java.io.\*;  public class Practical\_6 {  public static void main(String[] args) throws IOException {  float l,b;  BufferedReader br=new BufferedReader(new InputStreamReader(System.in));  System.out.println("Enter length and breadth for Rectangle:");  l=Float.parseFloat(br.readLine());  b=Float.parseFloat(br.readLine());  Rectangle r=new Rectangle();  r.AreaCompute(l, b);    System.out.println("Enter length and breadth for Triangle:");  l=Float.parseFloat(br.readLine());  b=Float.parseFloat(br.readLine());  Triangle t=new Triangle();  t.AreaCompute(l, b);  }  } | | | |
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| **Package** | | | |
| b) Define 2 packages (i) Prime (ii) Factorial. Write a Java program to create a class PrimeFact to import these packages. | | | |
| **-->Prime Package with primeNumber class:**  package Prime;  public class PrimeNumber {  public void check(int n){  int i,m=0,flag=0;  m=n/2;  if(n==0||n==1){  System.out.println(n+" is not prime number");  }  else  {  for(i=2;i<=m;i++)  {  System.out.println(n+" is not prime number");  flag=1;  break;  }  }  if(flag==0)  {  System.out.println(n+" is a Prime number");  }  }  }      **-->Factorial Package with fact class:**  package Factorial;  public class Fact {  public void factofnum(int n){  int i,fact=1;  for(i=1;i<=n;i++){  fact =fact\*i;  }  System.out.println("Factorial of "+n+" is:"+fact);  }  }    **-->Driver class:**  import Prime.\*;  import Factorial.\*;  public class PrimeFact {  public static void main(String[] args){  PrimeNumber p=new PrimeNumber();  p.check(3);  Fact f=new Fact();  f.factofnum(7);  }  } | | | |