Gradle

EECS 2311 - Software Development Project

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Tuesday, February 9, 2021

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Gradle

- Gradle is a modern build automation tool that a software project can use to automate tasks related to deployment
- Gradle comes installed with the latest version of Eclipse
  - If you don’t have it, you can install it through the Eclipse Marketplace (search for Buildship)

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Gradle in Eclipse

- In the Eclipse Package Explorer, click on the little downward triangle, select Filters, and uncheck the Gradle build folder, and Gradle sub projects so that they are visible
- If you cannot see the Gradle Tasks window: Window → Show View → Other → Gradle → Gradle Tasks

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Adding Gradle to your project

- You can add Gradle to any existing Eclipse project
  - Right-click on the project name → Configure → Add Gradle Nature
  - Then open the Gradle Tasks window
    - Window → Show View → Other → Gradle → Gradle Tasks
  - Under build setup, right-click on init → Run Gradle Tasks
  - If you now right-click on the project name → Gradle → Refresh Gradle Project, you should be able to see the **`build.gradle`** file in Package Explorer
  - The **`build.gradle`** file describes all the tasks necessary to build and deploy your system

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Gradle code

- Gradle uses a language called Groovy to express the necessary tasks
- We provide a sample **`build.gradle`** file that you can use as a starting point for your project
  - See link in course website
- For most builds for this course, this is all you will need
  - Copy it and customize the main class name

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Building with Gradle in Eclipse

- In the Gradle Tasks window, expand your project, expand the **`build`** task group, and double-click on **`build`**
- This runs several tasks, such as
  - Resolving dependencies
  - Compiling all code
  - Running your tests

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Building with Gradle in Eclipse

- Results are shown in the Gradle Executions window
- If something goes wrong, detailed information can be found in the Console window

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