

LAB 5

```
import java.util.Scanner;
```

```
abstract class Account {  
    String customerName;
```

```
    long accountNumber;
```

```
    String accountType;
```

```
    double balance;
```

```
    boolean updated = false;
```

```
    public Account (String customerName,
```

```
        long accountNumber, String accountType,  
        double balance) {
```

```
        this.customerName = customerName;
```

```
        this.accountNumber = accountNumber;
```

```
        this.accountType = accountType;
```

```
        this.balance = balance;
```

```
}
```

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

```
        updated = false;
```

```
        balance += amount;
```

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

```
}
```

~~```
 public void withdraw (double amount) {
```~~~~```
        update = false;
```~~~~```
 if (amount <= balance) {
```~~~~```
            balance -= amount;
```~~~~```
 System.out.println ("Withdrawal
```~~~~```
of ₹ " + amount + " successful.");
```~~

{ else {

System.out.println ("Insufficient
funds. Withdrawal not allowed") ;

}

public void displayBalance() {

update();

System.out.println ("Account Balance
is " + balance);

}

public abstract void update();

class CurAct extends Account {

double minBalance;

double serviceCharge;

public CurAct (String customerName,
long accountNumber, double balance)
this.minBalance = 500;
this.serviceCharge = 10;

public void update() {

if (!update) {

if (balance < minBalance) {

balance -= serviceCharge;

System.out.println ("Service
charge of ₹ " + serviceCharge +
" imposed for falling below
minimum balance.");

} updated = true; }

```
System.out.println("Account updated.");  
}  
}
```

```
class SavAcct extends Account {  
    double interestRate;  
    double time;
```

```
public SavAcct (String customerName,  
                long accountNumber, double balance)
```

```
super (customerName, accountNumber,  
       "Savings", balance);
```

```
this.interestRate = 0.05;
```

```
public void update () {
```

```
    Account  
    System.out.println ("Updated  
                        account");
```

```
public void calculateCI (double r,
```

```
                           int n, int t) {
```

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

public class BankDemo {

 public static void main (String args)
 {

 CurAcct currentAccount = new
 EuroAcct ("Priyanshu", 10
 123456789, 1000);

 SavAcct savingsAccount = new

 SavAcct ("Ajit", 987654321,
 5000);

 currentAccount.deposit(200);

 currentAccount.displayBalance();

 currentAccount.withdraw(200);

 currentAccount.displayBalance();

 savingsAccount.deposit(1000);

 savingsAccount.calculateCI(0.05, 2, 3);

 savingsAccount.displayBalance();

 savingsAccount.withdraw(850);

 savingsAccount.displayBalance();

} }

Output

Deposit of ₹ 200.0 successful.

Account Balance: ₹ 1200.0

Withdrawal of ₹ 200.0 successful.

Account Balance: ₹ 1000.0

Deposit of ₹ 1000.0 successful.

Account Balance: ₹ 6958.160..

Withdrawal of ₹ 800.0 successful

Account Balance: ₹ 6158.160..

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