**2.)Using Dynamic Method Dispatch ( Run Time Polymorphism ) create a class shape with members as radius r and findarea method to calculate the square of radius ( r\*r) and rectangle class have the member height h and method findarea to calculate the sphere ( 3.14\*r\*r\*h ) inherits radius from the Shape super class .**

**Create a reference with super class shape and call the overridden methods using dynamic method Dispatch ..**

**//Shape class**

**package** Niranjan;

**import** java.util.Scanner;

**public** **class** Shape {

**static** **double** *rad*;

**public** **void** findArea()

{

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

System.***out***.println("Enter the radius:");

*rad*=s.nextDouble();

**double** ar=*rad*\**rad*;

System.***out***.println("Area of Shape is "+ar);

}

}

**//Rectangle**

**package** Niranjan;

**import** java.util.Scanner;

**public** **class** Rectangle **extends** Shape{

**static** **double** *h*;

**public** **void** findArea()

{

**super**.findArea();

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

System.***out***.println("Enter the radius:");

*rad*=s.nextDouble();

System.***out***.println("Enter the height");

*h*=s.nextDouble();

**double** ar=3.14\**rad*\**rad*\**h*;

System.***out***.println("Area= "+ar);

}

}

**//Overdriven class**

**package** Niranjan;

**import** java.util.Scanner;

**public** **class** Overridden {

**public** **static** **void** main(String[] args) {

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

Shape obj=**new** Rectangle();

obj.findArea();

}

}