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Lab PBO B1

Praktikum 9

1. PersonDAO.java

```
/**
 * Nama: Raditya Ilham Hastoro
 * File: PersonDAO.java
 * Deskripsi: Interface untuk person access object
 */
public interface PersonDAO{
    public void savePerson(Person p) throws Exception;
}
```

2. Person.java

```
/**
 * Nama: Raditya Ilham Hastoro
 * File: Person.java
 * 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

```
/**
 * Nama: Raditya Ilham Hastoro
 * File: MySQLPersonDAO.java
 * Deskripsi: implementasi PersonDAO untuk MySQL
 */
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();
    }
}
```

4. DAOManager.java

```
/**
 * Nama: Raditya Ilham Hastoro
 * File: DAOManager.java
 * 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: Raditya Ilham Hastoro
```

```

* File: MainDAO.java
* Deskripsi: Main program untuk akses DAO
*/
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:

The screenshot shows an IDE with the following components:

- Project Structure:** A tree view on the left showing the project structure, including files like `DAOManager.class`, `MainDAO.class`, `MySQLPersonDAO.class`, `Person.class`, and `PersonDAO.class`.
- MainDAO.java File:** The main file is open in the editor, showing the code from the previous block. It includes a Javadoc comment and a `main` method that creates a `Person` object, sets a `MySQLPersonDAO` on a `DAOManager`, and attempts to save the person.
- Terminal:** The terminal at the bottom shows the command to run the program: `java -cp ".\mysql-connector-j-8.0.33.jar;" MainDAO`. The output shows the program successfully inserting the name 'Indra' into the `person` table.

```

PS D:\0 - Coolyeah\4 - Semester 4\Pemrograman Berorientasi Objek\Prak\Tugas\Prak 9\Person> 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 ('Indra')

```

Database SQL:

The screenshot displays a database management tool interface. On the left, a tree view shows the database structure with folders for 'pbo', 'New', 'person', 'performance_schema', 'phpmyadmin', and 'test'. The 'person' table is selected. The main area shows the table's data. At the top, there are controls for 'Show all', 'Number of rows' (set to 25), and a 'Filter rows' search box. Below this is an 'Extra options' button. The table has two columns: 'id' and 'name'. A single row is visible with 'id' 1 and 'name' 'Indra'. Action buttons (Edit, Copy, Delete) are available for the selected row. At the bottom, there are options to 'Check all', 'With selected:', and further action buttons (Edit, Copy, Delete, Export).

	id	name
<input type="checkbox"/>	1	Indra