SE411, Spring 2024-2025

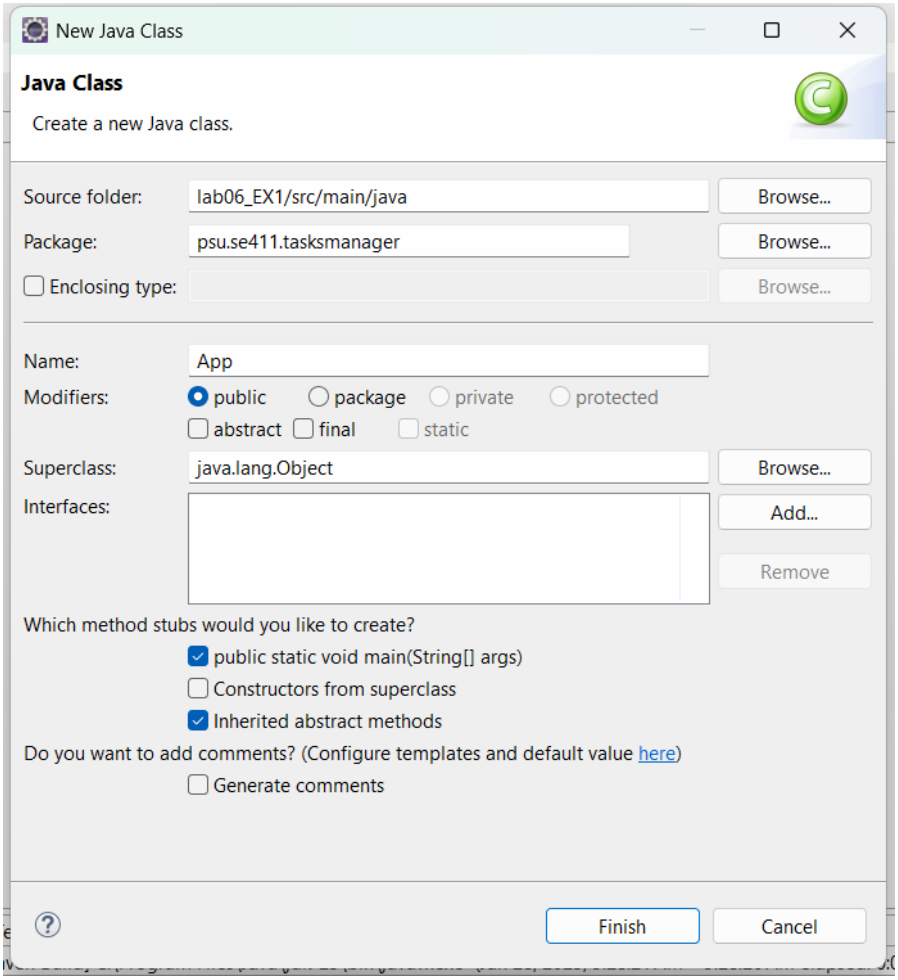
LAB 06: Maven intro

Ex 1: Maven Project Dependencies

For this exercise, you will prepare the Maven project for your course main project (you can work in groups, same group as in the course main project).

1- Create a maven project with the name of your course main project (see course main project description).
2- In src/main/java folder, create a Class with a main method, make sure you name your project using a namespace that reflects your team/company, for example: psu.se411.myprojectname

Example:



3- Import JavaFX into your maven project by adding a dependency and a plugin:

<table>
<tr>
<td>Declaration of a dependency to JavaFX in pom.xml</td>
<td>a. Add a dependencies section inside the project element

<project>
…….

<dependencies>

</dependencies>

</project>

b. Add the JavaFx dependency inside the dependencies element:

<dependency>
<dependencies>
<artifactId>javafx-controls</artifactId>
<version>23</version>
</dependency></td>
</tr>
<tr>
<td>Declaration of a JavaFX plugin in pom.xml</td>
<td>a. Add a build section inside the project section.
<project>
…….
<dependencies>

</dependencies>
<build>

</build>
</project>

b. Add a plugins section inside the build section:
<build>
<plugins>

</plugins>
</build>

c. Add the JavaFX plugin that has the “run” goal. Make sure you change the package name and the main class name accordingly.
<u><plugin></u></td>
</tr>
</table>

	<groupId>org.openjfx</groupId> <artifactId>javafx-maven-plugin</artifactId> <version>0.0.8</version> <configuration> <mainClass>packageName.MainClass</mainClass> </configuration> </plugin>

3. Test your project by creating a very basic JavaFX application in your main class: Make your Main class inherit from the JavaFx Application class:

```
public class MainClass extends Application ..
```

Then implement the basic methods of a JavaFX Application: For Example:

```
public static void main(String[] args) {
  launch();
}

@Override
public void start(Stage primaryStage) {
  try {
    primaryStage.setTitle("My Project");

    primaryStage.show();

  } catch (Exception e) {
    e.printStackTrace();
  }
}
```

4. Finally, execute the clean and javafx:run goals using Maven. The window should show up.

EX 2: Maven Site Plugin

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Continue working of the same project.

You will add basic information to your project and generate a website as documentation:

1. In pom.xml add the following elements:

a. Add information about your project	<name>MyProject Name</name> <description>This project is…… </description> <url>https://yourProjectUrl.dom</url>
b. Add information about the license of the product	<licenses> <license> <name>Some License</name> <comments>This is an open-source project …. </comments> </license> </licenses>
c. Add information about your company (here it is a team)	<organization> <name>SE411-Tech-Company</name> <url>https://mycompanyUrl.dom</url> </organization>
d. Add information about the developers (your team members)	<developers> <developer> <name>Salah Ahmed</name> <email>salah.ahmed@domain.com</email> </developer> </developers>

2. Generate the documentation website by running the basic site plugin: clean site
3. Inside the target/site folder, you should fins an index.html page. Open it by right-clicking -> open with -> system editor.

END