**LAB PROGRAM 5**

import java.util.\*;

import java.lang.Math;

class Account

{

String name;

int acctno;

char type;

double balance;

double dep;

boolean cheq;

void get(char c)

{

type = c;

if(c=='s' || c == 'S')

cheq=false;

else cheq=true;

Scanner sc = new Scanner(System.in);

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

name = sc.nextLine();

System.out.println("Enter the account number");

acctno = sc.nextInt();

System.out.println("Enter the current available balance in your account");

balance= sc.nextDouble();

}

void putd()

{

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

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

System.out.println("Account number: "+acctno);

System.out.println("Account type :"+type);

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

}

void dep()

{

Scanner ss = new Scanner(System.in);

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

dep= ss.nextDouble();

balance=balance +dep;

System.out.println("Amount has been deposited and balance has been updated");

}

void display()

{

System.out.println("Balance amount is "+balance);

}

void check()

{

if(cheq==false)

System.out.println("Cheque book facility is not available");

else

System.out.println("Cheque book facility is available");

}

}

class Saving extends Account

{

double rate;

double s\_with;

int n;

int ch;

double amt;

double term;

double pr;

void ci()

{

Scanner ss = new Scanner(System.in);

System.out.println("Enter principal deposit amount");

pr = ss.nextDouble();

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

rate = ss.nextDouble();

System.out.println("Enter the term(years)");

term = ss.nextDouble();

System.out.println("Enter the number of times interest in compounded annually");

n = ss.nextInt();

amt = pr\* Math.pow((1+(rate/100)),(n\*term));

balance+= amt;

System.out.println("Interest is compounded and deposited; balance is updated");

}

void with\_s()

{

Scanner ss = new Scanner(System.in);

System.out.println("Enter the amount of money to be withdrawn");

s\_with = ss.nextDouble();

if(s\_with>balance)

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

else

{balance= balance - s\_with;

System.out.println("Money has been withdrawn and balance has been updated");}

}

}

class Current extends Account

{

double c\_with;

double pen;

double min;

Current()

{

pen=100;

min=500;

}

void with\_c()

{

Scanner xx = new Scanner(System.in);

System.out.println("Enter the amount to be withdrawn");

c\_with= xx.nextDouble();

if(c\_with>balance)

{System.out.println("Insufficient funds!");

return;}

else

{balance= balance- c\_with;

System.out.println("Amount has been withdrawn and balance has been updated");}

if(balance<min)

{

System.out.println("Balance is below the minimum threshold. Service penalty charge = 100/- .");

if(balance<pen)

System.out.println("Due to insufficient funds, penalty charge will be deducted from account after replenishing. Current balance is "+balance);

else

{

balance= balance-pen;

System.out.println("Penalty charge has been deducted from account balance. Current balance is "+balance);

}

}

}

}

class bank

{

public static void main(String sss[])

{

int cch, chh;

Scanner sx = new Scanner(System.in);

System.out.println("--------Welcome----------");

System.out.println("Savings account or current account? 1- Savings; 2- Current");

int ch= sx.nextInt();

if(ch==1)

{

Saving s = new Saving();

s.get('S');

do{

System.out.println("1. Deposit money\n2. Calculate compound interest\n3. Withdraw money\n4. Display balance\n5. Cheque book facility\n6. Exit");

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

chh= sx.nextInt();

switch(chh)

{

case 1:

s.dep();

break;

case 2:

s.ci();

break;

case 3:

s.with\_s();

break;

case 4:

s.display();

break;

case 5:

s.check();

break;

case 6:

break;

default:

System.out.println("Wrong option.");

break;

}

}while(chh!=6);

}

else if(ch==2)

{

Current cr = new Current();

cr.get('C');

do{

System.out.println("1. Deposit money\n2. Chequebook facility\n3. Withdraw money\n4. Display balance\n5. Exit");

cch= sx.nextInt();

switch(cch)

{

case 1:

cr.dep();

break;

case 2:

cr.check();

break;

case 3:

cr.with\_c();

break;

case 4:

cr.display();

break;

case 5:

break;

default:

System.out.println("Wrong option.");

break;

}

}while(cch!=5);

}

else System.out.println("Wrong!");

}

}

**OUTPUT**









