abstract class shape{

    int x,y;

   abstract void printArea();

}

class rectangle extends shape

{

    rectangle(int a,int b){

            x=a;

            y=b;

        }

   void printArea(){

        System.out.println("Area of rectangle is "+(x\*y));

    }

}

class triangle extends shape

{

     triangle(int a,int b){

            x=a;

            y=b;

        }

   void printArea(){

    System.out.println("Area of triangle is "+(0.5\*x\*y));

    }

}

class circle extends shape

{

     circle(int a){

            x=a;

        }

    void printArea(){

        System.out.println("Area of circle is "+(3.142\*x\*x));

    }

}

public class area

{

    public static void main(String[] args) {

      rectangle rect = new rectangle(5,6);

      triangle tri = new triangle(4,3);

      circle cir = new circle(8);

      rect.printArea();

      tri.printArea();

      cir.printArea();

    }

}

import java.util.Scanner;

class Account

{

    String name,accnum,acctype;

    double balance;

    Account(){}

    /\*{

        if(a==1)

            acctype="savings";

        else if(a==2)

            acctype="current";

    }\*/

    void input()

    {

        Scanner sc=new Scanner(System.in);

    System.out.println("enter name ,acc number");

    name=sc.next();

    accnum=sc.next();

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

    balance=sc.nextInt();

}

void displaydetails()

        {

        System.out.println("\nname="+name+"\naccnumber="+accnum+"\nbalance="+balance+"\naccount type="+acctype);

        }

void display()

    {

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

    }

}

class curracct extends Account

{

    curracct()

    {

            acctype="current";

    }

         double minbal=5000;

    void check()

    {

        double penalty=100;

     if(balance<minbal)

        {

         balance=balance-penalty;

         System.out.println("penalty is imposed");

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

        }

        else

        {

          System.out.println("penalty not imposed");

        }

    }

    void deposit()

    {

       Scanner sc=new Scanner(System.in);

        System.out.println("enter amt to deposit:");

        double amt=sc.nextDouble();

           balance=balance+amt;

    }

}

class savacc extends Account

{

 savacc()

    {

            acctype="savings";

    }

double ci;

  void calcompound(int n,int t)

    {

      ci=balance\*(Math.pow((1+(0.2/n)),(n\*t)));

      balance=balance+ci;

        System.out.printf("compound interest:%.2f",ci);

        System.out.printf("\nbalance:%.2f",balance);

    }

   void withdrawal(double amt)

    {

        double minbal=5000;

        if(balance<5000)

         System.out.println("amount cant be withdrawn as min balance(5000) constraint will be violated");

       else

           balance=balance-amt;

    }

    void deposit()

    {

        System.out.println("enter amount to deposit: ");

         Scanner sc=new Scanner(System.in);

        double depamt;

        depamt=sc.nextDouble();

        balance=balance+depamt;

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

   }

}

class AccountMain

{

     public static void main(String[] args)

    {

         Scanner sc=new Scanner(System.in);

        //Account A=new Account();

         System.out.println("enter 1 for savings account 2 for current account");

         int acctype=sc.nextInt();

        savacc s=new savacc();

        curracct c=new curracct();

         if(acctype==1)

        {

        System.out.println("enter your details: ");

        s.input();

        s.displaydetails();

        System.out.println("number of times interest to be compounded per unit t(n),time in years");

        int n=sc.nextInt();

        int t=sc.nextInt();

        s.calcompound(n,t);

        int n1=1;

        while(n1==1)

        {

        System.out.println("enter 1.deposit 2.withdrawl 3.exit");

        int w=sc.nextInt();

        if(w==1)

            {

              s.deposit();

            }

        else if(w==2)

        {

            System.out.println("enter the amount :");

                    double amt=sc.nextDouble();

            s.withdrawal(amt);

            s.display();

        }

        else

            {

            System.exit(0);

            }

        }

        }

       else if(acctype==2)

        {

               System.out.println("enter your details: ");

                c.input();

                c.displaydetails();

                c.check();

                c.deposit();

                c.display();

         }

 }

}



