

LAPORAN PRAKTIKUM
PRAKTIKUM 9:
“PERSISTENT OBJECT”



Disusun Oleh:

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PRAKTIKUM PEMROGRAMAN BERORIENTASI OBJEK
LAB B1

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A.

1. PersonDAO.java

```
/**
 * File : PersonDAO.java
 * Deskripsi : interface untuk person access object
 * Nama      : Iksan Nur Rochim
 */
public interface PersonDAO{
    public void savePerson(Person p) throws Exception;
}
```

2. Person.java

```
/**
 * File : Person.java
 * Deskripsi : Person database model
 * Nama      : Iksan Nur Rochim
 */
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.*;
/**
 * File : MYSQLPersonDAO.java
 * Deskripsi : implementasi PersonDAO untuk MySQL
 * Nama      : Iksan Nur Rochim
 */
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", "Prau2590#");
        //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

```

/**
 * File : DAOManager.java
 * Deskripsi : pengelola DAO dalam program
 * Nama : Iksan Nur Rochim
 */
public class DAOManager{
    private PersonDAO personDAO;

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

```

5. MainDAO.java

```

/**
 * File : MainDAO.java
 * Deskripsi : Main program untuk akses DAO
 * Nama : Iksan Nur Rochim
 */
public class MainDAO{
    public static void main(String args[]){
        Person person = new Person("Indra");
        DAOManager m = new DAOManager();
        m.setPersonDAO(new MySQLPersonDAO());
        try{
            m.getPersonDAO().savePerson(person);
        }catch(Exception e){
            e.printStackTrace();
        }
    }
}

```

```
}  
}
```

6. Buatlah database dengan nama 'pbo' dan tabel pada database tersebut dengan : CREATE TABLE person(id INT PRIMARY KEY AUTO_INCREMENT NOT NULL,name VARCHAR(100))

```
mysql> prompt Iksan_24060121120013  
PROMPT set to 'Iksan_24060121120013'  
Iksan_24060121120013create database pbo;  
Query OK, 1 row affected (0.06 sec)  
  
Iksan_24060121120013use pbo;  
Database changed  
Iksan_24060121120013show tables;  
Empty set (0.10 sec)  
  
Iksan_24060121120013create table person(  
  -> id INT PRIMARY KEY AUTO_INCREMENT NOT NULL,  
  -> name VARCHAR(100));  
Query OK, 0 rows affected (0.07 sec)  
  
Iksan_24060121120013select * from person;  
Empty set (0.06 sec)
```

7. Kompilasi semua source code dengan perintah : javac *.java

```
C:\Users\asus\Documents\smt 3\pbo\Praktikum 9>javac *.java
```

8. Jalankan MainDAO dengan perintah : java -classpath .\mysql-connector-java-[versi].jar;. MainDAO

```
C:\Users\asus\Documents\smt 3\pbo\Praktikum 9>javac *.java  
C:\Users\asus\Documents\smt 3\pbo\Praktikum 9>java -classpath .\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('Indra')  
C:\Users\asus\Documents\smt 3\pbo\Praktikum 9>_
```

9. Lihat apakah terjadi penambahan record pada tabel !

```
Iksan_24060121120013select * from person;  
+----+-----+  
| id | name |  
+----+-----+  
| 1 | Indra |  
+----+-----+
```

B.

1. SerializePerson.java

```
/**
 * File : SerializePerson.java
 * Deskripsi : Program untuk serialisasi objek person
 * Nama : Iksan Nur Rochim
 */
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("Iksan");
        try{
            FileOutputStream f= new
FileOutputStream("person.ser");
            ObjectOutputStream s = new
ObjectOutputStream(f);
            s.writeObject(person);
            System.out.println("selesai menulis obejk
person");
            s.close();
        }catch(IOException e){
            e.printStackTrace();
        }
    }
}
```

2. Compile, dan jalankan program di atas dengan

- javac SerializePerson.java
- java SerializePerson

```
C:\Users\asus\Documents\smt 3\pbo>javac SerializePerson.java

C:\Users\asus\Documents\smt 3\pbo>java SerializePerson
selesai menulis obejk person
```

C.

1. ReadSerializedPerson.java

```
/**
 * File : ReadSerializedPerson.java
 * Deskripsi : Program untuk serialisasi objek person
 * Nama : Iksan Nur Rochim
 */
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();
        }
    }
}
```

2. Compile dan jalankan kelas di atas dengan :

- javac ReadSerializedPerson.java
- java ReadSerializedPerson

```
C:\Users\asus\Documents\smt 3\pbo>javac ReadSerializedPerson.java
C:\Users\asus\Documents\smt 3\pbo>java ReadSerializedPerson
serialized person name = Iksan
```