SOFTWARE REQUIREMENTS FOR JAVA COURSE

This document instructs you on how to set up a Java programming environment for your *Windows*
computer..

You will need a 64-bit version of Windows 8, 10, or 11.

1.Setting up a Java Development Kit (JDK)
Windows/x64

1) Go to https://jdk.java.net/19/
2) Download the zip file under Windows/x64.
3) Unzip the file on anywhere on your computer.
4) Create an environment variable called JAVA_HOME that points to the directory where you unzipped the JDK.
   a. To set/change JAVA_HOME in Windows:

      1. Launch "Control Panel"

      2. "System"

      3. "Advanced system settings"

      4. Switch to "Advanced" tab

5. "Environment variables"

6. Choose "System Variables" (for all users)

7. To *add* a new environment variable "JAVA_HOME":

   1. Choose "New"

   2. In "Variable Name", enter "JAVA_HOME".

   3. In "Variable Value", click "Browse Directory..." and navigate to the JDK installed directory (e.g., "C:\Program Files\Java\jdk-19.0.xx").

   4. OK ⇒ OK ⇒ OK.

2. To *change* the existing "JAVA_HOME" setting:

1. Select "JAVA_HOME" ⇒ "Edit"

   2. In "Variable Value", click "Browse Directory..." and navigate to the JDK installed directory (e.g., "C:\Program Files\Java\jdk-10.0.xx").

   3. OK ⇒ OK ⇒ OK.

You need to **RE-START** CMD for the new setting to take effect!

5) You can skip this step if you done step 4.

```
> set JAVA_HOME=D:\jdk\jdk-19
```

Please note that in this example and all the others the leading > is there to show you that you need to type this command or paste it in a prompt. You should not type this character or paste it as it is not part of the set command.

6) You can check that the JAVA_HOME variable has been properly set by typing the following code by opening command prompt:

```
> echo %JAVA_HOME%
```

7) This command should print the following:

```
D:\jdk\jdk-19
```

8) If Step 8 doesn't print the JAVA_HOME you have set, follow step 5 to change the JAVA_HOME.

9) You then need to update your PATH environment variable to add the bin directory of your JDK directory to it. This can be done with the following command:

```
> set PATH=%JAVA_HOME%\bin;%PATH%
```

10) You need to be very cautious while setting up these two variables, because a single mistake like an added white space of a missing semicolon will result in failure.

Mac:

1. Go to https://jdk.java.net/19/
2. Click on the download link for macOS/x64 if your computer running on Intel's CPU, or choose macOS/AArch64 for Apple's CPU:
3. Extract the downloaded file .tar.gz to a directory on your computer by following step 4 or step 5
4. Right click on the file ->Open with > Archive Utility
5. Open Terminal and type the following commands to verify the JAVA home folder and JDK version

```
> which java
```

This will print the java home

```
> java -version
```

This will print the JDK version

```
openjdk version "19.0.1" 2022-10-18
OpenJDK Runtime Environment (build 19.0.1+10-21)
OpenJDK 64-Bit Server VM (build 19.0.1+10-21, mixed mode, sharing)
```
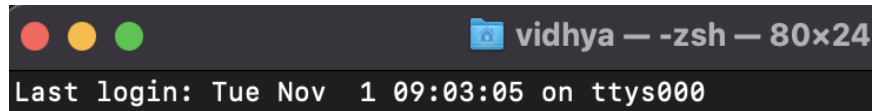
6. The version should match with the version you downloaded and installed. if not, do the following:
7. Copy the directory from step 4 into your home directory

```
> cp -r ~/Downloads/jdk-19.0.1.jdk ~
```

The source location (~/Downloads/jdk-19.0.1.jdk) could be different if you have moved the directory.

a. Check your terminal is using .bash_profile or .zshrc

b. vi .bash_profile or .zshrc (depending on the terminal.)
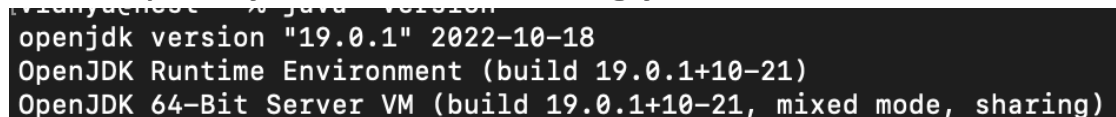
c. add the following:

```
export JAVA_HOME=$HOME/jdk-19.0.1.jdk/Contents/Home

export PATH=$JAVA_HOME/bin:$PATH
```

The highlighted version may be different for you based on which version you downloaded.

d. save the file using :wq

e. Close and reopen the terminal

f. check your java version using java -version

2. Installing Intellij Community Edition

Windows:

1) Go to
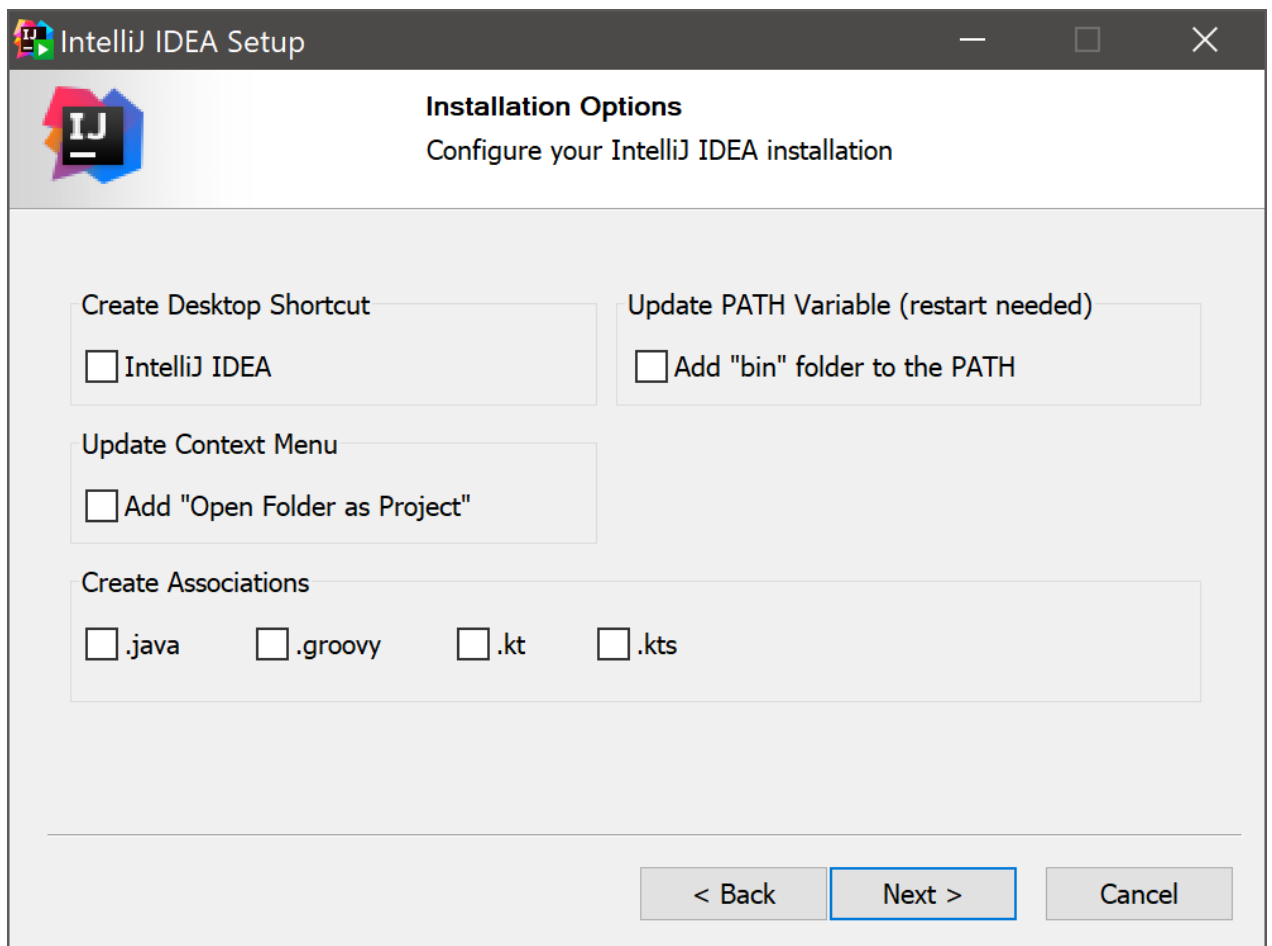   https://www.jetbrains.com/idea/download/#section=windows

2) Download the <mark>Community Edition .exe</mark>

3) Run the installer and follow the wizard steps.

   On the Installation Options step, check all the boxes shown below.

4) After the installation is complete, run IntelliJ.a

5) Find IntelliJ in Start menu or the desktop shortcut

6) Once you launch IntelliJ IDEA, you will see the Welcome screen, the starting point to your work with the IDE, and configuring its settings.

Mac:

1) Go to https://www.jetbrains.com/idea/download/#section=mac

2) Download the disk image for ==**community edition**== There are separate disk images for Intel and Apple Silicon processors.

3) Mount the image and drag the IntelliJ IDEA app to the Applications folder.

4) Run the IntelliJ IDEA app from the Applications directory or Launchpad.

5) Once you launch IntelliJ IDEA, you will see the Welcome screen, the starting point to your work with the IDE, and configuring its settings