TA/GA Schedule Generator
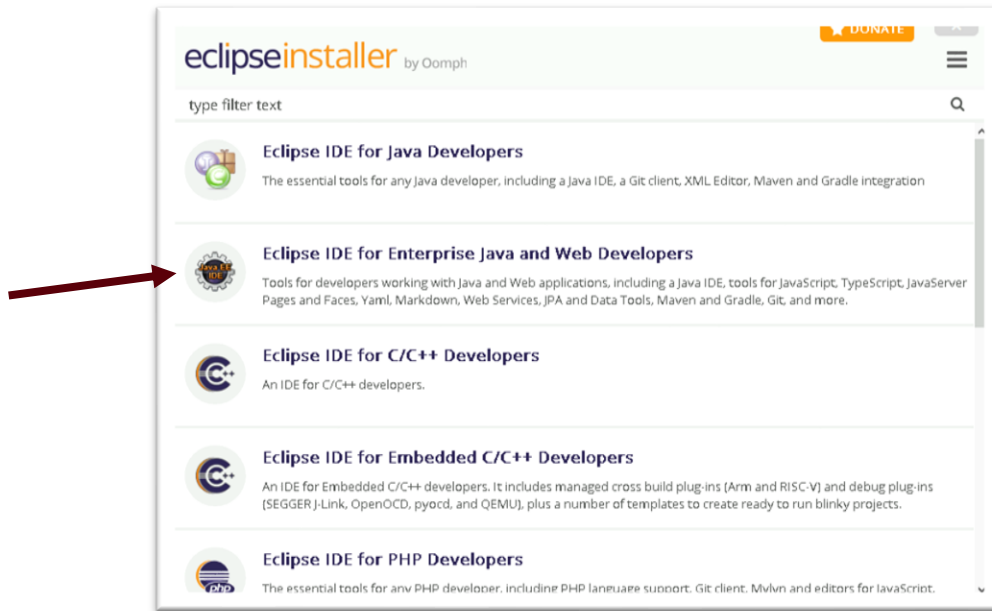
How To Compile Guide

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1.1 Required Software

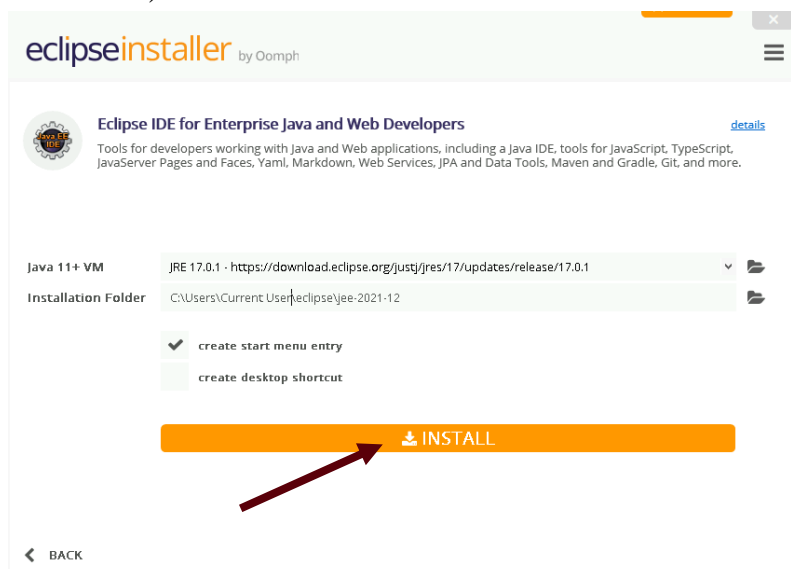To compile the TA/GA Schedule Generator in a development setting, the following Software is required:

1. Java Development Kit – a development environment for building applications and components using the Java programming language
2. Eclipse – the required integrated development environment (IDE) for development
3. Lombok – a Java library tool that is used to minimize the boilerplate code and save time during development
4. WiX Toolset – a free software toolset that assists in building Windows Installer packages (.msi) from XML.

1.2 Required IDE - Eclipse

1. After downloading the Eclipse Installer, the 'Eclipse IDE for Enterprise Java and Web Developers' will need to be selected.
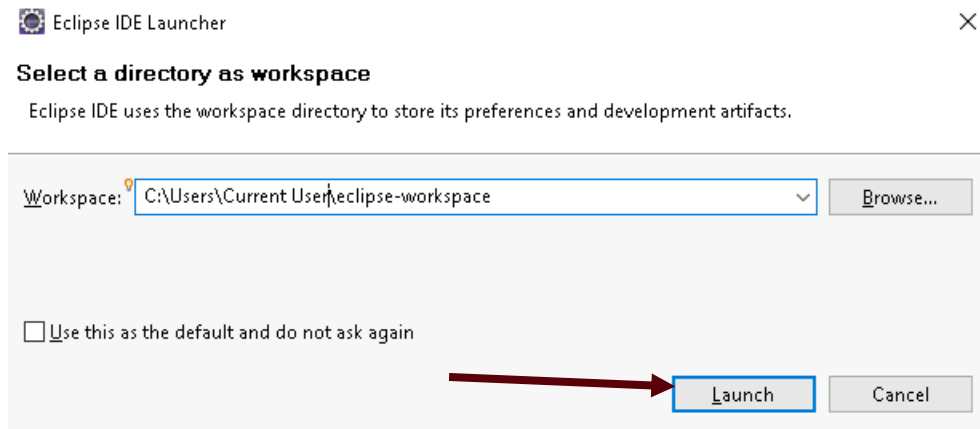

2. The IDE will then need to be installed by selecting 'Install' on the next screen (The JRE should correspond to the one installed earlier and not an OpenJDK version).
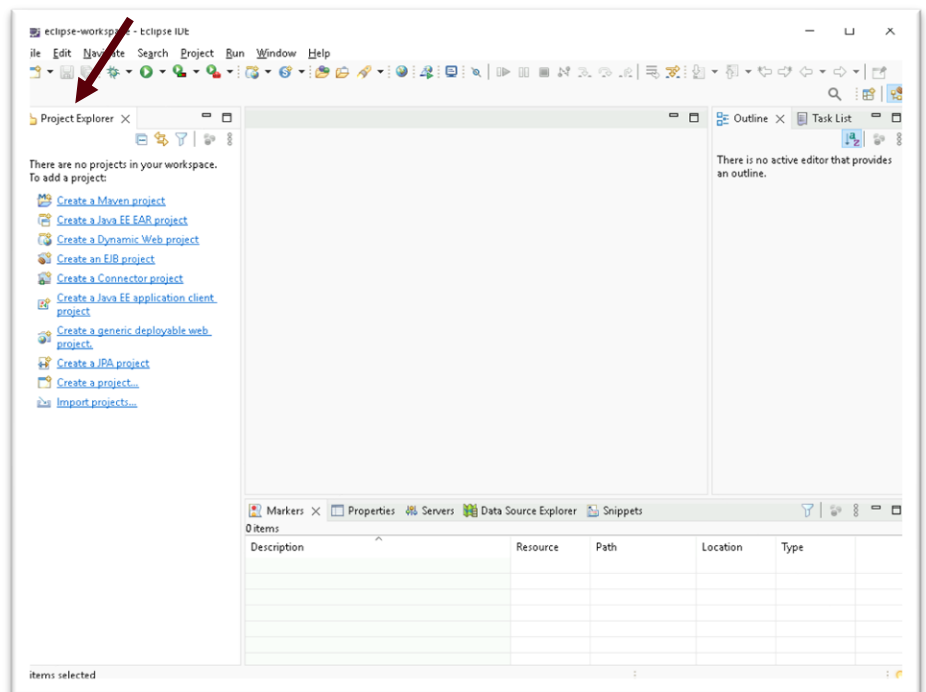
1.2 Required IDE – Eclipse cont.

3. After installing and launching Eclipse, a directory will need to be selected as a workplace. However, Eclipse should have a 'eclipse-workspace' directory prepopulated so that only 'Launch' needs to be selected.
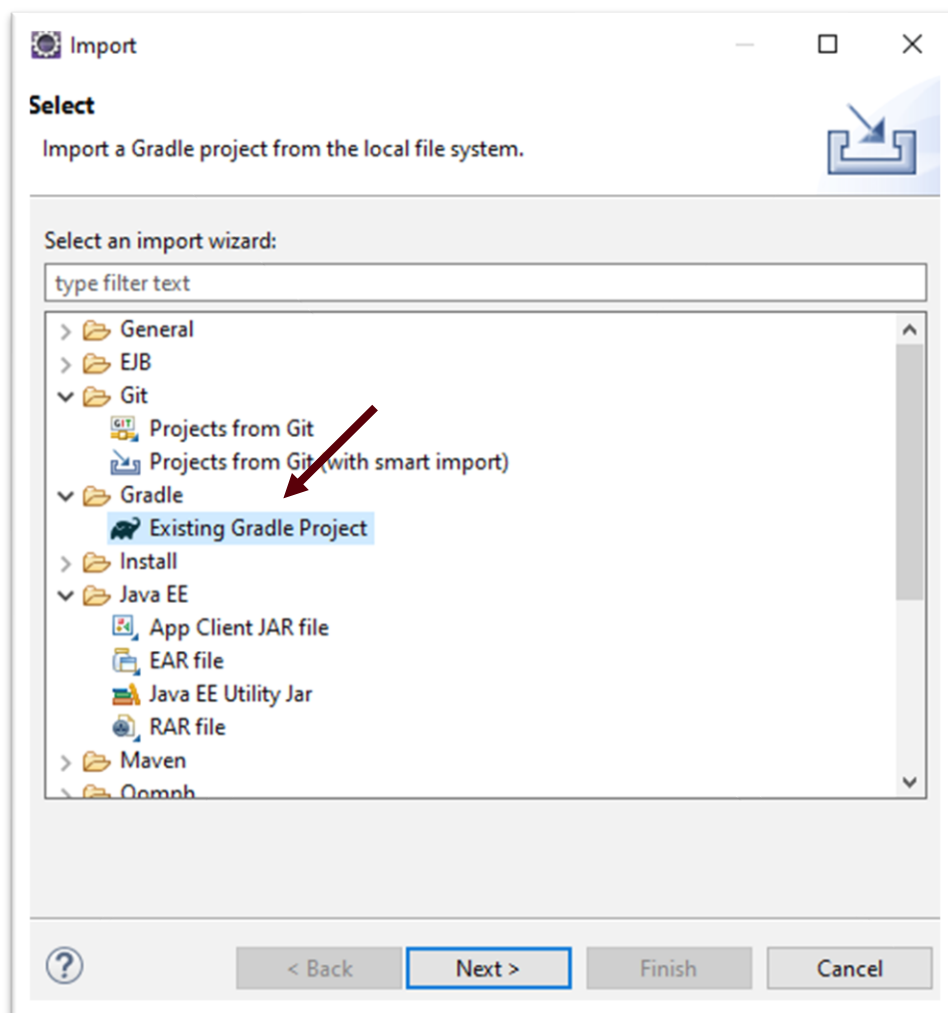

4. The Eclipse workspace should launch with the Java EE perspective as its default with the Project Explorer pane on the left-hand side.
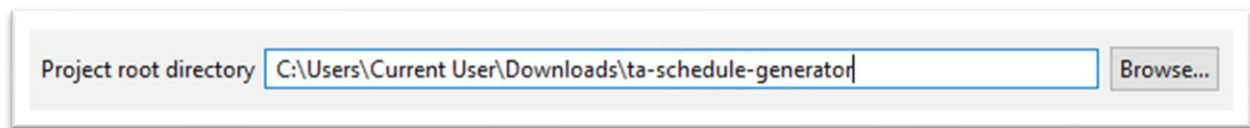
1.3 Import Project As Gradle Project Into Eclipse

1. To begin importing the project into Eclipse select 'File' in the top left and then select 'Import…" which will bring up a menu with different import wizards to be selected from. However, the 'Gradle' folder is the needed one and after selecting the folder and selecting the option within of 'Existing Gradle Project' the project will begin importing as a Gradle project.
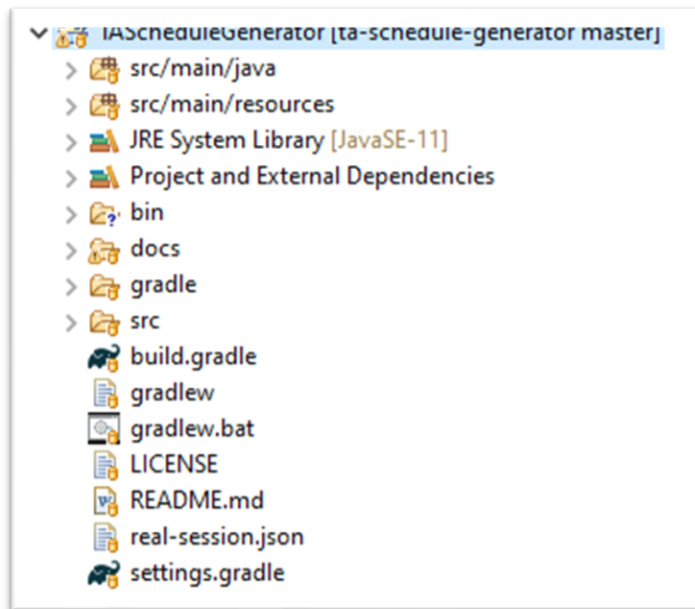
1.3 Import Project As Gradle Project Into Eclipse cont.

2. The 'Import Gradle Project' menu should be opened now and after selecting 'Next' the Project's root directory will need to be specified. The location will typically be in a location such as, "...\Users\Current User\Downloads\ta-schedule-generator" and can be located using the 'Browse…' button beside the root directory input field.

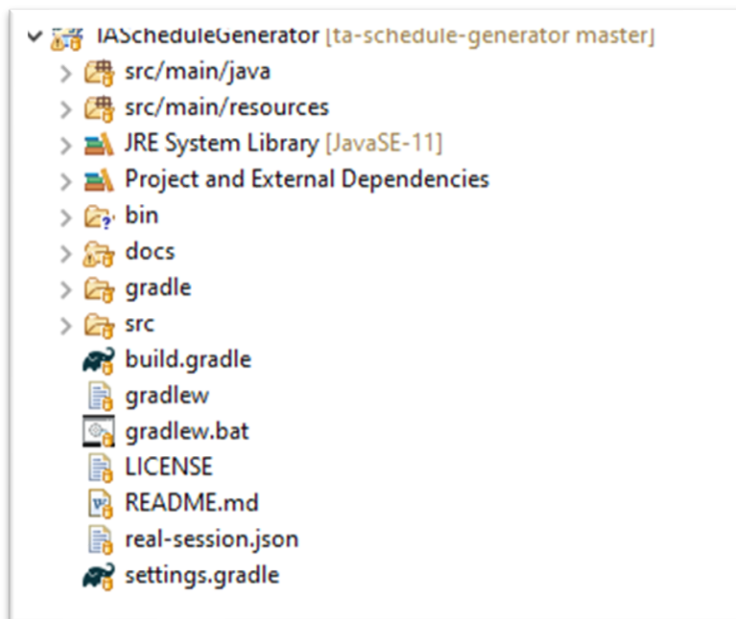Project root directory | C:\Users\Current User\Downloads\ta-schedule-generator | Browse...

3. After specifying Project root directory and selecting 'Finish' the import wizard will select the specified Gradle version and automatically import the project into the current workspace and the project should be displayed within the 'Project Explorer' view.
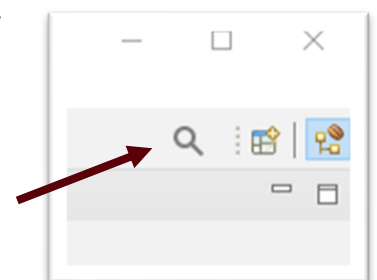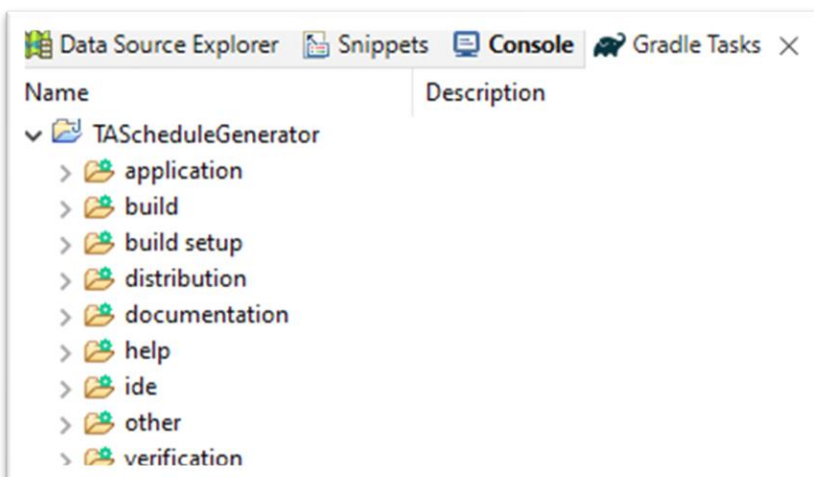
1.4 Running the TA/GA Schedule Generator

1. After Eclipse finishes importing the project as a Gradle project, it should appear both in the 'Project Explorer' view on the right-hand side as well as in a 'Gradle Tasks' view that will be added next.
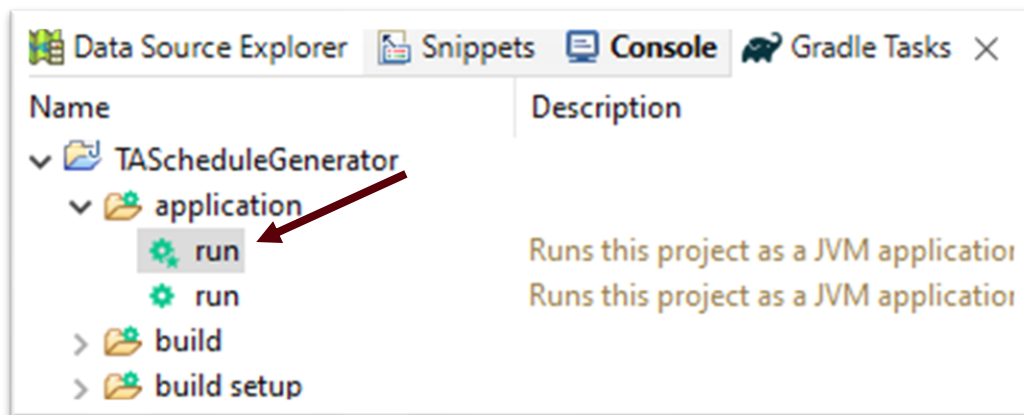

2. To add the 'Gradle Tasks' view, use the Search icon located in the top right and search for 'Gradle Tasks' and selecting it should add the view to the bottom of the IDE alongside the 'Console' and other views.
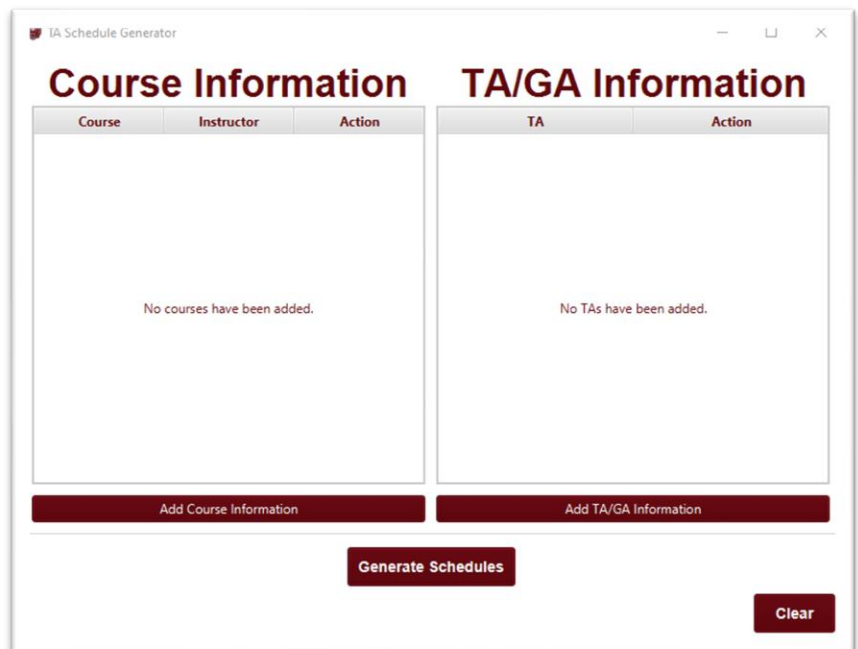
1.4 Running the TA/GA Schedule Generator cont.

3. The 'Gradle Tasks' view will have multiple folders within the project such as 'application, build, build setup, etc.' with the first option 'application' being the method to run the project. After selecting the first folder, the 'run' option should appear beneath it and double clicking this option will begin running the project.

4. The project may take a few moments to load for the first time and in case of any errors checking the 'Console' may help to resolve any that arise. However, after installing all required software and using Eclipse as the recommended IDE the project should be running successfully.

1.5 Creating TA/GA Schedule Generator Installer

1. To create the Installer for the TA/GA Schedule Generator application navigate to the 'Grade Tasks' view and locate the 'build' folder within the project and the 'jpackage' option within the 'build' folder.

1.5 Creating TA/GA Schedule Generator Installer cont.

2. After selecting 'jpackage' Eclipse will begin creating an installable image using jpackage and output the Windows Installer (.msi file) into the same folder of the project which is "…\ta-schedule-generator\build\jpackage".

3. The Installer will be able to install the TA/GA Schedule Generator onto any Windows machine and will also install all required dependencies for the application automatically through the Installer also known as 'TA Schedule Generator Setup Wizard'.