

Preparing a Windows machine for the Labs

This document provides the steps to install the software required to begin the exercises on a Windows machine. The instructions were written for a Windows 7 Professional machine. Exceptions have been noted for Windows 8 and Windows 10. The sequence is as follows:

1. Install cURL
2. Install the IBM Cloud Developer Tools
3. Install Java JDK 1.8
4. Add JAVA_HOME variable to the System PATH
5. Install Gradle
6. Install node.js
7. Install the MYSQL client
8. Install Cygwin

Step 1: Install curl

1. Create a folder named: **C:\curl**.
2. Go to <http://curl.haxx.se/download.html> and download the zip file for the Win64 version of cURL:
Scroll to the **Win64-Generic** section. Locate the latest Win64 ia64 zip version with SSL support. Click the version number to start the download.
3. Save the zip file.
4. Unzip the downloaded zip file. Move **curl.exe** to **C:\curl**.
5. Go to <http://curl.haxx.se/docs/caextract.html> and download the digital certificate file named **cacert.pem**.
6. Move **cacert.pem** to **C:\curl**. Rename the file **curl-ca-bundle.crt**.
7. Add **C:\curl** to the Windows PATH environment variable so the curl command is available from any location at the command prompt.
8. Verify that the installation is complete. Open a command prompt and enter `curl https://www.google.com`. The request returns the html in the command window.

Step 2: Install the IBM Cloud Developer Tools

1. Follow the instructions at:
<https://console.bluemix.net/docs/cli/index.html#overview>

to install the IBM Cloud Developer Tools.

Step 3: Install Java JDK 1.8

1. In a browser, open <https://www.oracle.com>
2. In the list of menu options, click **Downloads and Trials**.
3. Click **Java for Developers**.
4. In the list, look for the newest version that starts with **Java SE 8**. At the time of writing, the newest version was Java SE 8u171. In that section, click the **DOWNLOAD** button under **JDK** (Note: your minor version may be different)
5. In the section that lists installation files for the various operating systems, click the **Accept License Agreement** radio button at the top.
6. Select the .exe file for Windows x64 (**jdk-8u171-windows-x64.exe**). The file is downloaded to the machine's Download directory.
7. Run the Windows executable. Navigate to the Download directory. Double click **jdk-8u171-windows-x64.exe**.
8. At the Welcome screen, click **Next**.
9. Accept the features to install. Accept the default install location **C:\Program Files\Java\jdk1.8.0_171**. Click **Next**.
10. Upon successful installation, click **Close**.
11. Verify that the installation was successful. Open a command prompt. Change directories to **C:\Program Files\Java\jdk1.8.0_171**. You should see 6 directories, 6 files, and 2 zip files.

Step 4: Add JAVA_HOME variable to the System PATH

Add JAVA_HOME to the Path by editing an environment variable.

1. Add or modify the **JAVA_HOME** environment variable to the value **C:\Program Files\Java\jdk1.8.0_171** (or whatever version you installed).
2. Add **JAVA_HOME** to the end of the **Path** system variable.
3. Close the Environment Variables window.
4. Restart the computer.
5. Verify that your installation of Java is recognized. Open a command prompt and type:
`java -version`
6. You should see information about the Java version, Java runtime, and Java HotSpot.

Step 5: Install gradle

1. In your browser, go to <https://gradle.org/install/>.
2. Follow the instructions for Windows installation. For most users, the instructions in the **Install manually** section will be the easiest to follow.

Step 6: Install node.js

1. Go to <https://nodejs.org/en/>
2. There are two versions listed. Download the recommended version, which will be an msi installer file.
3. Run the msi file and install with the default options.
4. Verify the installation. At a command prompt, type `node -v`. The response is a version number.
5. Type `npm -v`. The response is a version number, along with a notice about any updates that are available.

Step 7: Install the MYSQL Client

1. Open a browser to <https://dev.mysql.com/downloads/mysql/>
2. Download the ZIP Archive version of the Windows 64 bit MYSQL 5.7 Installer. It should be approximately 320 MB.
3. When the ZIP archive is downloaded, extract it to the directory of your choice.
4. You will only need the mysql.exe executable. From the bin subdirectory under your extraction directory, move or copy the mysql.exe file to any directory in your PATH.

Step 8: Install Cygwin

There are certain times in the labs where the way that Windows interprets quote characters makes it easier for you to issue those commands from a Linux shell. You can have that Linux shell available by installing Cygwin.

1. Open a browser to <https://www.cygwin.com/>
2. Under the Current Cygwin DLL version heading, click to download the latest Windows 64 bit installation exe file.
3. Run the installation exe file and follow the prompts to install Cygwin.

This completes the setup tasks for Windows.

