CS 891: Scalable Microservices: Overview (Part 3)

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Learning Objectives in this Lesson

- Understand the course topics & logistics
 - Course philosophy
 - Course contents
 - Structure of the lecture material
 - Overview of the assignments & assessments
 - Setting up Java & IntelliJ
 - Setting up GitLab et al.
 - Accessing Java 19 source code



Setting Up the Java IDE on IntelliJ

• To use Java 19, you need to download & install the latest release of IntelliJ

Download Intellij IDEA



• Select an installer for Intel or Apple Silicon

See <u>www.jetbrains.com/idea/download</u>

• Installation steps



- Installation steps
 - Download & install the latest version of IntelliJ

Download Intelly IDEA	
Windows macOS Linux	
Ultimate	Community Edition
The Leading Java and Kotlin IDE	The IDE for pure Java and Kotlin development
Download .dmg 🔻	Download .dmg 🔻
Free 30-day trial available	Free, built on open source
Select an installer for Intel or i	Apple Silicon

See www.jetbrains.com/idea/download

• Installation steps

- Download & install the latest version of IntelliJ
- Open the Project Settings & add the Java 19 SDK

		Project Structure
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Libraries		Download JDK
Artifacts	Version	10
Platform Set	version.	
SDKs	Vendor:	Oracle OpenJDK 19.0.1
Global Lit	Location:	~/Library/Java/JavaVirtualMachines/openjdk-19.0.1
Problems		Cancel
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Welcome to GitLab

Code, test, and deploy together



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New project	Blank project	Create from template	Import project	CI/CD for external repo	
(repository), plan your work (issues), and publish your documentation (wiki), among other things.	Project name CS-891-spring-2023				
All features are enabled for blank projects, from templates, or when importing, but you	Project URL		Project slug		
can disable them afterward in the project	https://gitlab.com/lclfox/		CS-891-spring-2023		
To only use CI/CD features for an external repository, choose CI/CD for external repo . Information about additional Pages templates	Want to house several dependent Project description (optional) Description format	projects under the same namespace?	Create a group.		
and how to install them can be found in our Pages getting started guide. Tip: You can also create a project from the command line. Show command	 Visibility Level <i>Q</i> Private Project access must be grated Public The project can be accessed Initialize repository with a RE Allows you to immediately cloned Create project 	anted explicitly to each user. ed without any authentication. ADME he this project's repository. Skip this if	you plan to push up an existing repo	ository. Cancel	

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Merge Requests CI / CD Operations	 Add license The repository for this project is empty You can create files directly in GitLab using one of the following options. New file Add README Add CHANGELOG Add CONTRIBUTING 				
 Packages Wiki Snippets 	Command line instructions You can also upload existing files from your computer using the instructions below. Git global setup				
 Settings Collapse sidebar 	<pre>git configglobal user.name "Lindsey Fox" git configglobal user.email "lindsey.fox@vanderbilt.edu" Create a new repository git clone https://gitlab.com/lclfox/cs-891-fall-2019.git cd cs-891-fall-2019 touch README.md git add README.md</pre>				

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🥠 CI / CD	GitLab member or Email address	
G Operations	Douglas Craig Schmidt	
Packages	Choose a role permission	
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Members		
Integrations	Existing members and groups	
Repository	Members of CS-891-spring-2023	Find existing members by name Q Sort by Name, ascending ~
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cd CS-891-spring-2023

3. Change Director into Your Working Folder

See <u>docs.gitlab.com/ee/ssh</u> for info on setting up an SSH key for GitLab et al.

4. Update from Read-Only GitHub Repo



See item #13 at github.com/douglascraigschmidt/CS891/wiki/CS-891-FAQ

Accessing Java 19 Source Code

Accessing Java 19 Source Code

- Java source code is available J
 - For browsing
 <u>zgrepcode.com</u>

JDK Project

The goal of this long-running Project is to produce a series of open-source reference implementations of the Java SE Platform, as specified by JSRs in the Java Community Process. The Project ships a feature release every six months according to a strict, time-based model, as proposed.

Releases

- 21 (in development)
- 20 (in development)
- 19 (GA 2022/09/20)
- 18 (GA 2022/03/22)
- I7 (GA 2021/09/14)
- I6 (GA 2021/03/16)
- 15 (GA 2020/09/15)
- 14 (GA 2020/03/17)
- 13 (GA 2019/09/17)
- I2 (GA 2019/03/19)
- I1 (GA 2018/09/25)
- IO (GA 2018/03/20)

Resources

- Development list: jdk-dev
- Main-line code repository: https://github.com/openjdk/jdk/

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• For browsing <u>zgrepcode.com</u>

 For downloading openjdk.org/projects/jdk JDK Project

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