

# JAVA LAB PROGRAM

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Write a java program that tracks the details of bank customers and captures the state of each customer. program should include a class called bank add the required data members for tracking the customer details. Use a object Serialization and deserialization to the same. Program should prevent from capturing the account balance of the customer during the Serialization Concept.

## Programs

### Customer.java

```
import java.io.Serializable;
class Customer implements Serializable{
    int accno;
    String name;
    transient int balance;
    public Customer(String name, int accno, int balance){
        this.name = name;
        this.accno = accno;
        this.balance = balance;
    }
}
```

### Bank.java

```
import java.io.*;
import java.util.Scanner;
import java.io.InputStreamReader;
import java.io.FileInputStream;
import java.util.ArrayList;
public class Bank{
    public static void main(String... args){
        Scanner sc = new Scanner(System.in);
        int i = 0;
        Customer[] obj = new Customer[10];
        while(true){
            System.out.print("1. Run\n2.
Exit\nEnter choice: ");
            int n = sc.nextInt();
            if(n == 1){
                System.out.print("Customer name:
");
                String name = sc.next();
```

```

        System.out.print("Account number:
");
        int accno = sc.nextInt();
        System.out.print("Balance amount:
");
        int balance = sc.nextInt();
        obj[i] = new Customer(name, accno,
balance);
        i++;
    }
    else if(n == 2){
        break;
    }
}
try{
    FileOutputStream fout = new
FileOutputStream("f.txt");
    ObjectOutputStream out = new
ObjectOutputStream(fout);
    for(int j = 0; j < i; j++){
        out.writeObject(obj[j]);
    }
    out.flush();
    out.close();
    System.out.print("Done\n");
}
catch(Exception e){
    System.err.print(e);
}
try{
    int k = 1;
    ArrayList<Customer> metaData = new ArrayList<>();
    FileInputStream fileInputStream = new
FileInputStream("f.txt");
    ObjectInputStream objectInputStream = new
ObjectInputStream(fileInputStream);
    System.out.println("\nCustomer details:");
    for(int j = 0; j < i; j++){
        Customer customer = (Customer)
objectInputStream.readObject();
        metaData.add(customer);
        System.out.print(k);
        System.out.print("\nName: "+customer.name);
        System.out.print("\nAccount Number:
"+customer.accno);
        k++;
    }
    try{

```

```
        System.out.print("\nBalance:
"+customer.balance+"\n");
    }
    catch(Exception e){
        System.out.print(e+"\n");
    }
}
}
catch(Exception e){
    System.err.print(e);
}
}
}
```

## Output

C:\Windows\System32\cmd.exe

```
D:\Semester 5\Java Programming\Lab 10-20>javac Bank.java

D:\Semester 5\Java Programming\Lab 10-20>java Bank
1. Run
2. Exit
Enter choice: 1
Customer name: python
Account number: 31
Balance amount: 2000
1. Run
2. Exit
Enter choice: 1
Customer name: java
Account number: 32
Balance amount: 3000
1. Run
2. Exit
Enter choice: 1
Customer name: cpp
Account number: 33
Balance amount: 1500
1. Run
2. Exit
Enter choice: 2
Done

Customer details:
1
Name: python
Account Number: 31
Balance: 0
2
Name: java
Account Number: 32
Balance: 0
3
Name: cpp
Account Number: 33
Balance: 0
java.io.EOFException
D:\Semester 5\Java Programming\Lab 10-20>
```