

PERSISTENT OBJECT



LAPORAN PRAKTIKUM 9 PEMROGRAMAN BERORIENTASI OBJEK LAB B1

**Disusun untuk Memenuhi Tugas Individu Praktikum Kesembilan
pada Mata Kuliah Pemrograman Berorientasi Objek Semester Empat**

Oleh:

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SEMARANG**

2023

A. Menggunakan Persistent Object sebagai model basis data relasional

PersonDAO.java

```
/**
 * File      : PersonDAO.java 31/05/2023
 * Penulis   : Hana Shabrina/24060121130077
 * Deskripsi  : Interface untuk person access object
 * Lab       : B1
 */

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

Person.java

```
/**
 * File      : Person.java 31/05/2023
 * Penulis   : Hana Shabrina/24060121130077
 * Deskripsi  : Person database model
 * Lab       : B1
 */

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;
    }
}
```

MySQLPersonDAO.java

```
/**
 * File      : MySQLPersonDAO.java 31/05/2023
 * Penulis   : Hana Shabrina/24060121130077
 * Deskripsi  : Implementasi PersonDAO untuk MySQL
 * Lab       : B1
 */

import java.sql.*;
```

```

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","");
        //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();
    }
}

```

DAOManager.java

```

/**
 * File      : DAOManager.java 31/05/2023
 * Penulis   : Hana Shabrina/24060121130077
 * Deskripsi  : Pengelola DAO dalam program
 * Lab       : B1
 */

public class DAOManager{
    private PersonDAO personDAO;

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

    public PersonDAO getPersonDAO(){
        return personDAO;
    }
}

```

MainDAO.java

```

/**
 * File      : MainDAO.java 31/05/2023
 * Penulis   : Hana Shabrina/24060121130077
 * Deskripsi  : Main program untuk akses DAO
 * Lab       : B1
 */

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();
        }
    }
}

```

```
}  
}
```

Hasil run program

```
C:\Users\ASUS\Documents\File Hana\KULIAH HANA\SEMESTER 4\PRAK PBO\Praktikum9>javac MySQLPersonDAO.java  
C:\Users\ASUS\Documents\File Hana\KULIAH HANA\SEMESTER 4\PRAK PBO\Praktikum9>javac MainDAO.java  
C:\Users\ASUS\Documents\File Hana\KULIAH HANA\SEMESTER 4\PRAK PBO\Praktikum9>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')
```

Tampilan tabel person pada database pbo pada MySQL CLI

```
mysql> use pbo;  
Database changed  
mysql> select * from person;  
+-----+  
| id | name |  
+-----+  
| 1 | Indra |  
+-----+  
1 row in set (0.00 sec)
```

B. Menggunakan Persistent Object sebagai model basis data relasional

SerializePerson.java

```
/**  
 * File      : SerializePerson.java 31/05/2023  
 * Penulis   : Hana Shabrina/24060121130077  
 * Deskripsi  : Program untuk serialisasi objek Person  
 * Lab       : B1  
 */  
  
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();
        }
    }
}

```

Hasil run program

```

C:\Users\ASUS\Documents\File Hana\KULIAH HANA\SEMESTER 4\PRAK PBO\Praktikum9>javac SerializePerson.java
C:\Users\ASUS\Documents\File Hana\KULIAH HANA\SEMESTER 4\PRAK PBO\Praktikum9>java SerializePerson
selesai menulis objek person
C:\Users\ASUS\Documents\File Hana\KULIAH HANA\SEMESTER 4\PRAK PBO\Praktikum9>

```

ReadSerializedPerson.java

```

/**
 * File      : ReadSerializedPerson.java 31/05/2023
 * Penulis   : Hana Shabrina/24060121130077
 * Deskripsi  : Program untuk serialisasi objek Person
 * Lab       : B1
 */

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();
        }
    }
}

```

Hasil run program

```

C:\Users\ASUS\Documents\File Hana\KULIAH HANA\SEMESTER 4\PRAK PBO\Praktikum9>javac ReadSerializedPerson.java
C:\Users\ASUS\Documents\File Hana\KULIAH HANA\SEMESTER 4\PRAK PBO\Praktikum9>java ReadSerializedPerson
serialized person name = Panji
C:\Users\ASUS\Documents\File Hana\KULIAH HANA\SEMESTER 4\PRAK PBO\Praktikum9>

```