Program 5

```
import java.util.Scanner;


class Account {
    String customerName;
    int accountNumber;
    String accountType;
    double balance;


    public Account(String customerName, int accountNumber,
String accountType, double balance) {
        this.customerName = customerName;
        this.accountNumber = accountNumber;
        this.accountType = accountType;
        this.balance = balance;
    }


    void deposit(double amount) {
        balance += amount;
        System.out.println("Amount deposited. Updated
balance: " + balance);
    }
```

```
    void displayBalance() {
        System.out.println("Current balance: " + balance);
    }
}

class SavAcct extends Account {
    double interestRate;

    public SavAcct(String customerName, int accountNumber,
double balance, double interestRate) {
        super(customerName, accountNumber, "Savings",
balance);
        this.interestRate = interestRate;
    }

    void computeInterest() {
        double interest = balance * interestRate / 100;
        balance += interest;
        System.out.println("Interest of " + interest + " added.
Updated balance: " + balance);
    }
```

```
    void withdraw(double amount) {
        if (balance >= amount) {
            balance -= amount;
            System.out.println("Amount withdrawn. Updated balance: " + balance);
        } else {
            System.out.println("Insufficient balance.");
        }
    }
}

class CurAcct extends Account {
    double minBalance;
    double serviceCharge;

    public CurAcct(String customerName, int accountNumber, double balance, double minBalance, double serviceCharge) {
        super(customerName, accountNumber, "Current", balance);
        this.minBalance = minBalance;
        this.serviceCharge = serviceCharge;
    }
```

```
    void withdraw(double amount) {
        if (balance - amount < minBalance) {
            balance -= serviceCharge;
            System.out.println("Balance below minimum. Service
charge of " + serviceCharge + " applied.");
        } else {
            balance -= amount;
            System.out.println("Amount withdrawn. Updated
balance: " + balance);
        }
    }
}

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

        System.out.println("Enter customer name:");
        String name = sc.nextLine();
        System.out.println("Enter account number:");
        int accNo = sc.nextInt();
        System.out.println("Enter initial balance:");
```

```
        double balance = sc.nextDouble();
        System.out.println("Choose account type (1: Savings, 2: Current):");
        int type = sc.nextInt();

        if (type == 1) {
            System.out.println("Enter interest rate:");
            double interestRate = sc.nextDouble();
            SavAcct savings = new SavAcct(name, accNo, balance, interestRate);

            System.out.println("1. Deposit 2. Withdraw 3. Compute Interest 4. Display Balance");
            int choice = sc.nextInt();
            switch (choice) {
                case 1:
                    System.out.println("Enter amount to deposit:");
                    savings.deposit(sc.nextDouble());
                    break;
                case 2:
                    System.out.println("Enter amount to withdraw:");
                    savings.withdraw(sc.nextDouble());
                    break;
```

```
            case 3:
                savings.computeInterest();
                break;
            case 4:
                savings.displayBalance();
                break;
            default:
                System.out.println("Invalid choice.");
        }
    } else if (type == 2) {
        System.out.println("Enter minimum balance:");
        double minBalance = sc.nextDouble();
        System.out.println("Enter service charge:");
        double serviceCharge = sc.nextDouble();
        CurAcct current = new CurAcct(name, accNo, balance,
minBalance, serviceCharge);

        System.out.println("1. Deposit 2. Withdraw 3. Display
Balance");
        int choice = sc.nextInt();
        switch (choice) {
            case 1:
```

```
                System.out.println("Enter amount to deposit:");
                current.deposit(sc.nextDouble());
                break;
            case 2:
                System.out.println("Enter amount to withdraw:");
                current.withdraw(sc.nextDouble());
                break;
            case 3:
                current.displayBalance();
                break;
            default:
                System.out.println("Invalid choice.");
        }
    } else {
        System.out.println("Invalid account type.");
    }

    sc.close();
  }
}
```

OUTPUT

```
Enter customer name:
Umesh
Enter account number:
456789
Enter initial balance:
20000
Choose account type (1: Savings, 2: Current):
2
Enter minimum balance:
200
Enter service charge:
10
1. Deposit 2. Withdraw 3. Display Balance
3
Current balance: 20000.0
PS C:\Users\User\Documents\JAVA_LAB_PROGRAMS> java Bank
Enter customer name:
umesh
Enter account number:
4567873
Enter initial balance:
3003
Choose account type (1: Savings, 2: Current):
1
Enter interest rate:
5
1. Deposit 2. Withdraw 3. Compute Interest 4. Display Balance
1
Enter amount to deposit:
1234
Amount deposited. Updated balance: 4237.0
```