**WEEK1**

/\*

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\*/

package testcircle;

/\*\*

\*

\* @author kantaria

\*/

public class circle

{

public double radius; //data fields or member variable

public circle() //no argument constructore

{

radius=5.5;

}

public circle(double r) //argument constructore

{

radius=r;

}

public double areaCircle() //member method

{

return 3.14\*radius\*radius;

}

}

/\*

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\*/

package testcircle;

import java.util.Scanner;

/\*\*

\*

\* @author kantaria

\*/

public class TestCircle {

/\*\*

\* @param args the command line arguments

\*/

public static void main(String[] args) {

// TODO code application logic here

// circle c1=new circle(); //default constructore

// c1.radius=2.5;

// System.out.println("area of circle="+c1.areaCircle());

circle c2=new circle(); //calles default constructore

System.out.println("radius="+c2.radius);

System.out.println("area of circle="+c2.areaCircle());

circle c3=new circle();

System.out.println("radius c3="+c3.radius);

System.out.println("area of circlec3="+c3.areaCircle());

Scanner input=new Scanner(System.in);

System.out.println("enter any value of radius");

double r=input.nextDouble();

circle c4=new circle(r); //calles argument constrictpre

System.out.println("radius c4="+c4.radius);

System.out.println("area of circlec4="+c4.areaCircle());

}

}

**WEEK2**

/\*

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\*/

package w2testcircle;

/\*\*

\*

\* @author kantaria

\*/

public class Circle {

public double radius;

public double areaCircle()

{

return 3.14\*radius\*radius;

}

public String toString()

{

return "radius = "+radius+" area of circle= "+areaCircle();

}

}

/\*

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\*/

package w2testcircle;

/\*\*

\*

\* @author kantaria

\*/

public class Cylinder extends Circle //Cylinder is subclass and Circle is superclass

{

public double height;

public double areaCylinder()

{

return (2\*3.14\*radius\*height)+(2\*areaCircle());

}

}

/\*

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\*/

package w2testcircle;

/\*\*

\*

\* @author kantaria

\*/

public class W2TestCircle {

/\*\*

\* @param args the command line arguments

\*/

public static void main(String[] args) {

// TODO code application logic here

//Circle c1=new Circle();

Cylinder cy1=new Cylinder();

cy1.radius=2.5;

cy1.height=5.5;

System.out.println("area of circle="+cy1.areaCircle());

System.out.println(cy1.toString());

System.out.println("height="+cy1.height+" area of cylinder= "+cy1.areaCylinder());

}

}

/\*

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\*/

package w2testconstructore;

/\*\*

\*

\* @author kantaria

\*/

public class Circle

{

private double radius;

public Circle() //no argument constructore

{

this.radius=2.5;

}

public Circle(double radius) //argument consstrucotore

{

this.radius=radius;

}

public double getRadius()//get method to read private data member

{

return radius;

}

public double areaCircle()

{

return 3.14\*radius\*radius;

}

public String toString()

{

return "radius = "+radius+" area of circle = "+areaCircle();

}

}

/\*

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\*/

package w2testconstructore;

/\*\*

\*

\* @author kantaria

\*/

public class Cylinder extends Circle

{

private double height;

public Cylinder() //no argument constructore

{

super(); //to call superclass no argument constructore

height=5.5;

}

public Cylinder(double radius,double height)

{

super(radius); //calls super class argument constructore

this.height=height;

}

public double getHeight()

{

return height;

}

public double areaCylinder()

{

return (2\*3.14\*getRadius()\*height)+(2\*areaCircle());

}

public String toString() //to call super class method super.toString()

{

return super.toString()+" height="+height+" area of cylinder= "+areaCylinder();

}

}

/\*

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\*/

package w2testconstructore;

import java.util.Scanner;

/\*\*

\*

\* @author kantaria

\*/

public class W2TestConstructore {

/\*\*

\* @param args the command line arguments

\*/

public static void main(String[] args) {

// TODO code application logic here

Scanner input=new Scanner(System.in);

Cylinder cy1=new Cylinder(); //to call no argument constructore

// System.out.println("radius = "+cy1.getRadius());

// System.out.println(cy1.toString());

// System.out.println("height = "+cy1.getHeight());

// System.out.println("area of cylinder = "+cy1.areaCylinder());

System.out.println(cy1.toString());

System.out.println("enter any value for radius");

double r=input.nextDouble();

System.out.println("enter any value for height");

double h=input.nextDouble();

Cylinder cy2=new Cylinder(r,h); //callilng argument constructore

System.out.println(cy2.toString());

}

}

/\*

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package w22overriding;

/\*\*

\*

\* @author kantaria

\*/

public class Rectangle extends Square

{

private double height,width;

public Rectangle(double side,double height,double width)

{

super(side);

this.height=height;

this.width=width;

}

public void area()

{

super.area(); //calles superclass area() method

double t=height\*width;

System.out.println("heigth="+height+" width="+width);

System.out.println("area of rectangle="+t);

}

}

/\*

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\*/

package w22overriding;

/\*\*

\*

\* @author kantaria

\*/

public class Square {

private double side;

public Square(double side)

{

this.side=side;

}

public void area()

{

double t=side\*side;

System.out.println("side = "+side);

System.out.println("area of square = "+t);

}

}

/\*

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\*/

package w22overriding;

import java.util.Scanner;

/\*\*

\*

\* @author kantaria

\*/

public class W22Overriding {

/\*\*

\* @param args the command line arguments

\*/

public static void main(String[] args) {

// TODO code application logic here

Scanner sc=new Scanner(System.in);

System.out.println("enter side value");

double s=sc.nextDouble();

System.out.println("enter height value");

double h=sc.nextDouble();

System.out.println("enter width value");

double w=sc.nextDouble();

Rectangle r1=new Rectangle(s,h,w);

r1.area();

Square s1=new Rectangle(5,6,7);

s1.area(); //calles subclass version of method

}

}

/\*

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\*/

package w22testabc;

/\*\*

\*

\* @author kantaria

\*/

public class A {

public void show()

{

System.out.println("this is class A method");

}

}

/\*

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\*/

package w22testabc;

/\*\*

\*

\* @author kantaria

\*/

public class B extends A

{

public void show()

{

System.out.println("this is class B method");

}

}

/\*

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package w22testabc;

/\*\*

\*

\* @author kantaria

\*/

public class C extends B

{

public void show()

{

System.out.println("this is class C method");

}

}

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\*/

package w22testabc;

/\*\*

\*

\* @author kantaria

\*/

public class W22TestABC {

/\*\*

\* @param args the command line arguments

\*/

public static void main(String[] args) {

// TODO code application logic here

A a1=new B();

a1.show();

A a2=new C();

a2.show();

B b1=new C();

b1.show();

}

}

/\*

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package SquarePackage;

/\*\*

\*

\* @author kantaria

\*/

public class Square

{

protected double side;

public double a;

private double b;

double c; //default modifire

public Square(double side)

{

this.side=side;

}

public double areaSquare()

{

return side\*side;

}

}

/\*

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\*/

package w22testproctected;

import SquarePackage.Square;

/\*\*

\*

\* @author kantaria

\*/

public class Cube extends Square

{

int id; //default modifier

public Cube(double side)

{

super(side);

}

public double areaCube()

{

return 6\*areaSquare();

}

public double volumeCube()

{

return side\*side\*side;

}

}

\*/

package w22testproctected;

/\*\*

\*

\* @author kantaria

\*/

public class W22TestProctected {

/\*\*

\* @param args the command line arguments

\*/

public static void main(String[] args) {

// TODO code application logic here

Cube c1=new Cube(2.5);

System.out.println("area of square="+c1.areaSquare());

System.out.println("area of cube="+c1.areaCube());

System.out.println("volume of cube="+c1.volumeCube());

//c1.side=4;

c1.a=10; //public

System.out.println("a="+c1.a);

//c1.b=5;

//c1.c=7;

c1.id=101;

System.out.println("id="+c1.id);

}

}

**Week3**

**/\***

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**\*/**

**package w31testaccount;**

**import java.util.Scanner;**

**/\*\***

**\***

**\* @author kantaria**

**\*/**

**public class W31TestAccount {**

**/\*\***

**\* @param args the command line arguments**

**\*/**

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

**// TODO code application logic here**

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

**System.out.println("enter balance amount");**

**double b=sc.nextDouble();**

**System.out.println("enter how much money to withdraw");**

**double w=sc.nextDouble();**

**System.out.println("enter how much money to deposit");**

**double d=sc.nextDouble();**

**Saving s1=new Saving(b);**

**System.out.println("after withdraw final balance="+s1.withdraw(w));**

**s1.setBalance(s1.withdraw(w));**

**System.out.println("after deposit final balance="+s1.deposit(d));**

**}**

**}**

**/\***

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**\*/**

**package w31testaccount;**

**/\*\***

**\***

**\* @author kantaria**

**\*/**

**public class Saving extends Account**

**{**

**public Saving(double balance)**

**{**

**super(balance);**

**}**

**public double withdraw(double w)**

**{**

**return getBalance()-w;**

**}**

**public double deposit(double d)**

**{**

**return getBalance()+d;**

**}**

**}**

**/\***

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**\*/**

**package w31testaccount;**

**/\*\***

**\***

**\* @author kantaria**

**\*/**

**public abstract class Account**

**{**

**private double balance;**

**public Account(double balance)**

**{**

**this.balance=balance;**

**}**

**public double getBalance()**

**{**

**return balance;**

**}**

**public void setBalance(double balance)**

**{**

**this.balance=balance;**

**}**

**public abstract double withdraw(double w);**

**public abstract double deposit(double d);**

**}**