



SF STATE

SAN FRANCISCO STATE UNIVERSITY
COMPUTER SCIENCE DEPARTMENT

GOOGLE GUAVA

CODE LIBRARIES FOR JAVA AND ANDROID

HOW TO IMPORT GOOGLE GUAVA INTO **INTELIJ**

DUC TA



Google Open Source



LEARN GUAVA

Java collections framework

Guava Multimap

- **Google Guava** is an open-source set of common libraries for Java, mainly developed by Google engineers. (https://en.wikipedia.org/wiki/Google_Guava)
- 1. Basic utilities to reduce menial labors to implement common methods and behaviors.
- 2. An extension to the Java collections framework (JCF) formerly called the **Google Collections Library**.
- 3. Other utilities which provide convenient and productive features such as functional programming, graphs, caching, range objects, and hashing.

Google Guava

Original author(s)	Kevin Bourrillion and Jared Levy (Google Collections Library) ^[1]
Developer(s)	Google
Stable release	24.0 / January 31, 2018 ^[2]
Repository	https://github.com/google/guava 
Development status	Active
Written in	Java
Operating system	Cross-platform
Type	Utility and Collection Libraries
License	Apache License 2.0
Website	github.com/google/guava 

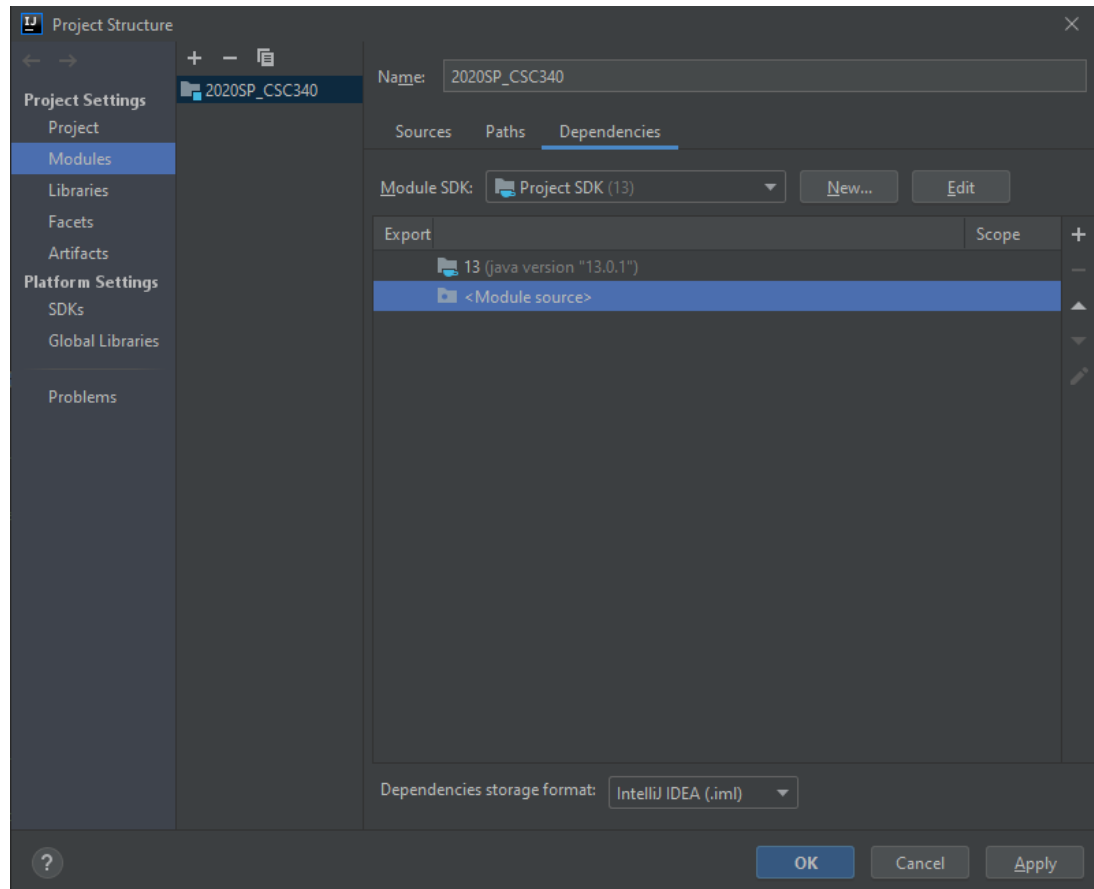


Guava Multimap

- Interface Multimap:
 - <https://google.github.io/guava/releases/snapshot-jre/api/docs/com/google/common/collect/Multimap.html>
- Repository:
 - <https://github.com/google/guava>
 - <https://search.maven.org/#search|gav|1|g:%22com.google.guava%22%20AND%20a:%22guava%22>
- Download:
 - Get file `guava-##.#-jre.jar` from the repository or from File Manager.

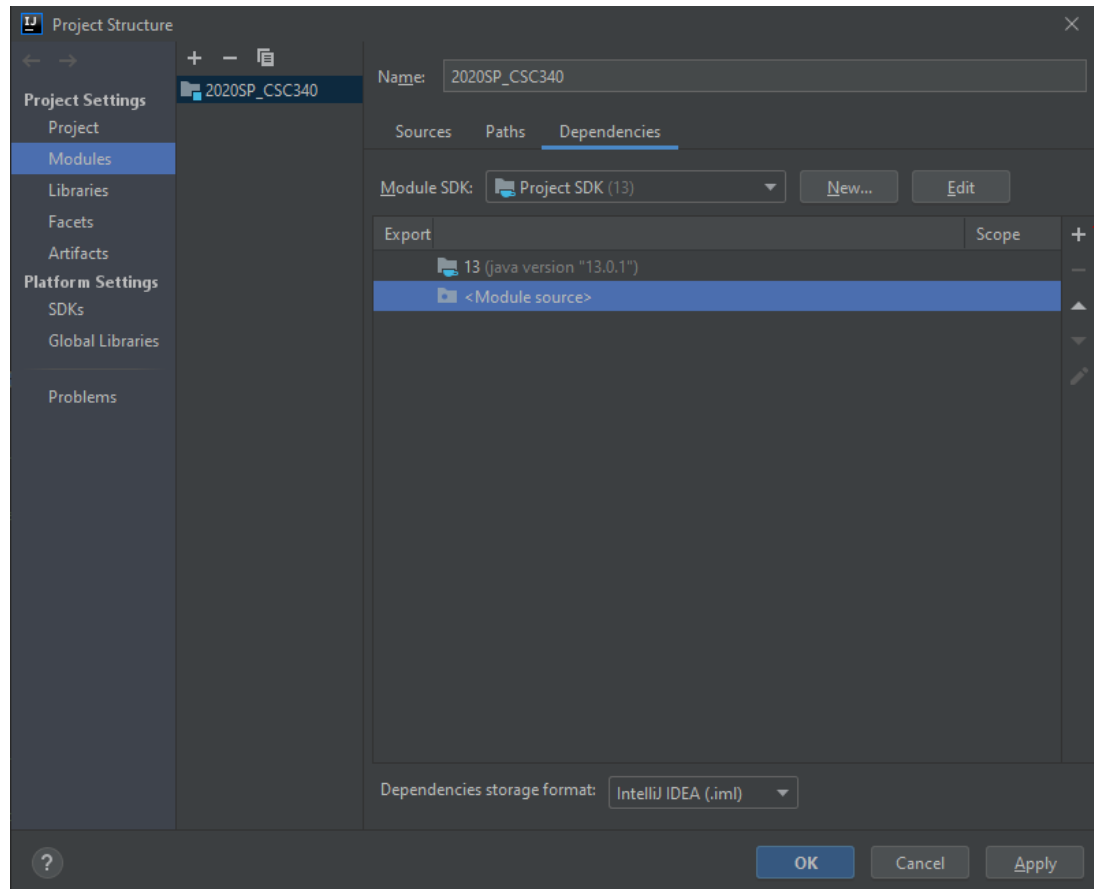
Add Guava to IntelliJ Project

- In IntelliJ IDE, click to choose our project then:
 - Right click on the project and choose “Open Module Settings” or
 - F4



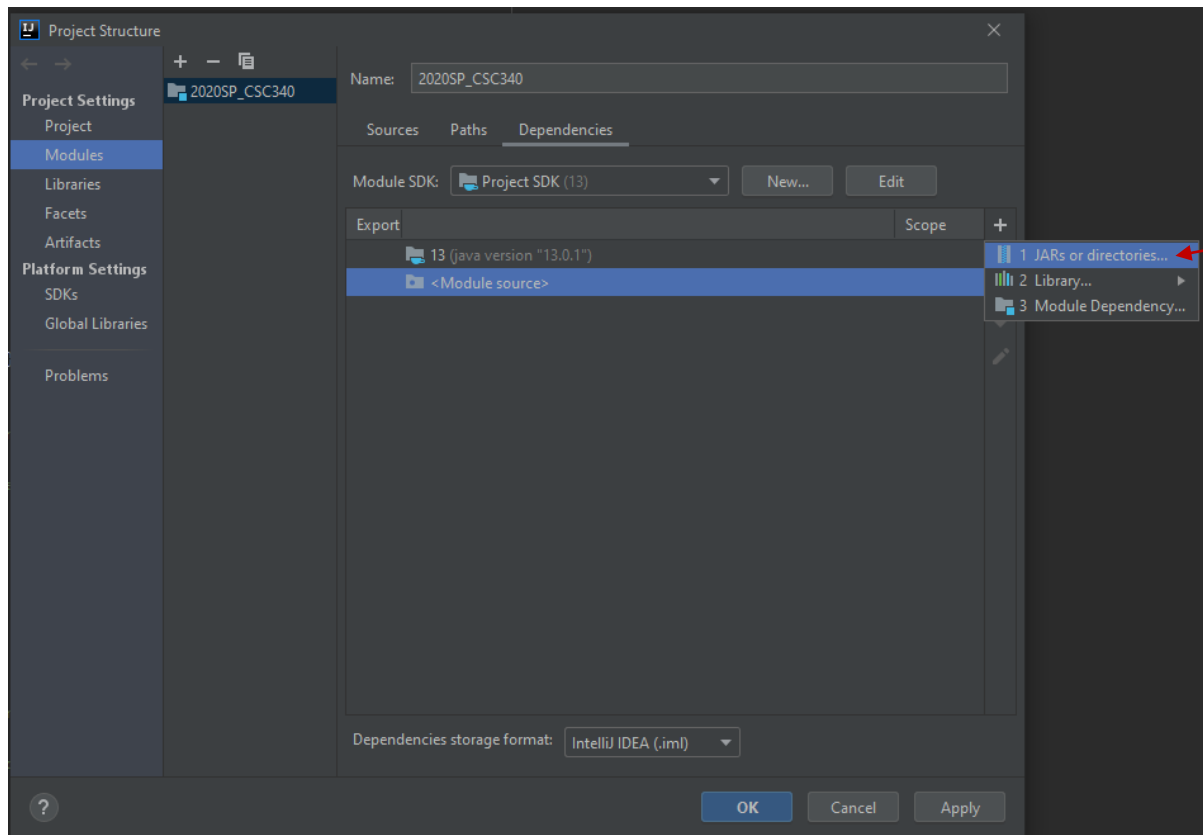
Add Guava to IntelliJ Project

- We should be in the “Dependencies” tab. Click on the “+” sign then
- Choose “JARs or directories”



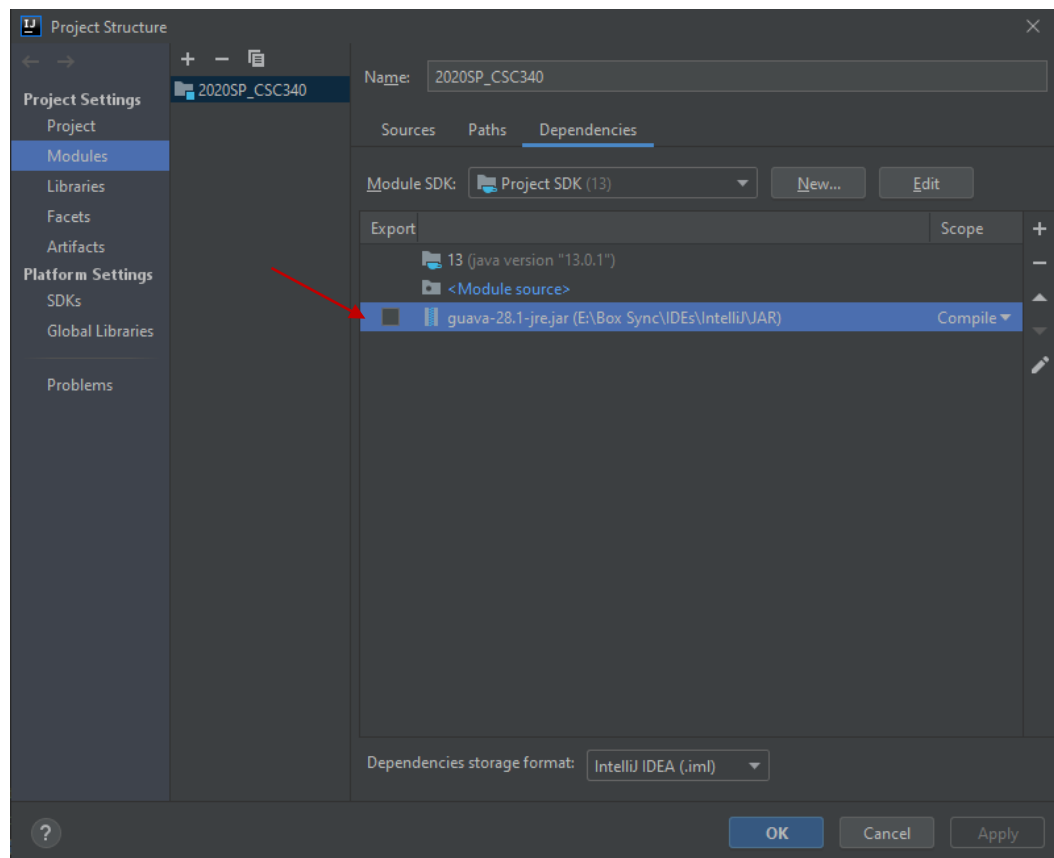
Add Guava to IntelliJ Project

- We should be in the “Dependencies” tab. Click on the “+” sign then
- Choose “JARs or directories...”



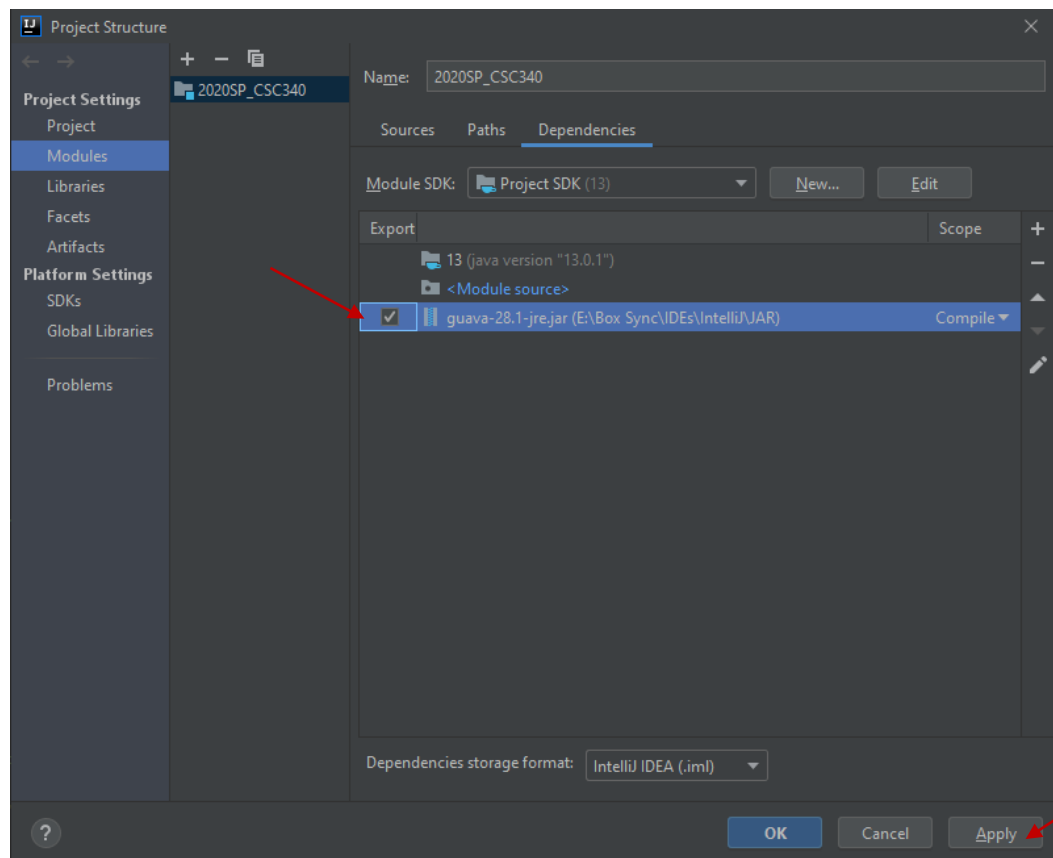
Add Guava to IntelliJ Project

- Browse to the downloaded file `guava-##.##-jre.jar` and select it to add.



Add Guava to IntelliJ Project

- Check in the box to the left then “Apply”





Add Guava to IntelliJ Project

- Download `TinyBookGoogleGuava.java` to test the imported Guava library.

```
1  package javaDictionaryCSC340;
2
3  import com.google.common.collect.ArrayListMultimap;
4  import com.google.common.collect.Multimap;
5
6  import java.util.Collection;
7
8  // Google Guava, Interface Multimap: https://bit.ly/2qWKeyW
9  // Google Guava, Download https://bit.ly/2Hpo2PA
10
11 /**
12  * @author Duc Ta PLUS
13  */
14 public class TinyBookGoogleGuava {
15
16     public static void main(String[] args) {
17         Multimap<String, String> tinyBook = ArrayListMultimap.create();
18     }
```

See you next class!