

WEEK 5 (Bank account)Inheritance in java

```
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;
```

```
    }
```

```
    public void deposit (double amount) {
```

```
        balance += amount;
```

```
        System.out.println ("Deposit " + amount);
```

```
    }
```

```
    public void displayBalance () {
```

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

```
    }
```

```
    public boolean withdraw (double amount) {
```

```
        if (amount > balance) {
```

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

```
            return false;
```

```
        }
```

```
        balance -= amount;
```

```
        System.out.println ("Withdraw " + amount);
```

```
        return true;
```

```
    }
```

```
}
```



```

class curAcc extends account {
    double minimumBalance ;
    double penalty;
    public curAcc (String customerName, int accountNumber, double
                    balance, double minimumBalance, double penalty) {
        super (customerName, accountName, "current", balance);
        this . minimumBalance = minimumBalance;
        this . penalty = penalty;
    }

```

```

    public void checkMinimumBalance () {
        if (balance < minimumBalance ) {
            balance -= penalty;
            System.out.println ("Min balance not maintained
                                penalty to + penalty + "imposed " );
        }
    }

```

```

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

```

```

    public void computeAndDepositInterest () {
        double interest = balance * (interestRate/100);
        balance += interest;
        Syso ("Interest of " + interest + " has been added");
    }

```



public class Bank {

public static void main(String [] args) {

Scanner sc = new Scanner(System.in);

Savings savAccount = new Savings("Abhay", 1001, 1000, 5);

Current curAccount = new Current("Kala", 2001, 1000, 50);

System.out.println("Savings accounts");

savAccount.displayBalance();

savAccount.deposit(500);

savAccount.displayBalance();

savAccount.computeanddepositInterest();

savAccount.displayBalance();

savAccount.withdraw(300);

savAccount.displayBalance();

System.out.println("Current account");

curAccount.displayBalance();

curAccount.deposit(200);

curAccount.displayBalance();

curAccount.withdraw(1500);

curAccount.displayBalance();

curAccount.checkMinimumBalance();

curAccount.displayBalance();

System.out.println("Abhay N.Y");

System.out.println("24 BECS 404");

}

}

Output

Savings account:

Balance : 1000.0

Deposited : 500.0

Balance : 1500.0

Interest of 75.0 has been added

Balance 1575.0

Withdrawn 300.0

Balance : 1275.0

Current account:

Balance : 2000.0

Deposited : 200.0

Balance : 2200.0

Withdrawn : 1500.0

Balance : 700.0

Minimum balance not maintained

Penalty of 50.0 imposed

Balance 650.0