```
import java.util.Scanner;

public class Account
{
        private static long accountCounter=0;
        protected String customerName;
        protected String accountNumber;
        protected String accountType;
        protected double balance;

        public Account(){
        }

        public void getData(Scanner sc, String accountType, long accountCount)
        {

                System.out.print("Enter customer name:");
                customerName = sc.nextLine();

                accountNumber = (++accountCounter)+""+accountType+""+accountCount;
                System.out.print("Enter initial Balance:");
                balance = sc.nextDouble();
                display();
        }

        public void display()
        {
                System.out.println(
                                "\nName:"+customerName+
                                "\nAcc No:"+accountNumber+
                                "\nBalance:"+balance);
        }
        public void withdrawal(double amount)
        {
                if(balance-amount>0)
                {
                        balance -= amount;
                        System.out.println("Withdrawn "+amount+
                                ". Balance:"+balance);
                }
                else
                {
                        System.out.println("Transaction failed.");
                }
        }

        public void deposit(double amount)
        {
                balance += amount;
                System.out.println("Deposited "+amount+
                                ". Balance:"+balance);
        }

        public void getBalance(){
                System.out.println("Balance:"+balance);
        }

        public String getAccountNumber(){return accountNumber;}

        public void addInterest(){}
}

class SavingsAccount extends Account
{

        static public double interestRate=0.05;
        static long count=0;
        SavingsAccount(){
```

```
        }

        public void getData(){
                Scanner sc = new Scanner(System.in);
                accountType = "S";
                super.getData(sc, accountType,++count);
        }

        public void addInterest(){
                balance += balance*interestRate;
        }
}

class CurrentAccount extends Account
{
        static long minimumBalance = 5000;
        static long count=0;
        String chequeBook = "";
        CurrentAccount(){
        }

        public void getData(){
                Scanner sc = new Scanner(System.in);

                accountType = "C";
                super.getData(sc,accountType,++count);
        }

        public void withdrawal(double amount){
                if (balance-amount < minimumBalance)
                {
                        double serviceCharge = amount * 0.1;
                        System.out.println("Transaction to go below minimum balance("+
                                        minimumBalance+"). Service charge of "+
                                        serviceCharge+" levied for the transaction");

                        super.withdrawal(amount+serviceCharge);
                        return;
                }
                super.withdrawal(amount);
        }

        public void addCheque(String s)
        {
                chequeBook = chequeBook+s+"\n";
        }
}
```

```
import java.util.Scanner;

public class Bank
{
        public static void main(String args[])
        {
                Scanner sc = new Scanner(System.in);

                SavingsAccount[] sa = new SavingsAccount[10];
                CurrentAccount[] ca = new CurrentAccount[10];

                int sIndex=0, cIndex=0;

                System.out.println("1. Savings\n2. Current\n3. Deposit\n4. Withdraw\n5. Int
erest\n6. Display\n7. Cheque\n0. Exit");
                int choice;

                do
                {
                        System.out.print("\nEnter choice:");
                        choice = sc.nextInt();

                        switch(choice)
                        {
                                case 1 :sa[sIndex]=new SavingsAccount();
                                        sa[sIndex++].getData();
                                        break;
                                case 2 :ca[cIndex]=new CurrentAccount();
                                        ca[cIndex++].getData();
                                        break;
                                case 3 :System.out.print("Enter Account number:");
                                        String accno = sc.next().strip().toUpperCase();

                                        if(accno.charAt(1)==’S’)
                                        {

                                                for(int i=0;i<=sIndex;i++)
                                                {
                                                        if(sa[i].getAccountNumber().equals(
accno))

                                                        {
                                                                System.out.print("Enter amo
unt:");

                                                                double amount = sc.nextDoub
le();

                                                                sa[i].deposit(amount);
                                                        }
                                                }
                                        }
                                        else if(accno.charAt(1)==’C’)
                                        {
                                                for(int i=0;i<=cIndex;i++)
                                                {
                                                        if(ca[i].getAccountNumber().equals(
accno))

                                                        {
                                                                System.out.print("Enter amo
unt:");

                                                                double amount = sc.nextDoub
le();

                                                                ca[i].deposit(amount);
                                                        }
                                                }
                                        }
                                        else
                                        {
                                                System.out.println("Invalid account no.");
                                        }
```

```
                                        break;
                                case 4 :System.out.print("Enter Account number:");
                                        String accnumber = sc.next().strip().toUpperCase();

                                        if(accnumber.charAt(1)=='S')
                                        {

                                                for(int i=0;i<=sIndex;i++)
                                                {
                                                        if(sa[i].getAccountNumber().equals(
accnumber))
                                                        {
                                                                System.out.print("Enter amo
unt:");
                                                                double amount = sc.nextDoub
le();
                                                                sa[i].withdrawal(amount);
                                                        }
                                                }
                                        }
                                        else if(accnumber.charAt(1)=='C')
                                        {
                                                for(int i=0;i<=cIndex;i++)
                                                {
                                                        if(ca[i].getAccountNumber().equals(
accnumber))
                                                        {
                                                                System.out.print("Enter amo
unt:");
                                                                double amount = sc.nextDoub
le();
                                                                ca[i].withdrawal(amount);
                                                        }
                                                }
                                        }
                                        else
                                        {
                                                System.out.println("Invalid account no.");
                                        }
                                        break;
                                case 5 :for(SavingsAccount s: sa)
                                        {
                                                if(s!=null)
                                                {
                                                        s.addInterest();
                                                }
                                        }
                                        System.out.println("Added Interest");
                                        break;
                                case 6:
                                        // Display Savings Accounts
                                        for (SavingsAccount a : sa) {
                                                if (a != null) {  // Check if the account i
s initialized
                                                        a.display();
                                                }
                                        }
                                        // Display Current Accounts
                                        for (CurrentAccount b : ca) {
                                                if (b != null) {  // Check if the account i
s initialized
                                                        b.display();
                                                }
                                        }
                                        break;
                                case 7: System.out.print("Enter Account No:");
                                        String accNo = sc.next().strip().toUpperCase();
                                        if(accNo.charAt(1)=='C')
```

```
                                        {
                                                System.out.print("Enter Cheque No:");
                                                String checkNumber = sc.next().strip().toUp
perCase();
                                                for(CurrentAccount c: ca)
                                                {
                                                        if(c!=null && c.getAccountNumber().
equals(accNo))
                                                                c.addCheque(checkNumber);
                                                }
                                        }
                                        else
                                        {
                                                System.out.println("Invalid Account");
                                        }
                                        break;
                                default:System.out.println("Invalid Input");

                        }
                        sc.nextLine();
                }while(choice!=0);

                System.out.println("Exiting...");
                sc.close();
        }
}
```