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Kelas : 4IA17

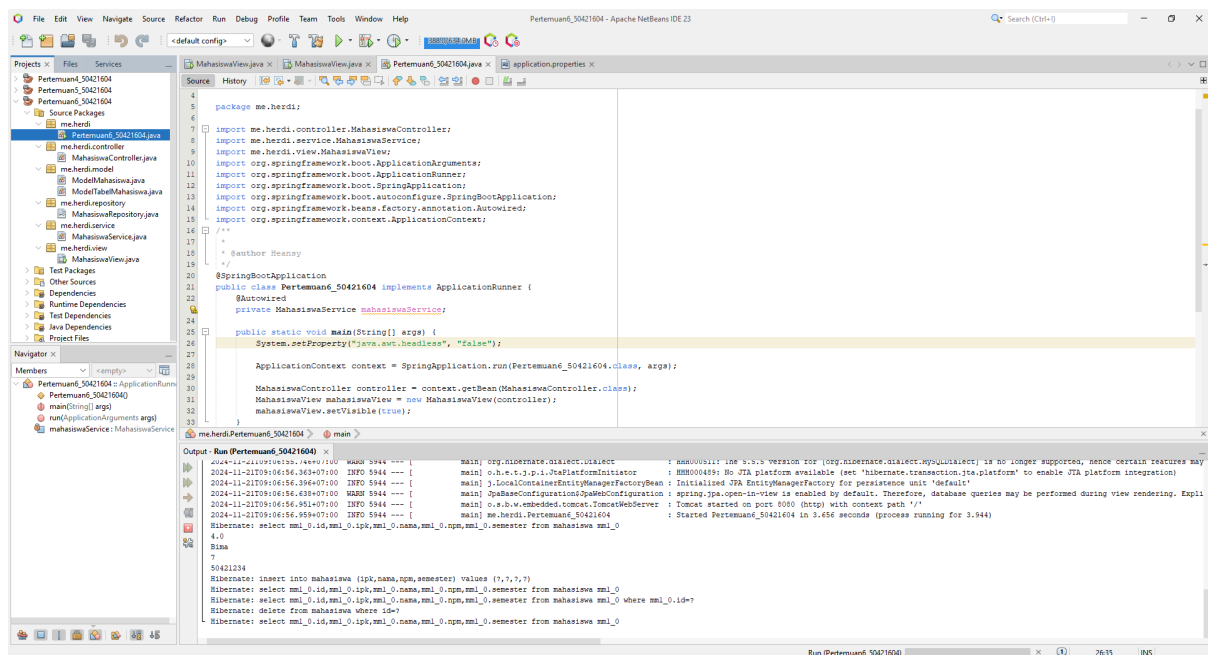
NPM : 50421604

## Activity M6 Praktikum Rekayasa Perangkat Lunak 2

### 1. Screenshot kode dan output program!

Source code:

- Pertemuan6\_50421604.java



```
package me.herd;

import me.herd.controller.MahasiswaController;
import me.herd.service.MahasiswaService;
import me.herd.view.MahasiswaView;
import org.springframework.boot.ApplicationArguments;
import org.springframework.boot.ApplicationRunner;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.context.annotation.AnnotationConfigApplicationContext;

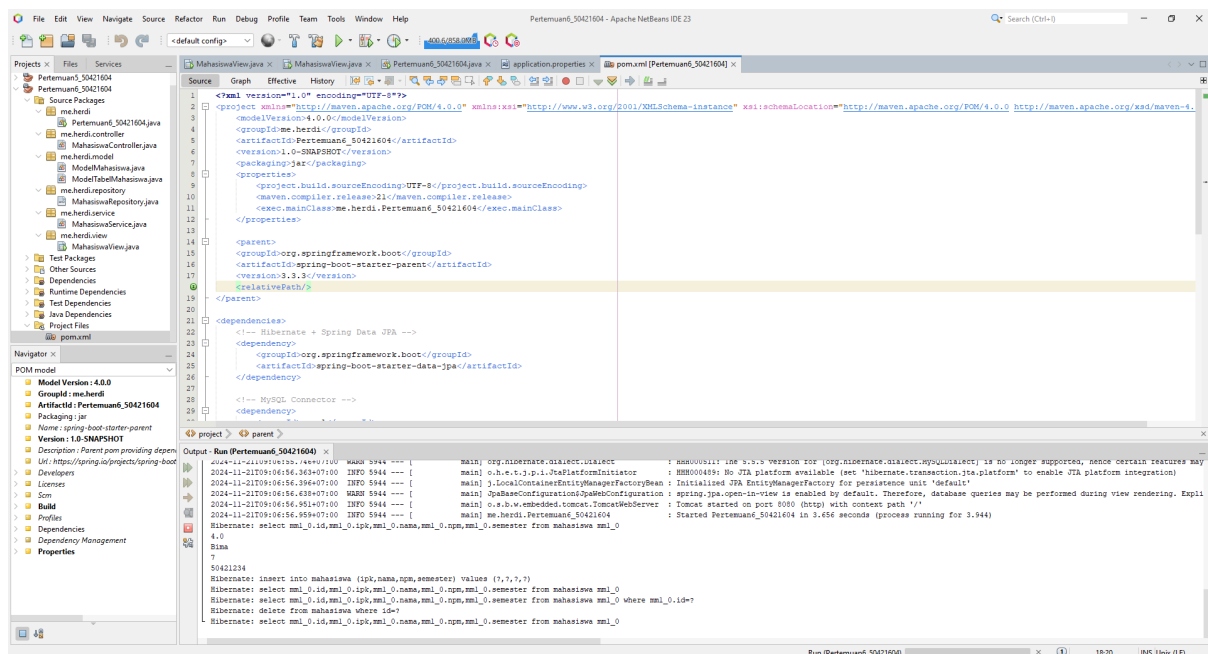
/**
 * @author Herdiansyah
 */
@SpringBootApplication
public class Pertemuan6_50421604 implements ApplicationRunner {
    @Autowired
    private MahasiswaService mahasiswaService;

    public static void main(String[] args) {
        System.setProperty("java.awt.headless", "false");

        ApplicationContext context = SpringApplication.run(Pertemuan6_50421604.class, args);

        MahasiswaController controller = context.getBean(MahasiswaController.class);
        MahasiswaView mahasiswaView = new MahasiswaView(controller);
        mahasiswaView.setVisible(true);
    }
}
```

- pom.xml



```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
    <modelVersion>4.0.0</modelVersion>
    <groupId>me.herd</groupId>
    <artifactId>Pertemuan6_50421604</artifactId>
    <version>1.0-SNAPSHOT</version>
    <packaging>jar</packaging>
    <properties>
        <project.build.sourceEncoding>UTF-8</project.build.sourceEncoding>
        <mainClass>me.herd.Pertemuan6_50421604</mainClass>
    </properties>
    <parent>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter-parent</artifactId>
        <relativePath>..</relativePath>
    </parent>
    <dependencies>
        <!-- Hibernate + Spring Data JPA -->
        <dependency>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-starter-data-jpa</artifactId>
        </dependency>
        <!-- MySQL Connector -->
        <dependency>
            <groupId>com.mysql</groupId>
            <artifactId>mysql-connector-j</artifactId>
            <version>8.0.33</version>
        </dependency>
    </dependencies>
</project>
```

## ● ModelMahasiswa.java

The screenshot shows an IDE with the following components:

- Project Explorer:** Shows the project structure with packages like `me.berdi.model` and `me.berdi.repository`.
- Source Editor:** Displays the `ModelMahasiswa.java` file. The code includes:
 

```

package me.berdi.model;

import jakarta.persistence.*;

/**
 * @author Henry
 */

@Entity
@Table(name = "mahasiswa")
public class ModelMahasiswa {

    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    @Column(name = "id")
    private int id;

    @Column(name = "npm", nullable = false, length = 10)
    private String npm;

    @Column(name = "nama", nullable = false, length = 55)
    private String nama;

    @Column(name = "semester")
    private int semester;
      
```
- Output Console:** Shows the execution output of the application. It includes logs for Hibernate, JPA, and the application's main method. The output shows that the application is running successfully and has inserted a new record into the `mahasiswa` table.

## ● MahasiswaRepository.java

The screenshot shows an IDE with the following components:

- Project Explorer:** Shows the project structure with packages like `me.berdi.model` and `me.berdi.repository`.
- Source Editor:** Displays the `MahasiswaRepository.java` file. The code includes:
 

```

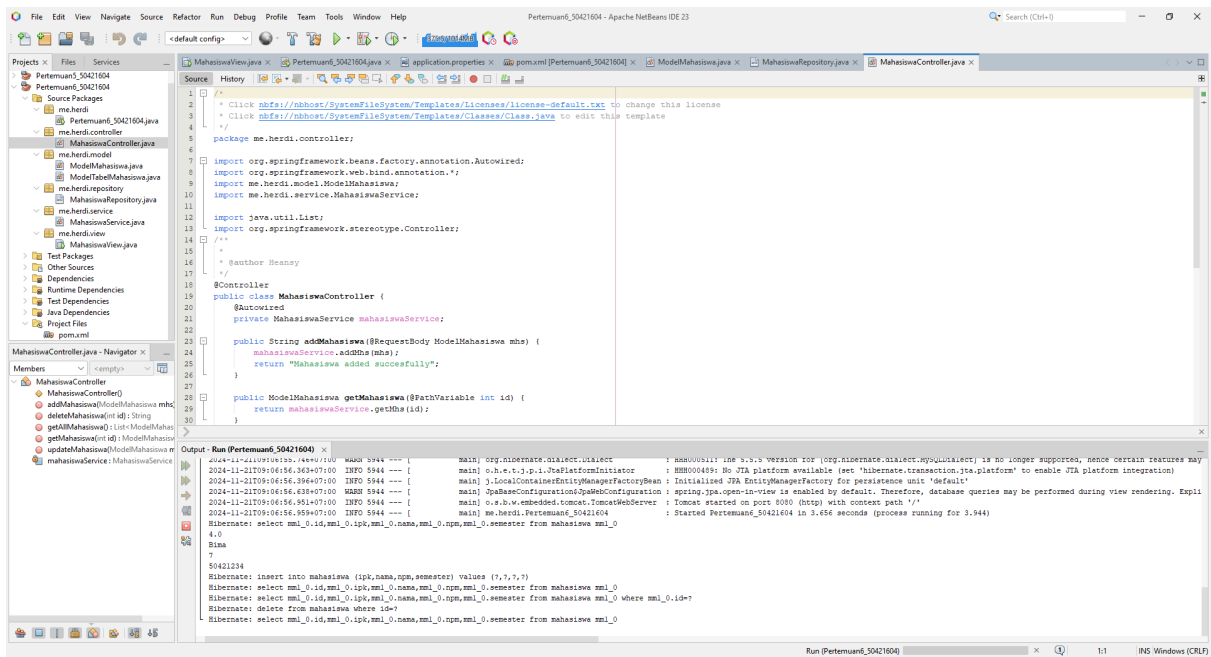
package me.berdi.repository;

import me.berdi.model.ModelMahasiswa;
import org.springframework.data.jpa.repository.JpaRepository;
import org.springframework.stereotype.Repository;

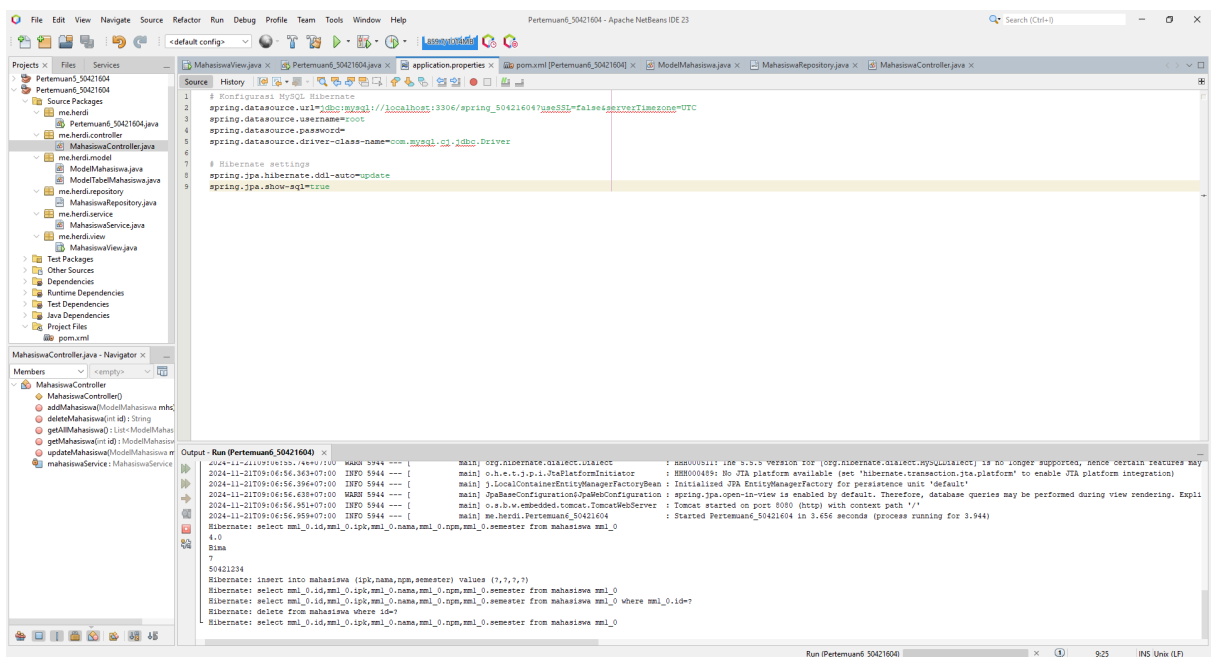
/**
 * @author Henry
 */

@Repository
public interface MahasiswaRepository extends JpaRepository<ModelMahasiswa, Integer> {
}
      
```
- Output Console:** Shows the execution output of the application. It includes logs for Hibernate, JPA, and the application's main method. The output shows that the application is running successfully and has inserted a new record into the `mahasiswa` table.

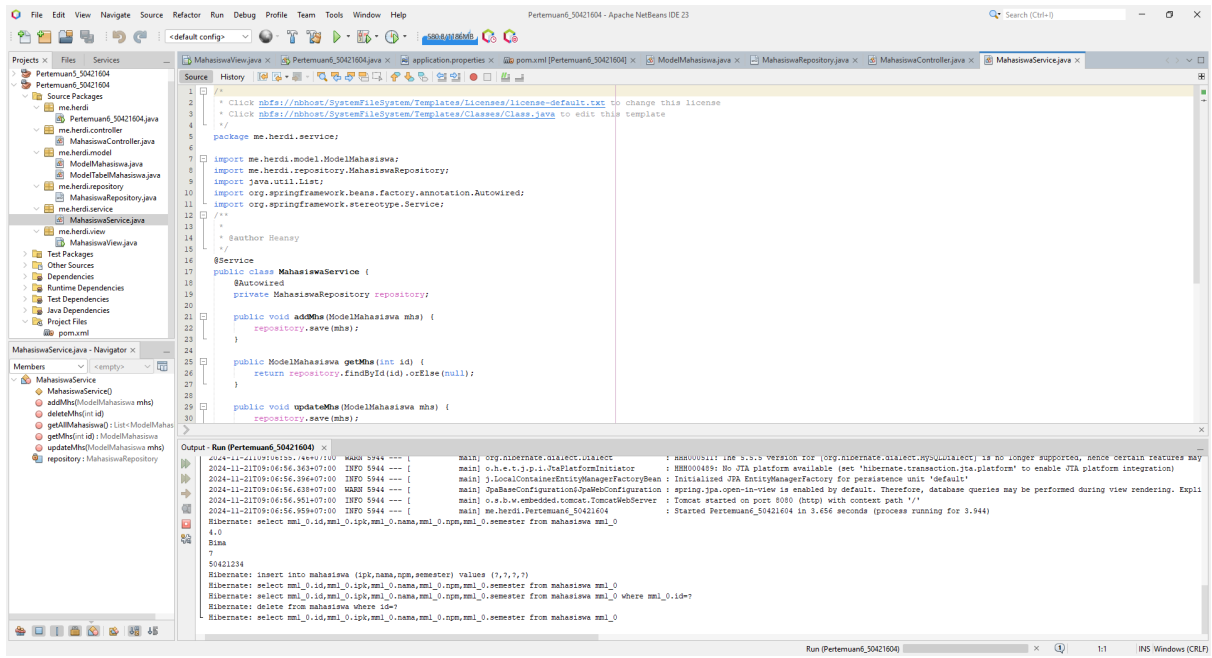
## ● MahasiswaController.java



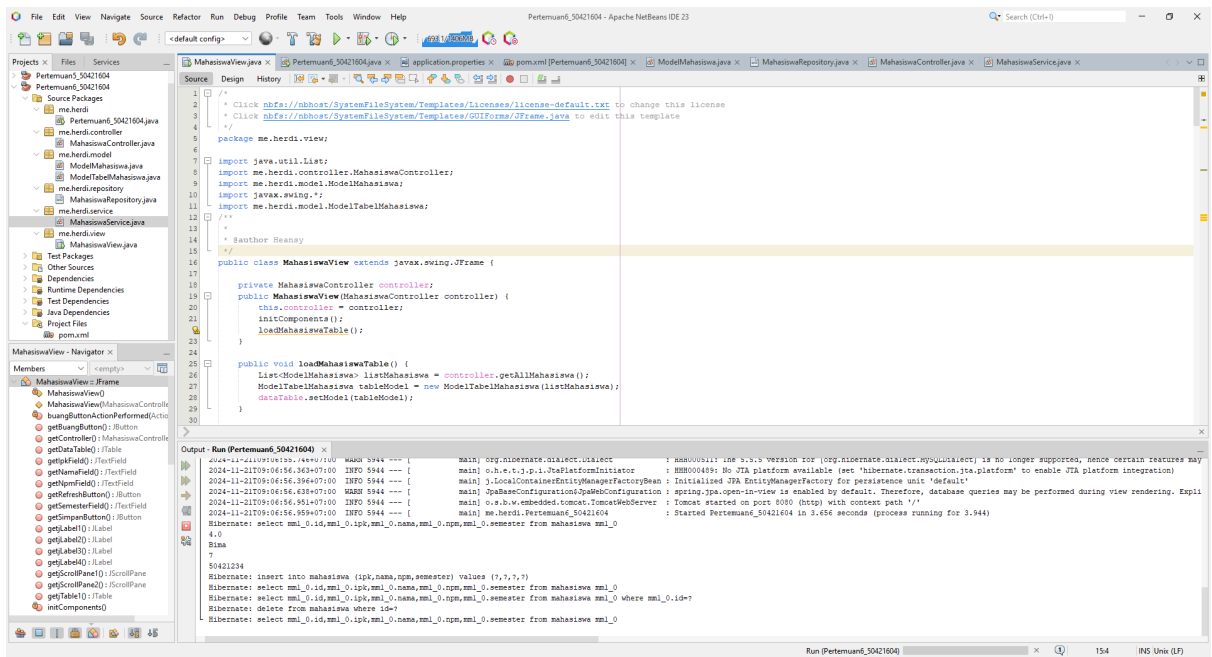
## ● application.properties



- MahasiswaService.java



- MahasiswaView.java



## • ModelTabelMahasiswa.java

```

1  // Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
2  package me.herdi.model;
3
4  import javax.swing.table.AbstractTableModel;
5  import java.util.List;
6
7  /**
8   *
9   * @author Herdi
10  */
11
12  public class ModelTabelMahasiswa extends AbstractTableModel {
13      private List<ModelMahasiswa> mahasiswaList;
14      private String[] columnNames = {"ID", "NPM", "Nama", "Semester", "IPK"};
15
16      public ModelTabelMahasiswa(List<ModelMahasiswa> mahasiswaList) {
17          this.mahasiswaList = mahasiswaList;
18      }
19
20      @Override
21      public int getRowCount() {
22          return mahasiswaList.size();
23      }
24
25      @Override
26      public int getColumnCount() {
27          return columnNames.length;
28      }
29
30      // ... (other methods)
31  }

```

Output - Run (Pertemuan6\_50421604) x

```

2024-11-21T09:06:56.384+07:00 INFO 5944 --- [main] org.hibernate.dialect.Dialect : HHH000133: org.hibernate.dialect.MySQL5Dialect is no longer supported, hence certain features may
2024-11-21T09:06:56.384+07:00 INFO 5944 --- [main] o.h.e.t.j.p.i.JtaPlatformInitiator : HHH000499: No JTA platform available (set 'hibernate.transaction.jta.platform' to enable JTA platform integration)
2024-11-21T09:06:56.384+07:00 INFO 5944 --- [main] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence unit 'default'
2024-11-21T09:06:56.639+07:00 WARN 5944 --- [main] org.springframework.orm.jpa.AbstractEntityManagerFactoryBean : spring.jpa.open-in-view is enabled by default. Therefore, database queries may be performed during view rendering. Explicitly
2024-11-21T09:06:56.659+07:00 INFO 5944 --- [main] me.herdi.Pertemuan6_50421604 : Started Pertemuan6_50421604
2024-11-21T09:06:56.959+07:00 INFO 5944 --- [main] me.herdi.Pertemuan6_50421604 : Started Pertemuan6_50421604 in 3.656 seconds (process running for 3.944)

```

Run (Pertemuan6\_50421604) x 1:1 IWS Windows (CRLF)

Output:

NPM

50421234

NAMA

Bima

SEMESTER

7

IPK

4

Simpan

Buang

Refresh

ID	NPM	Nama	Semester	IPK
1	50421604	Herdiansyah	7	3.7
2	50421234	Bima	7	4.0

NPM

50421234

NAMA

Bima

SEMESTER

7

IPK

4

Simpan

Buang

Refresh

ID	NPM	Nama	Semester	IPK
2	50421234	Bima	7	4.0