

# PUPUT DEBBYLA WALZAHRA

51421182\_4IA06

Rekayasa Perangkat Lunak 2

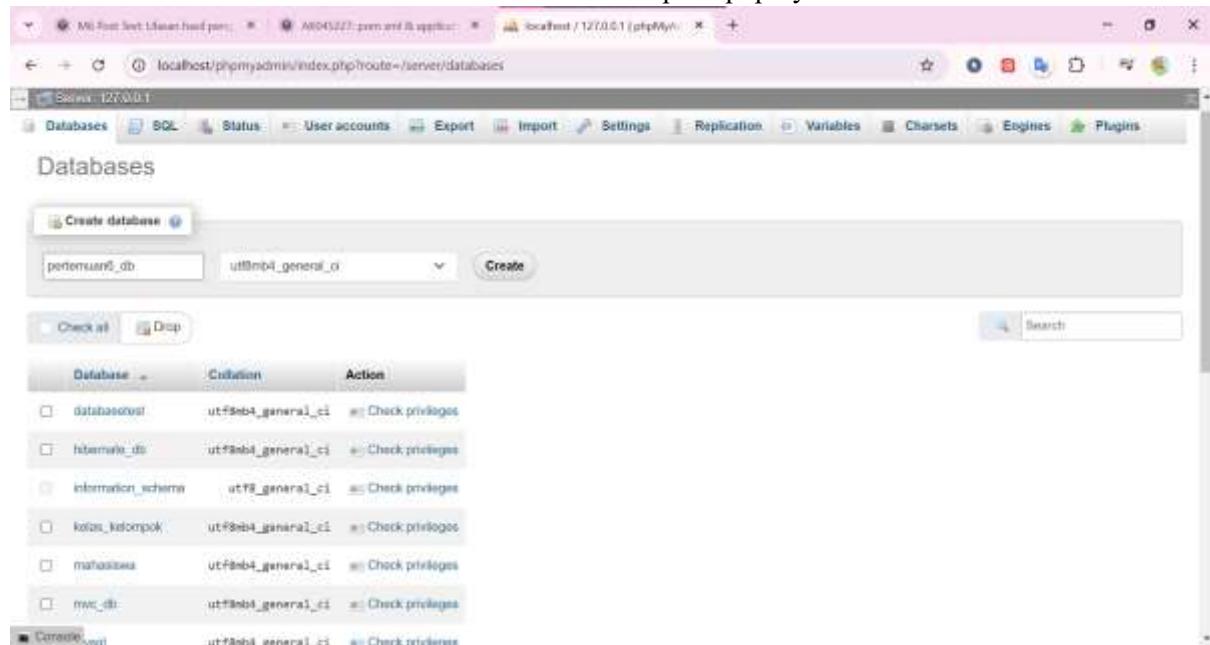
Implementasi Aspect Oriented Programming (AOP) dan Depedency Injection pada Project Spring dan Hibernate

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- 1) Screenshot kode dan output program!

Jawab:

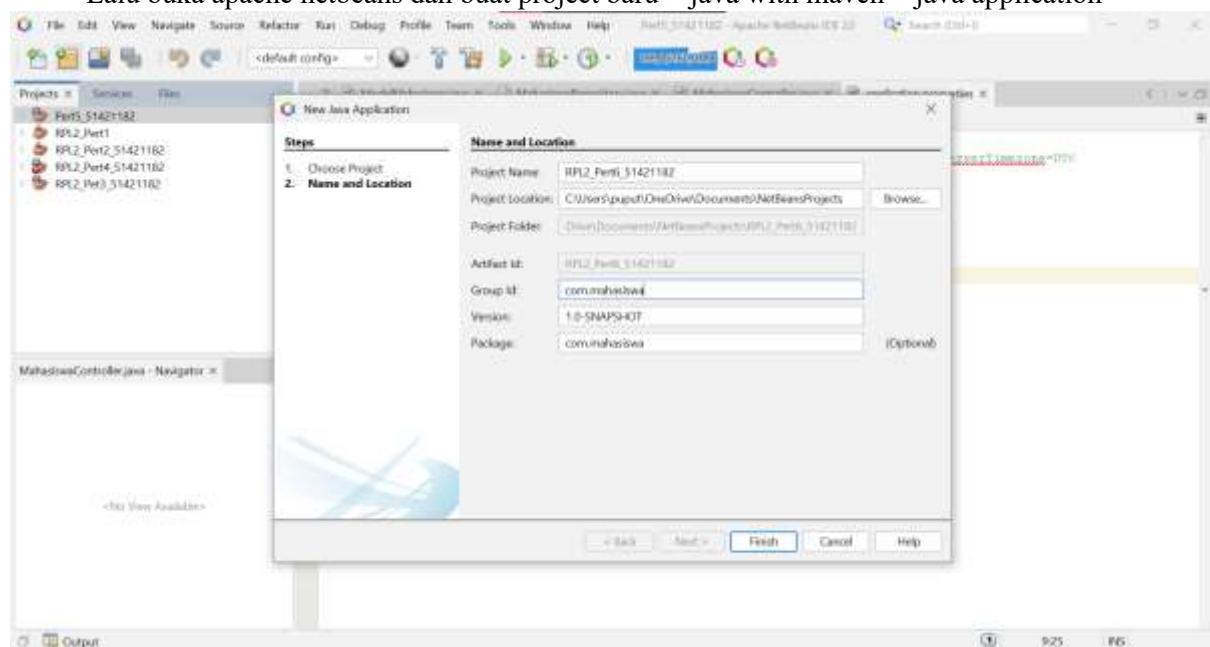
Buat database terlebih dahulu pada phpmyadmin



The screenshot shows the MySQL Workbench interface with the 'Databases' tab selected. A modal dialog box is open for creating a new database. The 'Name' field contains 'permenus5\_db' and the 'Collation' dropdown is set to 'utf8mb4\_general\_ci'. The 'Create' button is visible at the bottom right of the dialog. Below the dialog, a table lists existing databases with their names, collations, and checkboxes for 'Check privileges'.

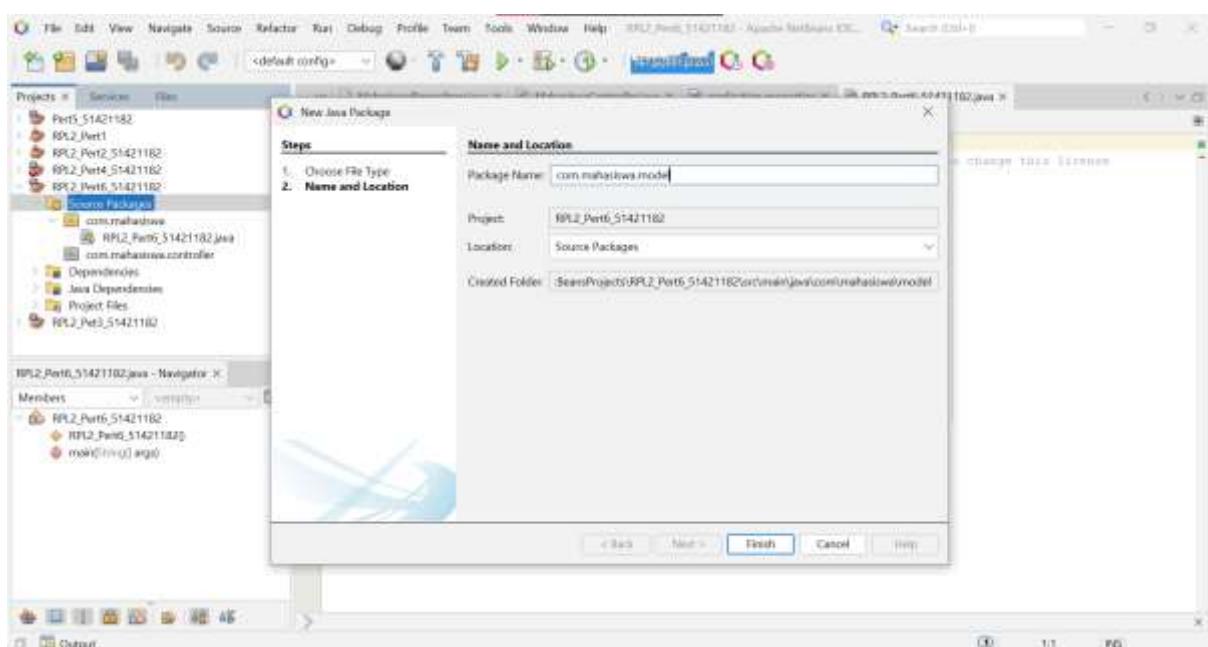
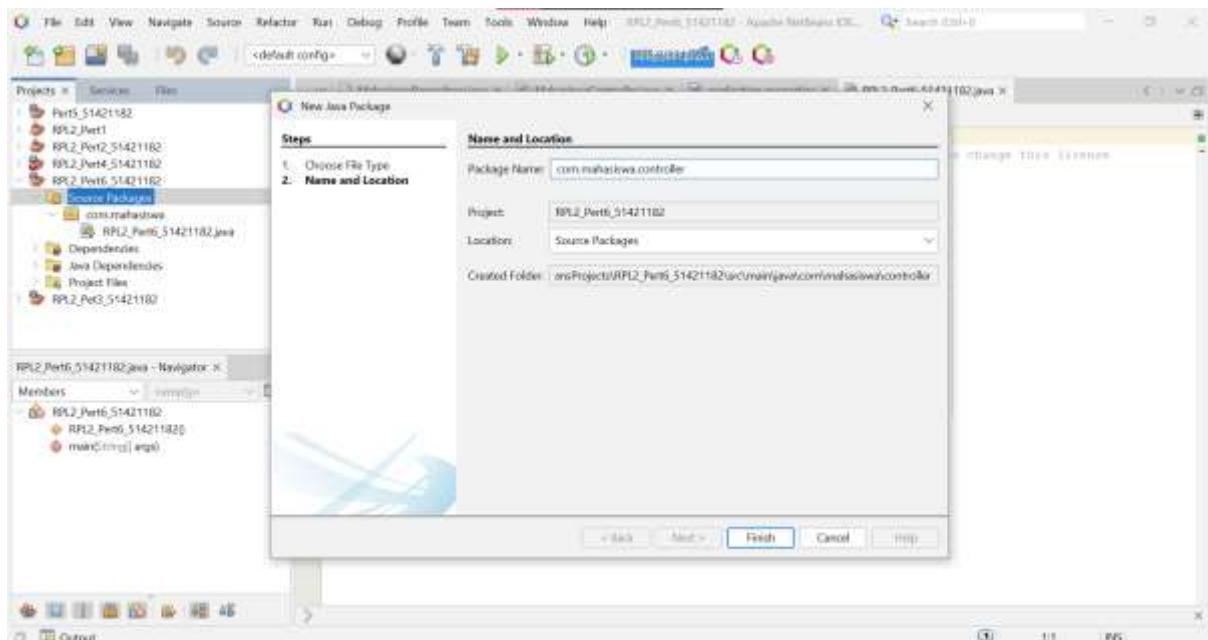
Database	Collation	Action
databasestest	utf8mb4_general_ci	<input type="checkbox"/> Check privileges
information_schema	utf8_general_ci	<input type="checkbox"/> Check privileges
java	utf8mb4_general_ci	<input type="checkbox"/> Check privileges
mysql	utf8mb4_general_ci	<input type="checkbox"/> Check privileges
performance_schema	utf8mb4_general_ci	<input type="checkbox"/> Check privileges
sys	utf8mb4_general_ci	<input type="checkbox"/> Check privileges
Current test	utf8mb4_general_ci	<input type="checkbox"/> Check privileges

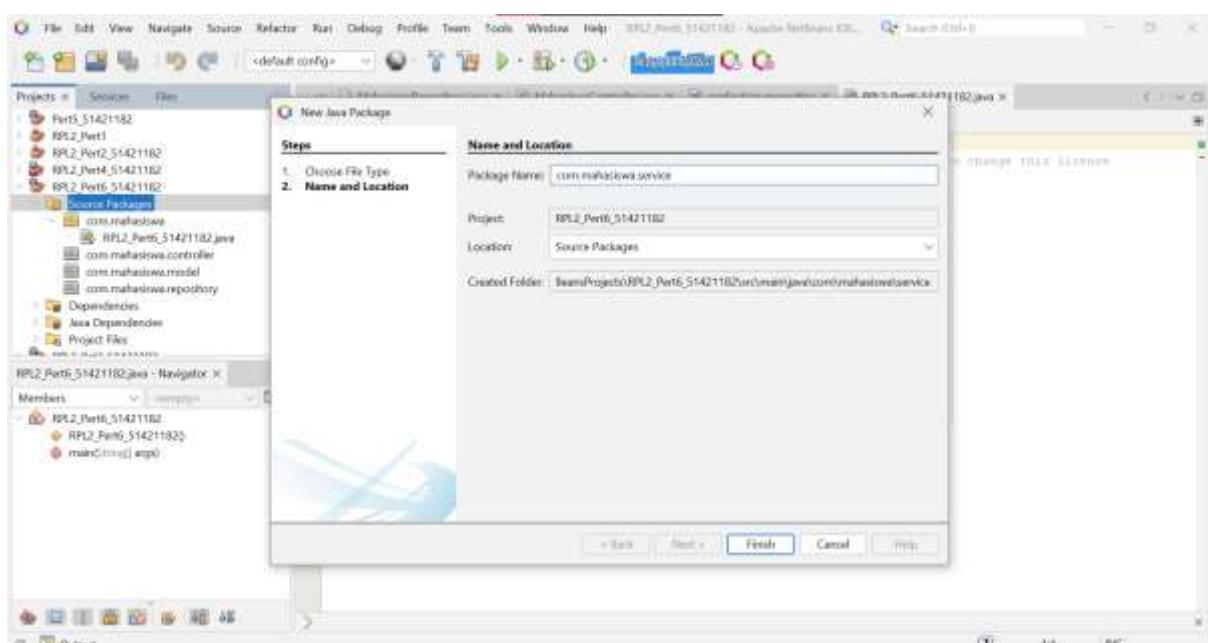
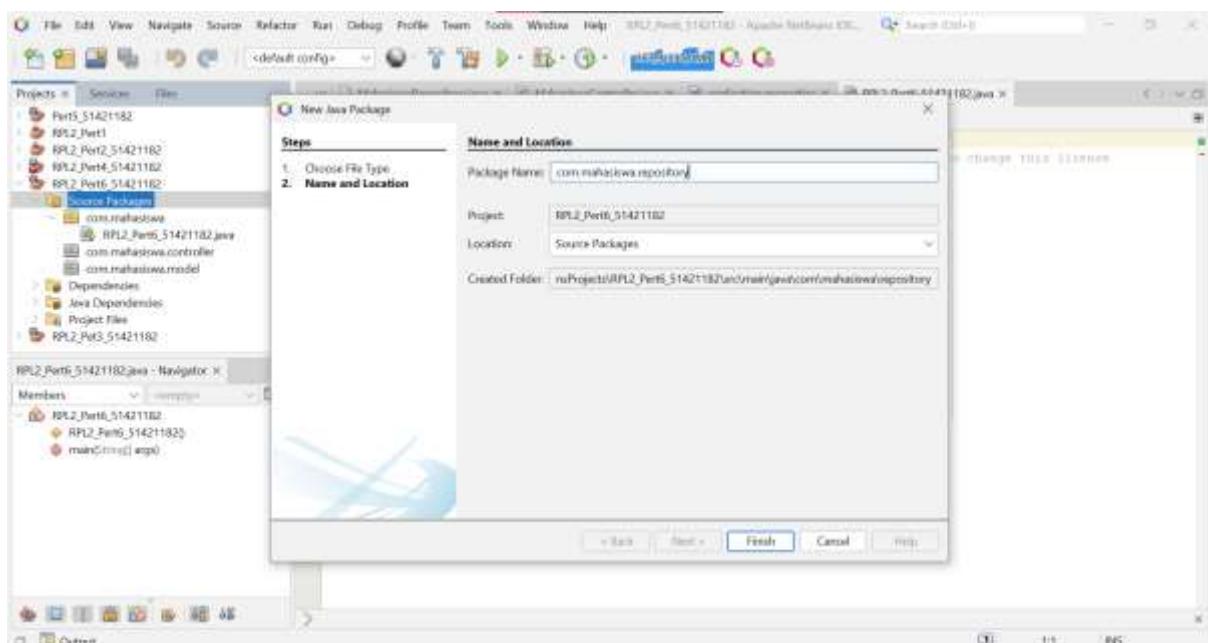
Lalu buka apache netbeans dan buat project baru > java with maven > java application

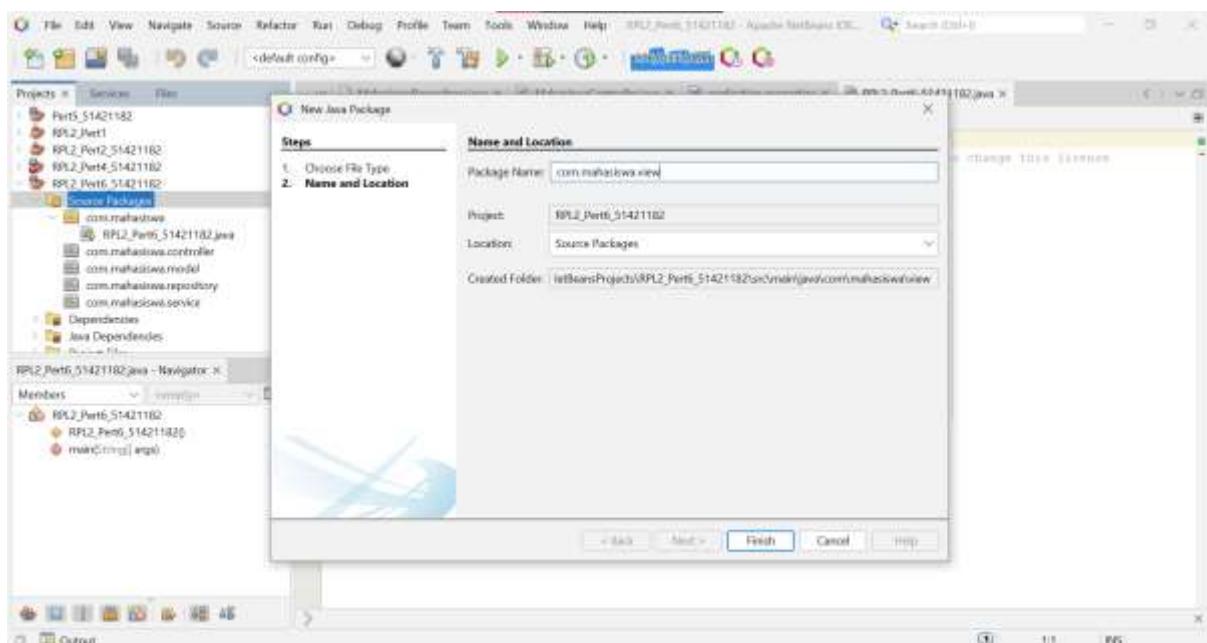


The screenshot shows the Apache NetBeans IDE interface with the 'New Java Application' wizard open. The 'Name and Location' step is active. The project name is set to 'RPL2\_Perfil\_51421182', the project location is 'C:\Users\putri\OneDrive\Documents\NetBeansProjects\RPL2\_Perfil\_51421182', and the artifact ID is 'RPL2\_Perfil\_51421182'. The group ID is 'com.unhasiswa', version is '1.0-SNAPSHOT', and package is 'com.unhasiswa'. The 'Next >' button is visible at the bottom of the wizard.

Buat package







### Berikut build pom.xml

```

<dependency>
    <groupId>mysql</groupId>
    <artifactId>mysql-connector-java</artifactId>
    <version>8.0.30</version>
</dependency>

<!-- spring boot dependency if you'll be using -->
<dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-web</artifactId>
</dependency>

<!-- Testing dependency -->
<dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-test</artifactId>
    <scope>test</scope>
</dependency>

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

```

The screenshot shows the NetBeans IDE with the 'pom.xml' file open. The left sidebar shows the 'Navigator' and 'POM model' sections. The POM model details include Model Version: 4.0.0, GroupId: com.mahasiswa, ArtifactId: RPL2\_Per6\_Per6\_51421182, Packaging: jar, None: spring-boot-starter-parent, Version: 1.0-SNAPSHOT, Description: Parent pom providing dependency, Url: https://github.com/project/spring-boot, Developers, Issues, and Patches.

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Windows Help RPL2\_Per6\_51421182 - Apache NetBeans IDE Search (Ctrl+F)

Projects Services File <default config> RPL2\_Per6\_51421182 application.properties RPL2\_Per6\_51421182.java pom.xml [RPL2\_Per6\_51421182] X

Source Graph Effect History Build Run Clean Help

Output-Build [RPL2\_Per6\_51421182]

```

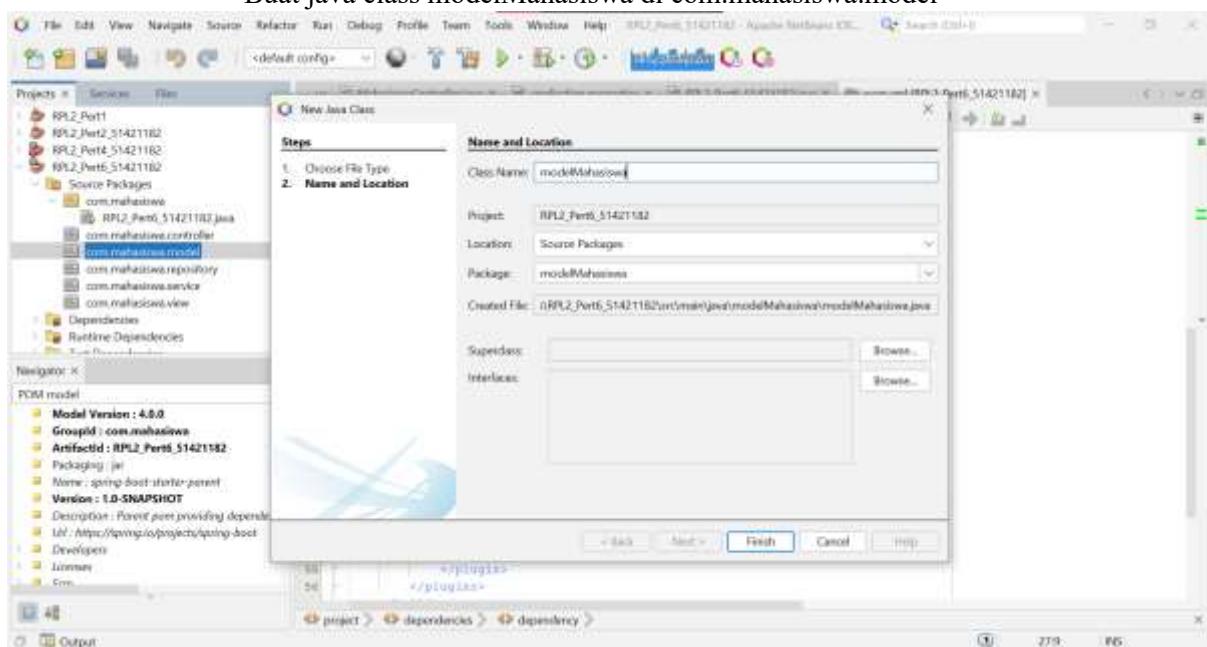
compiling 1 source file with javac [debug parameters release 17] to target/classes
+-- component/JdbcTransResource (default-test-resources) @ RPL2_Per6_51421182 --+
skip non-existing resourceDirectory C:\Users\pgut\OneDrive\Documents\NetBeansProjects\RPL2_Per6_51421182\src\test\resources
+-- compiler:1.12:transformCompile (default-compile) @ RPL2_Per6_51421182 --+
+-- No sources to compile
+-- sources:1.12:exec (default-test) @ RPL2_Per6_51421182 --+
+-- No tests to run.
+-- test:1.4.2:jar (default-jar) @ RPL2_Per6_51421182 --+
+-- building jar: C:\Users\pgut\OneDrive\Documents\NetBeansProjects\RPL2_Per6_51421182\target\RPL2_Per6_51421182-1.0-SNAPSHOT.jar
+-- spring-boot:1.5.11-release:boot-repackage @ RPL2_Per6_51421182 --+
  Replacing main artifact C:\Users\pgut\OneDrive\Documents\NetBeansProjects\RPL2_Per6_51421182\target\RPL2_Per6_51421182-1.0-SNAPSHOT.jar with repackaged archive, as the original artifact has been renamed to C:\Users\pgut\OneDrive\Documents\NetBeansProjects\RPL2_Per6_51421182\target\RPL2_Per6_51421182-1.0-SNAPSHOT.jar.original
+-- install:1.0.10:install:default-install @ RPL2_Per6_51421182 --+
  Installing C:\Users\pgut\OneDrive\Documents\NetBeansProjects\RPL2_Per6_51421182\pom.xml to C:\Users\pgut\.m2\repository\com\mahasiswa\RPL2_Per6_51421182\1.0-SNAPSHOT
+-- installing C:\Users\pgut\OneDrive\Documents\NetBeansProjects\RPL2_Per6_51421182\target\RPL2_Per6_51421182-1.0-SNAPSHOT.jar to C:\Users\pgut\.m2\repository\com\mahasiswa\RPL2_Per6_51421182\1.0-SNAPSHOT
BUILD SUCCESS

Total time: 3.945 s
Finished at: 2024-11-19T14:03:04+07:00

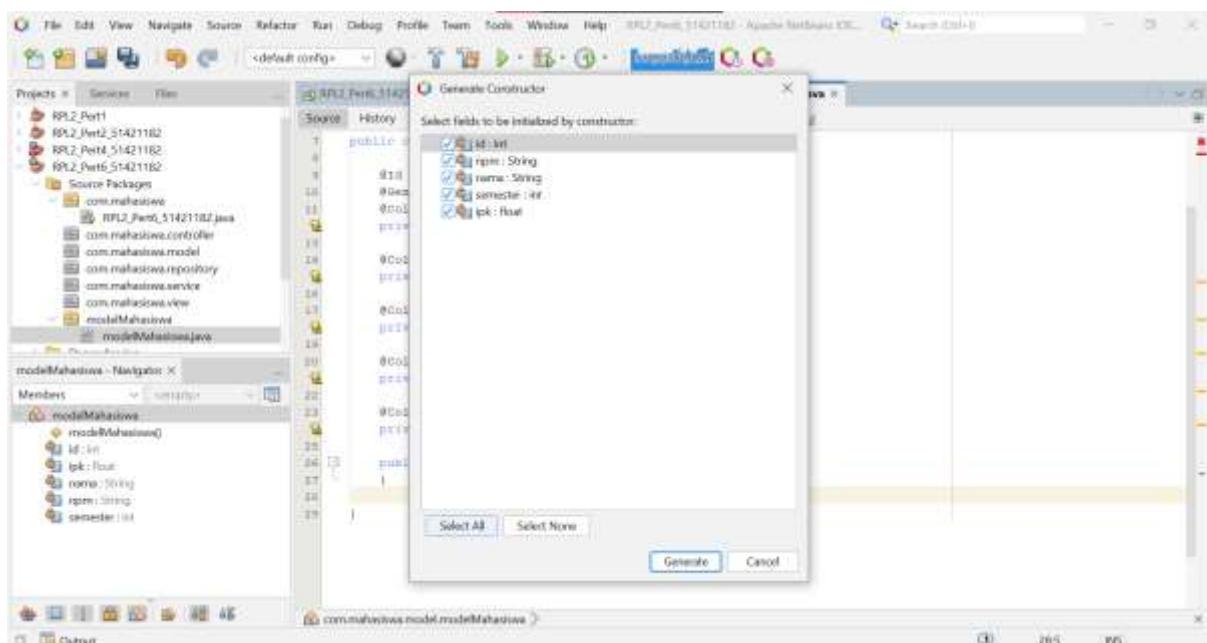
```

Output

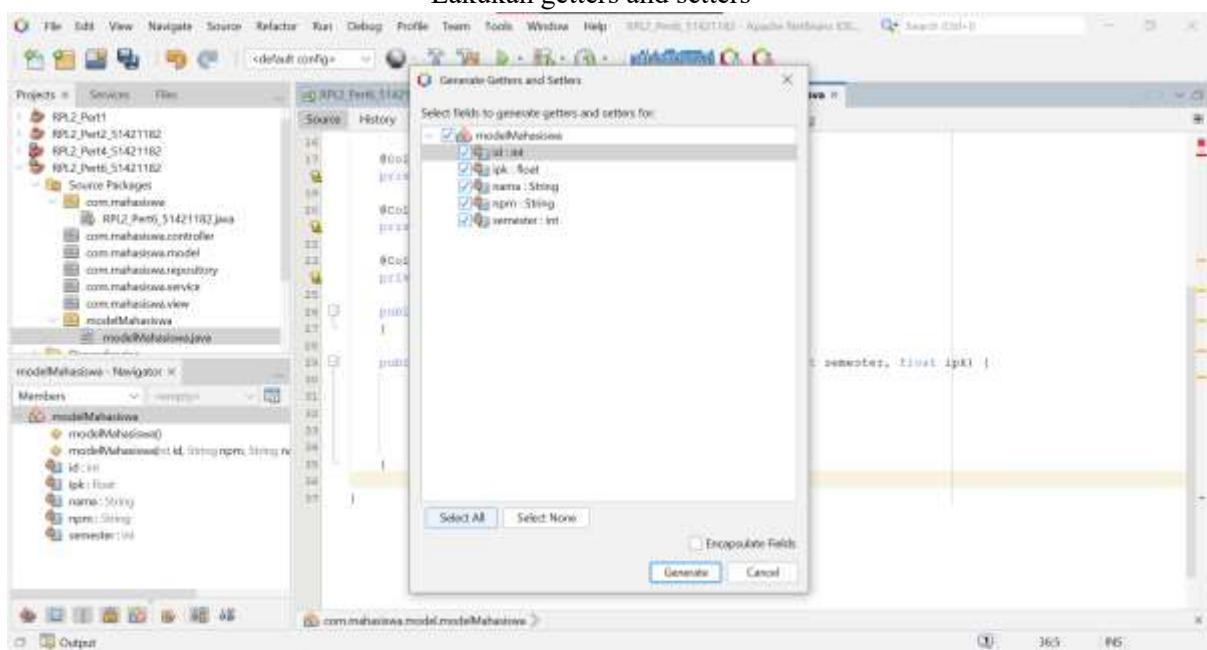
Buat java class modelMahasiswa di com.mahasiswa.model



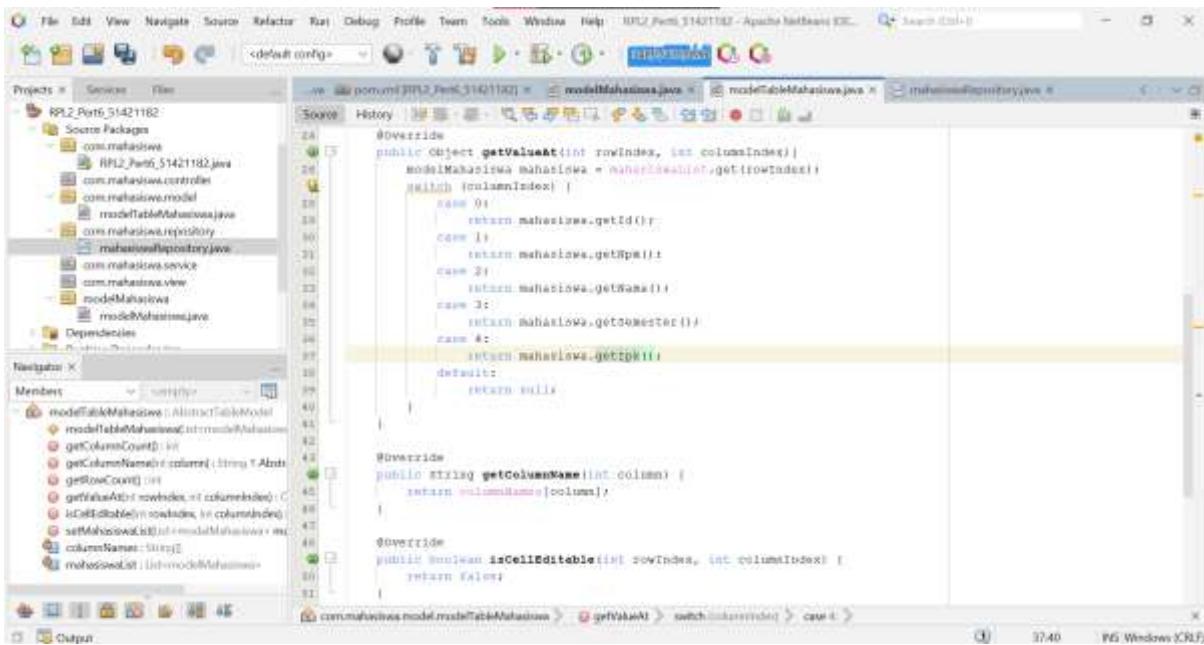
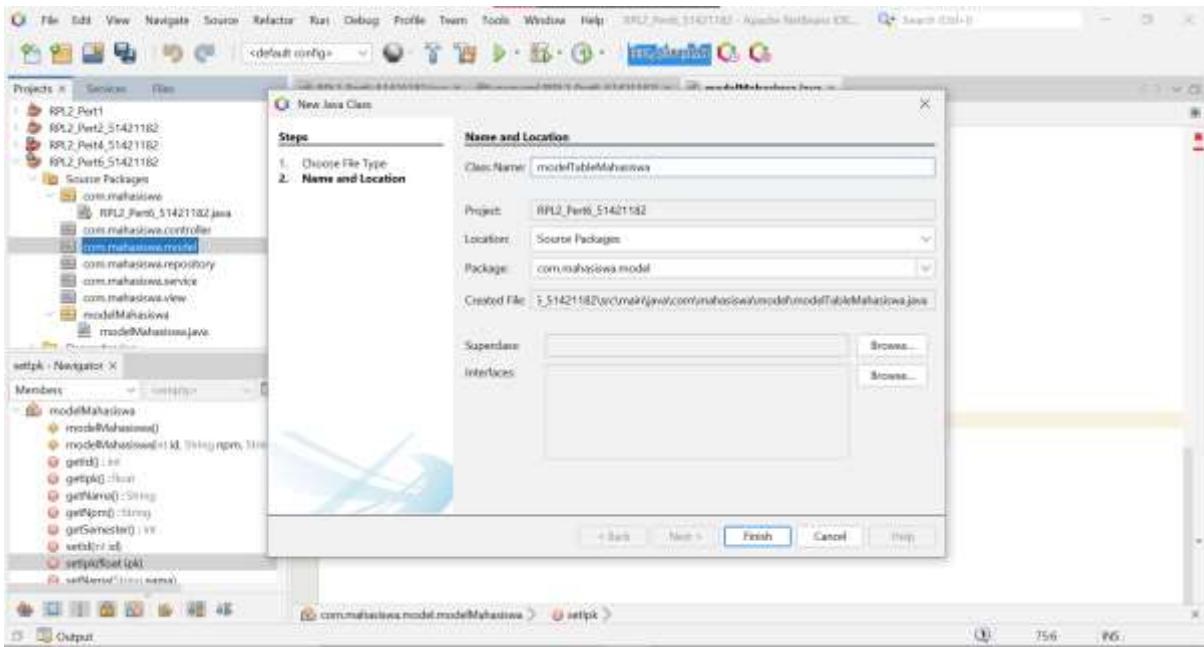
Lakukan insert code dan construct



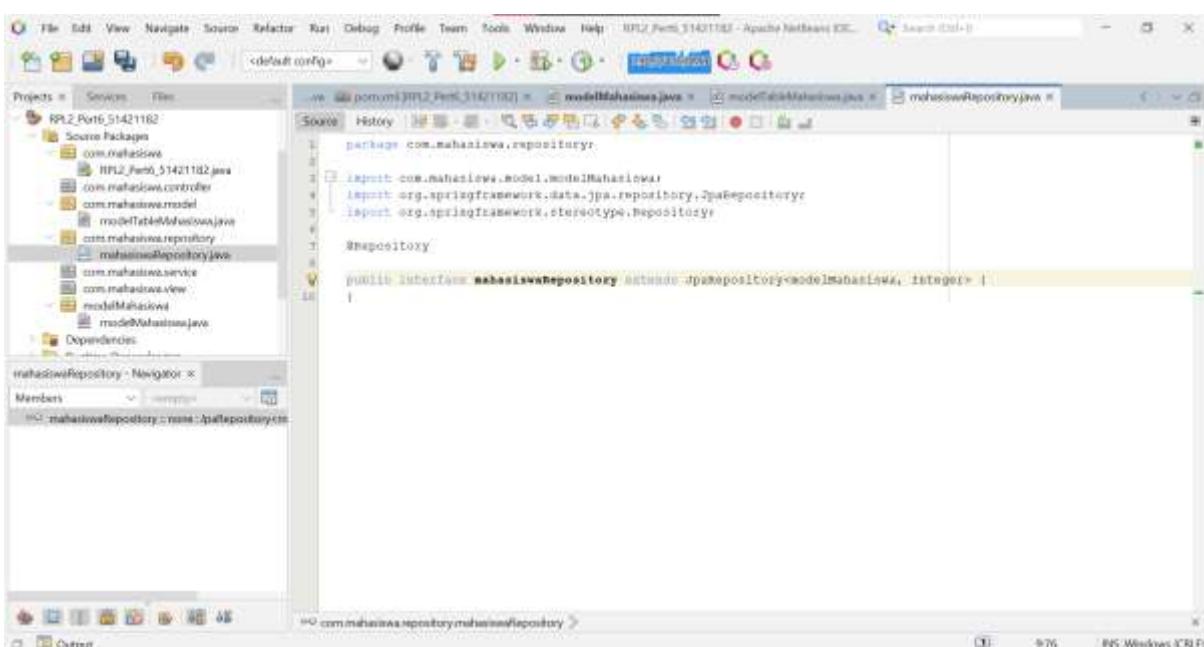
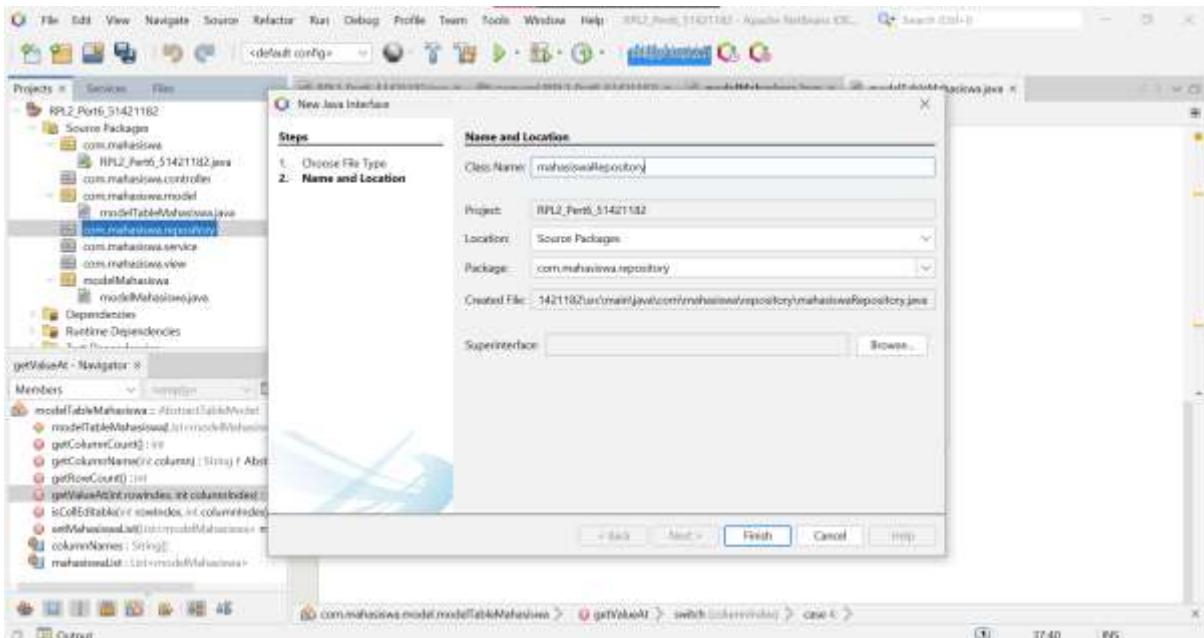
Lakukan getters and setters



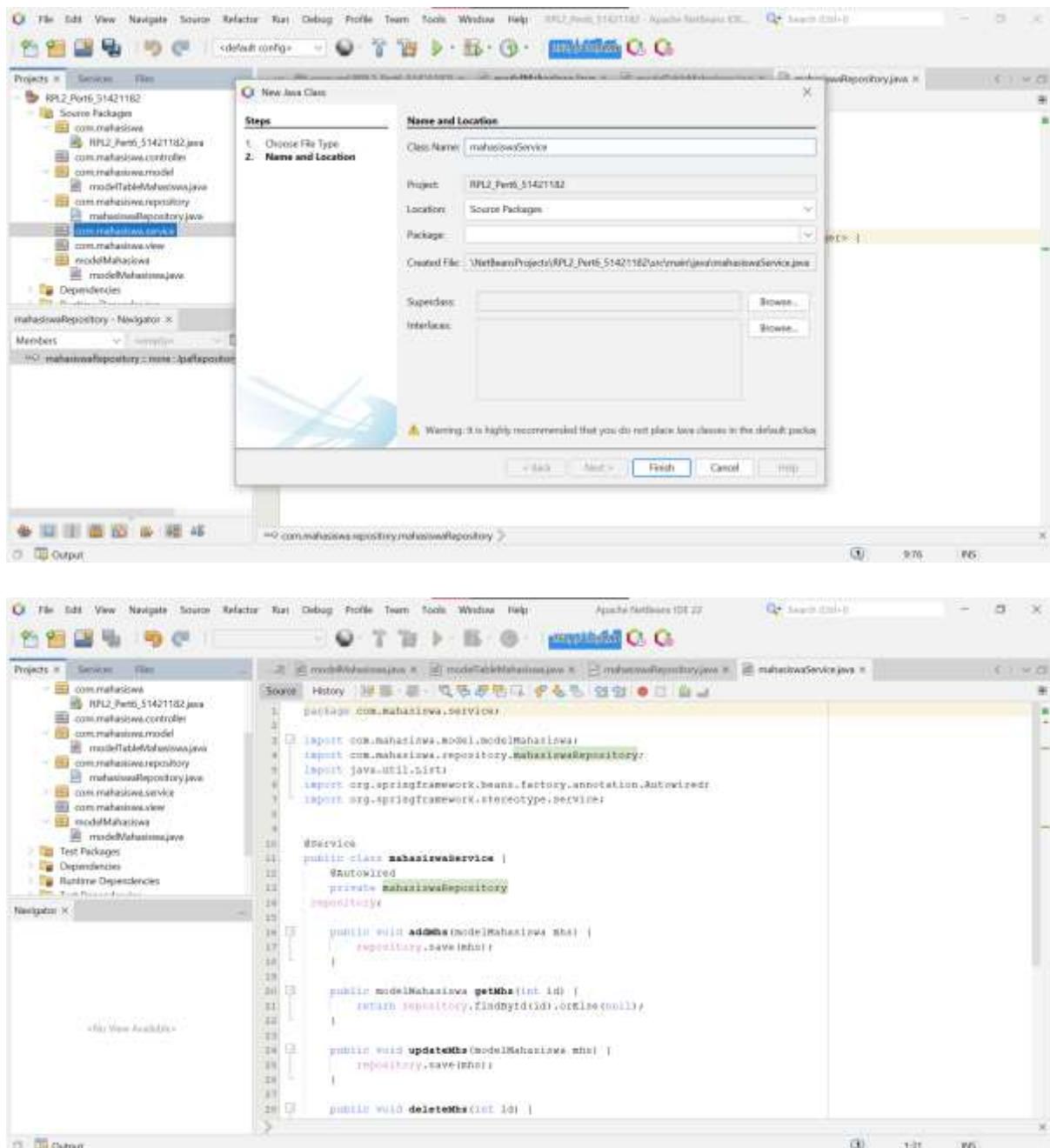
Buat java class baru di com.mahasiswa.model



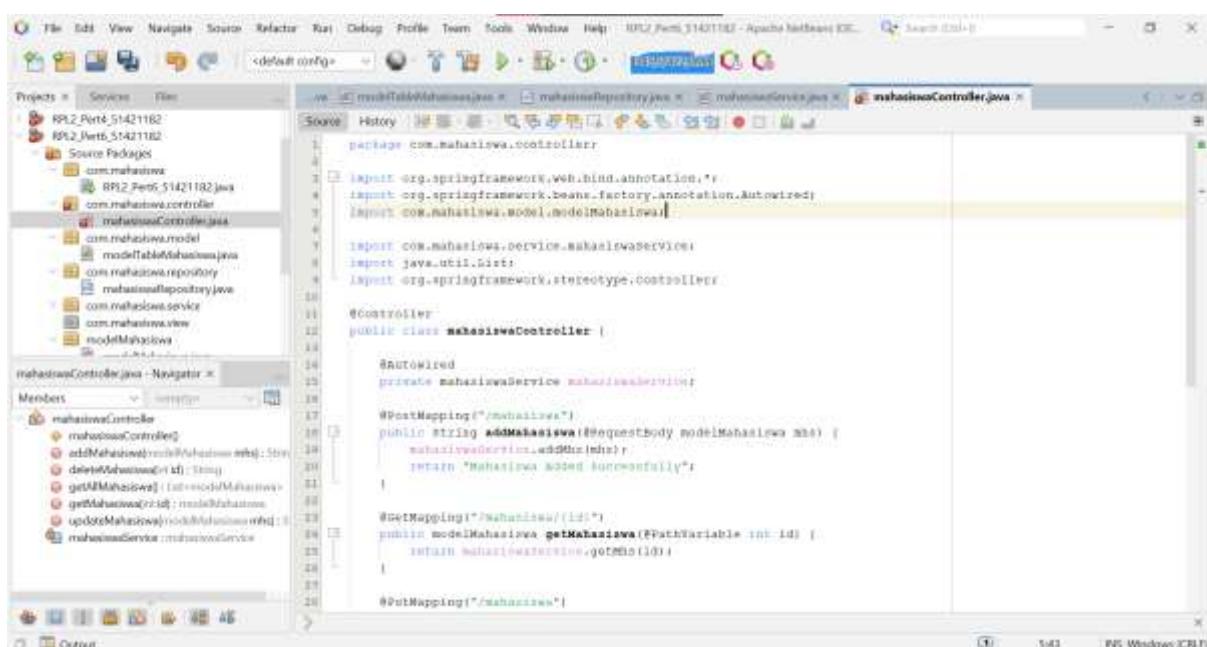
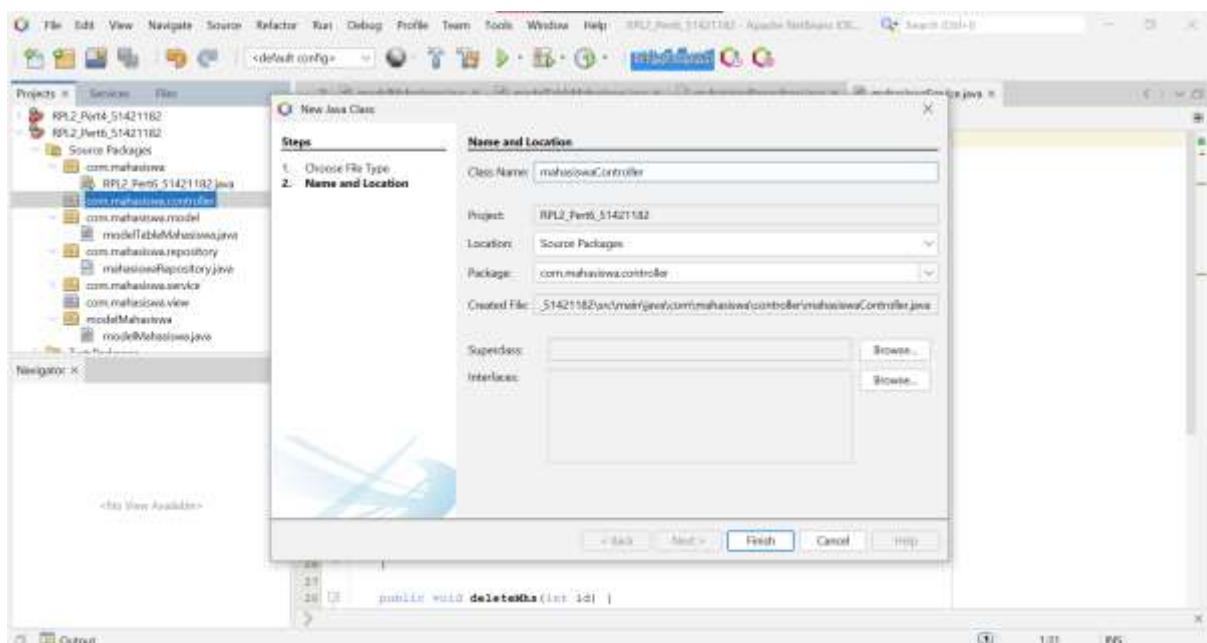
Buat java interface di com.mahasiswa.repository



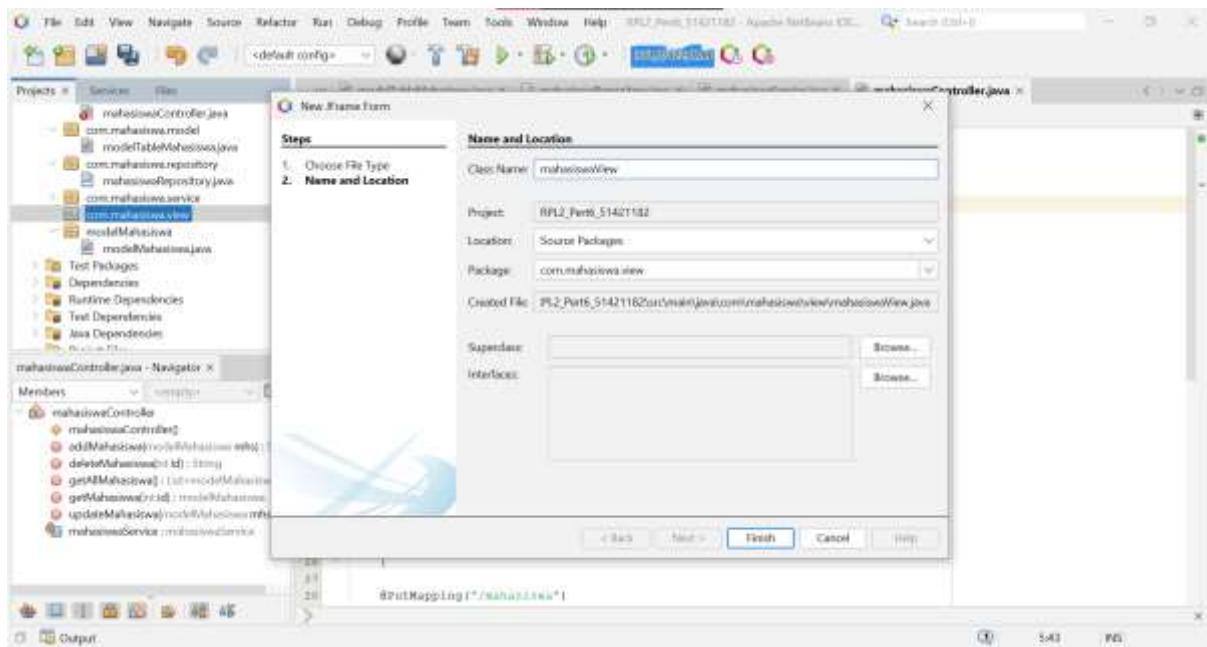
Buat java class baru di com.mahasiswa.service



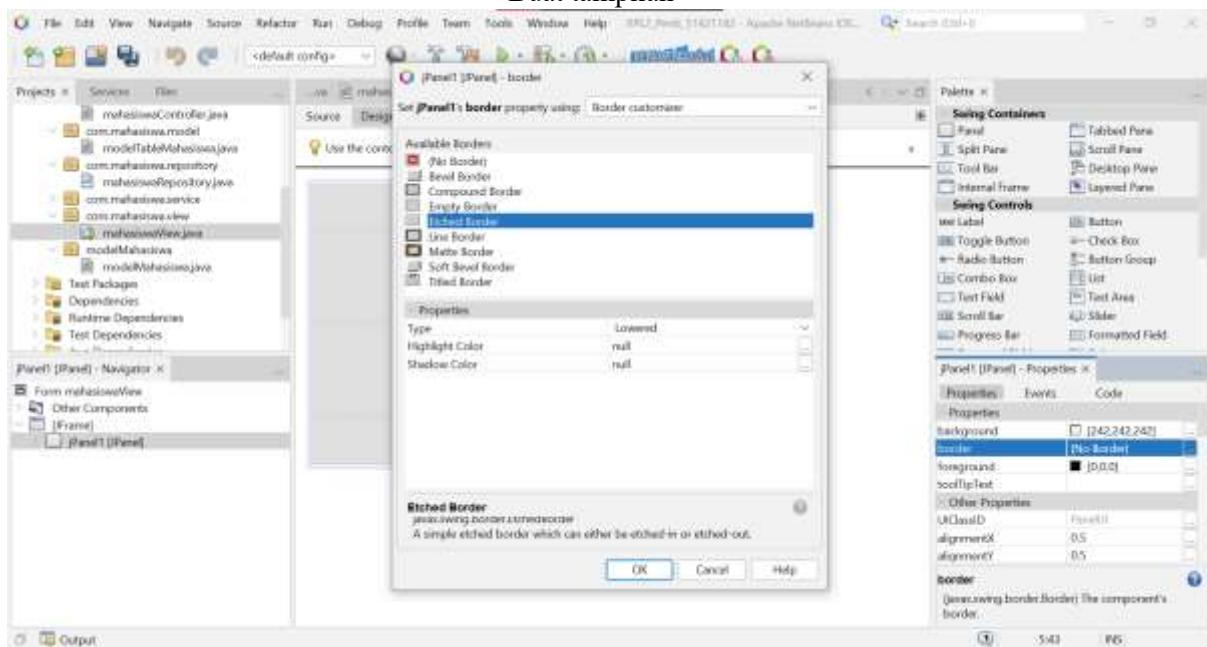
Buat java class di com.mahasiswa.controller



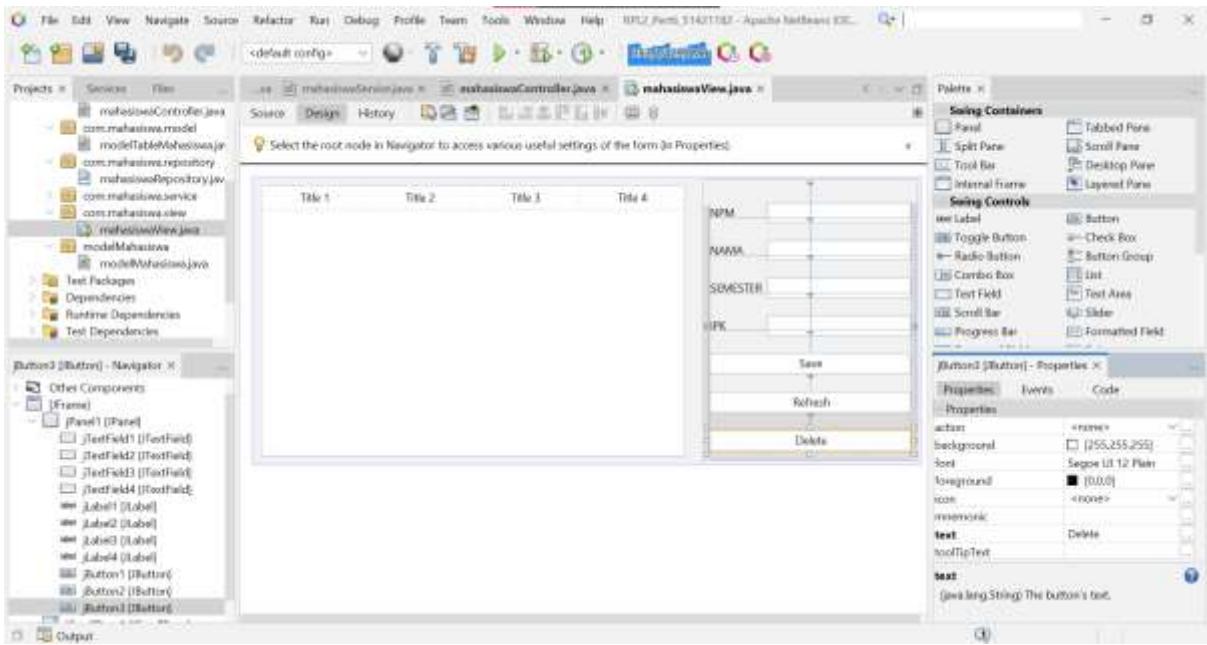
Buat jframe form pada com.mahasiswa.view



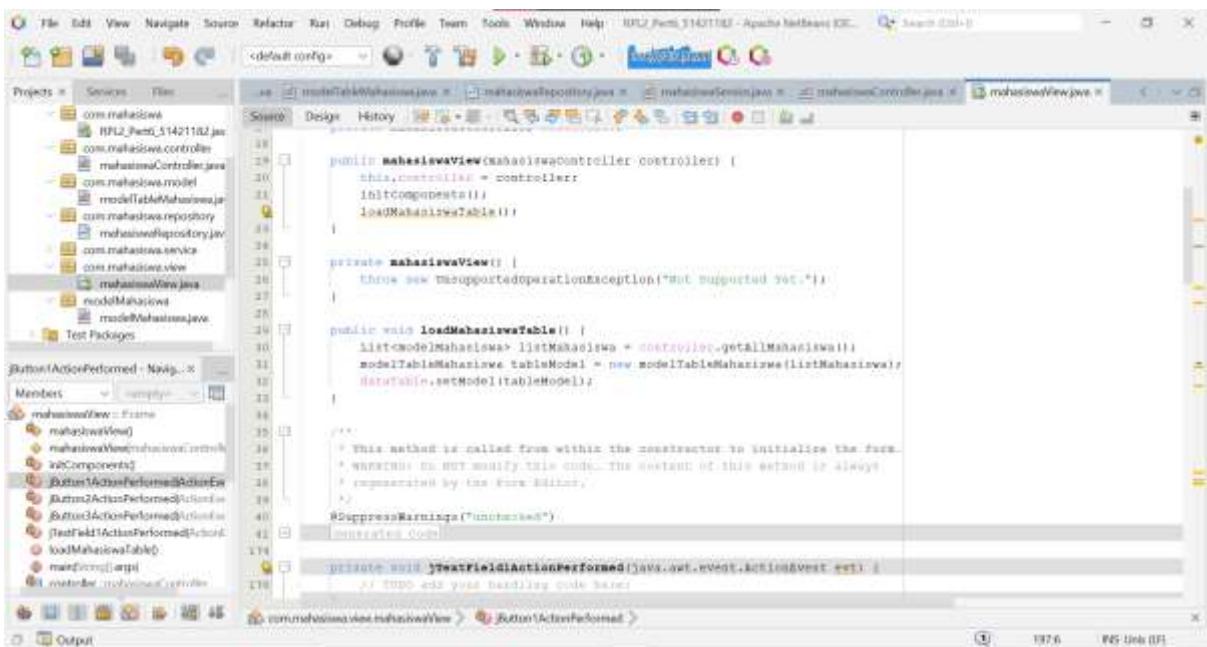
### Buat tampilan



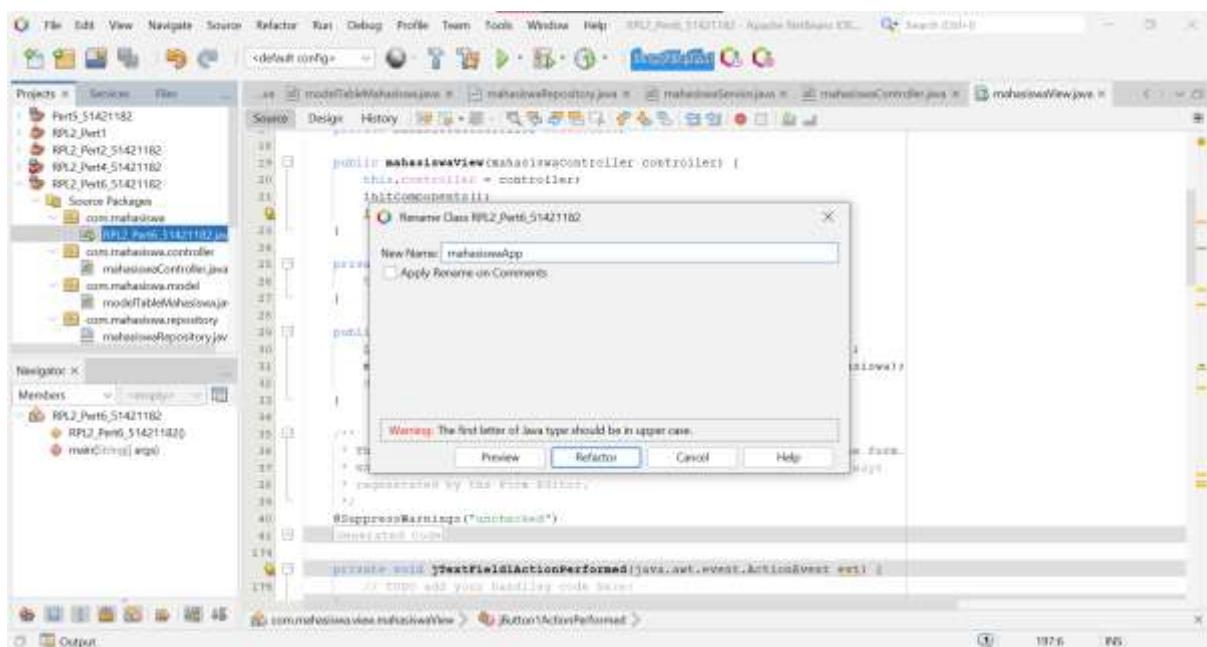
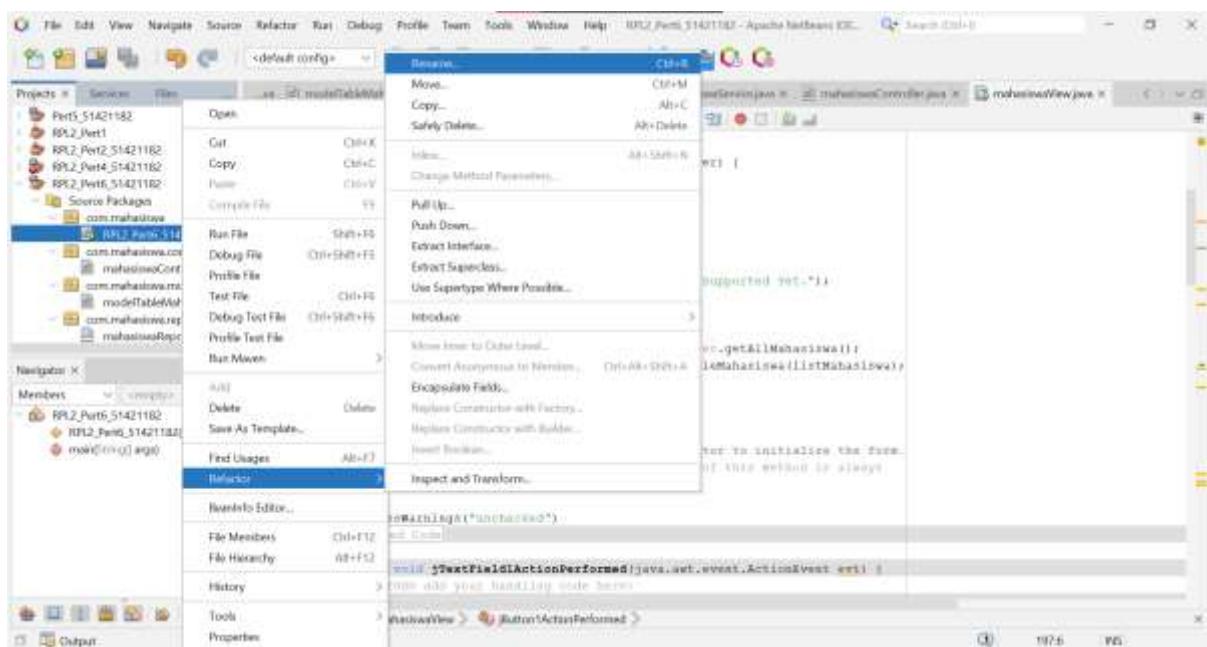
### Hasil design



## Code mahasiswaView



Lalu kembali ke package com.mahasiswa



```

package com.mahasiswa;

import com.mahasiswa.controller.mahasiswaController;
import com.mahasiswa.service.mahasiswaService;
import com.mahasiswa.view.mahasiswaView;
import org.springframework.boot.ApplicationArguments;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.context.annotation.Autowired;
import org.springframework.context.annotation.ApplicationContext;

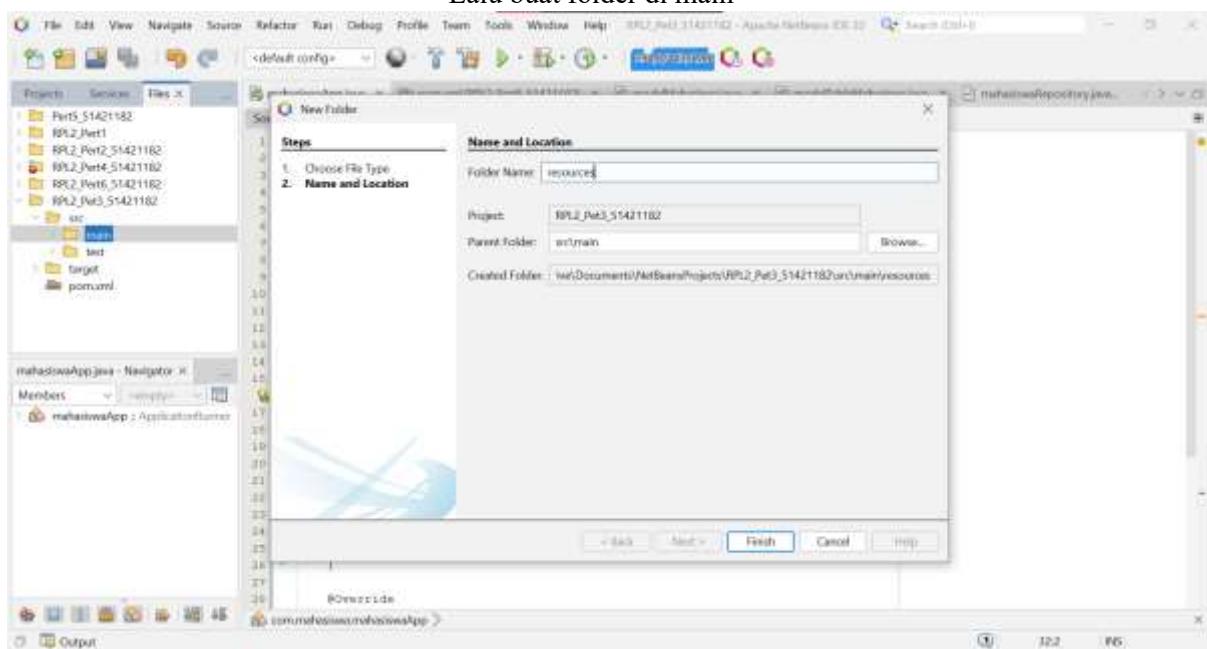
```

```

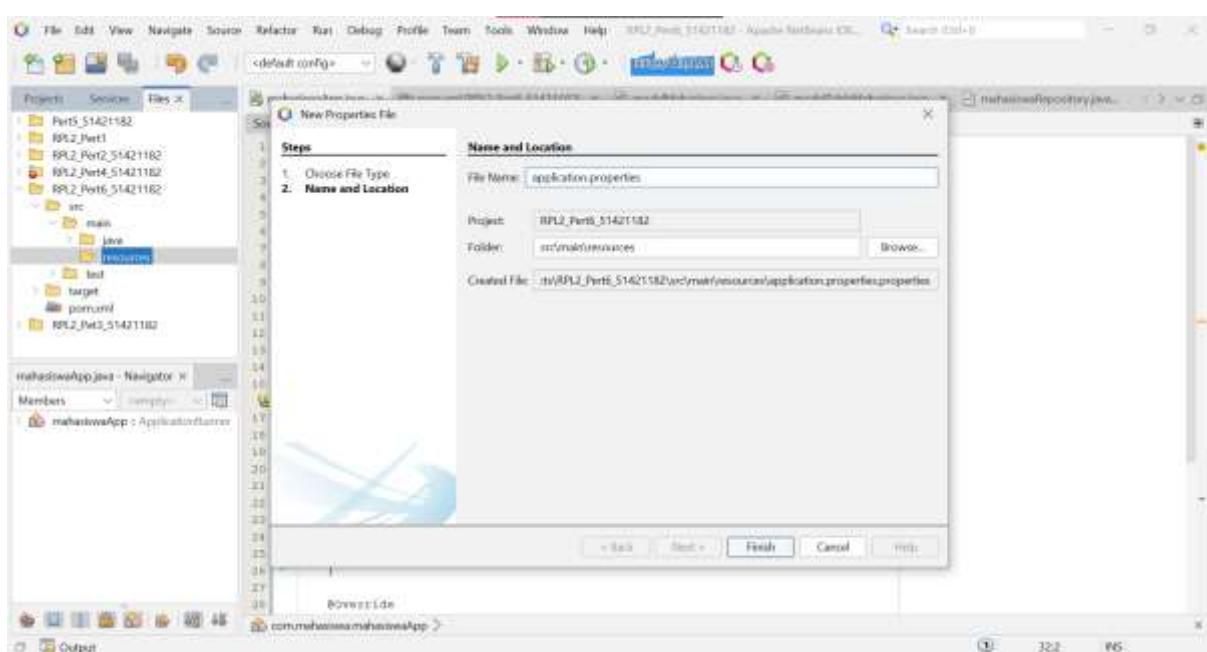
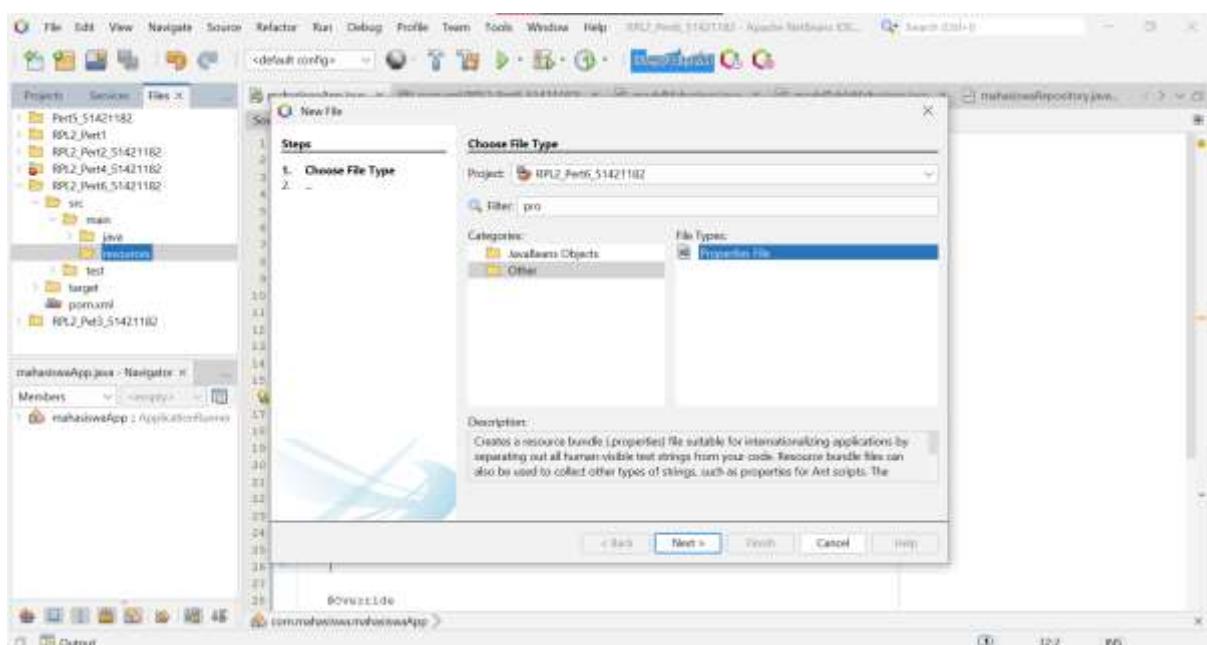
@SpringBootApplication
public class mahasiswaApp implements ApplicationRunner {
    @Autowired
    private mahasiswaService mahasiswaService;
    public static void main(String[] args) {
        System.setProperty("java.awt.headless", "false");
        ApplicationContext context = SpringApplication.run(mahasiswaApp.class, args);
        mahasiswaController controller = context.getBean(mahasiswaController.class);
        mahasiswaView mahasiswaView = new mahasiswaView(controller);
        mahasiswaView.setVisible(true);
    }
}

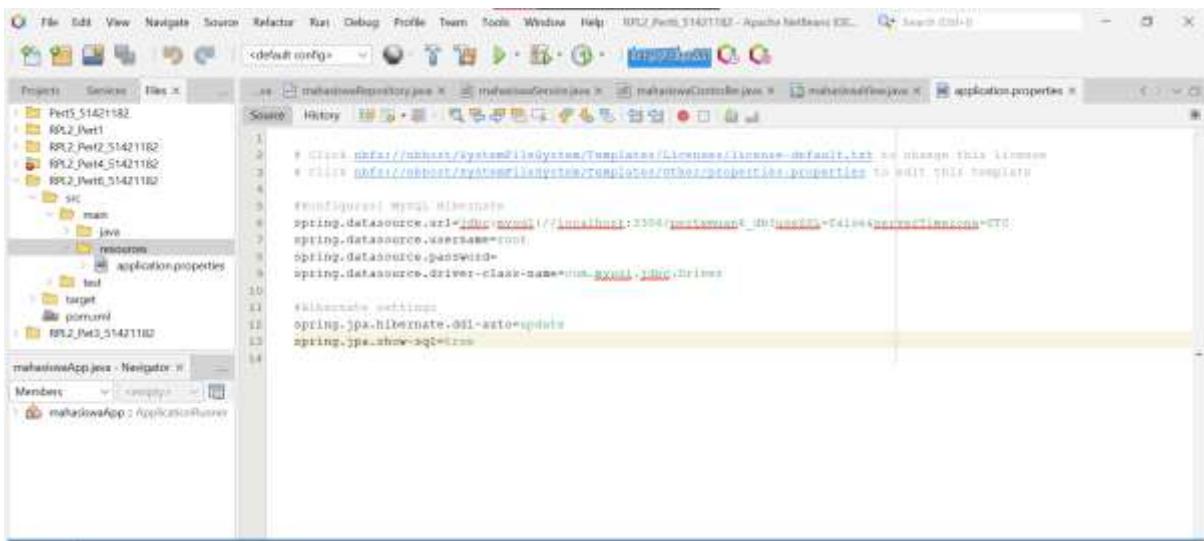
```

Lalu buat folder di main

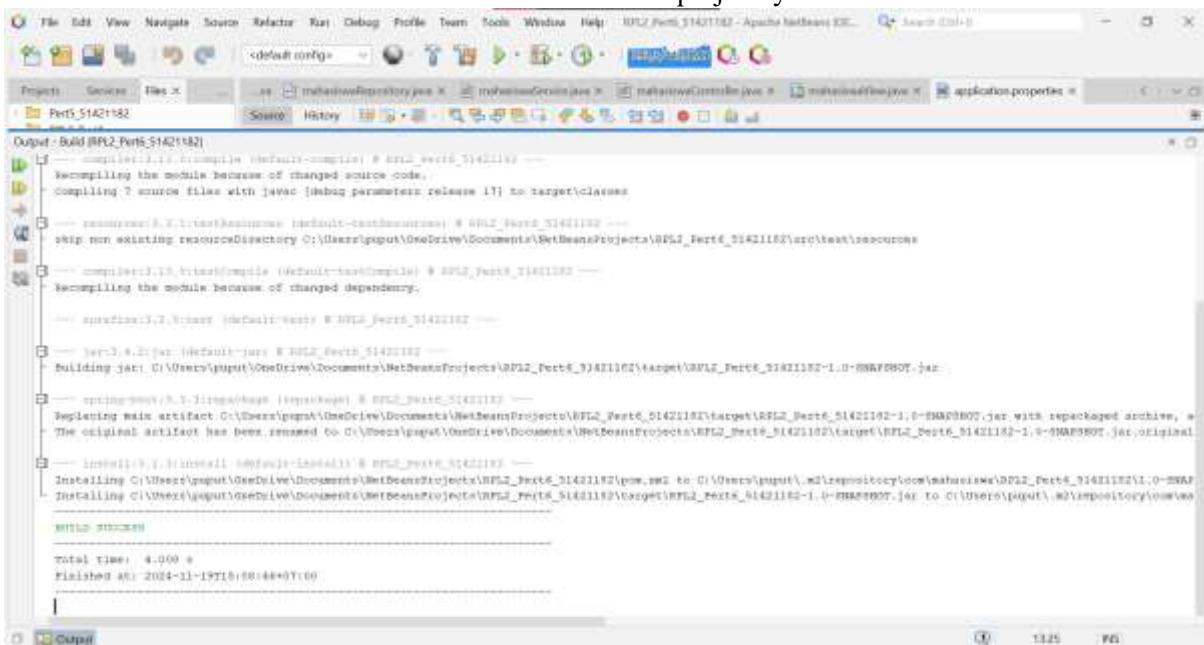


Properties file

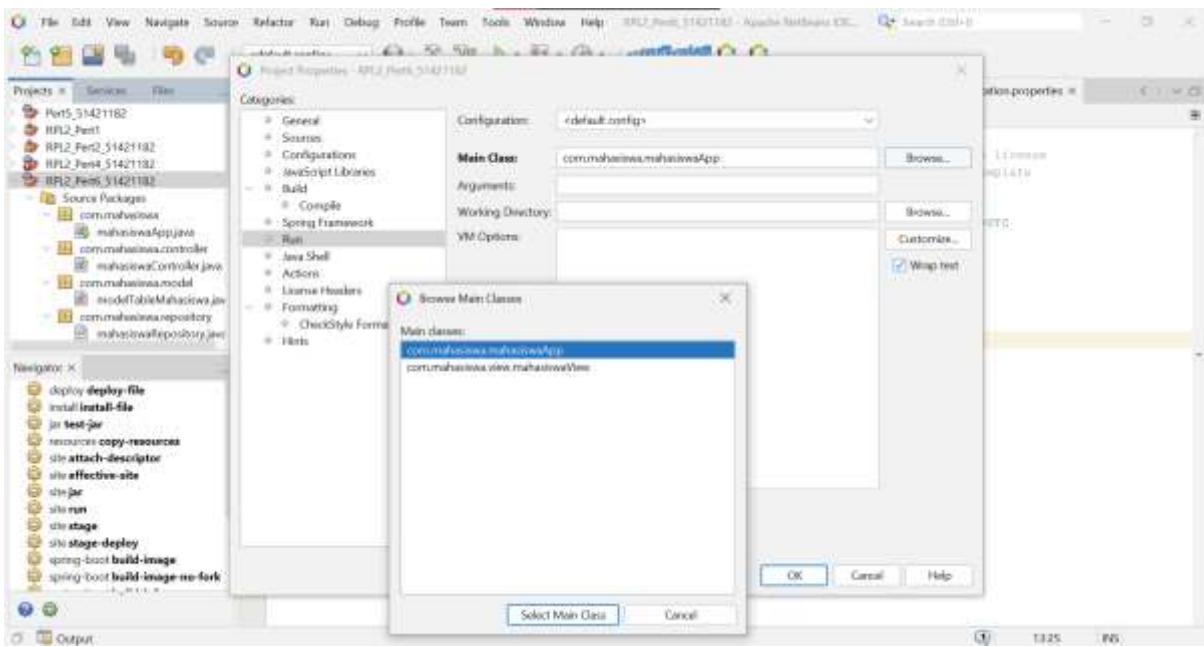




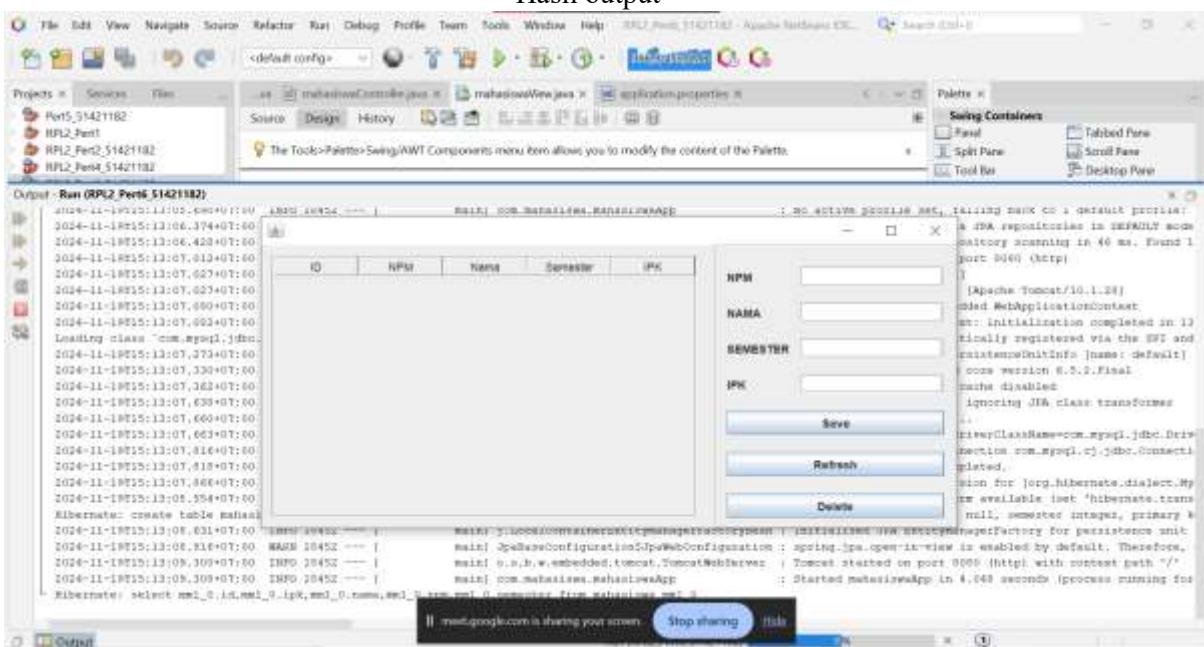
Setelah itu build kembali projectnya



Buka project properties dan pilih mahasiswaApp



### Hasil output



File Edit View Navigate Source Refactor Run Debug Profile Team Tools Windows Help XPL\_Rest\_51421182 - Apache NetBeans IDE Search (Ctrl+F)

Projects: Services File

Port5\_51421182 Port2\_Port1 Port2\_Port2\_51421182 Port2\_Port4\_51421182

Output: Run (RPL2\_Port6\_51421182):

```

2024-11-18T15:13:05,000+01:00 INFO 10452 --- [main] com.mahasiswa.MahasiswaApp : No active profiles set, falling back to a default profile.
2024-11-18T15:13:06,374+01:00
2024-11-18T15:13:07,420+01:00
2024-11-18T15:13:07,612+01:00
2024-11-18T15:13:07,623+01:00
2024-11-18T15:13:07,650+01:00
2024-11-18T15:13:07,662+01:00
2024-11-18T15:13:07,703+01:00
2024-11-18T15:13:07,300+01:00
2024-11-18T15:13:07,362+01:00
2024-11-18T15:13:07,380+01:00
2024-11-18T15:13:07,660+01:00
2024-11-18T15:13:07,663+01:00
2024-11-18T15:13:07,816+01:00
2024-11-18T15:13:07,818+01:00
2024-11-18T15:13:07,866+01:00
2024-11-18T15:13:08,554+01:00
Hibernate: create table mahasiswa
2024-11-18T15:13:08,555+01:00 INFO 10452 --- [main] org.springframework.web.context.ContextLoader : Context initialization failed due to exception: org.springframework.beans.factory.BeanCreationException: Error creating bean with name 'mahasiswaController': Bean instantiation via constructor failed; nested exception is java.lang.NoClassDefFoundError: org.hibernate.SessionFactory
2024-11-18T15:13:08,556+01:00
2024-11-18T15:13:08,816+01:00
2024-11-18T15:13:09,300+01:00
2024-11-18T15:13:09,300+01:00 INFO 10452 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port 8080 (http) with context path '/'
2024-11-18T15:13:09,300+01:00 INFO 10452 --- [main] com.mahasiswa.MahasiswaApp : Started mahasiswaApp in 4.548 seconds (process running for 3.666 ms)

```

Hibernate: select mst\_0.id,mst\_0.ipk,mst\_0.nama,mst\_0.semester from mahasiswa mst\_0

II meet.google.com is sharing your screen Stop sharing Hide

Output:

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Windows Help XPL\_Rest\_51421182 - Apache NetBeans IDE Search (Ctrl+F)

Projects: Services File

Port5\_51421182 Port2\_Port1 Port2\_Port2\_51421182 Port2\_Port4\_51421182

Output: Run (RPL2\_Port6\_51421182):

```

2024-11-18T15:13:05,000+01:00 INFO 10452 --- [main] main.o.s.c.c.o.comcast.jacomcast - : initializing Spring embedded webapplicationcontext
2024-11-18T15:13:07,631+01:00
2024-11-18T15:13:07,664+01:00
2024-11-18T15:13:07,666+01:00
2024-11-18T15:13:07,669+01:00
2024-11-18T15:13:07,816+01:00
2024-11-18T15:13:07,818+01:00
2024-11-18T15:13:07,866+01:00
2024-11-18T15:13:08,554+01:00
Hibernate: create table mahasiswa
2024-11-18T15:13:08,631+01:00
2024-11-18T15:13:08,816+01:00
2024-11-18T15:13:09,300+01:00
2024-11-18T15:13:09,300+01:00
Hibernate: insert into mahasiswa (ipk,nama,rpm,semester) values (7,7,7,7)
2024-11-18T15:13:09,300+01:00

```

Run (RPL2\_Port6\_51421182)

