import java.util.\*;

import java.lang.Math;

class bank

{

Scanner sc = new Scanner(System.in);

String name;

int acc\_no;

float bal,si;

void accept()

{

System.out.println("Enter your name");

name = sc.nextLine();

System.out.println("Enter the balance amount");

bal = sc.nextFloat();

}

void display()

{

System.out.println("Name : "+name);

}

void deposit()

{

float amount;

int choice;

System.out.println("Do you want to deposit(1 for yes ,2 for no)");

choice = sc.nextInt();

if(choice==1)

{

System.out.println("Enter the amount to be deposited");

amount = sc.nextFloat();

if(amount > bal)

{

System.out.println("Amount in bank insufficient");

}

Else

{

bal = bal + amount;

}

System.out.println("Current balance : "+bal);

}

}

}

class current extends bank

{

int service\_fee = 50;

void cheque()

{

System.out.println("Cheque service available");

}

void withdrawal()

{

float amt;

System.out.println("Enter the amount to be withdrawn");

amt = sc.nextFloat();

if(amt>bal)

System.out.println("Balance insufficient");

else

{

bal = bal - amt;

if(bal<1000)

{

bal = bal - service\_fee;

System.out.println("50 rs is taken as service fee");

}

System.out.println("Withdrawn : "+amt);

System.out.println("Current balance : "+bal);

}

}

}

class savings extends bank {

void cheque()

{

System.out.println("Cheque service not available");

}

void withdrawal()

{

float amt;

System.out.println("Enter the amount to be withdrawn");

amt = sc.nextFloat();

if(amt>bal)

System.out.println("Balance insufficient");

else

bal = bal - amt;

System.out.println("Withdrawn : "+amt);

System.out.println("Current balance : "+bal);

}

void interest()

{

System.out.println("Enter the rate of interest");

int r = sc.nextInt();

System.out.println("Enter the number of times interest applied per time period");

int n = sc.nextInt();

System.out.println("Enter the time elapsed");

int t = sc.nextInt();

si = bal\*(1+(r/n));

System.out.println("Compound interest is "+(Math.pow(si,n\*t)));

}

}

public class account {

public static void main(String args[]) {

Scanner sc = new Scanner(System.in);

savings obj1 = new savings();

current obj2 = new current();

System.out.println("\n1.Savings account\n2.Current account");

int choice = sc.nextInt();

switch(choice)

{

case 1:

obj1.accept();

obj1.display();

obj1.cheque();

obj1.deposit();

obj1.interest();

obj1.withdrawal();

break;

case 2:

obj2.accept();

obj2.display();

obj2.cheque();

obj2.deposit();

obj2.withdrawal();

break;

default : System.out.println("Invalid choice");

}

}

}