How to Install and Run Application

Download file for working hyperlinks

In order to run the application, you need to have Java 1.8 (or Java 8) downloaded, installed, and active on your system. This is due to the application being built using JavaFx, which was phased out with the update of Java 11. Note: the installation and running process of the application is much easier on a Windows system. To check to see if you have Java installed on your system, go to the Terminal(MacOS) or Command Line(Windows) and type "java -version." If the output says that "java" is not an available command, you don't have any version of Java installed. Otherwise, the output would be similar this.

```
java version "13.0.2" 2020-01-14
Java(TM) SE Runtime Environment (build 13.0.2+8)
Java HotSpot(TM) 64-Bit Server VM (build 13.0.2+8, mixed mode, sharing)
```

If you don't have Java installed then, follow the link to Java, and download and install Java 1.8 (or 8) on your system. Type "java -version" to confirm the installation.

If you do have Java installed then, you need to make sure that the correct version of Java is being used. On MacOS, if you type "/usr/libexec/java_home -V," you would get an output similar to this:

```
Matching Java Virtual Machines (3):
    13.0.2 (x86_64) "Oracle Corporation" - "Java SE 13.0.2" /Library/Java/JavaVirtualMachines/jdk-13.0.2.jdk/Contents/Home
    1.8.291.10 (x86_64) "Oracle Corporation" - "Java" /Library/Internet Plug-Ins/JavaAppletPlugin.plugin/Contents/Home
    1.8.0_241 (x86_64) "Oracle Corporation" - "Java SE 8" /Library/Java/JavaVirtualMachines/jdk1.8.0_241.jdk/Contents/Home
/Library/Java/JavaVirtualMachines/jdk-13.0.2.jdk/Contents/Home
```

In this case Java 13 is the default. In order to change it, "export JAVA_HOME=`/usr/libexec/java_home -v 1.8.291`" is input to the Terminal (more recent version). Use "java -version" to confirm the change. If you are on Windows, then you open the control panel and search "Java" and open the Java Control Panel. Go to Desktop Settings and make sure that a Platform 1.8 is Enabled.

Now that the proper Java is installed, download the zip file from [GitHub](#). There should be a button that says "Code" which provides a drop down to download the .zip file. Once downloaded, go to your Downloads and unzip the file.

In order to run the application on MacOS, pull up the Terminal and type "ls." This brings up the available directories and libraries to you, one of which should be Downloads. Now type "cd Downloads" to move you into the Downloads folder. You can type "ls" again to make sure the download is still there. As long as the unzipped file name is still the same, type "cd [unzipped file name]" to move into the file. Just to make sure, input "java -version" to ensure Java 1.8 is being used. Lastly type "java -jar CDLStageSimulator.jar" and the application should run.

In order to run the application on Windows, unzip the file in the File Explorer and click though until you come to

the options of .settings, bin, src, etc. Double click on

CDLStageSimulator and the application will run. You may also

access the .jar file by using the command prompt similar to the

MacOS method but instead of using "ls" to see the list of

directories, command prompt uses "dir." The only difference

would be that the command prompt application has a smaller

window as the code specifies while the File Explorer method

fills the screen (there may be a variance in image quality).

Links to Useful Help:

Java 1.8

https://www.java.com/en/download/manual.jsp

Change Java Version on MacOS Terminal

https://medium.com/@devkosal/switching-java-jdk-versions-on-macos-80bc868e686a

Change Java Version on Windows

https://www.java.com/en/download/help/update_runtime_settings.html

GitHub

https://github.com/BJW033/CDL-Stage-Simulator