Download & Install

Please google if you don't know how to download and install below tools.

Download & Install

```
JDK
Java IDE
Maven
Tomcat(web server/container - Optional)
Database
MySQL*(Relational DB)
NoSOL
```

Note: It is better to put maven and tomcat to the same folder, for example: ~/Documents/software

Apple Mac with M chip please pick ARM version(otherwise use x86)

JDK

Prefer 1.8: https://www.oracle.com/java/technologies/downloads/#java8

Note: please only download **JDK 8**(version). Other versions might result in bugs in future projects and all the big companies are currently using Java 8. Also make sure you are **downloading JDK not JRE**.

Java IDE

IntelliJ: https://www.jetbrains.com/idea/download/

Note:

- Download Intellij Ultimate (not the community version) and its NOT free. You can use your edu address
 or your friends edu address to get a 1 year of free trial.
 - Optional IDE -- VScode (NOT Eclipse)
- If you don't have edu email, you can buy the account in Taobao.

Run Sample Java:

- 1. Print Hello World from both IDE.
 - 1. Note: you need to add your JDK to your IDE's class path.
- 2. Reverse String
 - 1. "abcdef" -> "fedcba"

Maven

Tutorial: https://www.baeldung.com/install-maven-on-windows-linux-mac

Tomcat(web server/container - Optional)

https://tomcat.apache.org/download-90.cgi

Database

MySQL*(Relational DB)

https://dev.mysql.com/downloads/

Note: Download MySQL Community Server and MySQLWorkBench(SQL IDE) (version 8.x)

MySQL Community Downloads

- MySQL Yum Repository
- MySQL APT Repository
- MySQL SUSE Repository
- MySQL Community Server
- MySQL Cluster
- MySQL Router
- MySQL Shell
- MySQL Operator
- MySQL NDB Operator
- MySQL Workbench
- MySQL Installer for Windows

- C API (libmysqlclient)
- Connector/C++
- Connector/J
- Connector/NET
- Connector/Node.js
- Connector/ODBC
- Connector/Python
- MySQL Native Driver for PHP
- MySQL Benchmark Tool
- Time zone description tables
- Download Archives
- MySQL Workbench a graphic user interface. (or use Data grip)
- After downloading and installing those two, testing it works by:
 - o create a table **User** with 3 columns: <u>ID, Name, Phone number</u>.
 - Add 2 entries to the table.
 - Query your table.

NoSQL

Please download and install the below databases. It is **optional** to learn how to do **CRUD(Crete, Read, Update, Delete)** with the two databases.

- MonogoDB
 - https://www.mongodb.com/try/download/community
- Cassandra
 - https://cassandra.apache.org//index.html