**1]ANS:-**

public class singleton {

private static singleton instance = null;

private singleton() {

// Exists only to defeat instantiation.

}

public static singleton getInstance() {

if(instance == null) {

instance = new singleton();

}

return instance;

}

public void getcontactdetails()

{

System.out.println("Contact details");

}

public static void main(String[] args)

{

singleton sing1=singleton.getInstance();

System.out.println(sing1);

sing1.getcontactdetails();

}

}

**2]ANS:-**

import java.lang.\*;

class employee

{

String n;

int sal;

employee(String n,int sal)

{

this.n=n;

this.sal=sal;

}

int getsalary()

{

return sal;

}

}

public class labour extends employee {

int overtime;

labour(String n,int sal,int ot)

{

super(n,sal);

overtime=ot;

}

int getsalary()

{

return(super.getsalary()+overtime);

}

}

public class manager extends employee {

int hourly,incentives;

manager(String n,int sal,int i)

{

super(n,sal);

incentives=i;

}

int getsalary() {

return(super.getsalary()+incentives);

}

}

public class organization

{

public static void main(String[] args)

{

manager m1=new manager("lakshmi",20000,2000);

System.out.println("Total Salary of manager is:"+m1.getsalary());

labour l1=new labour("bob",20000,1500);

System.out.println("Total salary of labour is:"+l1.getsalary());

}

}

**3]ANS:-**

public class bank {

String name;

int amount;

bank(String name,int amount)

{

this.name=name;

this.amount=amount;

}

int getfixeddeposit()

{

return amount;

}

int getcashcredit()

{

return amount;

}

}

public class currentaccount extends bank {

int depositedamount;

public currentaccount(String name,int amount,int depositedamount)

{

super(name,amount);

this.depositedamount=depositedamount;

}

int getcashcredit()

{

return(super.getcashcredit()+depositedamount);

}

}

public class savingsaccount extends bank {

int depositamnt;

public savingsaccount(String name,int amount,int depositamnt)

{

super(name,amount);

this.depositamnt=depositamnt;

}

int getfixeddeposit()

{

return(super.getfixeddeposit()+depositamnt);

}

}

public class main {

public static void main(String args[])

{

savingsaccount sa=new savingsaccount("rushi",400000,1);

System.out.println("the deposited amount is"+sa.depositamnt);

System.out.println(sa.name+" total amount of after deposit amount is "+sa.getfixeddeposit());

currentaccount ca=new currentaccount("bob",8,1000000);

System.out.println("the deposited amount is"+ca.depositedamount);

System.out.println(ca.name+" total amount of after credited amount is"+ca.getcashcredit());

double totalamount=sa.getfixeddeposit()+ca.getcashcredit();

System.out.println("the total amount is"+totalamount);

}

}

**4]ANS:-**

public abstract class animal {

String animalname;

int weight;

public abstract void fly();

public abstract void swim();

public abstract void eat();

public abstract void sleep();

}

public class birds extends animal

{

public void fly()

{

System.out.println("Birds are flying.....");

}

public void sleep()

{

System.out.println("Birds are sleep...");

}

public void eat()

{

System.out.println("Birds are eat....");

}

}

public class fish {

public void swim()

{

System.out.println("Fishes are swim...");

}

public void eat()

{

System.out.println("Fishes eat......");

}

}

public class zoo {

public static void main(String[] args)

{

birds b1=new birds();

b1.fly();

b1.sleep();

b1.eat();

fish f1=new fish();

f1.swim();

f1.eat();

}

}

**5]ANS:-**

public abstract class shapes

{

public abstract void draw();

}

class line extends shapes

{

public void draw()

{

System.out.println("draw line");

}

}

class rectangle extends line

{

public void draw()

{

System.out.println("draw rectangle");

}

}

class square extends rectangle

{

public void draw()

{

System.out.println("draw square.... ");

}

}

class cube extends square

{

public void draw()

{

System.out.println("draw cube..... ");

}

}

class main

{

public static void main(String[] args)

{

line l1=new line();

l1.draw();

rectangle r1=new rectangle();

r1.draw();

square s1=new square();

s1.draw();

cube c1=new cube();

c1.draw();

}

}

**6]ANS:-**

public abstract class persistence {

public abstract void persist();

}

class filepersistence extends persistence

{

public void persist()

{

System.out.println("the data stored in files");

}

}

class datapersistence extends filepersistence

{

public void persist()

{

System.out.println("the data stored in database");

}

}

package shapes;

public class stored {

public static void main(String args[])

{

Scanner sc=new Scanner(System.in);

System.out.println("enter persistence type");

String persistencetype=sc.nextLine();

filepersistence f1=new filepersistence();

f1.persist();

datapersistence dp=new datapersistence();

dp.persist();}

}