

ACTIVITY PRAKTIKUM

Mata Praktikum	: Rekayasa Perangkat Lunak 2
Kelas	: 4IA14
Praktikum ke-	: 6
Tanggal	: 18 November 2024
Materi	: Implementasi AOP dan Dependency Injection pada Project Spring dan Hibernate
NPM	: 50421425
Nama	: Evan Caesar Daniel Sihotang
Ketua Asisten	: Suryo Adji Widagdo
Paraf Asisten	:
Nama Asisten	:
Jumlah Lembar	: Lembar

New Java Application

Steps

1. Choose Project

2. Name and Location

Name and Location

Project Name:

Pert6_50421425

Project Location:

C:\Users\ASUS\Documents\NetBeansProjects

Browse...

Project Folder:

Jusers\ASUS\Documents\NetBeansProjects\Pert6_50421425

Artifact Id:

Pert6_50421425

Group Id:

me.evan

Version:

1.0-SNAPSHOT

Package:

me.evan

(Optional)

< Back

Next >

Finish

Cancel

Help

Pertemuan6_50421425

Source Packages

me.evan

Pertemuan6_50421425.java

Dependencies

Runtime Dependencies

Test Dependencies

Java Dependencies

Project Files

pom.xml

49

50

51

52

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56

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58

```
<build>
  <plugins>
    <plugin>
      <groupId>org.springframework.boot</groupId>
      <artifactId>spring-boot-maven-plugin</artifactId>
    </plugin>
  </plugins>
</build>
</project>
```

project

Output - Build (Pertemuan6_50421425) x

--- install:3.1.3:install (default-install) @ Pertemuan6_50421425 ---

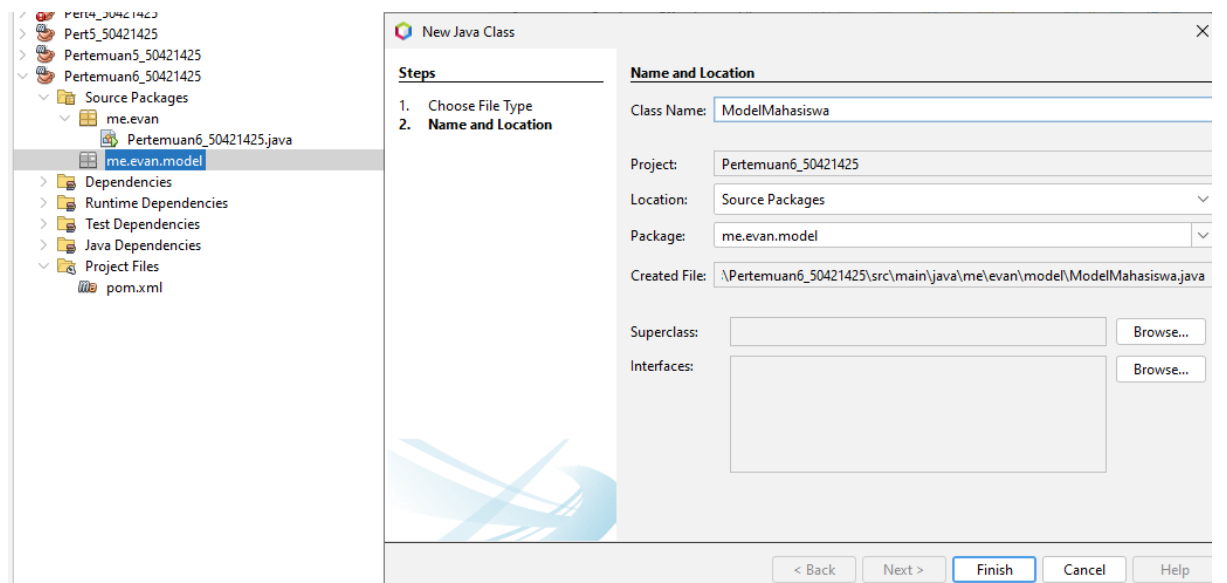
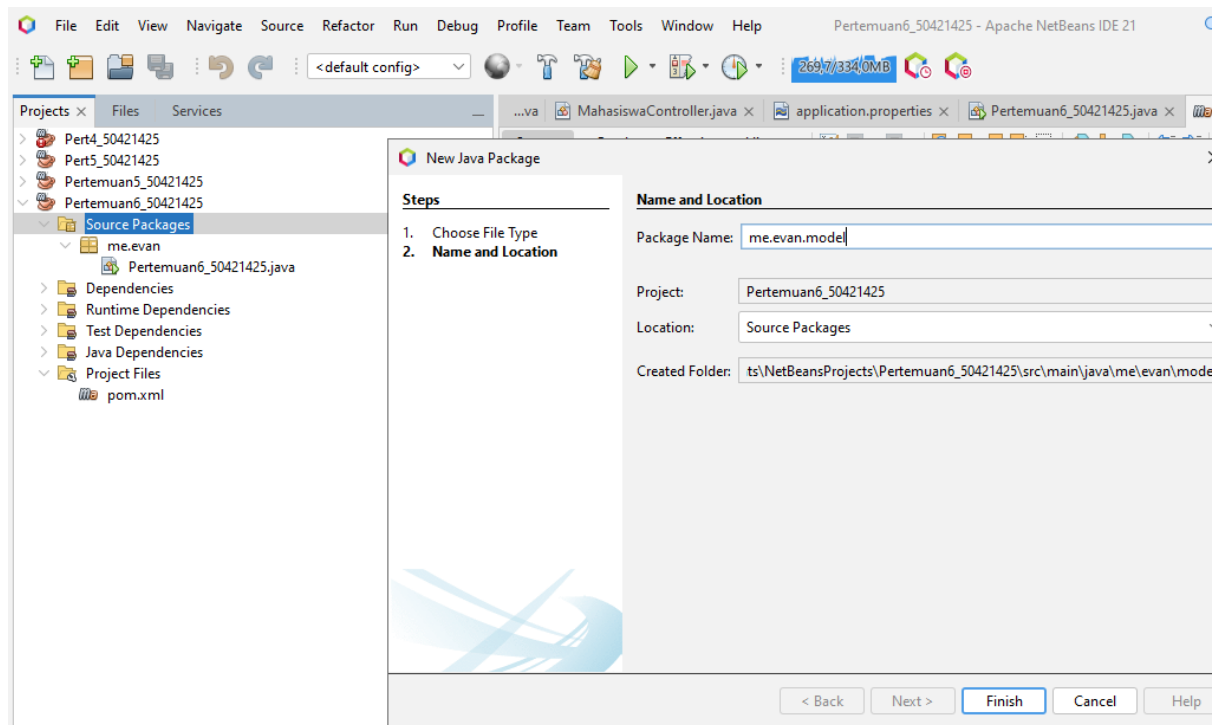
Installing C:\Users\ASUS\Documents\NetBeansProjects\Pertemuan6_50421425\pom.xml to C:\

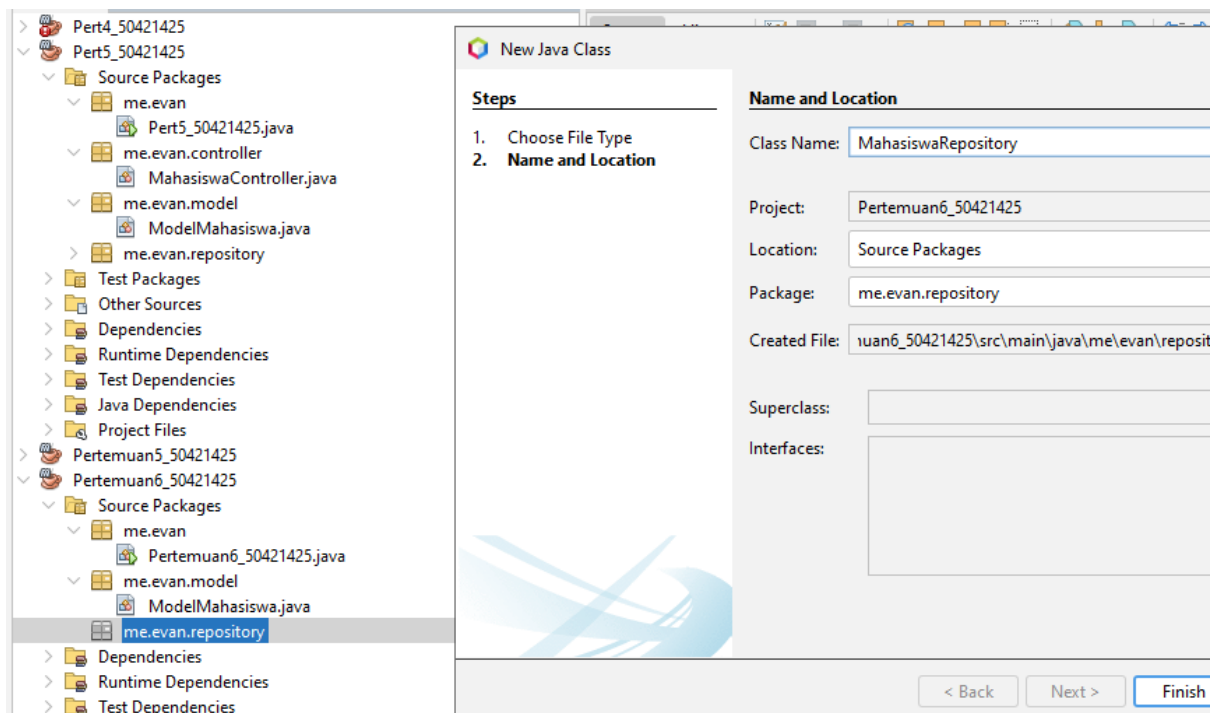
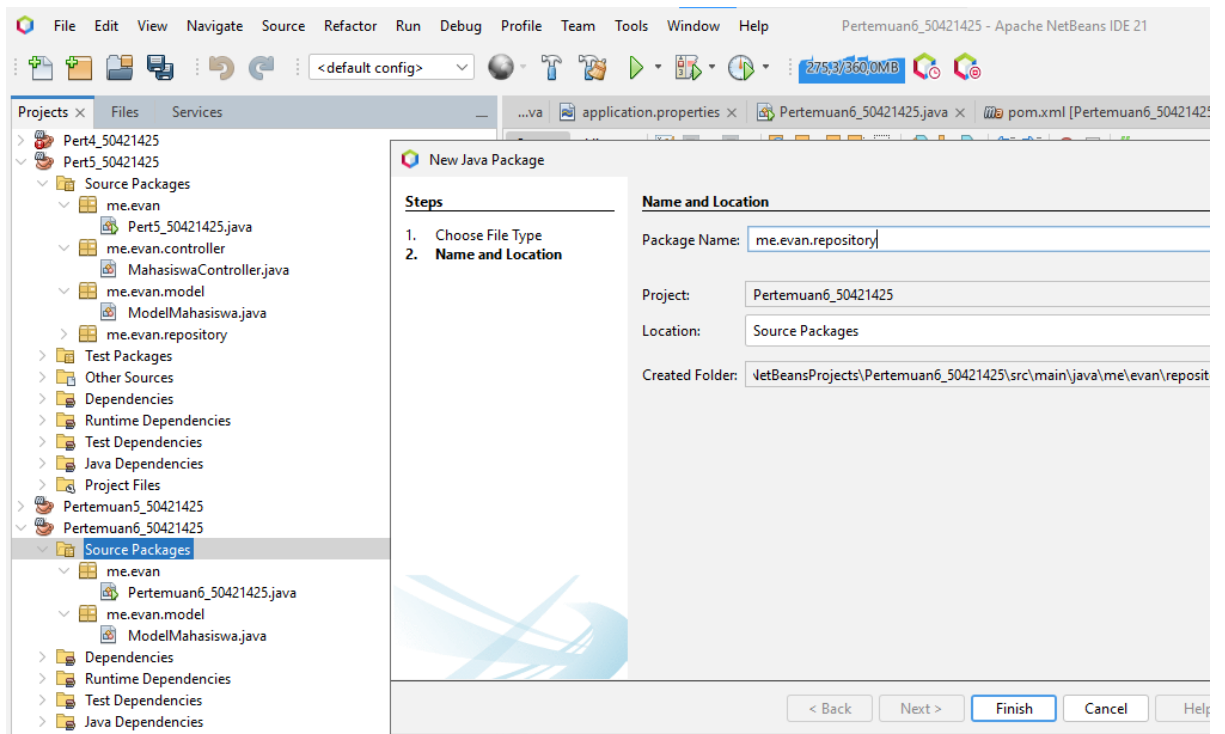
Installing C:\Users\ASUS\Documents\NetBeansProjects\Pertemuan6_50421425\target\Pertem

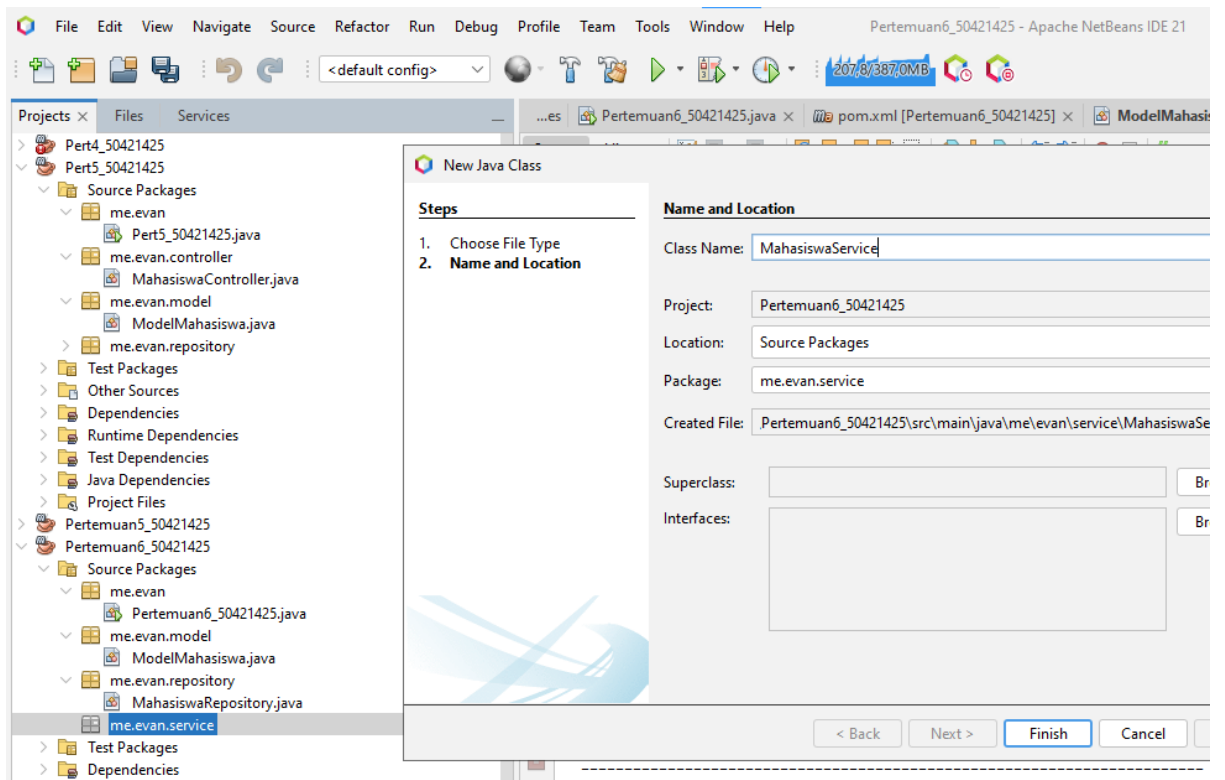
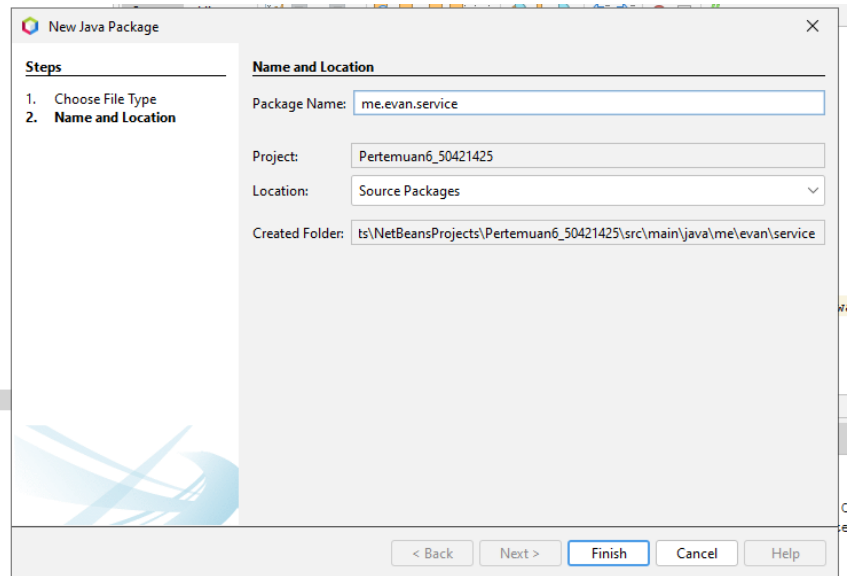
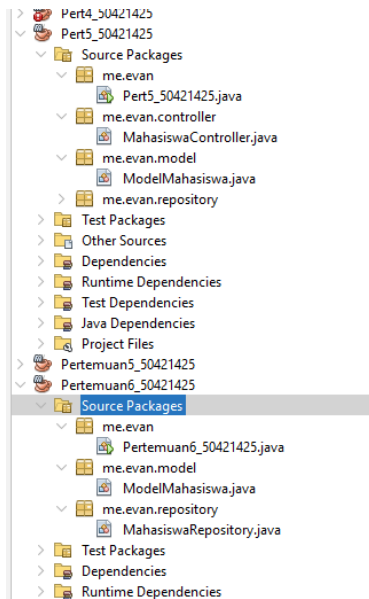
BUILD SUCCESS

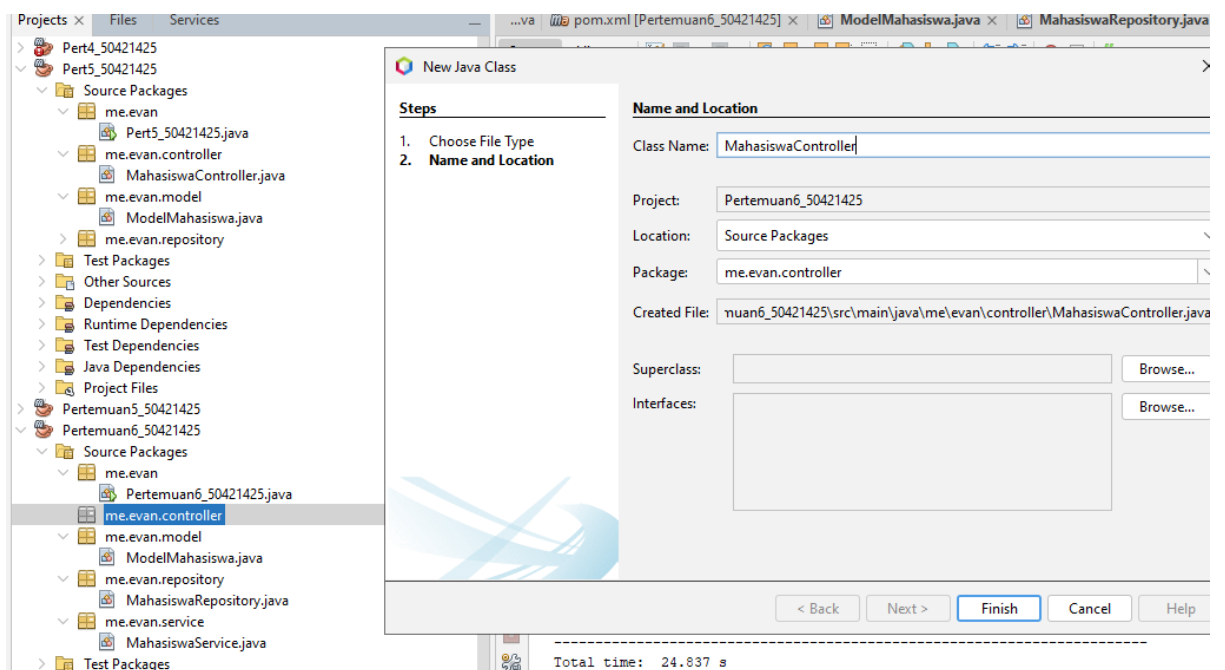
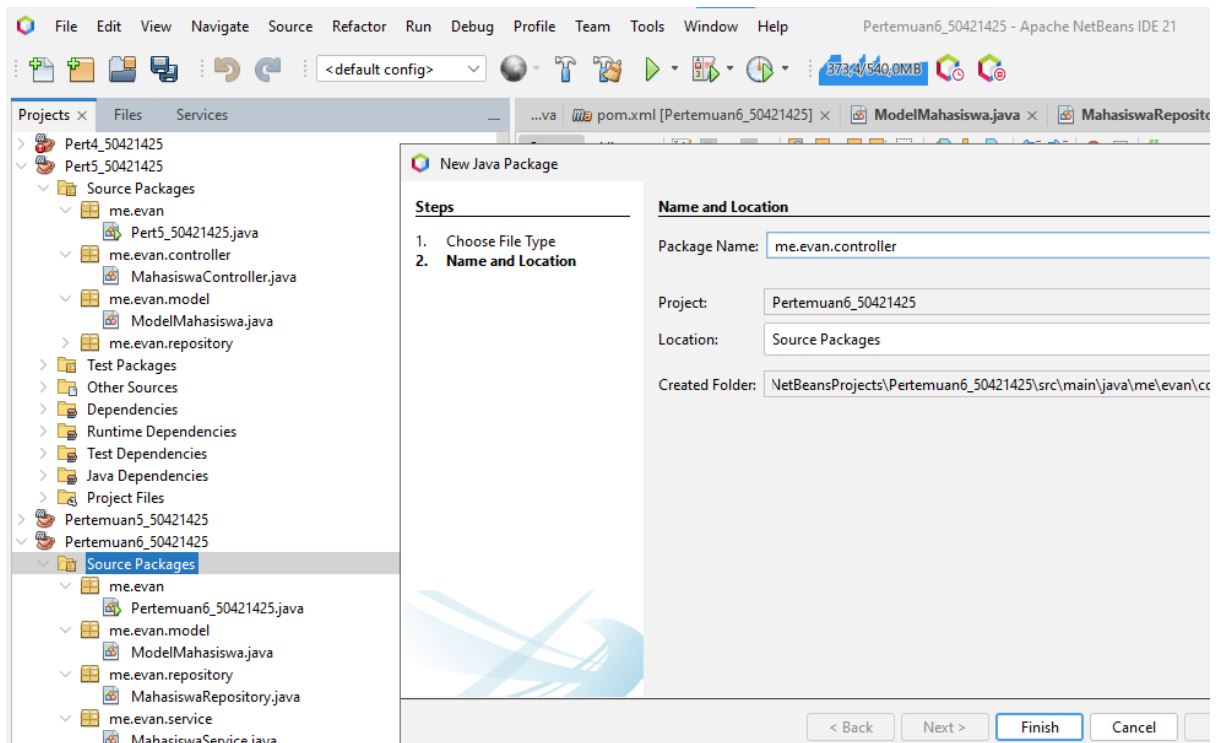
Total time: 24.837 s

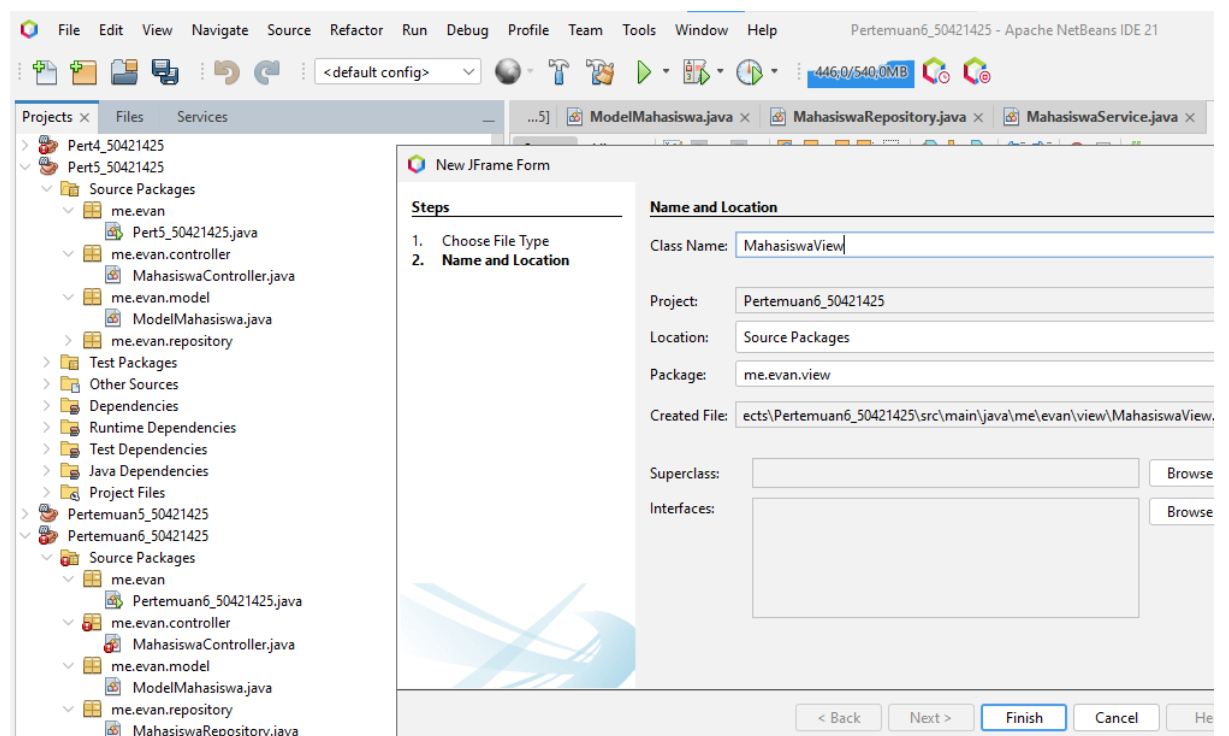
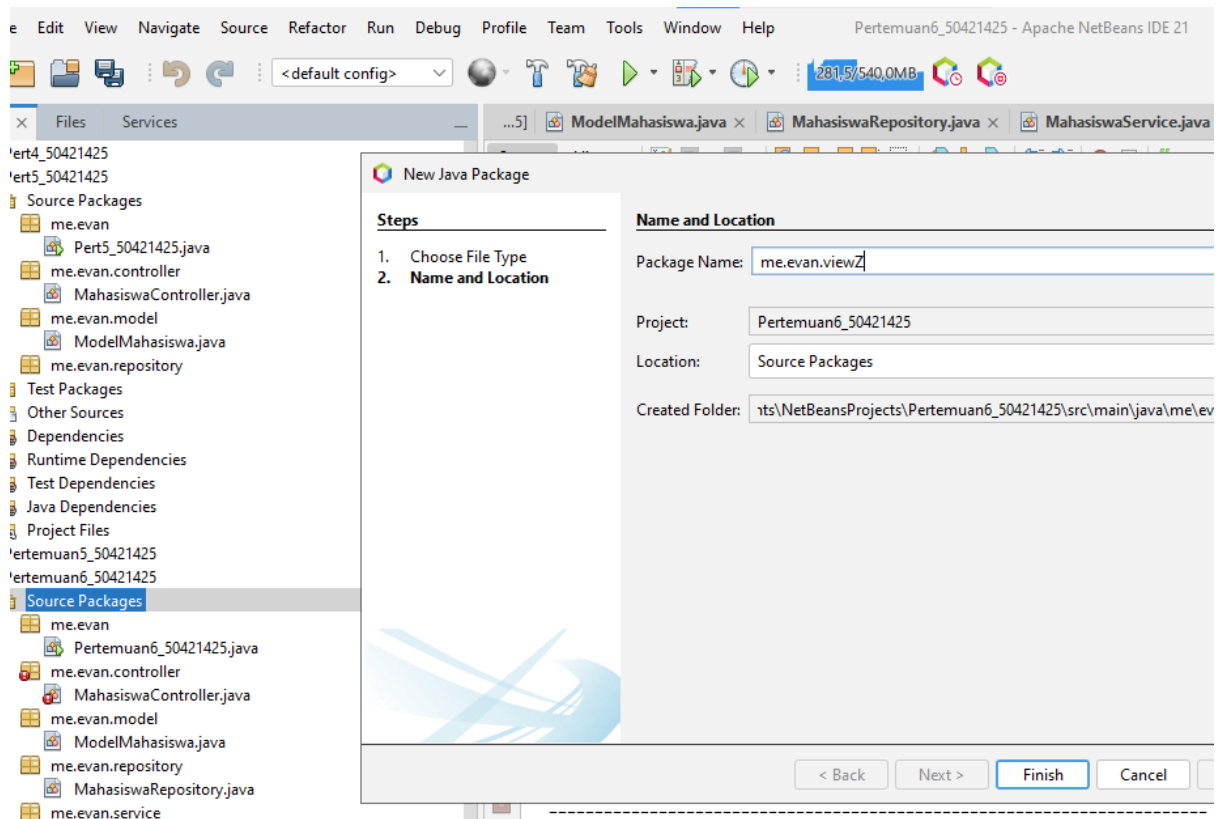
Finished at: 2024-11-18T14:11:25+07:00

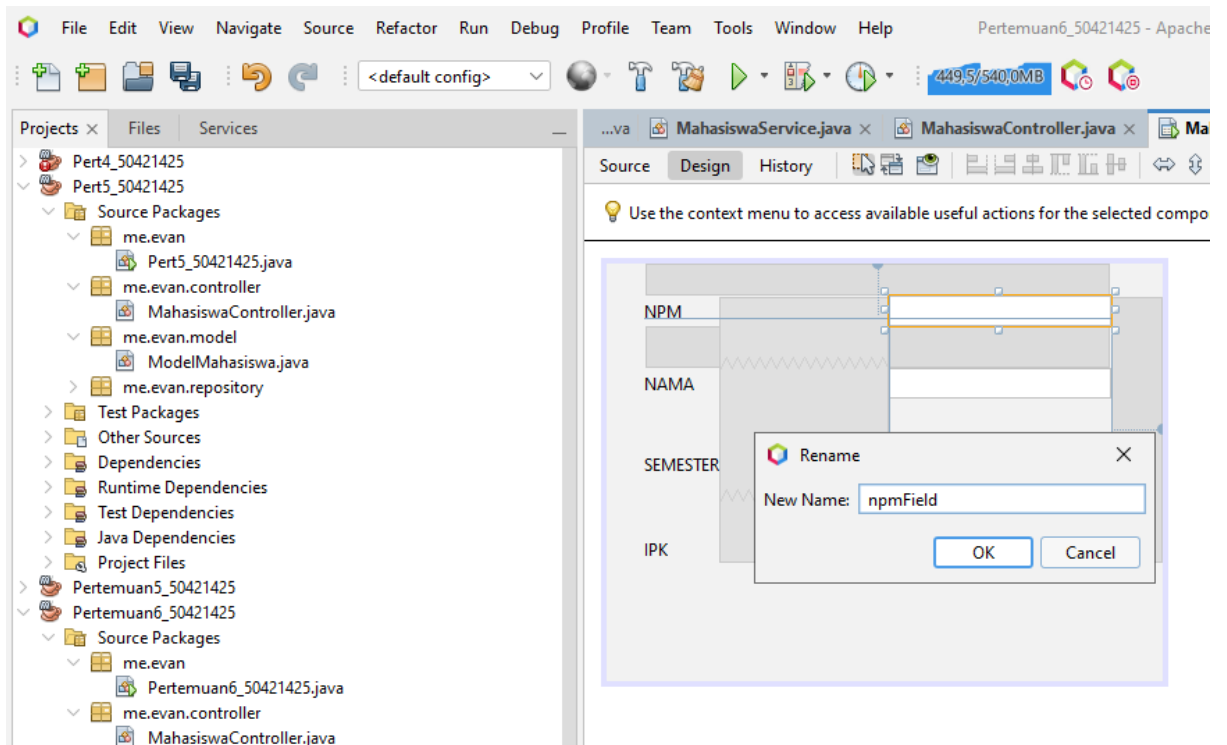
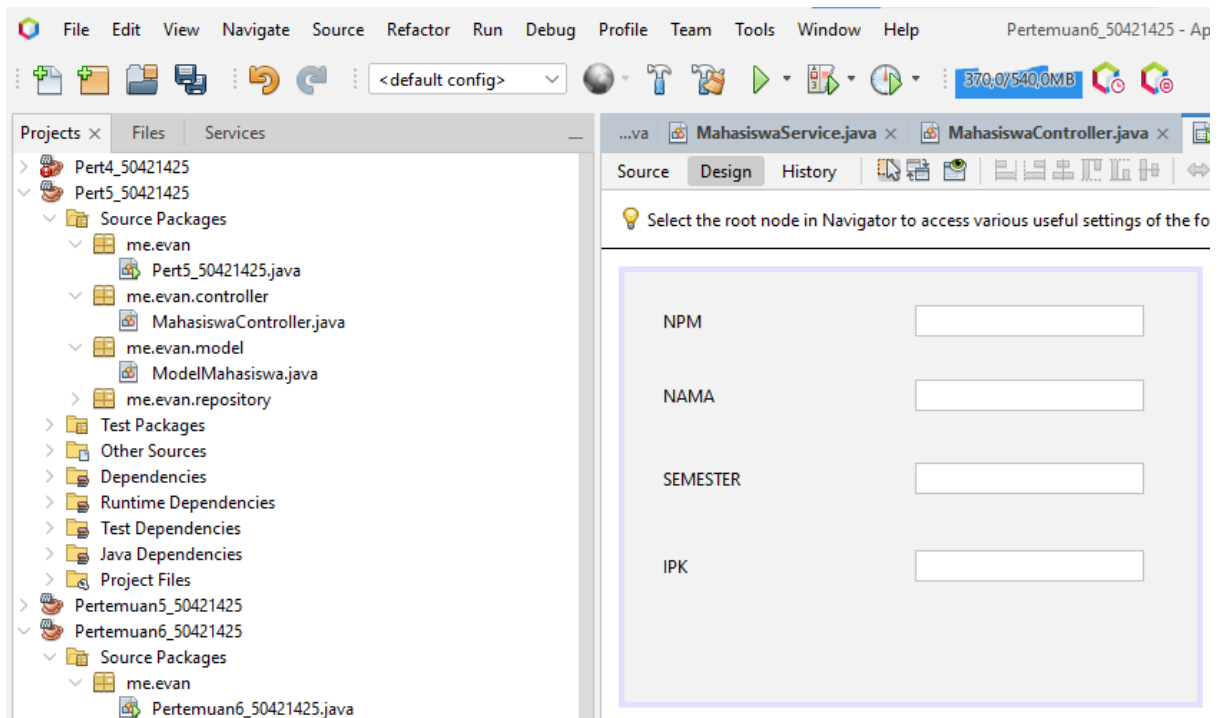


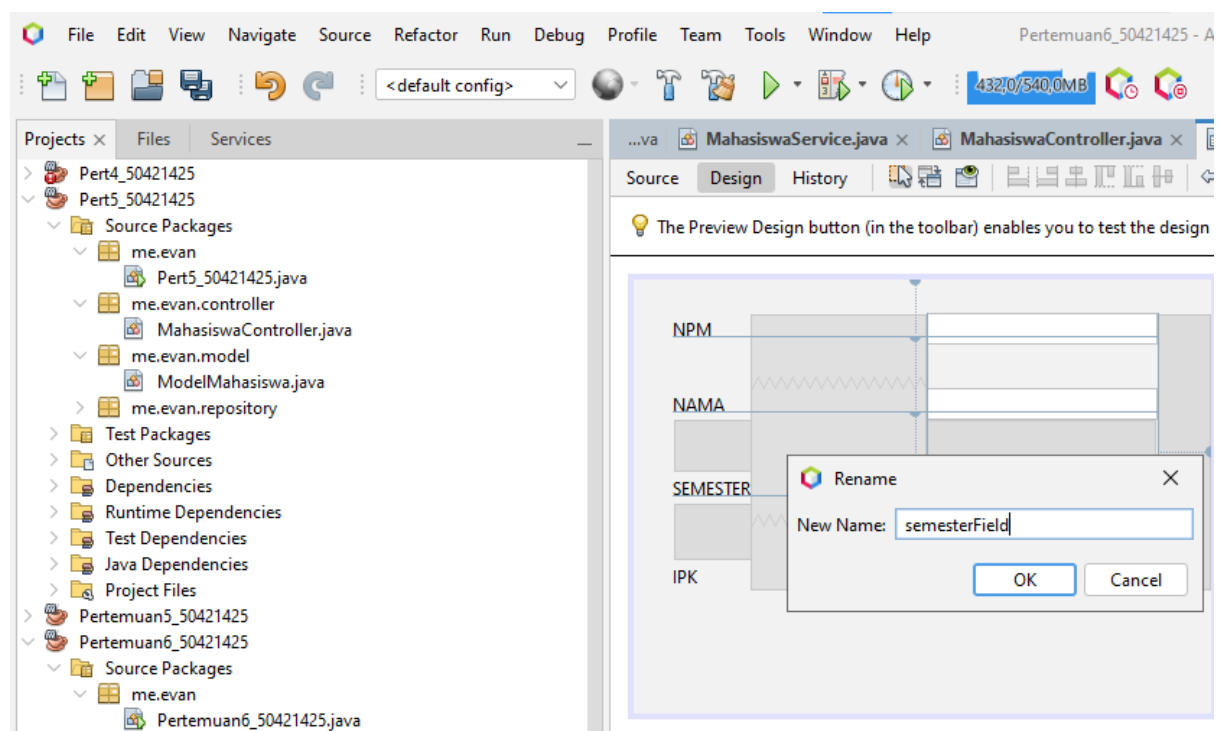
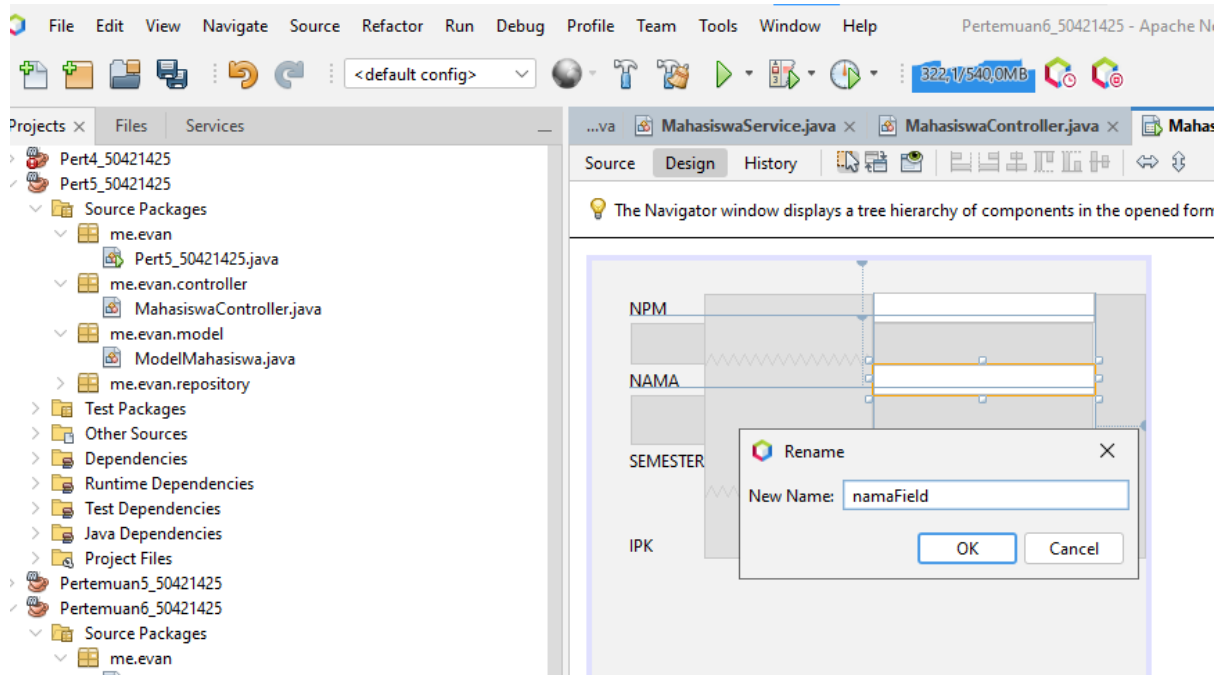


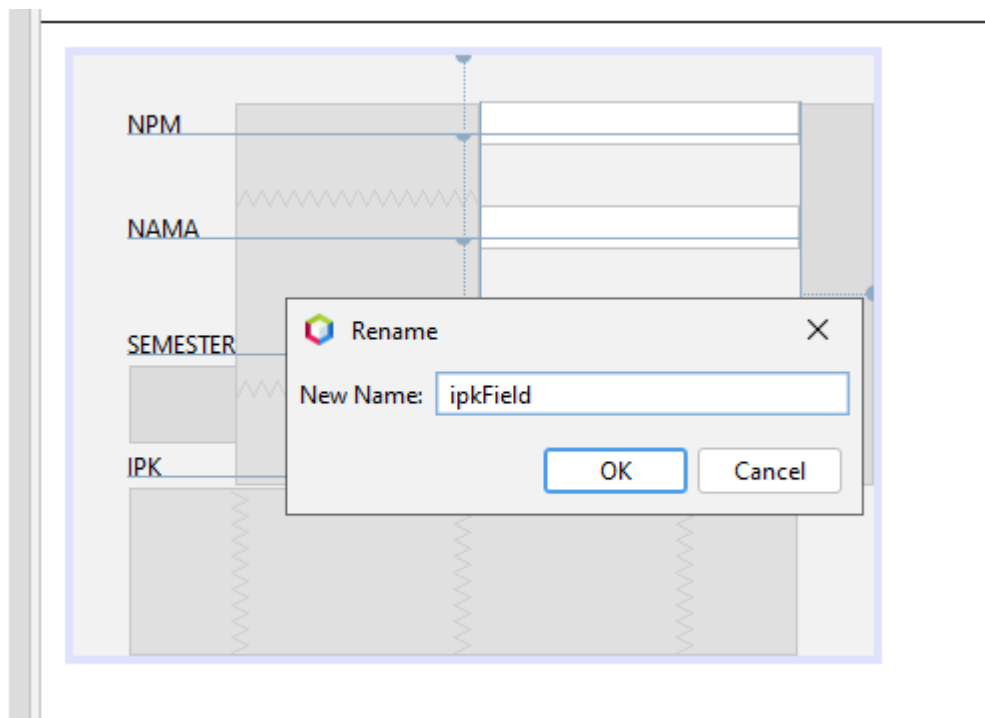




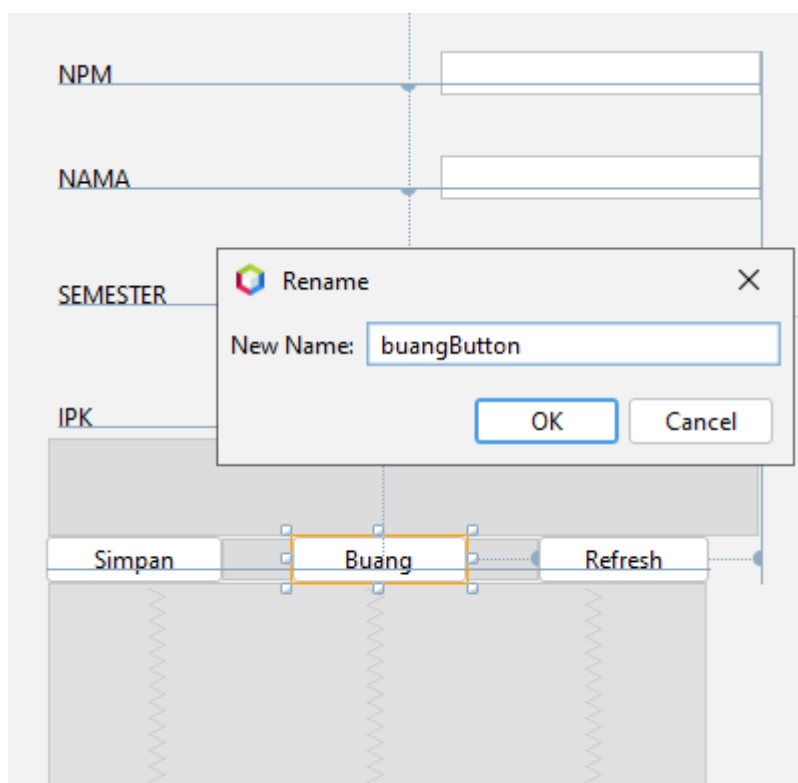
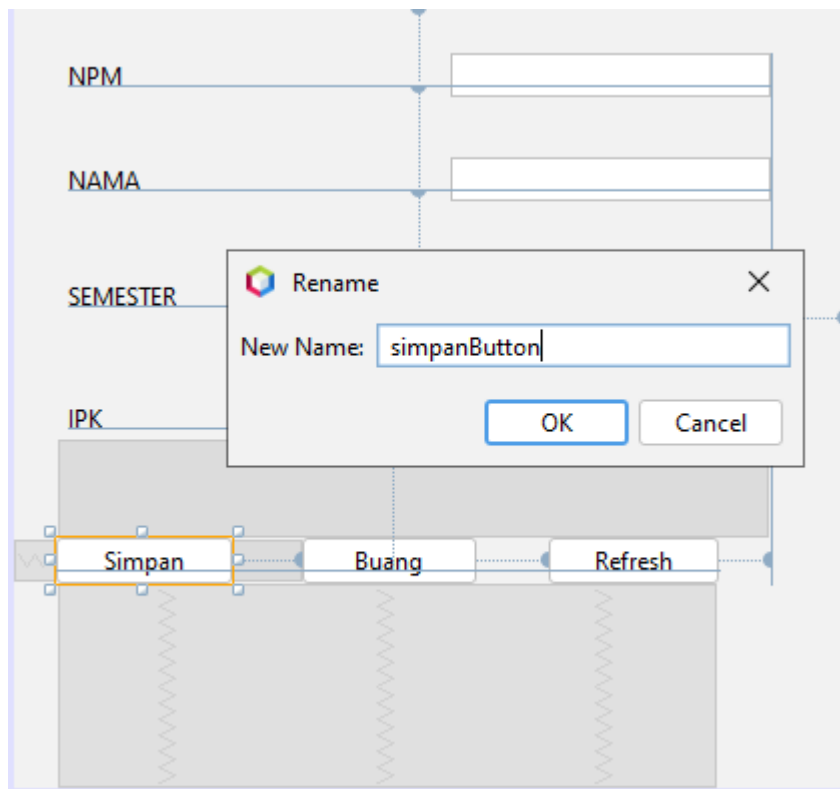


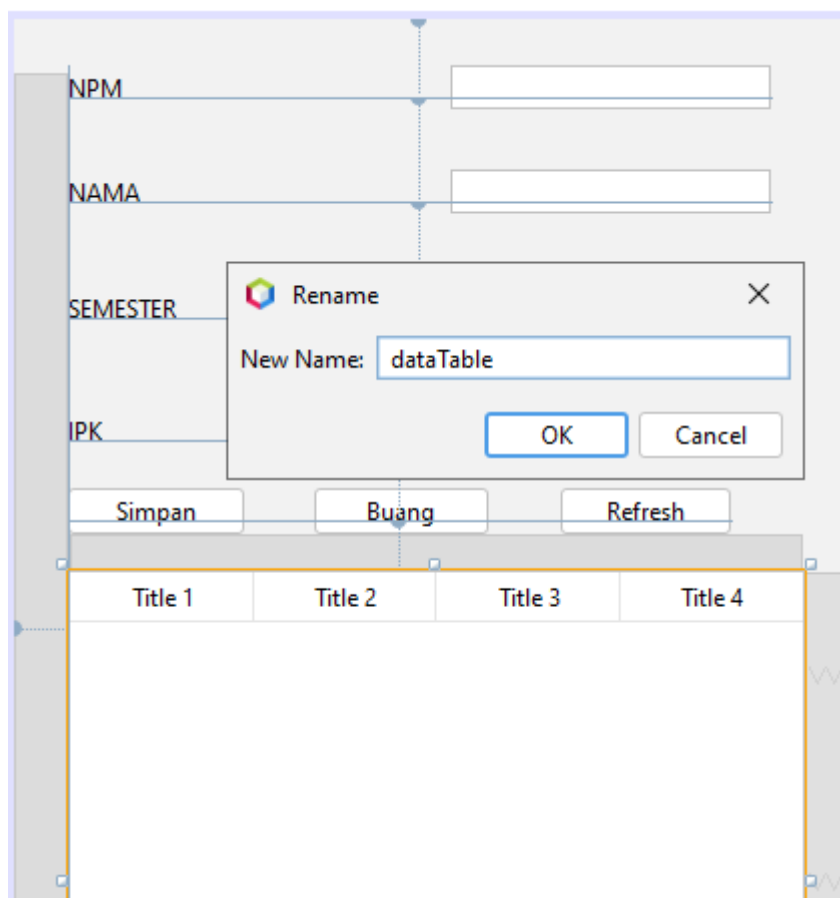
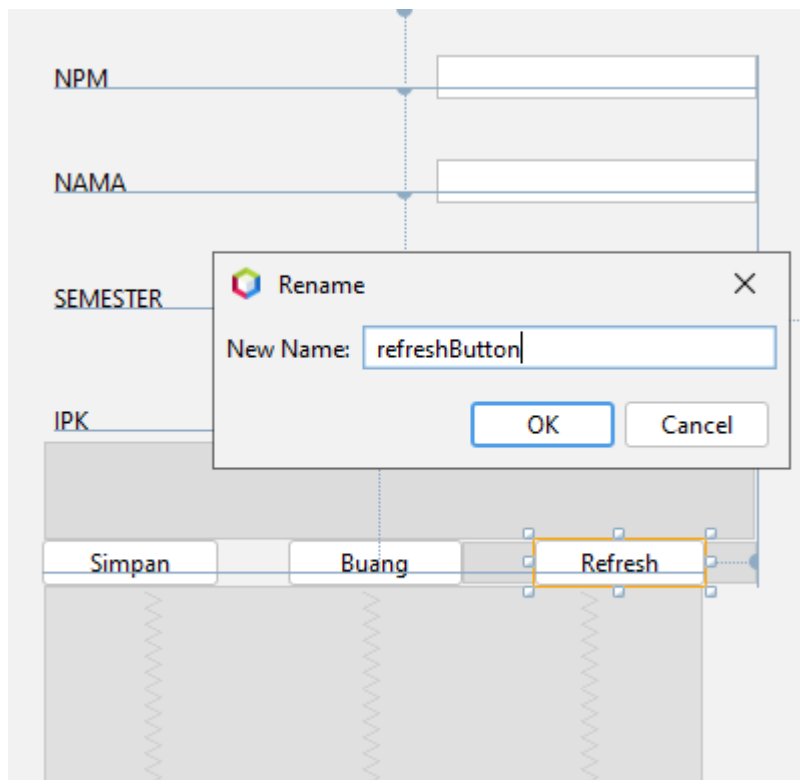






NPM	<input type="text"/>
NAMA	<input type="text"/>
SEMESTER	<input type="text"/>
IPK	<input type="text"/>





New Java Class

Steps

1. Choose File Type

2. **Name and Location**

Class Name:

ModelTableMahasiswa

Project:

Pertemuan6_50421425

Location:

Source Packages

Package:

me.evan.model

Created File:

emuan6_50421425\src\main\java\me\evan\model\ModelTableMahasiswa.java

Superclass:

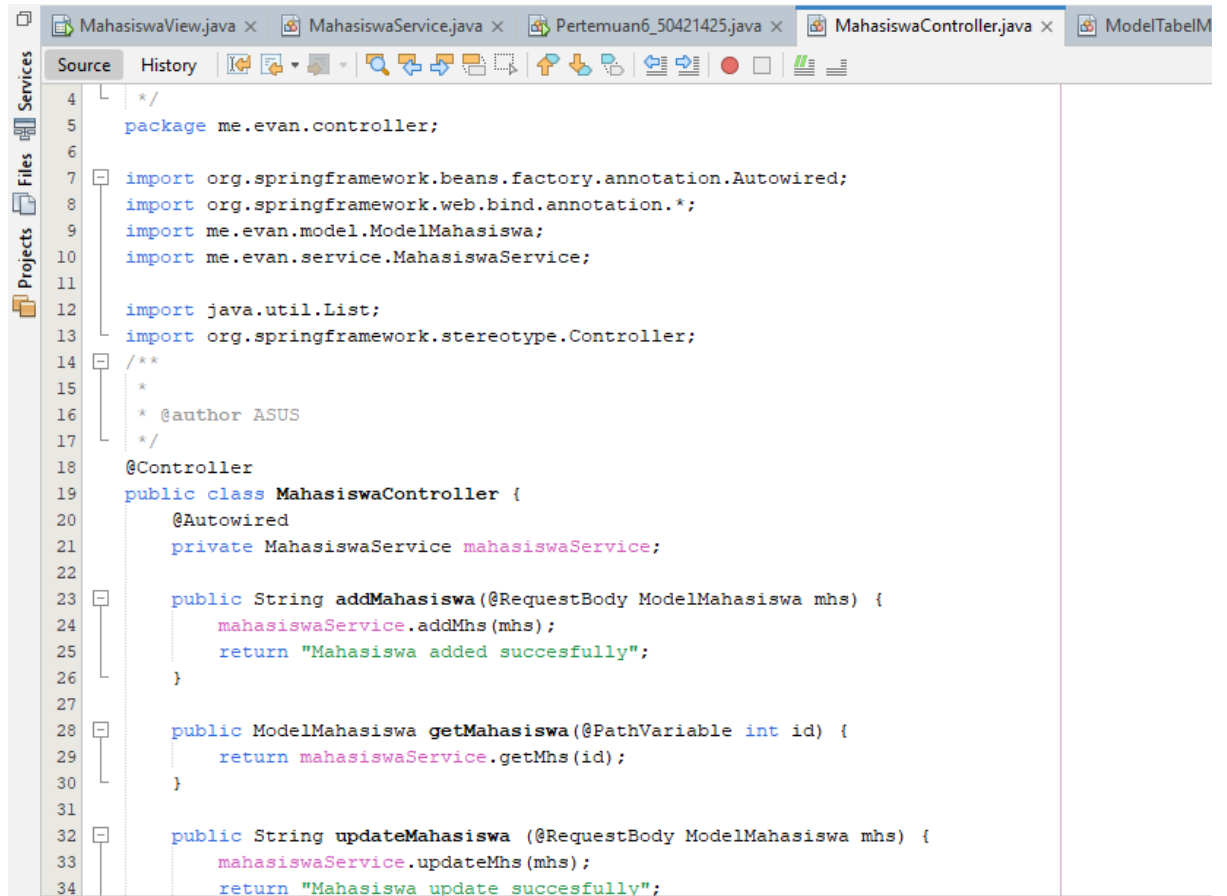
Interfaces:

< Back

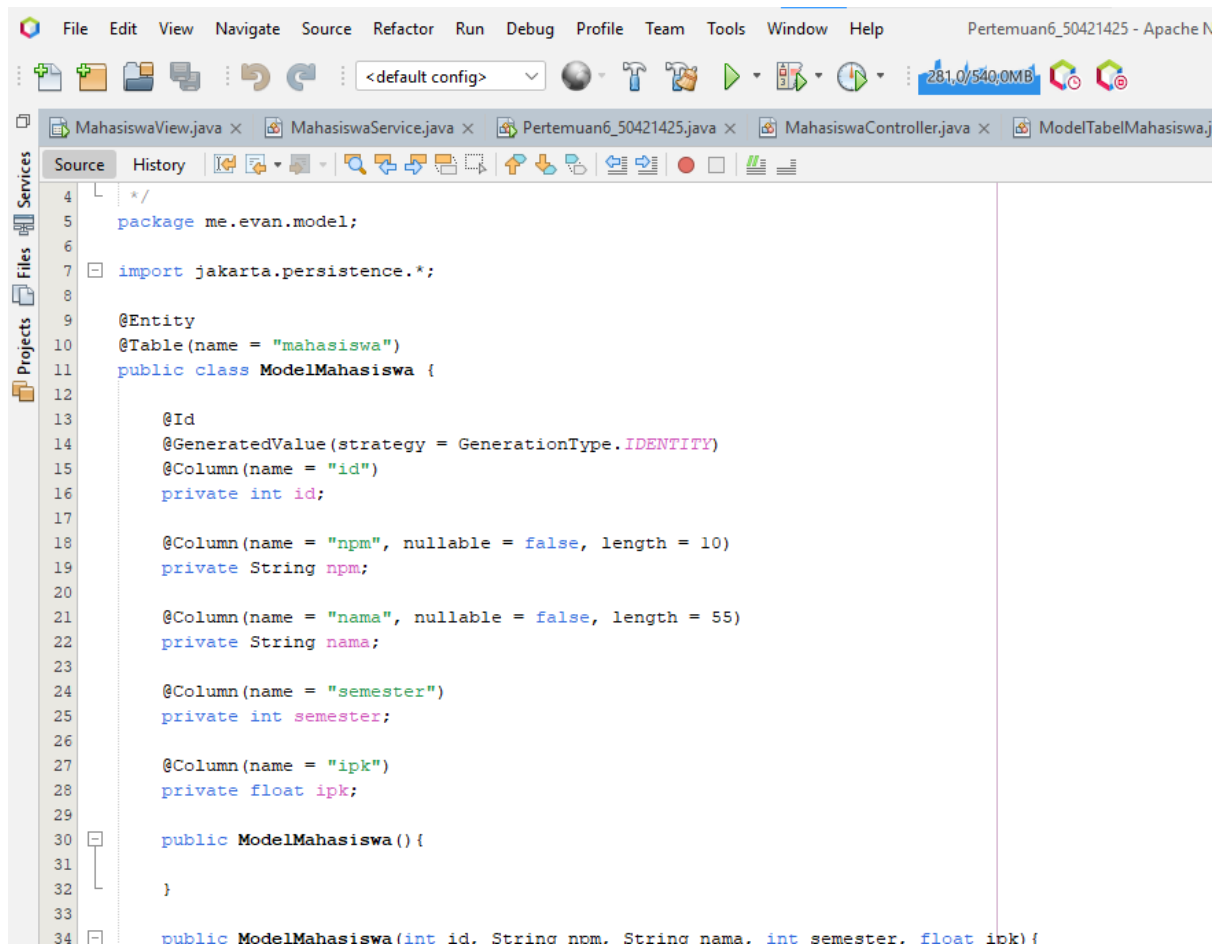
Next >

Finish

Cancel

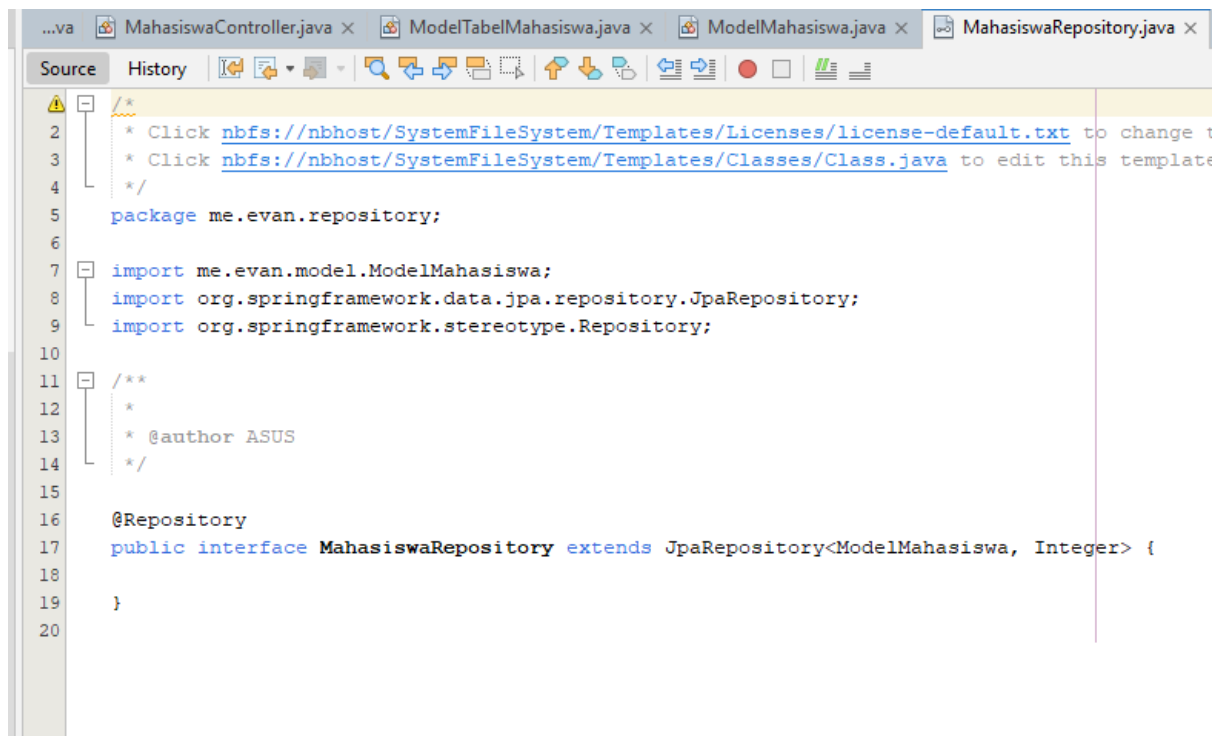


```
4  */
5  package me.evan.controller;
6
7  import org.springframework.beans.factory.annotation.Autowired;
8  import org.springframework.web.bind.annotation.*;
9  import me.evan.model.ModelMahasiswa;
10 import me.evan.service.MahasiswaService;
11
12 import java.util.List;
13 import org.springframework.stereotype.Controller;
14
15 /**
16  *
17  * @author ASUS
18  */
19 @Controller
20 public class MahasiswaController {
21     @Autowired
22     private MahasiswaService mahasiswaService;
23
24     public String addMahasiswa(@RequestBody ModelMahasiswa mhs) {
25         mahasiswaService.addMhs(mhs);
26         return "Mahasiswa added successfully";
27     }
28
29     public ModelMahasiswa getMahasiswa(@PathVariable int id) {
30         return mahasiswaService.getMhs(id);
31     }
32
33     public String updateMahasiswa (@RequestBody ModelMahasiswa mhs) {
34         mahasiswaService.updateMhs(mhs);
35         return "Mahasiswa update successfully";
36     }
37 }
```

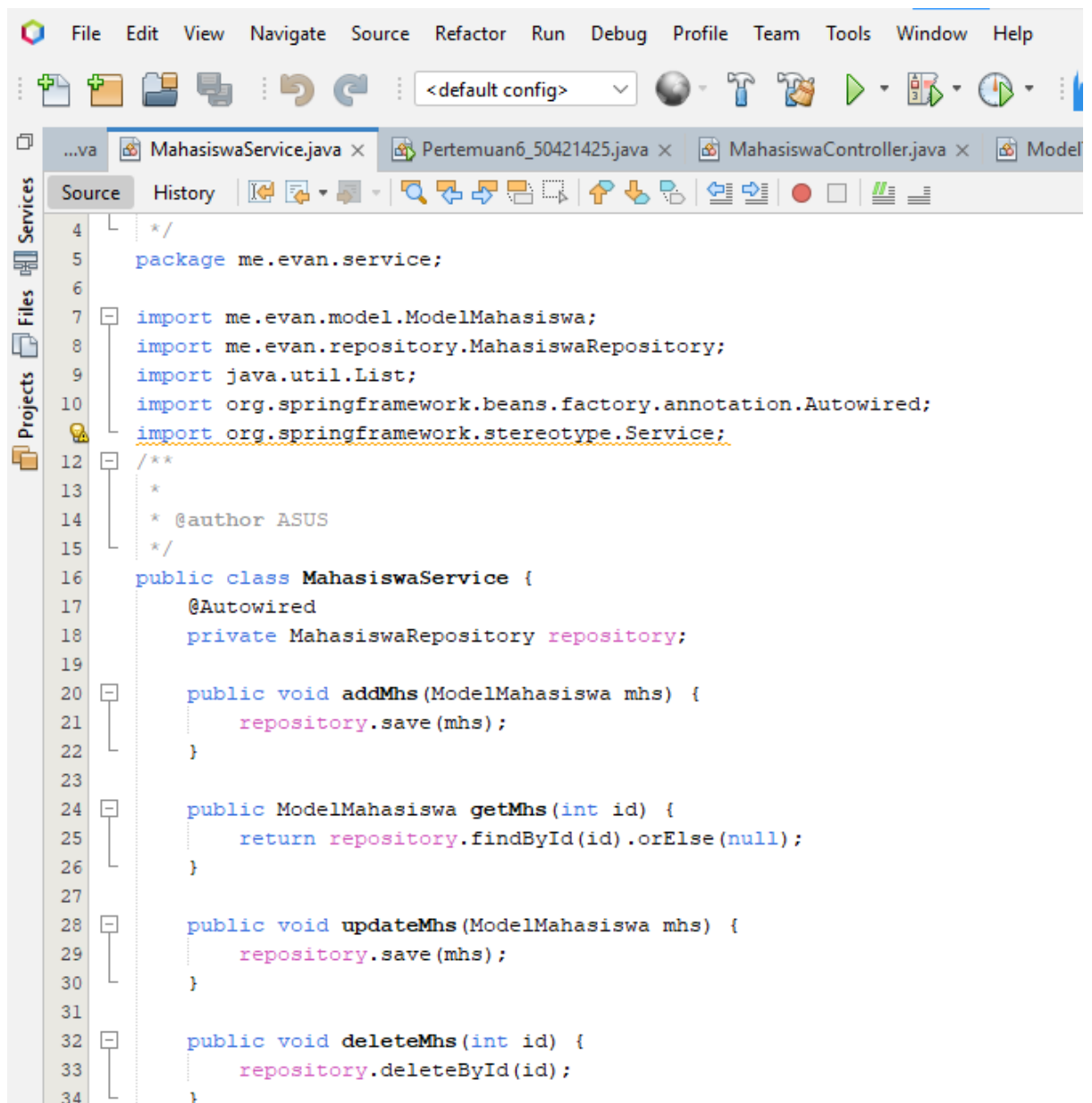


The screenshot shows an IDE window with the following components:

- Menu Bar:** File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, Window, Help.
- Toolbar:** Includes icons for file operations (new, open, save, delete), navigation (back, forward, search), and development (run, debug, profile, team, tools, window, help). A dropdown menu shows "<default config>".
- Tab Bar:** Displays four open files: MahasiswaView.java, MahasiswaService.java, Pertemuan6_50421425.java, and MahasiswaController.java.
- Left Sidebar:** Contains icons for Services, Files, and Projects.
- Editor Area:** Shows the source code of the `ModelTabelMahasiswa` class, which extends `AbstractTableModel`. The code includes:
 - Line 10: `public class ModelTabelMahasiswa extends AbstractTableModel {`
 - Line 12: `private List<ModelMahasiswa> mahasiswaList;`
 - Line 13: `private String[] columnNames = {"ID", "NPM", "Nama", "Semester", "IPK"};`
 - Line 15: `public ModelTabelMahasiswa(List<ModelMahasiswa> mahasiswaList) {`
 - Line 16: `this.mahasiswaList = mahasiswaList;`
 - Line 17: `}`
 - Line 19: `@Override`
 - Line 20: `public int getRowCount() {`
 - Line 21: `return mahasiswaList.size();`
 - Line 22: `}`
 - Line 24: `@Override`
 - Line 25: `public int getColumnCount() {`
 - Line 26: `return columnNames.length;`
 - Line 27: `}`
 - Line 29: `@Override`
 - Line 30: `public Object getValueAt(int rowIndex, int columnIndex) {`
 - Line 31: `ModelMahasiswa mahasiswa = mahasiswaList.get(rowIndex);`
 - Line 32: `switch (columnIndex) {`
 - Line 33: `case 0:`
 - Line 34: `return mahasiswa.getId();`
 - Line 35: `case 1:`
 - Line 36: `return mahasiswa.getNpm();`
 - Line 37: `case 2:`
 - Line 38: `return mahasiswa.getNama();`
 - Line 39: `case 3:`
 - Line 40: `return mahasiswa.getSemester();`



```
1  ...va  MahasiswaController.java x  ModelTabelMahasiswa.java x  ModelMahasiswa.java x  MahasiswaRepository.java x
Source  History  [Icons]
2  /**
3   * Click nbfs://nbhost/SystemFileSystem/Templates/Licenses/license-default.txt to change t
4   * Click nbfs://nbhost/SystemFileSystem/Templates/Classes/Class.java to edit this template
5   */
6
7  package me.evan.repository;
8
9  import me.evan.model.ModelMahasiswa;
10 import org.springframework.data.jpa.repository.JpaRepository;
11 import org.springframework.stereotype.Repository;
12
13 /**
14  *
15  * @author ASUS
16  */
17
18 @Repository
19 public interface MahasiswaRepository extends JpaRepository<ModelMahasiswa, Integer> {
20 }
```



```
4  */
5  package me.evan.service;
6
7  import me.evan.model.ModelMahasiswa;
8  import me.evan.repository.MahasiswaRepository;
9  import java.util.List;
10 import org.springframework.beans.factory.annotation.Autowired;
11 import org.springframework.stereotype.Service;
12 /**
13  *
14  * @author ASUS
15  */
16 public class MahasiswaService {
17     @Autowired
18     private MahasiswaRepository repository;
19
20     public void addMhs(ModelMahasiswa mhs) {
21         repository.save(mhs);
22     }
23
24     public ModelMahasiswa getMhs(int id) {
25         return repository.findById(id).orElse(null);
26     }
27
28     public void updateMhs(ModelMahasiswa mhs) {
29         repository.save(mhs);
30     }
31
32     public void deleteMhs(int id) {
33         repository.deleteById(id);
34     }
```

```
File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help
Pertemuan6_50421425 - Apache Net

MahasiswaView.java x MahasiswaService.java x Pertemuan6_50421425.java x MahasiswaController.java x ModelTabelMahasiswa.jav

Source Design History
7 import java.util.List;
8 import me.evan.controller.MahasiswaController;
9 import me.evan.model.ModelMahasiswa;
10 import javax.swing.*;
11 import me.evan.model.ModelTabelMahasiswa;
12
13 /**
14  *
15  * @author ASUS
16  */
17 public class MahasiswaView extends JFrame {
18
19     private MahasiswaController controller;
20
21     public MahasiswaView(MahasiswaController controller){
22         this.controller = controller;
23         initComponents();
24         loadMahasiswaTable();
25     }
26
27     public void loadMahasiswaTable() {
28         List<ModelMahasiswa> listMahasiswa = controller.getAllMahasiswa();
29         ModelTabelMahasiswa tableModel = new ModelTabelMahasiswa(listMahasiswa);
30         dataTable.setModel(tableModel);
31     }
32
33     private MahasiswaView() {
34         throw new UnsupportedOperationException("Not supported yet.");
35     }
36     /**
```