

Nama : Dhimas Alif Prabowo
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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;
    }
}
```

```

        public int getId(){
            return id;
        }

        public String getName(){
            return name;
        }
    }

```

3. MySQLPersonDAO.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

```

/*
    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

```

```

/*
    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();
        }
    }
}

```

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.2965]
(c) Microsoft Corporation. All rights reserved.

D:\A\UNDIP\Praktikum\Praktikum PBO\Praktikum 9\Relational Database>javac *.java

D:\A\UNDIP\Praktikum\Praktikum PBO\Praktikum 9\Relational Database>java -cp ".\mysql-connector-j-8.0.33.jar;" MainDAO
Loading class `com.mysql.jdbc.Driver'. This is deprecated. The new driver class is `com.mysql.cj.jdbc.Driver'. The driver is automatically registered via the SPI and manual loading of the driver class is generally unnecessary.
INSERT INTO person(name) VALUES('Andi')

D:\A\UNDIP\Praktikum\Praktikum PBO\Praktikum 9\Relational Database>
```

```
MySQL 8.0 Command Line Client
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 62
Server version: 8.0.32 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> USE pbo
Database changed
mysql> select * from person;
+----+-----+
| id | name |
+----+-----+
|  1 | Andi |
|  2 | Andi |
+----+-----+
2 rows in set (0.00 sec)

mysql> delete top 1 from person;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version
for the right syntax to use near '1 from person' at line 1
mysql>
```

B. Serialize

1. SerializePerson.java

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

```

        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

```

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

import java.io.*;

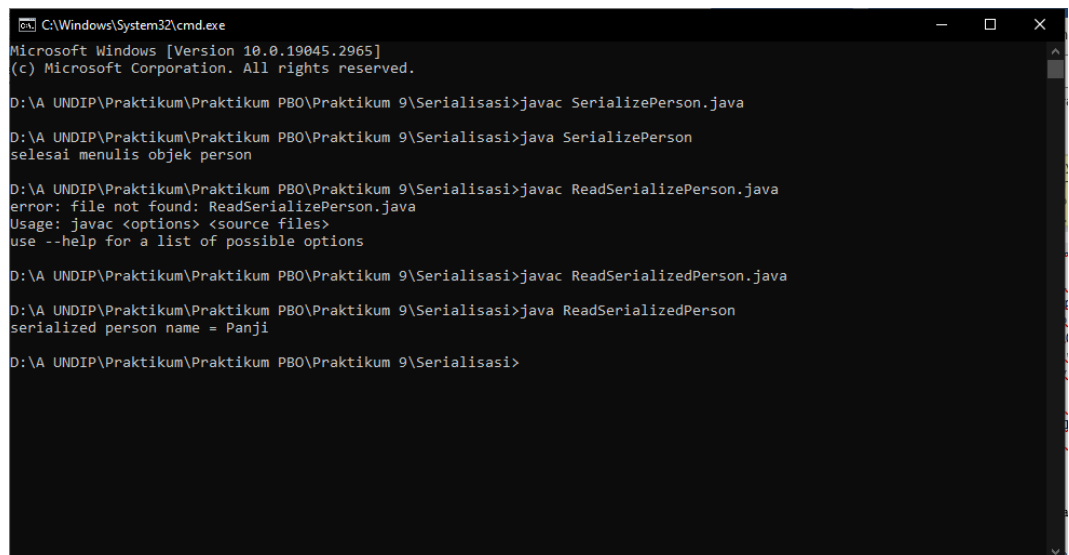
public class ReadSerializedPerson{
    public static void main(String[] args){
        Person person = null;
        try{
            FileInputStream f = new
FileInputStream("person.ser");

```

```

        ObjectInputStream s = new
ObjectInputStream(f);
        person = (Person)s.readObject();
        s.close();
        System.out.println("serialized person
name = "+person.getName());
    }catch(Exception ioe){
        ioe.printStackTrace();
    }
}
}
}

```



```

C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.2965]
(c) Microsoft Corporation. All rights reserved.

D:\A\UNDIP\Praktikum\Praktikum PBO\Praktikum 9\Serialisasi>javac SerializePerson.java

D:\A\UNDIP\Praktikum\Praktikum PBO\Praktikum 9\Serialisasi>java SerializePerson
selesai menulis objek person

D:\A\UNDIP\Praktikum\Praktikum PBO\Praktikum 9\Serialisasi>javac ReadSerializePerson.java
error: file not found: ReadSerializePerson.java
Usage: javac <options> <source files>
use --help for a list of possible options

D:\A\UNDIP\Praktikum\Praktikum PBO\Praktikum 9\Serialisasi>javac ReadSerializedPerson.java

D:\A\UNDIP\Praktikum\Praktikum PBO\Praktikum 9\Serialisasi>java ReadSerializedPerson
serialized person name = Panji

D:\A\UNDIP\Praktikum\Praktikum PBO\Praktikum 9\Serialisasi>

```