Nama : Dhimas Alif Prabowo
NIM   : 24060121120037
Lab   : PBO B

A. Relational Database

1. PersonDAO.java

```
/*
    Nama File  : PersonDAO.java
    Tanggal    : 06 Juni 2023
    Nama        : Dhimas Alif Prabowo
    NIM          : 24060121120037
    Deskripsi  : interface untuk person access object
*/

public interface PersonDAO{
    public void savePerson(Person p) throws
Exception;
}
```

2. Person.java

```
/*
    Nama File : Person.java
    Tanggal      : 06 Juni 2023
    Nama        : Dhimas Alif Prabowo
    NIM          : 24060121120037
    Deskripsi : Person database model
*/
public class Person{
    private int id;
    private String name;

    public Person(String n){
        name = n;
    }

    public Person(int i,String n){
        id = i;
        name = n;
    }
```

```java
        public int getId(){
            return id;
        }

        public String getName(){
            return name;
        }
    }
```

3. MySQLPersonDAO.java

```java
import java.sql.*;

/*
    Nama File : MySQLPersonDAO.java
    Tanggal    : 06 Juni 2023
    Nama       : Dhimas Alif Prabowo
    NIM        : 24060121120037
    Deskripsi : implementasi PersonDAO untuk MySQL
*/
public class MySQLPersonDAO implements PersonDAO{
    public void savePerson(Person person) throws
Exception{
        String name = person.getName();
        //membuat koneksi, nama db,user, password
menyesuaikan
        Class.forName("com.mysql.jdbc.Driver");
        Connection con =
DriverManager.getConnection(

    "jdbc:mysql://localhost/pbo","root","Belajar03_")
;
        //kerjakan mysql query
        String query = "INSERT INTO person(name)
VALUES('"+name+"')";
        System.out.println(query);
        Statement s = con.createStatement();
        s.executeUpdate(query);
        //tutup koneksi database
        con.close();
    }
}
```

4. DAOManager.java

```java
/*
    Nama File : DAOManager.java
    Tanggal     : 06 Juni 2023
    Nama        : Dhimas Alif Prabowo
    NIM         : 24060121120037
    Deskripsi : pengelola DAO dalam program
*/
public class DAOManager{
    private PersonDAO personDAO;

    public void setPersonDAO(PersonDAO person){
        personDAO = person;
    }
    public PersonDAO getPersonDAO(){
        return personDAO;
    }
}
```

5. MainDAO.java

```java
/*
    Nama File : MainDAO.java
    Tanggal     : 06 Juni 2023
    Nama        : Dhimas Alif Prabowo
    NIM         : 24060121120037
    Deskripsi : Main program untuk akses DAO
*/
public class MainDAO{
    public static void main(String args[]){
        Person person = new Person("Andi");
        DAOManager m = new DAOManager();
        m.setPersonDAO(new MySQLPersonDAO());
        try{
            m.getPersonDAO().savePerson(person);
        }catch(Exception e){
            e.printStackTrace();
        }
    }
}
```

B. Serialize

1. SerializePerson.java

```
/*
    Nama File : SerializePerson.java
    Tanggal     : 06 Juni 2023
    Nama        : Dhimas Alif Prabowo
    NIM         : 24060121120037
    Deskripsi : Programuntuk serialisasi objek Person
*/
import java.io.*;
//class Person
class Person implements Serializable{
    private String name;
    public Person(String n){
```

```java
                name = n;
        }
        public String getName(){
                return name;
        }
}

//class SerializePerson
public class SerializePerson{
    public static void main(String[] args){
            Person person = new Person("Panji");
            try{
                    FileOutputStream f = new
FileOutputStream("person.ser");
                    ObjectOutputStream s = new
ObjectOutputStream(f);
                    s.writeObject(person);
                    System.out.println("selesai menulis
objek person");
                    s.close();
            }catch(IOException e){
                    e.printStackTrace();
            }
    }
}
```

2. ReadSerializePerson.java

```java
/*
    Nama File : ReadSerializedPerson.java
    Tanggal     : 06 Juni 2023
    Nama        : Dhimas Alif Prabowo
    NIM         : 24060121120037
    Deskripsi : Program untuk serialisasi objek
Person
*/

import java.io.*;

public class ReadSerializedPerson{
    public static void main(String[] args){
            Person person = null;
            try{
                    FileInputStream f = new
FileInputStream("person.ser");
```
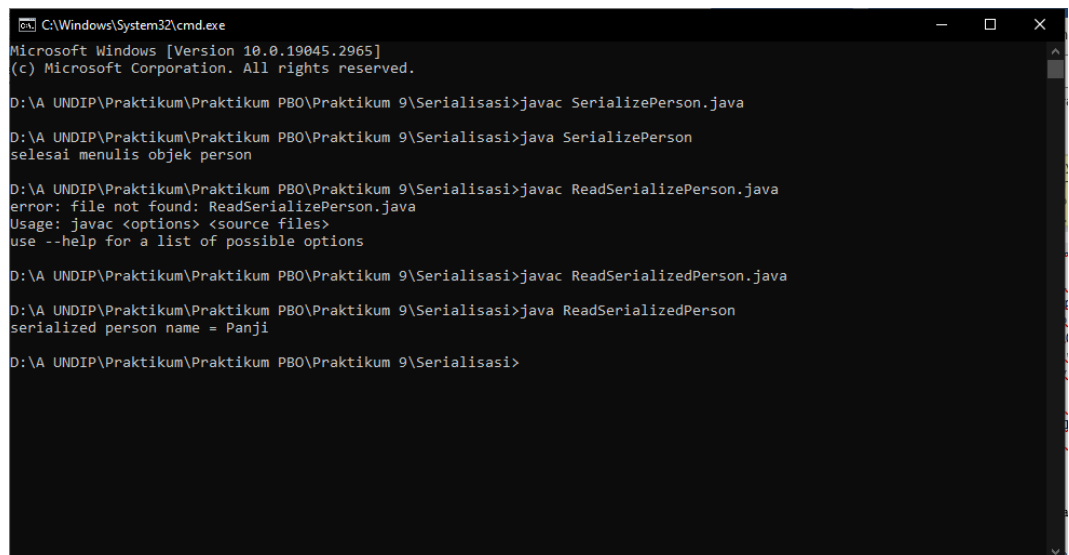
```java
                ObjectInputStream s = new
ObjectInputStream(f);
                person = (Person)s.readObject();
                s.close();
                System.out.println("serialized person
name = "+person.getName());
        }catch(Exception ioe){
                ioe.printStackTrace();
        }
    }
}
```