DAO PATTERN (BANK)

DTO CLASS OR POJO CLASS - CUSTOMER (Customer.java)

```
package com.Bank.DTO;

public class Customer {
    private long accno;
    private String name;
    private long phone;
    private String mail;
    private double bal;
    private int pin;

    public Customer(long accno, String name, long phone, String
mail, double bal, int pin) {
        super();
        this.accno = accno;
        this.name = name;
        this.phone = phone;
        this.mail = mail;
        this.bal = bal;
```


```
    this.pin = pin;
}

public Customer() {
    super();
    // TODO Auto-generated constructor stub
}

public long getAccno() {
    return accno;
}
public void setAccno(long accno) {
    this.accno = accno;
}
public String getName() {
    return name;
}
public void setName(String name) {
    this.name = name;
}
public long getPhone() {
    return phone;
```

```
}
public void setPhone(long phone) {
    this.phone = phone;
}
public String getMail() {
    return mail;
}
public void setMail(String mail) {
    this.mail = mail;
}
public double getBal() {
    return bal;
}
public void setBal(double bal) {
    this.bal = bal;
}
public int getPin() {
    return pin;
}
public void setPin(int pin) {
    this.pin = pin;
}
```


```
}
```

DTO CLASS OR POJO CLASS - TRANSACTION (Transaction.java)

```
package com.Bank.DTO;

import java.sql.Date;

public class Transaction {

    private long transactionId;
    private long user;
    private long rec_acc;
    private Date date;
    private String transaction;
    private double amount;
    private double balance;

    public Transaction() {

    }
```

```
    public Transaction(long transactionId, long user, long rec_acc,
Date date, String transaction, double amount,
            double balance) {
        super();
        this.transactionId = transactionId;
        this.user = user;
        this.rec_acc = rec_acc;
        this.date = date;
        this.transaction = transaction;
        this.amount = amount;
        this.balance = balance;
    }

    public long getTransactionId() {
        return transactionId;
    }

    public void setTransactionId(long transactionId) {
        this.transactionId = transactionId;
    }

    public long getUser() {
```


```
    return user;
}

public void setUser(long user) {
    this.user = user;
}

public long getRec_acc() {
    return rec_acc;
}

public void setRec_acc(long rec_acc) {
    this.rec_acc = rec_acc;
}

public Date getDate() {
    return date;
}

public void setDate(Date date) {
    this.date = date;
}
```


```
public String getTransaction() {
    return transaction;
}

public void setTransaction(String transaction) {
    this.transaction = transaction;
}

public double getAmount() {
    return amount;
}

public void setAmount(double amount) {
    this.amount = amount;
}

public double getBalance() {
    return balance;
}

public void setBalance(double balance) {
```

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

DAO INTERFACE - CUSTOMERDAO (CustomerDAO.java)

```
package com.Bank.DAO;

import java.util.List;

import com.Bank.DTO.Customer;

public interface CustomerDAO {
    public boolean insertCustomer(Customer c);
    public Customer getCustomer(long accno,int pin);
    public Customer getCustomer(long phone,String mail);
    public Customer getCustomer(long accno);
    public List getCustomer();
    public boolean updateCustomer(Customer c);
    public boolean deleteCustomer(Customer c);
}
```

DAO INTERFACE – TRANSACTIONDAO(TransactionDAO.java)

```
package com.Bank.DAO;

import java.util.List;

import com.Bank.DTO.Transaction;

public interface TransactionDAO {
    public boolean insertTransaction(Transaction t);
    public List getTransaction(long user);
}
```

CONNECTOR FACTORY CLASS

```
package com.student.connectors;

import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;

public class ConnectionFactory {
```


```
    public static Connection requestConnection()
    {
        Connection con=null;
        String url="jdbc:mysql://localhost:3306/bank";
        String user="root";
        String password="tiger";
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            con=DriverManager.getConnection(url, user, password);

        } catch (ClassNotFoundException | SQLException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
        }
        return con;
    }
}
```

TRANSACTIONID (Generating Transaction ID) CLASS

```
package com.Bank.DTO;

import java.util.Random;

public class TransactionID {
    public static long generateTransactionId() {

        Random rd = new Random();
        int num = 0;
        long ans = 0;

        long val =rd.nextLong();
        //System.out.println(val);
        if (val < 0)
        {
            val = val *-1;
        }
        //System.out.println(val);
        while (num < 15){
            long rem = val % 10;
```


```
            ans =(ans*10)+rem;
            //System.out.println(rem);
            val = val / 10;
            num+=1;
            //System.out.println(ans);
            }
            return ans;
        }
}
```