```java
import java.util.Scanner;

class Account {
    private String customer_name;
    private int acc_no;
    protected double balance;

    public Account(String customer_name, int acc_no, double balance) {
        this.customer_name = customer_name;
        this.acc_no = acc_no;
        this.balance = balance;
    }

    public double getBalance() {
        return balance;
    }

    public void deposit(double amount) {
        if (amount > 0) {
            balance += amount;
            System.out.println("Deposited: " + amount);
        } else {
            System.out.println("Deposit amount must be positive.");
        }
    }
    public void withdraw(double amount)
      {
        if(amount<=getBalance()){
            balance-=amount;
            System.out.println("withdrew:"+amount + " balance is:"+ balance);
            }
        else
          System.out.println("Insufficient funds!!");
       }
    public void displayBalance(){
        System.out.println("Current Balance: " + balance);
    }
}

class SavingsAccount extends Account {
    private double interestRate;

    public SavingsAccount(String customerName, int accountNumber, double initialBalance, double interestRate) {
        super(customerName, accountNumber, initialBalance);
        this.interestRate = interestRate;
    }

    public void computeAndDepositInterest() {
        double interest = getBalance() * interestRate / 100;
        deposit(interest);
    }
}
```

```java
}
class CurrentAccount extends Account {
    private double minimumBalance;
    private double serviceCharge;

    public CurrentAccount(String customerName, int accountNumber, double initialBalance, double minimumBalance, double serviceCharge) {
        super(customerName, accountNumber, initialBalance);
        this.minimumBalance = minimumBalance;
        this.serviceCharge = serviceCharge;
    }
    public void checkMinimumBalance() {
        if (getBalance() < minimumBalance) {
            System.out.println("Balance is below minimum");
            balance-=serviceCharge;
            System.out.println("Deducted service charge:" +serviceCharge);
            System.out.println("Balance after deduction is:"+balance);
        }
    }
}

public 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 accno:");
        int acc_no=sc.nextInt();
        System.out.println("enter initial balance:");
        double balance=sc.nextDouble();
        System.out.println("enter minimum balance:");
        double minimum_balance=sc.nextDouble();
        System.out.println("enter interest rate:");
        double interest_rate=sc.nextDouble();
        System.out.println("enter service charge:");
        double service_charge=sc.nextDouble();
        System.out.println("Enter choice:\n 1.Current acc\n 2.Savings acc");
        int ch=sc.nextInt();
        System.out.println("Customer name is:"+ name+"\nAccount number:"+acc_no+"\n ARCHITA V-1BM23CS050");

        switch(ch){
            case(1):
                System.out.println("account is current type");
                CurrentAccount ca = new CurrentAccount(name,acc_no,balance,minimum_balance,service_charge);
                do{ System.out.println("enter choice:\n 1.deposit\n 2.withdraw\n 3.display balance");
                int c=sc.nextInt();
                ca.checkMinimumBalance();
                if(c==1){
                    System.out.println("enter amount to be deposited:");
                    double amt=sc.nextDouble();
                    ca.deposit(amt);}
                else if(c==2){
                    System.out.println("enter amount to withdraw:");
```

```java
System.out.println("enter interest rate:");
double interest_rate=sc.nextDouble();
System.out.println("enter service charge:");
double service_charge=sc.nextDouble();
System.out.println("Enter choice:\n 1.Current acc\n 2.Savings acc");
int ch=sc.nextInt();
System.out.println("Customer name is:"+ name+"\nAccount number:"+acc_no+"\n ARCHITA V-1BM23CS050");

switch(ch){
    case(1):
        System.out.println("account is current type");
        CurrentAccount ca = new CurrentAccount(name,acc_no,balance,minimum_balance,service_charge);
       do{ System.out.println("enter choice:\n 1.deposit\n 2.withdraw\n 3.display balance");
        int c=sc.nextInt();
        ca.checkMinimumBalance();
        if(c==1){
            System.out.println("enter amount to be deposited:");
            double amt=sc.nextDouble();
              ca.deposit(amt);}
        else if(c==2){
            System.out.println("enter amount to withdraw:");
            double amt=sc.nextDouble();
            ca.withdraw(amt);}
        else if(c==3){
            ca.displayBalance();}
        else
          System.exit(0);
         }while(true);

    case(2):
         System.out.println("account is savings type");
        SavingsAccount sa=new SavingsAccount(name,acc_no,balance,interest_rate);
        do{ System.out.println("enter choice:\n 1.deposit\n 2.withdraw\n 3.display balance");
        int c1=sc.nextInt();
        if(c1==1){
            System.out.println("enter amount to be deposited:");
            double amt=sc.nextDouble();
              sa.deposit(amt);}
        else if(c1==2){
            System.out.println("enter amount to withdraw:");
            double amt=sc.nextDouble();
            sa.withdraw(amt);}
        else if(c1==3){
          sa.computeAndDepositInterest();
            sa.displayBalance();}
        else{
          System.exit(0);
            }
        }while(true);
   }
 }
}
```

```
C:\Users\Admin\Desktop\1BM23CS050>java Bank
enter customer name:
John
enter accno:
1
enter initial balance:
10909
enter minimum balance:
10000
enter interest rate:
3
enter service charge:
54
Enter choice:
 1.Current acc
 2.Savings acc
1
Customer name is:John
Account number:1
 ARCHITA V-1BM23CS050
account is current type
enter choice:
 1.deposit
 2.withdraw
 3.display balance
1
enter amount to be deposited:
1200
Deposited: 1200.0
enter choice:
 1.deposit
 2.withdraw
 3.display balance
2
enter amount to withdraw:
2390
withdrew:2390.0 balance is:9719.0
enter choice:
 1.deposit
 2.withdraw
 3.display balance
3
Balance is below minimum
Deducted service charge:54.0
Balance after deduction is:9665.0
Current Balance: 9665.0
enter choice:
 1.deposit
 2.withdraw
 3.display balance
|
```