```
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 "+bal
                        else
                        {
                                balance= balance-pen;
                                System.out.println("Penalty charge has been deducted from account balance. Current balance is "+balance);
                        }
                }
        }


}

public class lab6
{
        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");
```

```
                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!");
    }
}
```

```
--------Welcome----------
Savings account or current account? 1- Savings; 2- Current
2
Enter your name
Ubaid
Enter the account number
23
Enter the current available balance in your account
567
1. Deposit money
2. Chequebook facility
3. Withdraw money
4. Display balance
5. Exit
3
Enter the amount to be withdrawn
560
Amount has been withdrawn and balance has been updated
Balance is below the minimum threshold. Service penalty charge = 100/- .
Due to insufficient funds, penalty charge will be deducted from account after replenishing. Current balance is 7.0
1. Deposit money
2. Chequebook facility
3. Withdraw money
4. Display balance
5. Exit
4
Balance amount is 7.0
1. Deposit money
2. Chequebook facility
3. Withdraw money
4. Display balance
5. Exit
```