COS30018 – Intelligent Systems

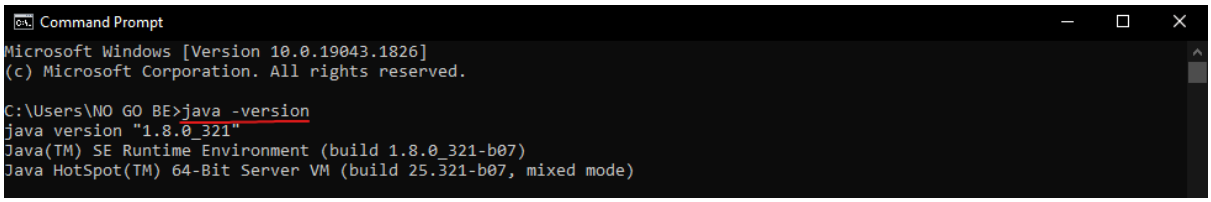
This document outlines the steps involved in setting up your machine for running the JADE middleware and for coding JADE agents. It assumes that the machine does not have Java installed already.

1. Install Java (demonstrated in the tutorial 1)

In order to run JADE agents, you need to have a Java Runtime Environment (JRE) installed on your machine. To build and compile JADE agents, you need to have the Java Development Kit (JDK) installed as well. You can download this from the following website (http://www.oracle.com/technetwork/java/javase/downloads/index.html) (latest version is JDK 8). Download the right version (32 bit or 64 bit) depending upon your underlying OS.

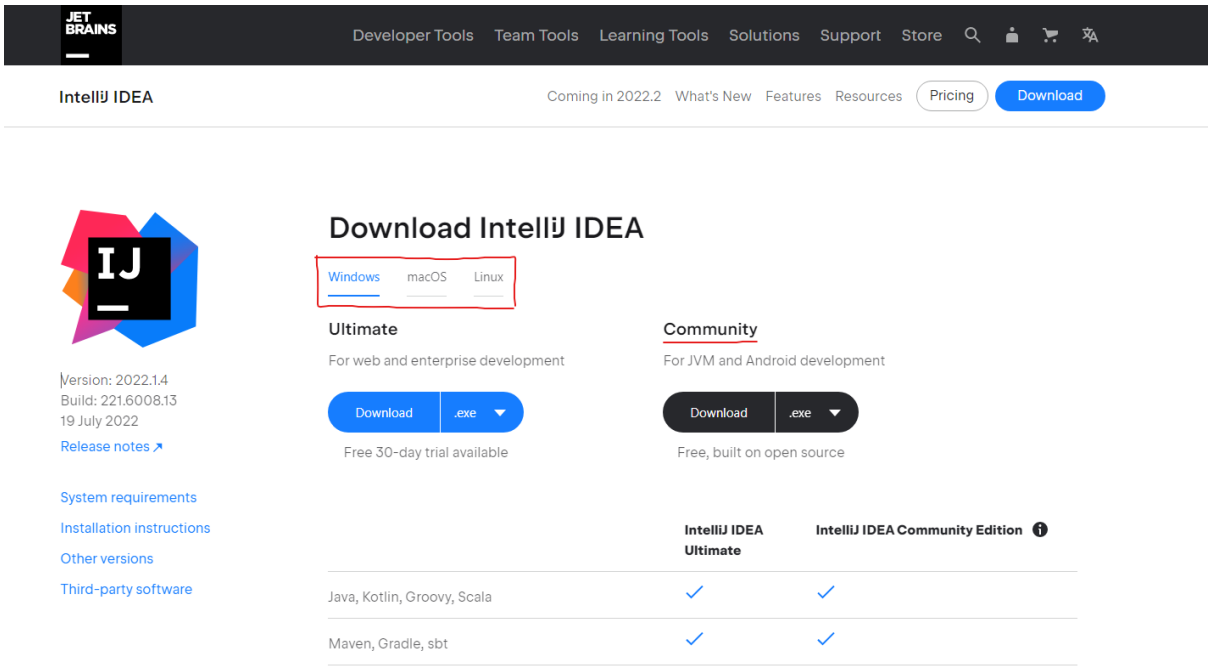
Check your Java installation:

Once you have downloaded and installed the JDK, check if it is successfully installed by running the command *"java -version"* in your command line as below:

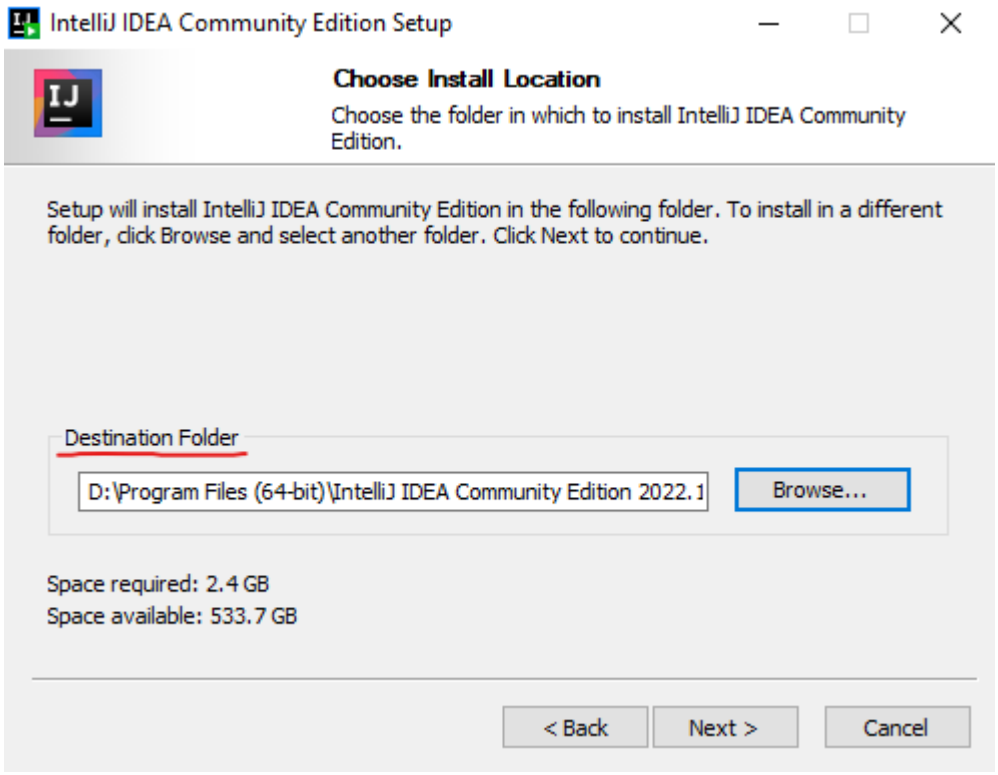


2. Download and install your preferable Java IDE (demonstrated in tutorial 1)

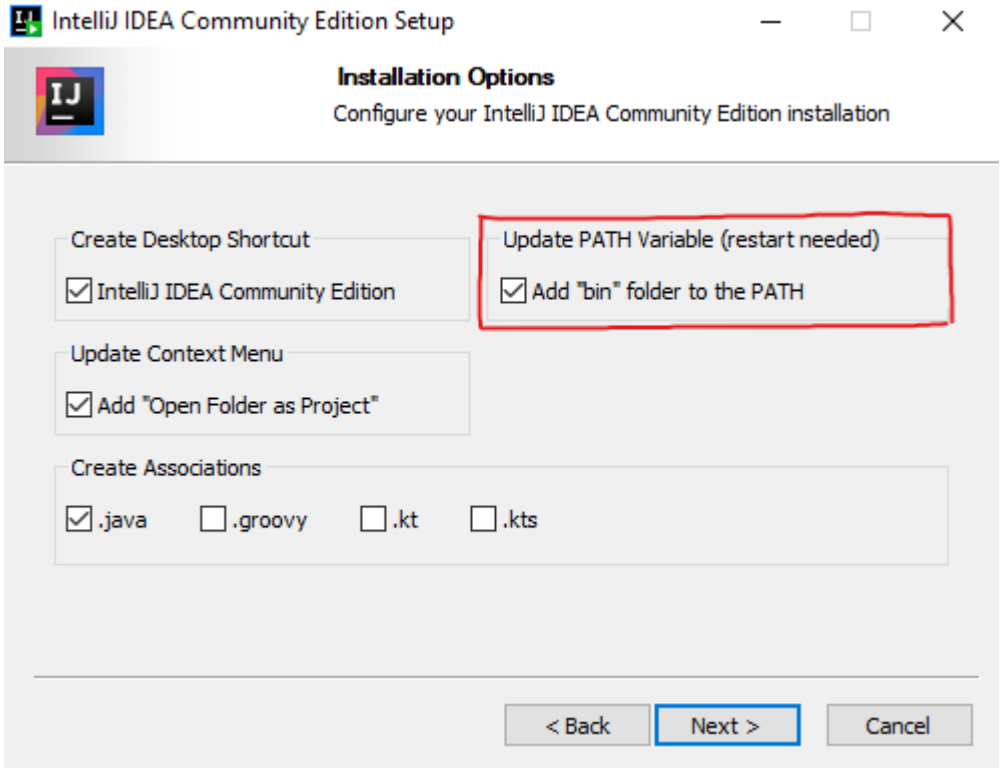
Choose the appropriate OS and download the community version of the IntelliJ from this link: https://www.jetbrains.com/idea/download/#section=windows.



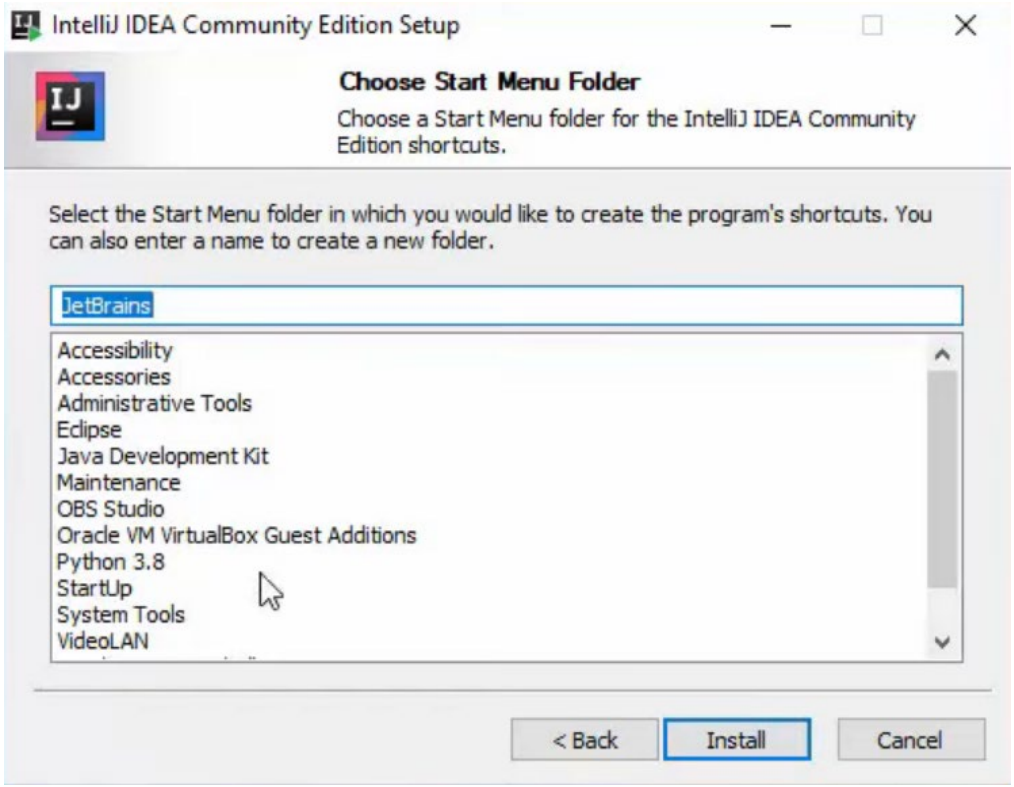
Run the downloaded file and choose your preferable location to install IntelliJ:



Next, configure your installation options. Make sure you have the tick on “Update PATH Variable”:



Choose “JetBrains” as your Start Menu folder in the next step:

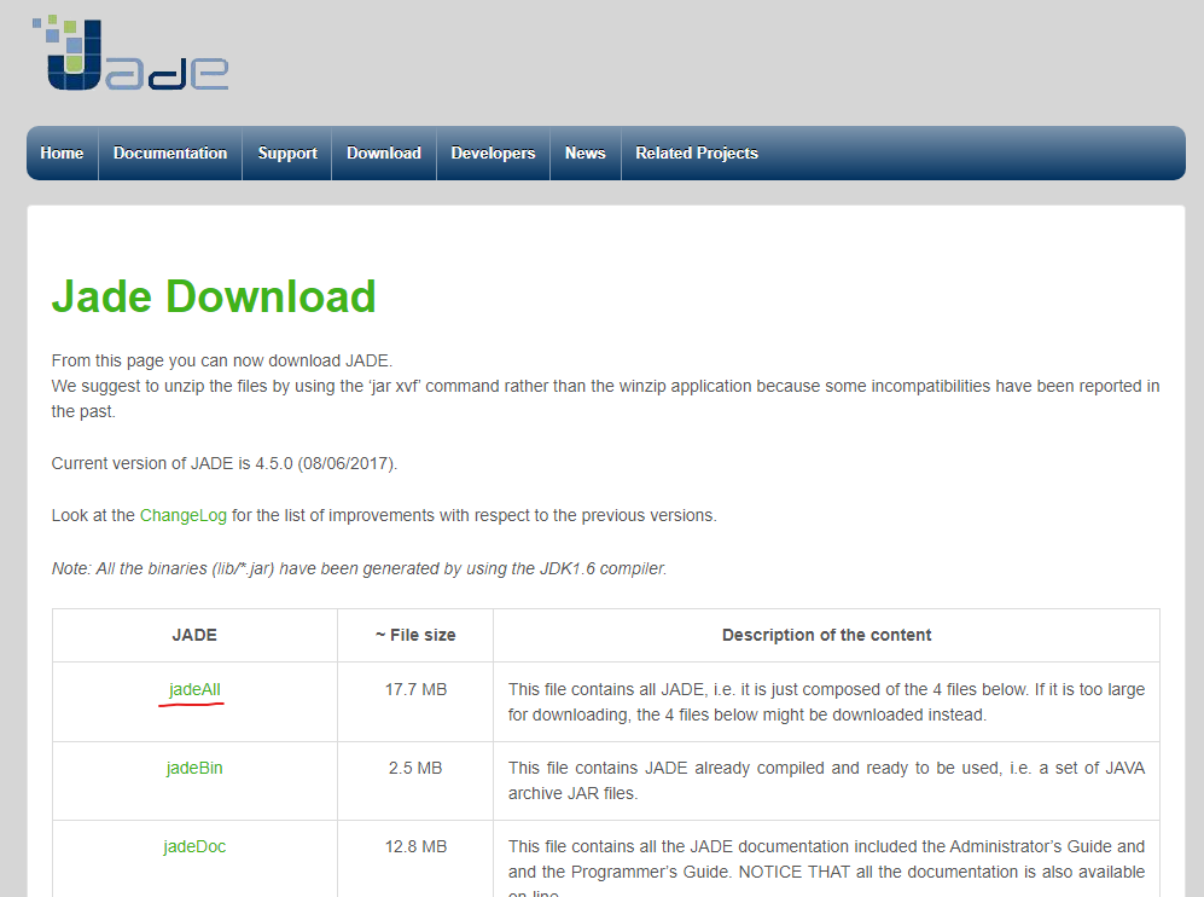


Click on “install” and wait until it completes. That’s it! You now have the IntelliJ IDE installed on your computer.

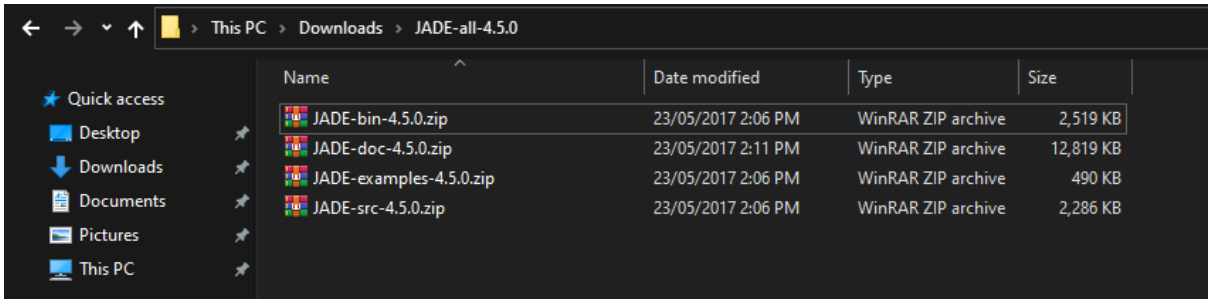
3. Download & run JADE:

Visit this site to download the JADE framework: https://jade.tilab.com/download/jade/. The current version is JADE 4.5.0 (08/06/2017).

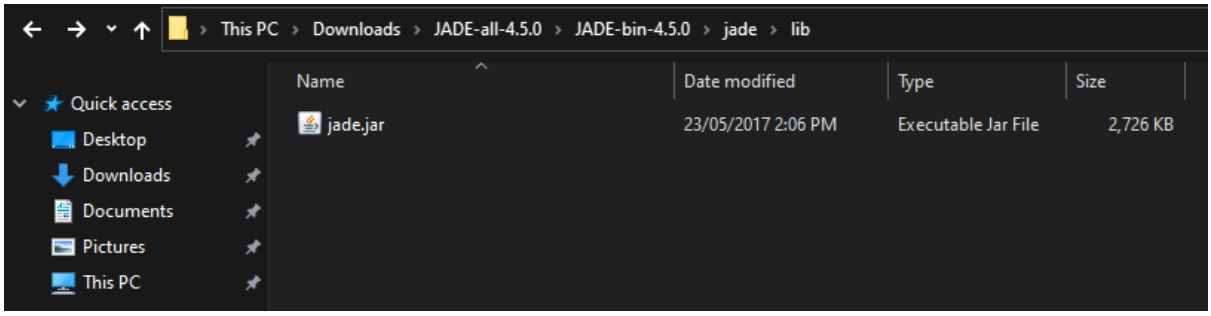
Please download the *“jadeAll”* file, which contains the binaries (compiled code), the source, the documentation and the examples:



Then extract it **(JADE-all-4.5.0.zip)** to the location of choice on your machine. This extracted folder has 4 zipped folders:

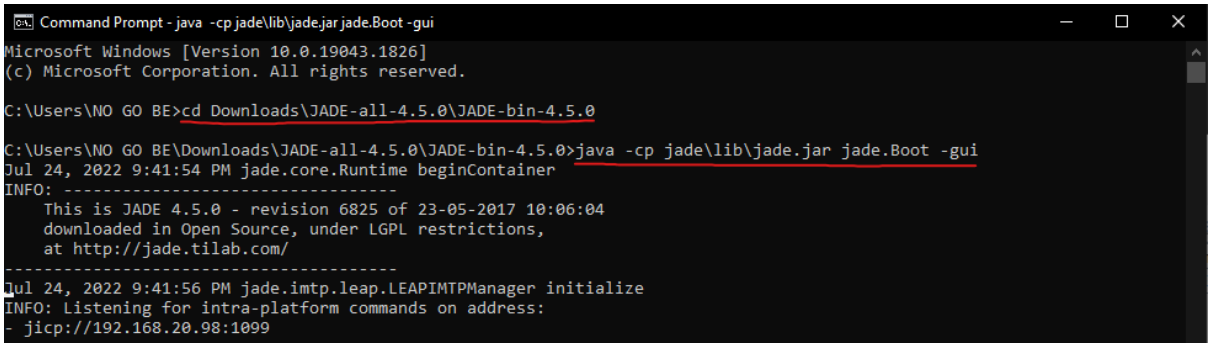


We are interested in **JADE-bin-4.5.0.zip**. Extract that as well. Inside the extracted folder, there is a single java archive (jar) file called jade.jar. The entire binaries for running the JADE middleware are contained inside this single jar file:



Run JADE:

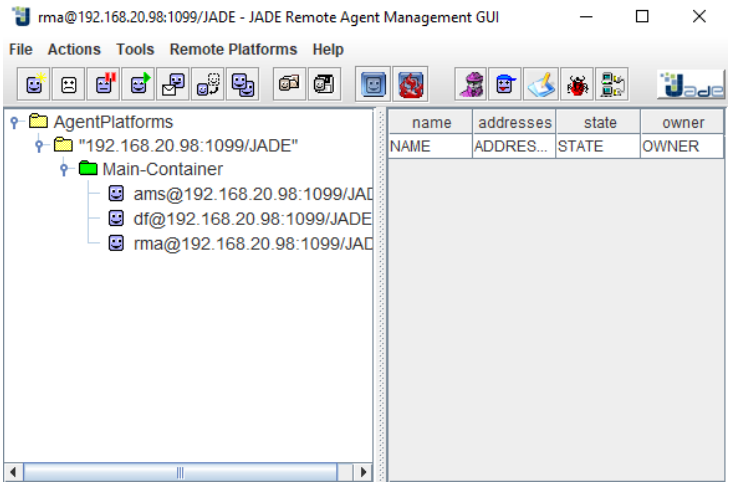
In order to check if JADE runs successfully on your machine, open up the command line, **change directory** to the location where JADE is installed and start up JADE by running the command ***"java -cp jade\lib\jade.jar jade.Boot -gui"*** as below:



Note:

- You need to tell java which library to load (jade.jar) and which main class to load (jade.Boot) using classpath option (-cp).
- There are 2 environment variables (PATH and CLASSPATH). PATH is a variable which provides a shortcut to all executables (e.g., java.exe). The CLASSPATH.

By default, a Main-Container is created with three agents – ams, df and rma. If you can see the below GUI, you have installed JADE successfully:



Congratulations! You have successfully installed your JADE framework. Now you can relax and wait for the coming exciting tutorials on how to create a multi-agent system (yup you're right, not as exciting as you think).