

## Lab Program 1

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

```
class Account {
```

```
    String name;
```

```
    int acc-no;
```

```
    boolean current;
```

```
    double balance = 0;
```

```
    int min-balance = 100;
```

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

```
    Account() {
```

```
        if (this.getClass() == CurrentAcc.class) {
```

```
            current = true;
```

```
        } else {
```

```
            current = false;
```

```
        }
```

```
        System.out.print("Enter name: ");
```

```
        name = sc.next();
```

```
        System.out.print("Enter account no: ");
```

```
        acc-no = sc.nextInt();
```

```
    }
```

```
    void deposit() {
```

```
        System.out.print("Enter deposit amount: ");
```

```
        balance += sc.nextDouble();
```

```
    }
```

```
    void withdraw() {
```

```
        System.out.print("Enter withdraw amount: ");
```

```
        double withdraw = sc.nextDouble();
```

```
        while (withdraw > balance) {
```

```
            // Enter new amount
```

```
            System.out.print("Withdraw > balance, ");
```

```
            withdraw = sc.nextDouble();
```

```
        }
```

```
balance -= withdraw;
```

```
if (current & balance < min-balance) {
```

```
    System.out.println("Below min balance");
```

```
    balance = 0;
```

```
}
```

```
}
```

```
void showBalance() {
```

```
void withdraw (double withdraw)
```

```
    System.out.print("balance = " + balance);
```

```
}
```

```
}
```

```
class CurrentAcc extends Account {
```

```
    void cheque () {
```

```
        System.out.println("Enter cheque amt.");
```

```
        double cheque = sc.nextDouble();
```

```
        withdraw(cheque, balance -= cheque);
```

```
        System.out.println("Cheque created "...");
```

```
}
```

```
class SavingsAcc extends Account {
```

```
    void compound (int t, double r) {
```

```
        balance = balance * (Math.pow((1 + (double)r/100), t));
```

```
        System.out.println("Balance after rate and time " + balance);
```

```
}
```

```
}
```

```
class Bank {
```

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

```
        System.out.println("Savings Acc john = new SavingsAcc ();
```

```
        (* Phases 4 - Current Acc Smith = new CurrentAcc ();
```

```
        Bank b = new Bank (); Account ref;
```

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

```
        int acc, choice;
```

```
        System.out.println("---- MENU ----");
```

```
        System.out.println("1. Deposit\n2. Withdraw\n3. Compound Interest\n4. Display
```

```
5. Exit");
```

```

In 5. Create cheque In 6. Exit In Choice: ")
choice = sc.nextInt();
if (acc == 1) acc = sc.nextInt();
if (acc == 1) { ref = john; }
else { ref = Smith; }
while (choice != 6) {
    if (choice == 1) {
        ref.deposit();
    } else if (choice == 2) {
        ref.withdraw();
    } else if (choice == 3) {
        if (acc == 1) {
            john.compound(1, 5);
        } else {
            System.out.println("Not saving");
        }
    } else if (choice == 4) {
        ref.showBalance();
    } else if (choice == 5) {
        if (acc == 2) {
            Smith.cheque();
        } else {
            System.out.println("Not correct");
        }
    }
    System.out.println("Enter acc. no");
    acc = sc.nextInt();
    System.out.println("Enter choice: ");
    choice = sc.nextInt();
}
}
}

```

## Output:

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Enter name: John

Enter account no.: 1

Enter name: Smith

Enter account no.: 2

----- MENU -----

1. Deposit

2. Withdraw

3. Compute Interest

4. Display

5. Cheque

6. Exit

Choice: 1

Enter acc. no.: 1

Enter deposit amount: 100

Enter acc. no.: 2

Enter choice: 6

9/1/24