

Q  
Ans

```
import java.util.*;  
import lang.util.*;
```

```
class Bank {
```

```
    String name, abc;
```

```
    int accNo;
```

```
    char accType;
```

```
    double balance = 0;
```

```
    double deposit;
```

```
    double cheque Amount;
```

```
    Scanner in = new Scanner(System.in);
```

```
    void inputData() {
```

```
        System.out.println("Enter your account type (Savings/Curent): ");
```

```
        abc = in.nextLine();
```

```
        accType = abc.charAt(0);
```

```
    }
```

```
    void deposit() {
```

```
        System.out.println("Enter an amount to deposit: ");
```

```
        deposit = in.nextDouble();
```

```
        balance += deposit;
```

```
        System.out.println("Balance has been updated");
```

```
    }
```

```
    void viewBalance() {
```

```
        System.out.println("Balance = " + balance);
```

```
    }
```

```
public static void main (String[] args) {
```

```
Scanner s = new Scanner (System.in);
```

```
int x;
```

```
Bank a1 = new Bank();
```

```
a1.inputData();
```

```
if (a1.acctype == 'c' || a1.acctype == 'C') {
```

```
    Current a2 = new Current();
```

```
do {
```

```
    System.out.println ("WELCOME TO YOUR CURRENT ACCOUNT");
```

```
    System.out.println ("(1) Deposit");
```

```
    System.out.println ("(2) Check Balance");
```

```
    System.out.println ("(3) Issue Cheque");
```

```
    System.out.println ("(4) Exit");
```

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

```
switch (x) {
```

```
    case 1: a2.deposit();
```

```
    break;
```

```
    case 2: a2.checkBalance();
```

```
    break;
```

```
    case 3: a2.issueCheque();
```

```
    break;
```

```
    case 4: System.exit(0);
```

```
    default: System.out.println ("Invalid choice");
```

```
}
```

```
}
```

```
while (x <= 4 && x >= 1);
```

```
}
```



```

else if (a1.accountType == 's' || a1.accountType == 's') {
    Savings a3 = new Savings();

```

```

do {

```

```

    System.out.println("Welcome To Your Savings Account");

```

```

    System.out.println(" (1) Deposit ");

```

```

    System.out.println(" (2) View Balance ");

```

```

    System.out.println(" (3) Withdraw ");

```

```

    System.out.println(" (4) Calculate Compound Interest ");

```

```

    System.out.println(" (5) Exit ");

```

```

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

```

```

    x = s.nextInt();

```

```

    switch(x) {

```

```

        case 1: a3.deposit();

```

```

        break;

```

```

        case 2: a3.viewBalance();

```

```

        break;

```

```

        case 3: a3.balanceAfterWithdrawal();

```

```

        break;

```

```

        case 4: a3.computeCI();

```

```

        break;

```

```

        default: System.out.println("Invalid choice");

```

```

    }

```

```

    while(x <= 5 && x >= 1);

```

```

} else System.out.println("Invalid Account Type");

```

```
class Current extends Bank {
```

```
    Current() {
```

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

```
        name = in.nextLine();
```

```
        System.out.println("\n");
```

```
        System.out.println("Enter your account number ");
```

```
        accNo = in.nextInt();
```

```
        deposit();
```

```
    }
```

```
    void issueCheque() {
```

```
        System.out.println("Enter the amount for which the cheque is  
to be issued ");
```

```
        chequeAmount = in.nextDouble();
```

```
        if (chequeAmount > balance) {
```

```
            System.out.println("Insufficient amount");
```

```
        }
```

```
        else {
```

```
            balance -= chequeAmount;
```

```
            System.out.println("Cheque has been issued successfully");
```

```
        }
```

```
    }
```

```
    void checkBalance() {
```

```
        if (balance < 1000) {
```

```
            System.out.println("Current available balance is insufficient");
```

```
            balance -= 100;
```

```
        }
```

```
        viewBalance();
```

```
    }
```

```
}
```



```
class Savings extends Bank {
```

```
    double CI, withdrawalAmount, time;
```

```
    Savings () {
```

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

```
        name = in.nextLine();
```

```
        System.out.println ("Enter your account number");
```

```
        accNo = in.nextInt();
```

```
        deposit();
```

```
    }
```

```
    void computeCI() {
```

```
        System.out.println ("Enter time period: ");
```

```
        time = in.nextInt();
```

```
        CI = balance * Math.pow(1 + (0.08/12), 12 * time) - balance;
```

```
        System.out.println ("CI = " + CI);
```

```
        balance += CI;
```

```
        System.out.println ("CI has been deposited");
```

```
    }
```

```
    void balanceAfterWithdrawal() {
```

```
        System.out.println ("Enter the amount you want to withdraw");
```

```
        withdrawalAmount = in.nextDouble();
```

```
        if (withdrawalAmount > balance) {
```

```
            System.out.println ("Entered amount is greater than balance");
```

```
        }
```

```
        else {
```

```
            balance -= withdrawalAmount;
```

```
            System.out.println ("Successful");
```

```
        }
```

```
    }
```

```
}
```