

Tuesday - Week 2

Working with IDEs



Integrated Development Environment

- A program that automates many different parts of programming
- Built in compiler
- Debugging live code



Some advantages of an IDE

- Code Parsing:
 - Syntax Highlighting
 - Error Identification
 - Debugging (Covered during usage)
- Refactoring:
 - Renaming/Searching
 - Code Management



Disadvantages over a text editor

- Used to be very restrictive (one language only)
- High memory usage
- Configuration overhead of new projects
- Customisability (Some other IDEs)

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IntelliJ, Eclipse, & Netbeans

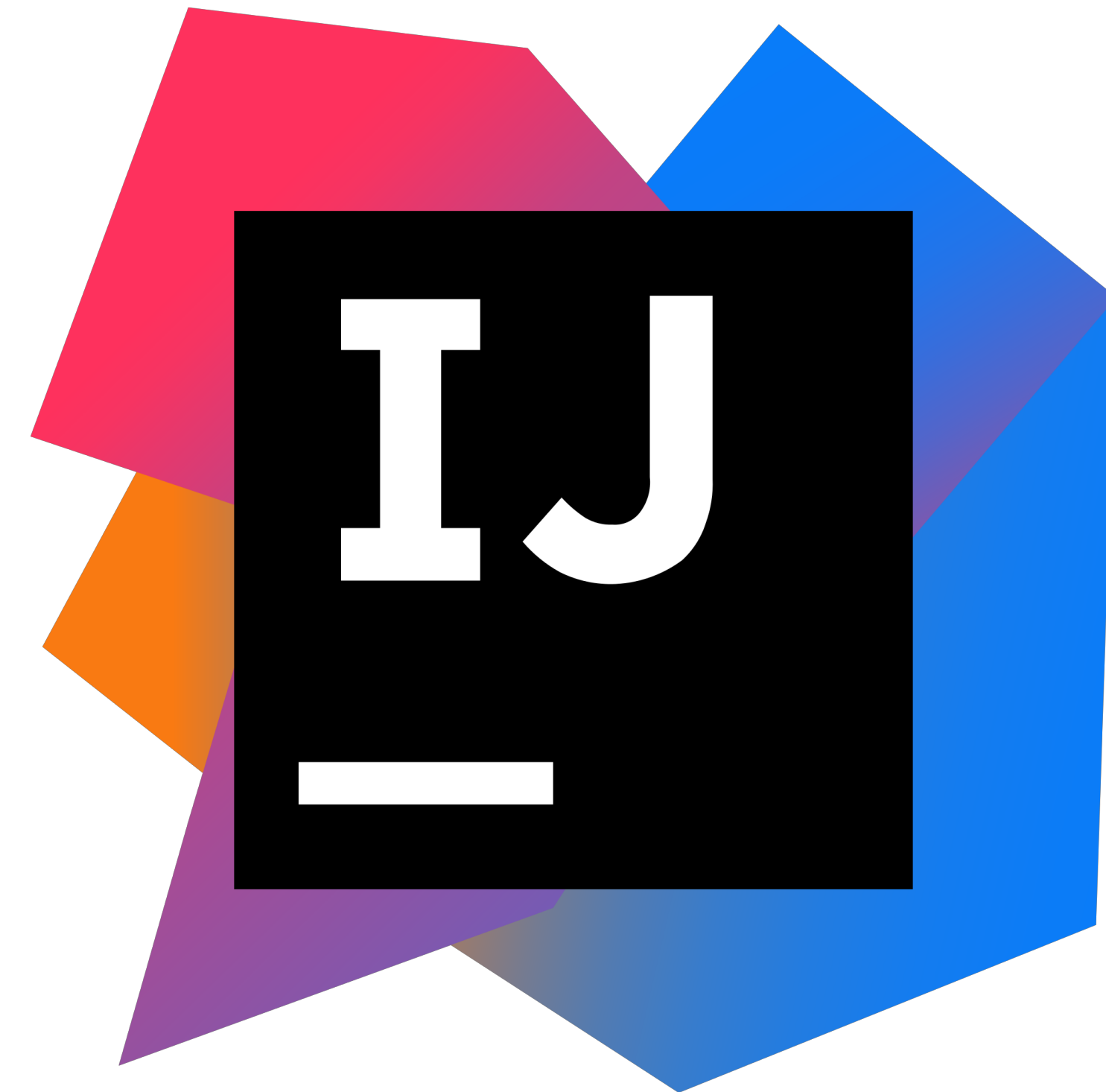
Common Java IDEs

- The big three:
 - IntelliJ
 - Eclipse
 - NetBeans
- All three support the common build systems:
Ant / Gradle / Maven



IntelliJ

- Feature Rich
- Free Community Edition
- Very similar to Visual Studio



Eclipse & NetBeans

- Alternative Options
- You are free to use these, but I won't be able to help you much



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Installing IntelliJ CE



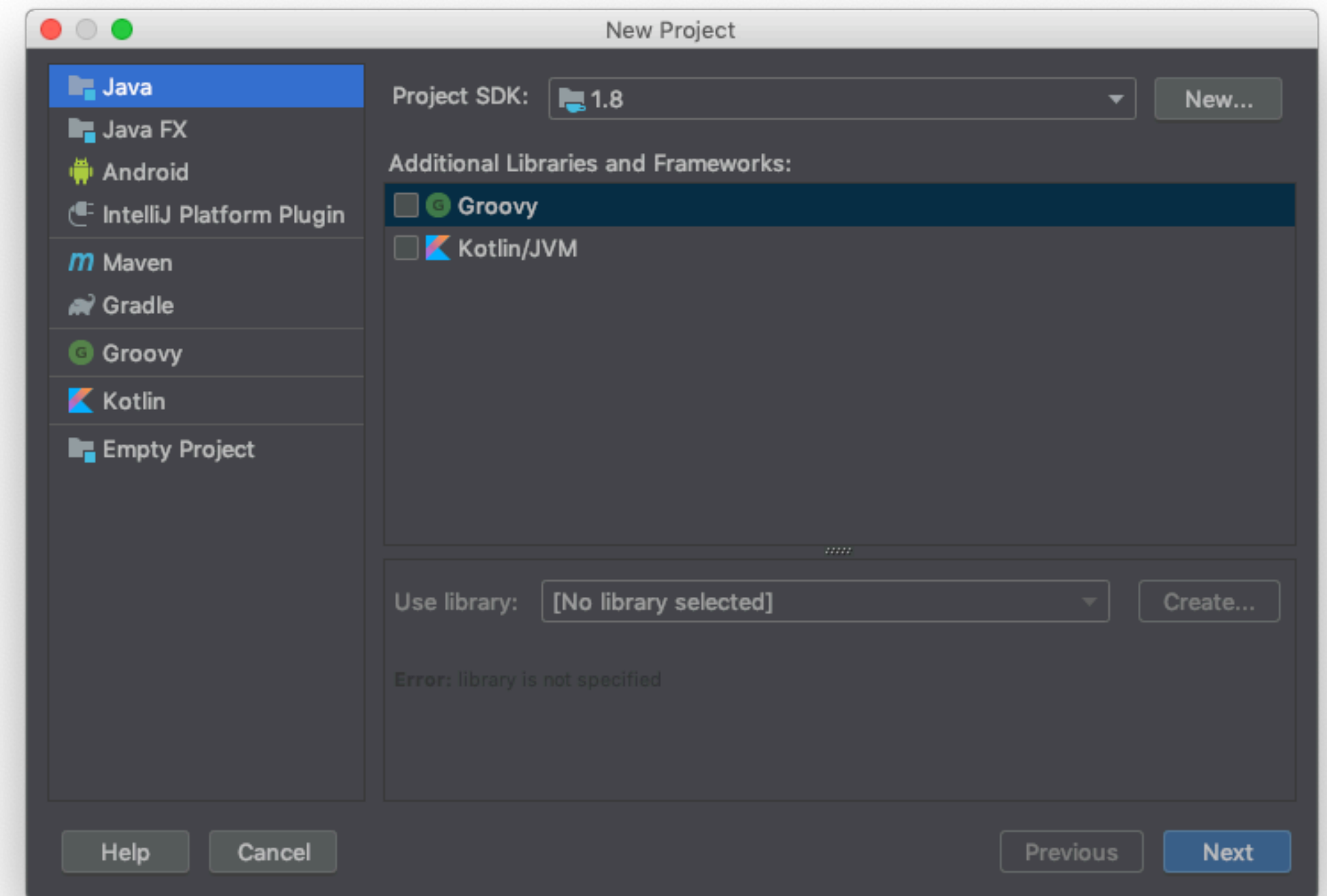
Completed previously in Class

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Using IntelliJ

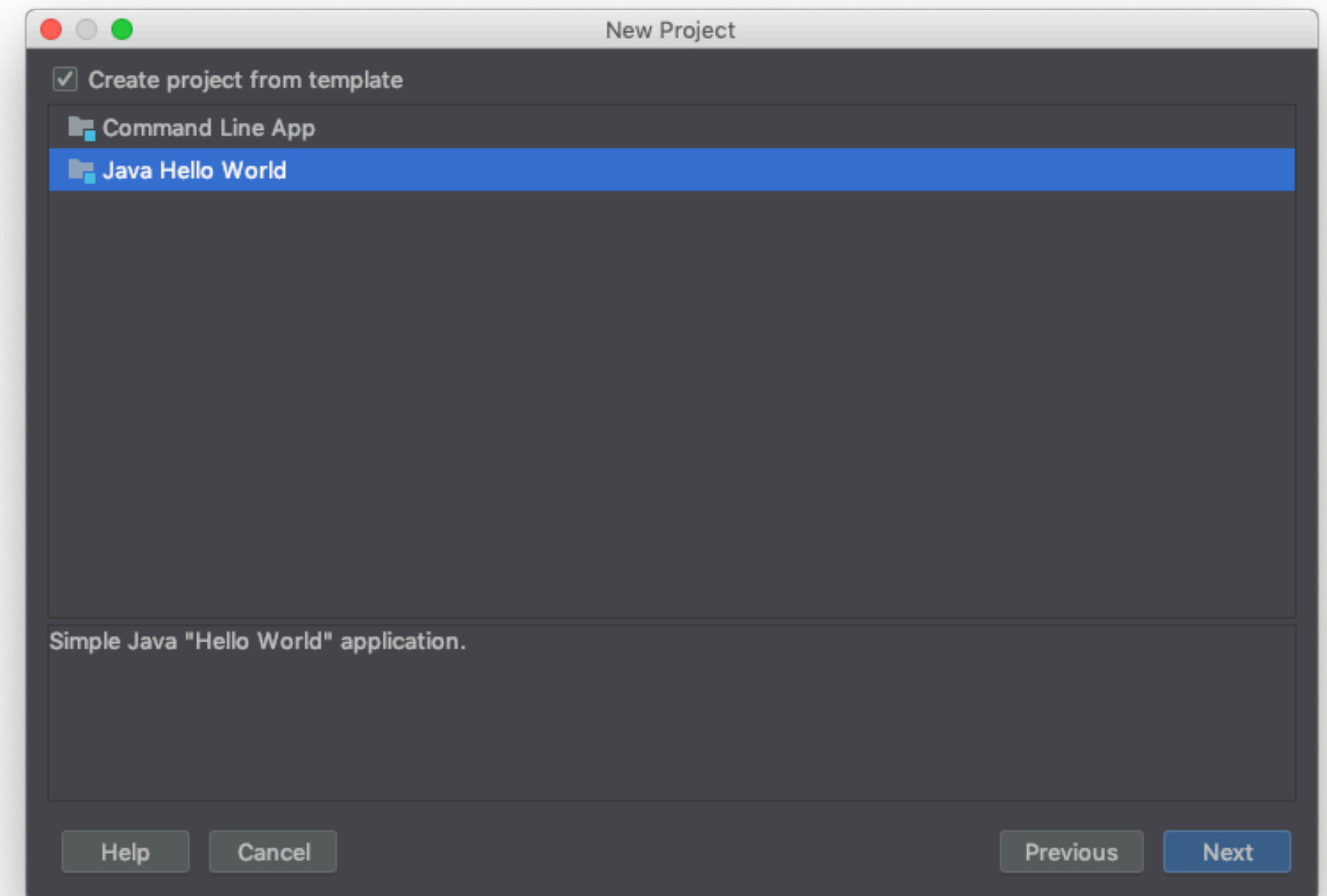
Creating a new Project

- On the left: Java
- Top:
Project SDK: 1.8
- No Additional Libraries



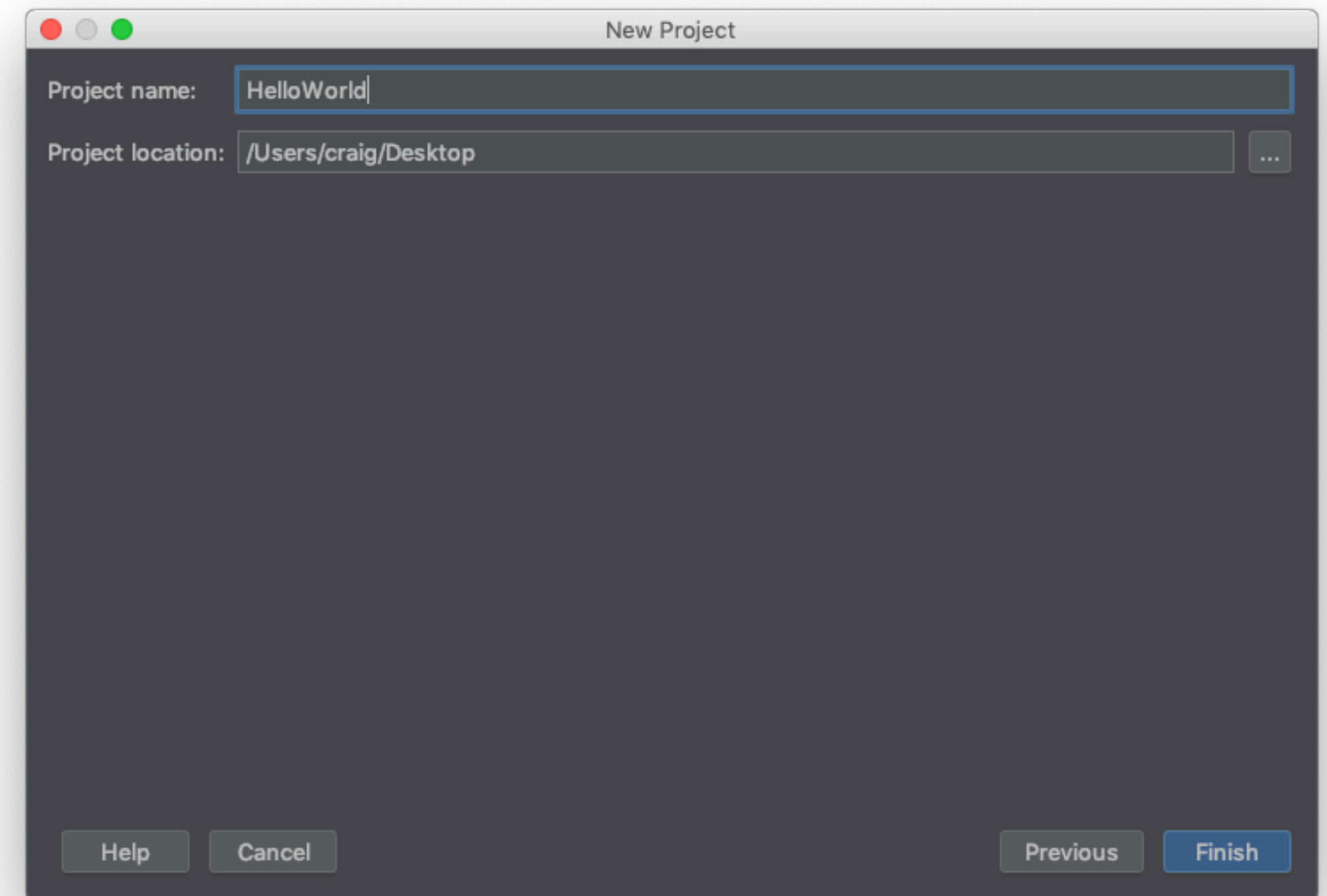
Project Templates

- Select an appropriate template
- For this demonstration I will use “Java Hello World”



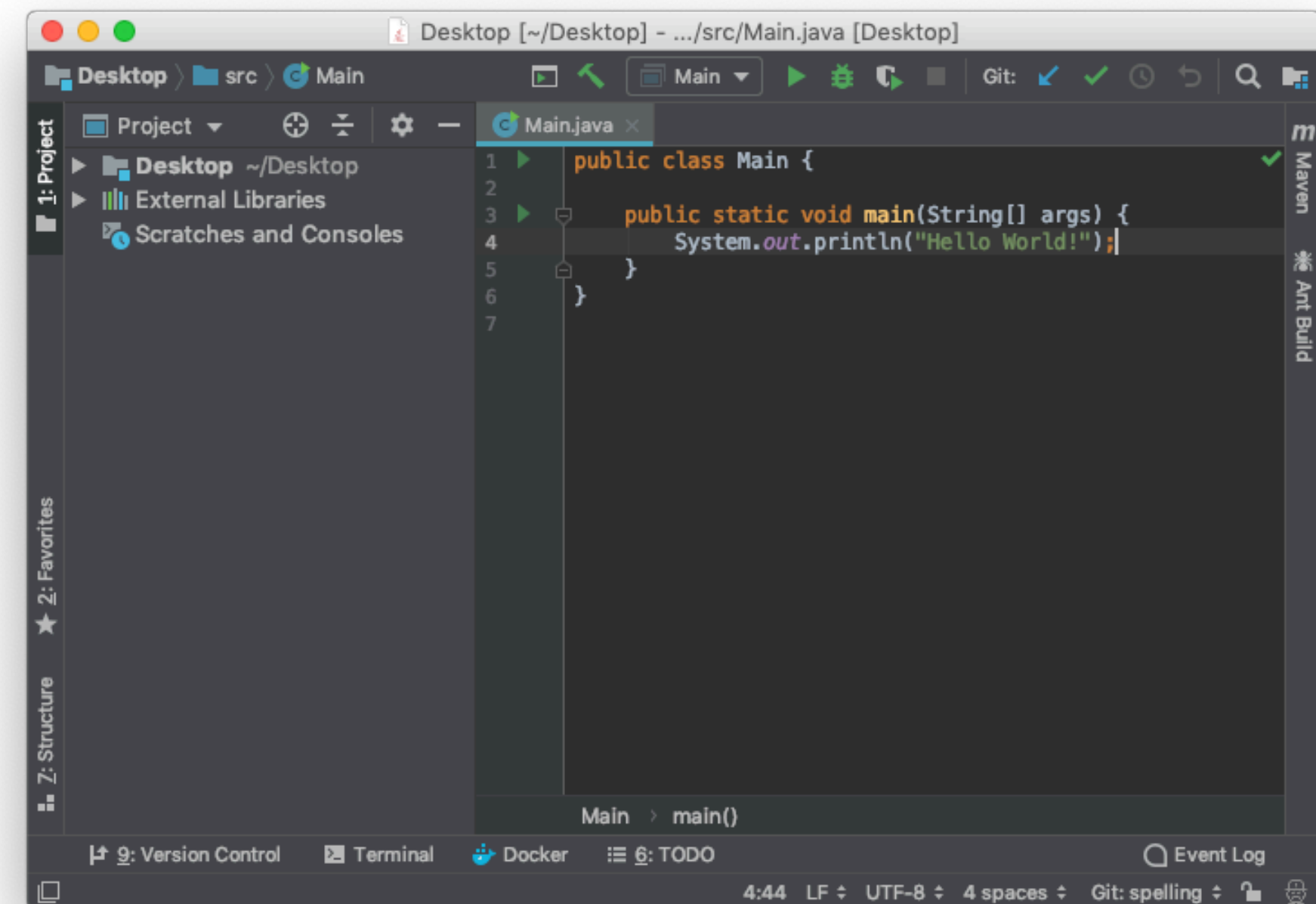
Project Name

- Give it an appropriate name
- And put it somewhere sensible



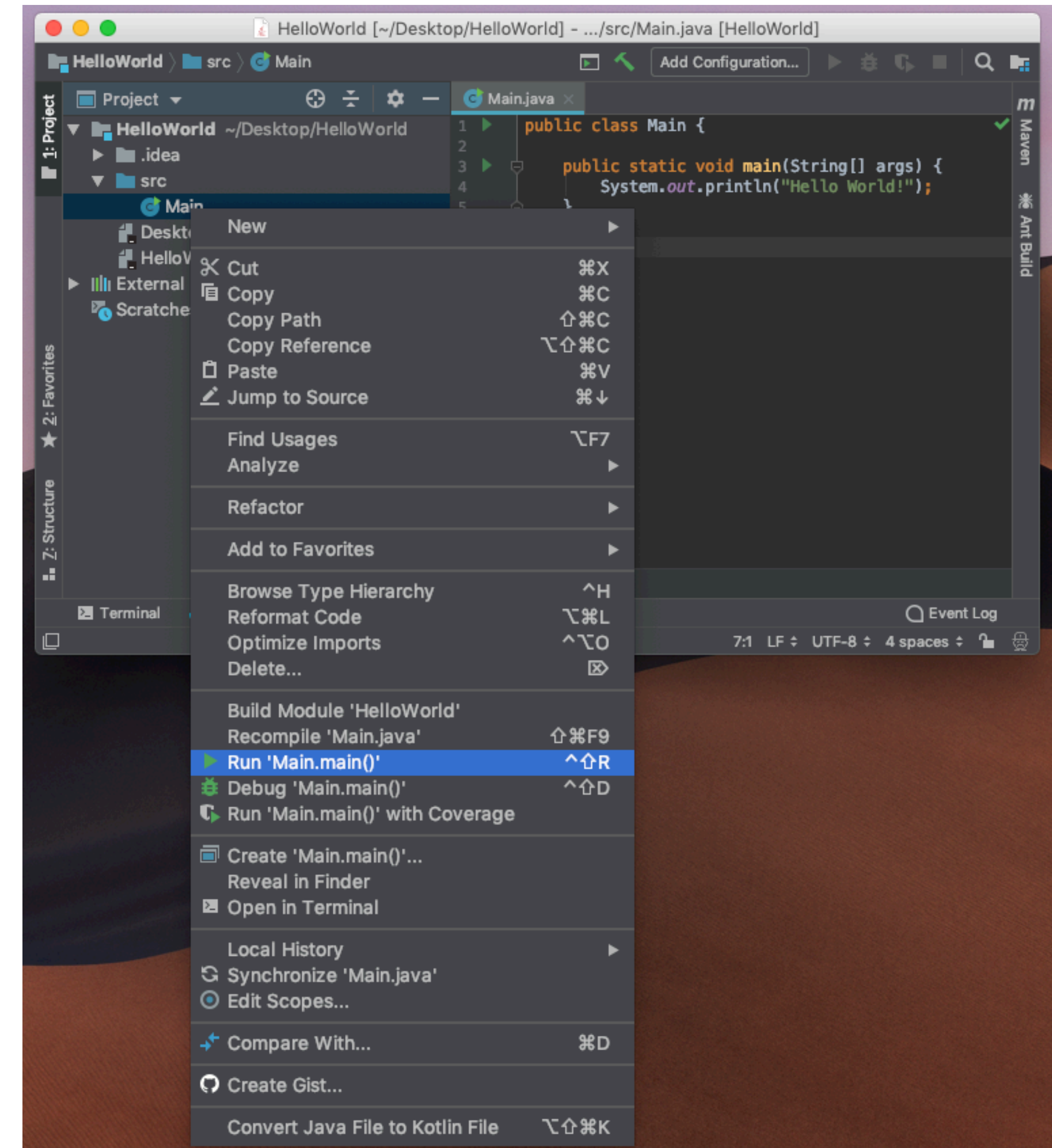
Your new project

- Project layout on left
- Source code on right
- Git built in
- Build tools at the top
- Terminal at the bottom



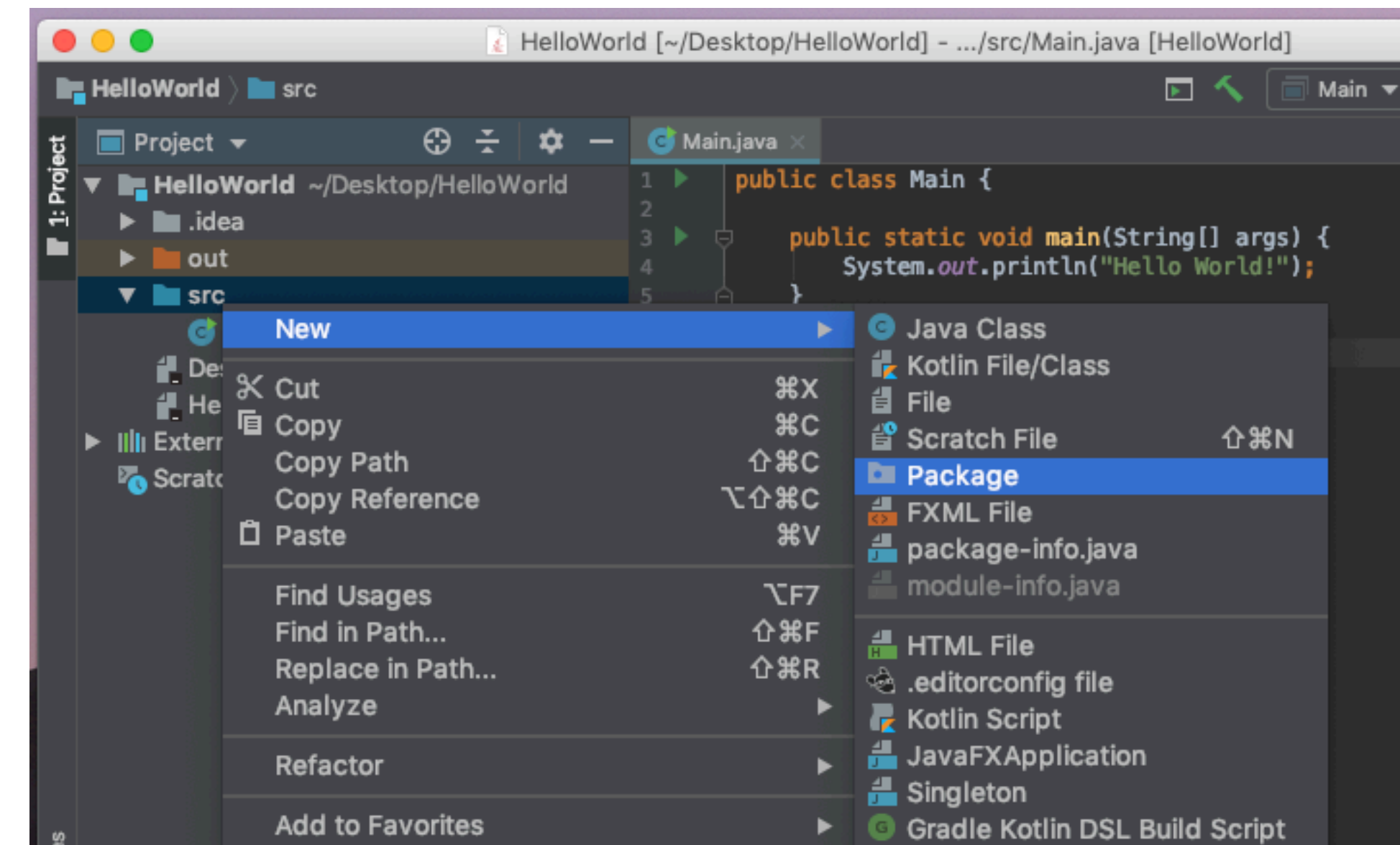
I made a mistake ...

- I had the project in the wrong folder
- So I moved it, but now when I open it my main entry point is not defined
- I click on “Run Main main()”
- And it works again



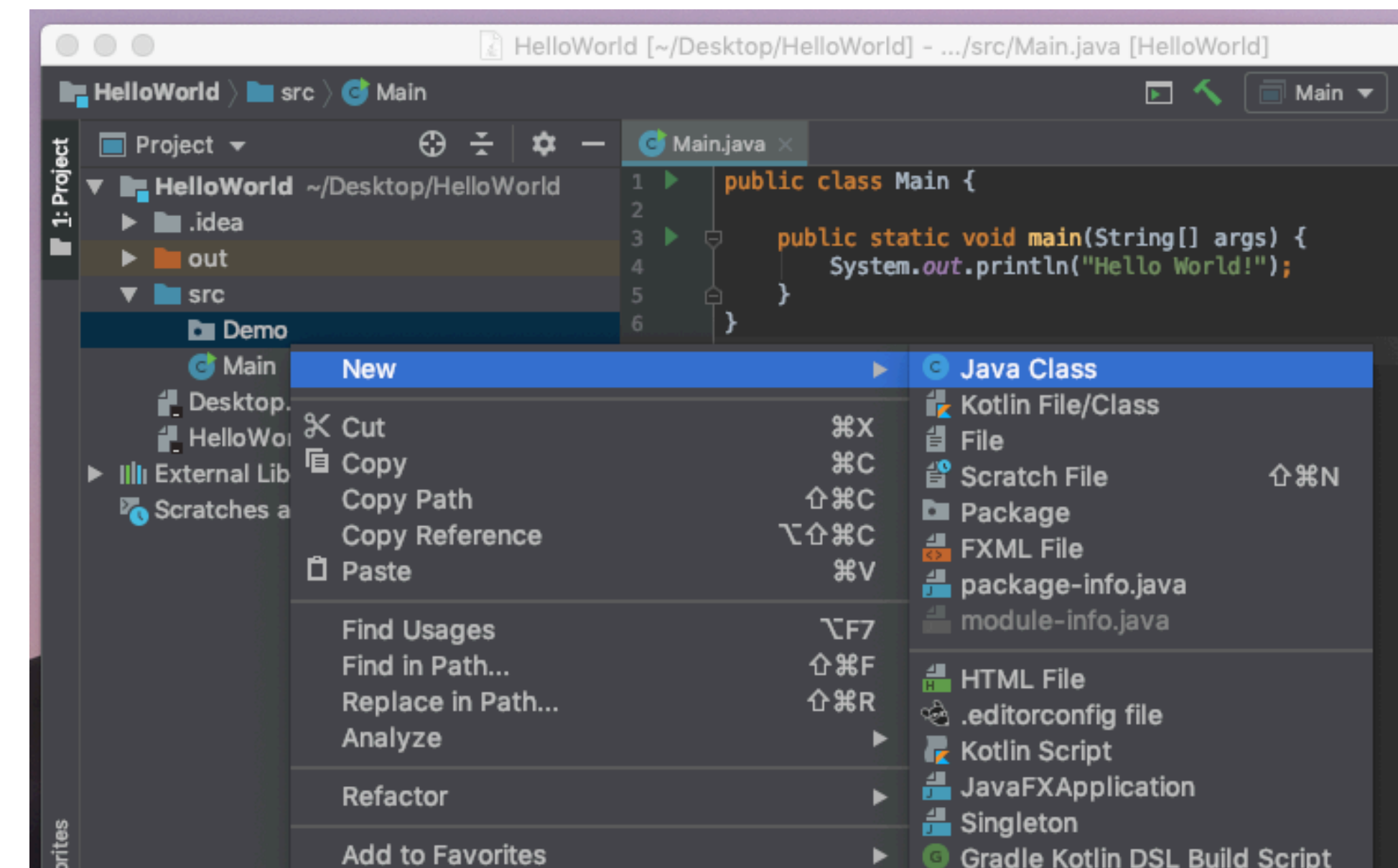
Creating a new package

- Right click src
 - New -> Package
- Packages hold collections of related classes



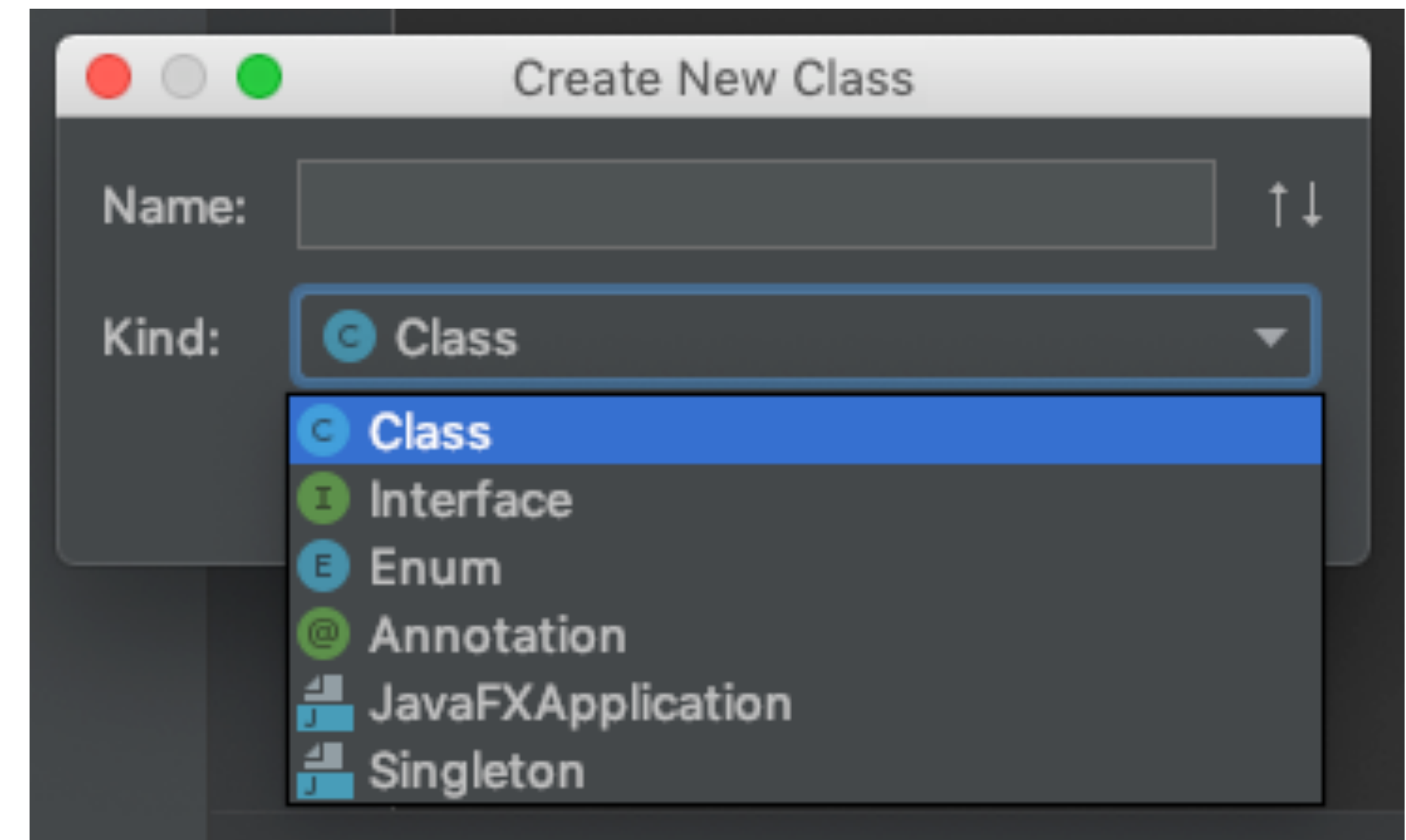
Creating a new class file

- Right click on a package (or src)
- New -> Java Class



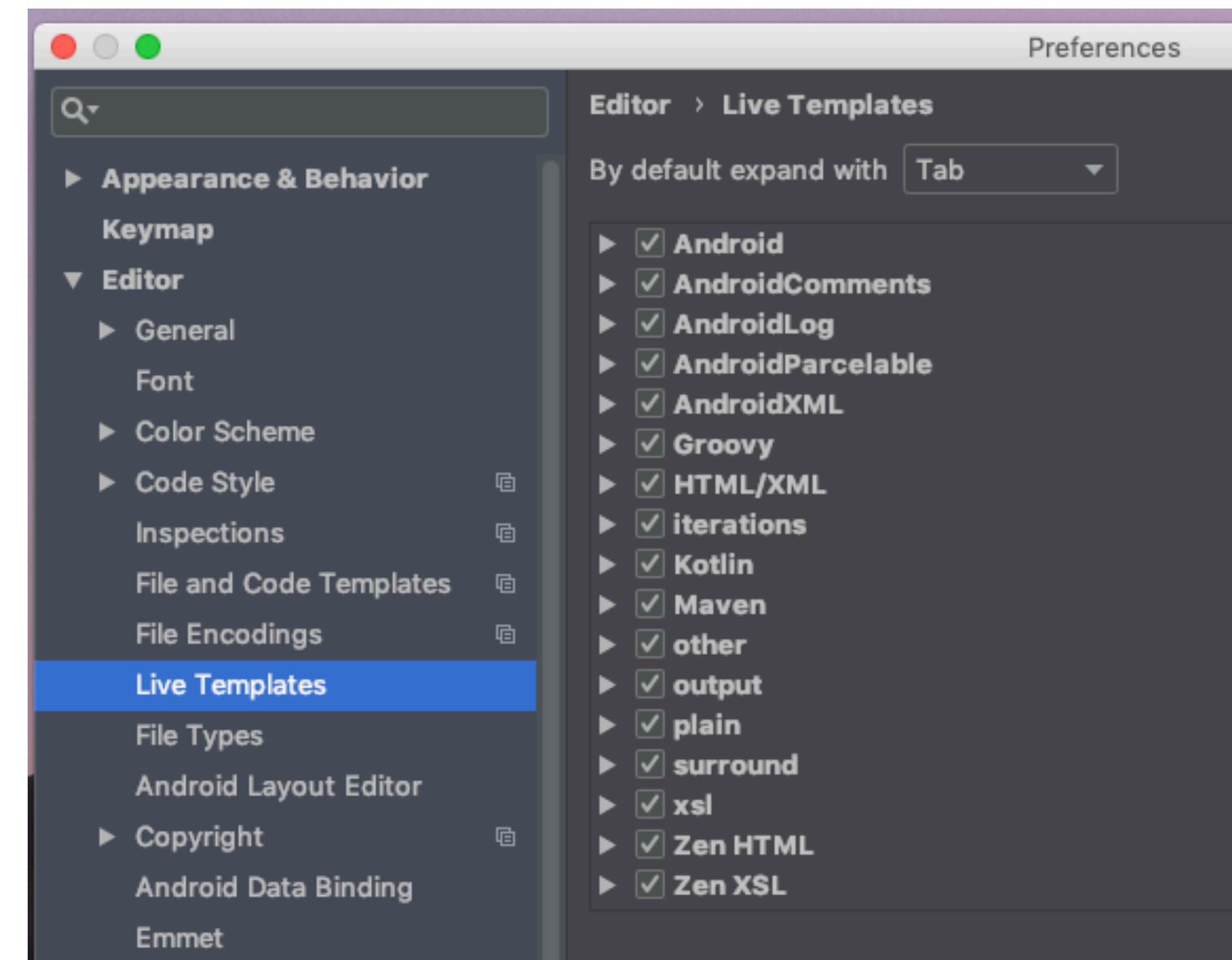
Creating a new class file

- Such Options, Very Develop
- Wow
- The first the are the usual choices
- Give it a cool name (naming conventions!)



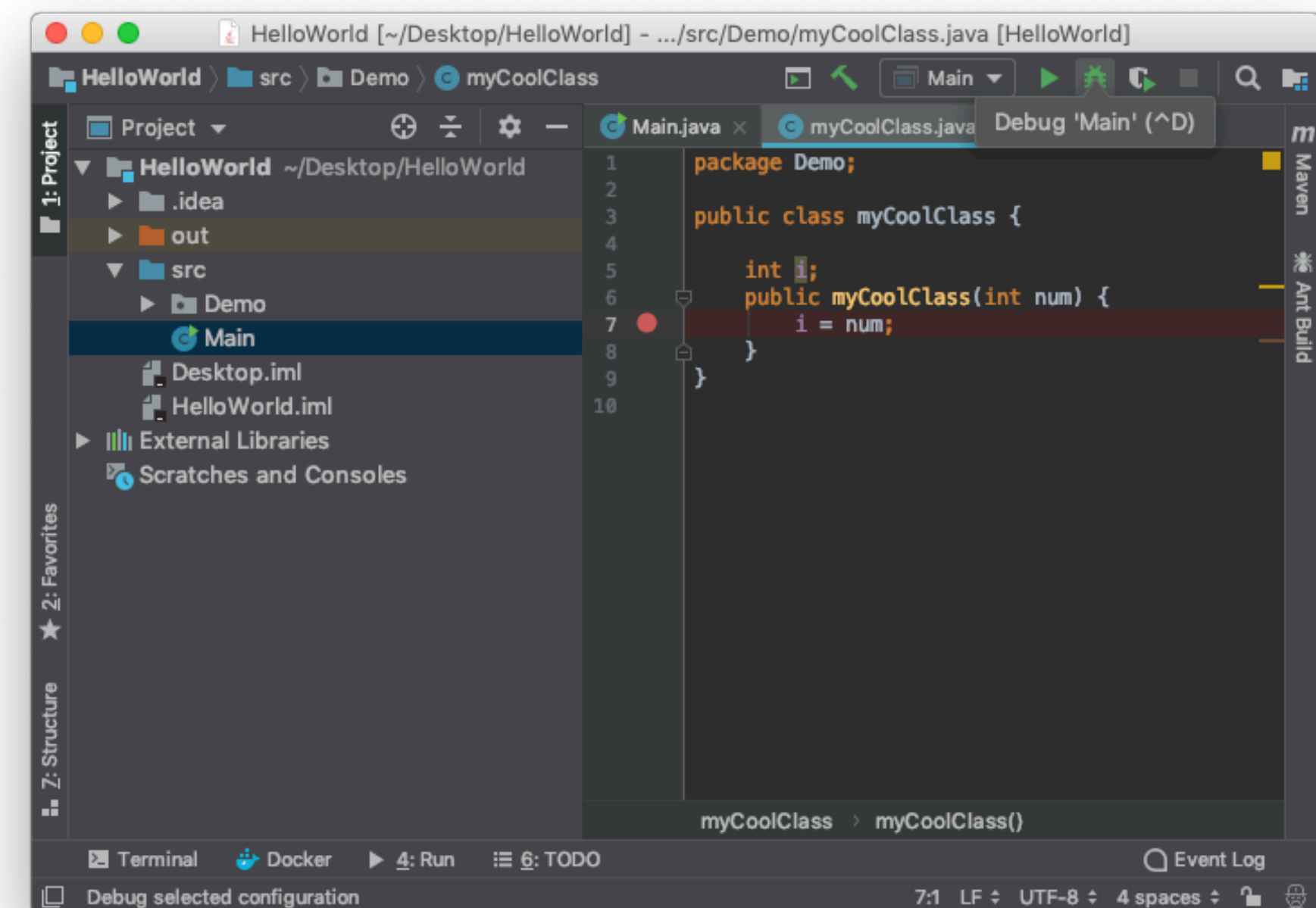
Don't forget those nifty shortcuts!

- Go to Settings
 - Editor
 - Live Templates



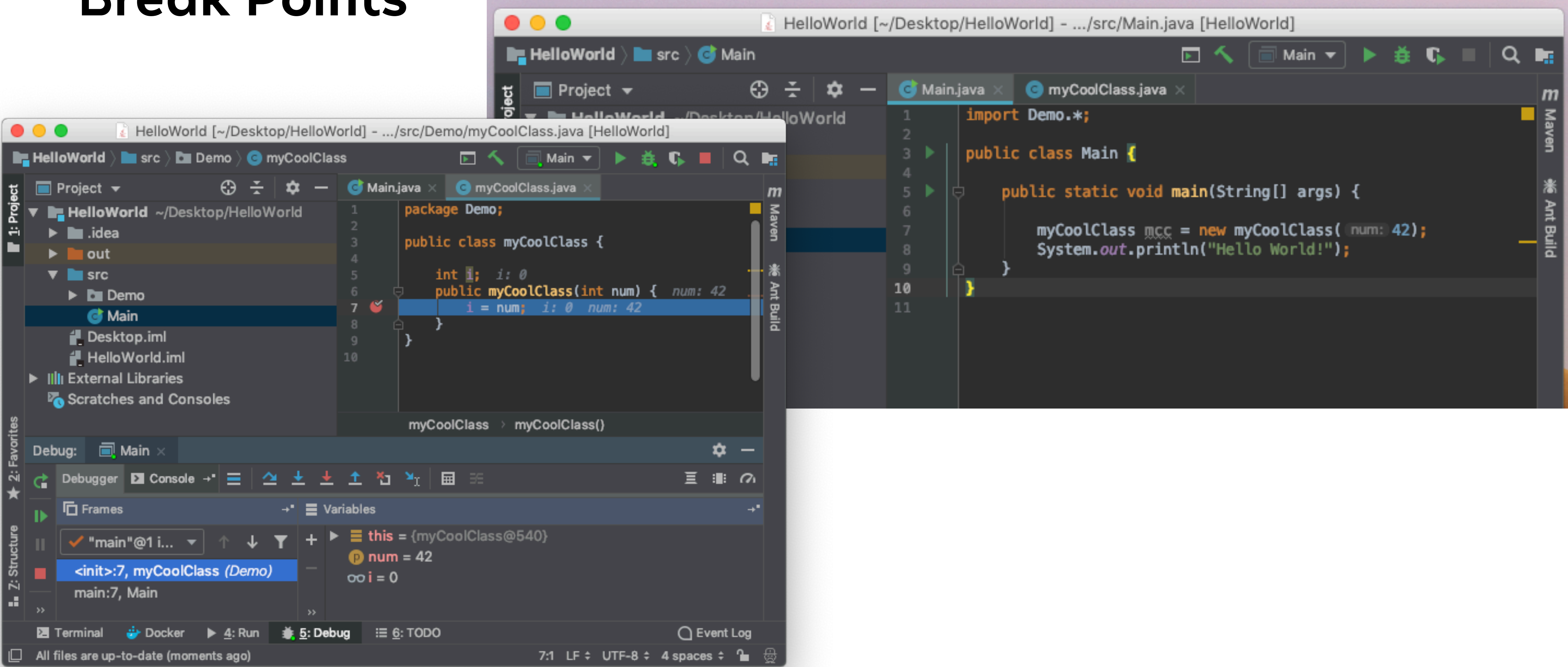
Setting a break point

- Click next to the line number
- Run with Debugging





Break Points



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Tasks

Task 14

- You will need to connect to a specific REST API and display information based on user input
- Read the full specifications on moodle
- I will do a small demonstration in class as a hint