

**WA2452 Node.js Software  
Development**

**Classroom Setup Guide**

**Web Age Solutions Inc.**

## Table of Contents

Part 1 - Minimum Hardware Requirements.....	3
Part 2 - Minimum Software Requirements.....	3
Part 3 - Software Provided.....	3
Part 4 - Instructions.....	4
Part 5 - Installing JDK 8 Update 45.....	6
Part 6 - Verification of JDK 8 Update 45.....	11
Part 7 - Installing Node.js node-v14.15.1-x64.....	13
Part 8 - MongoDB 3.4.13 - 32/64 bits.....	15
Part 9 - Installing Visual Studio Code.....	16
Part 10 - Summary.....	23

## **Part 1 - Minimum Hardware Requirements**

- Dual Core CPU or better.
- 4GB RAM minimum
- 20 GB in the hard disk
- Internet connection

## **Part 2 - Minimum Software Requirements**

- Windows 8.1 or Server 2012 R2
- 64 bits processor
- Latest Google Chrome browser
- Java \*
- MongoDB\*
- NodeJS \*
- Visual Studio Code

\* - indicates software provided as part of the courseware.

## **Part 3 - Software Provided**

List of ZIP files required for this course and used in next steps on this document:

**WA2452\_REL\_7\_0.zip**

Send an email to [support@webagesolutions.com](mailto:support@webagesolutions.com) in order to obtain a copy of the software for this course if you haven't receive it yet.

All other software listed under Minimum Software Requirements is either commercially licensed software that you must provide or software that is freely available off the Internet.

## Part 4 - Instructions

\_\_1. Login using the account that the students will use during the course and make sure the account that you are using to install the software has administrative privileges and is the same account that the student will use during the course.

\_\_2. Extract the **ZIP** file to C:\

\_\_3. Review that the following folders were created:

- C:\LabFiles\
- C:\Software\
- C:\Software\mongodb

\_\_4. Review that the following files were created:

- C:\Software\jdk-8u45-windows-i586.exe
- C:\Software\node-v14.15.1-x64.msi

\_\_5. Download and install the latest Google Chrome browser.

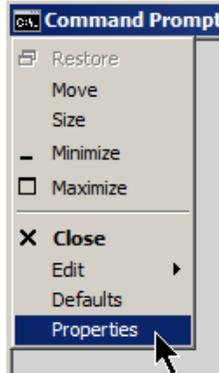
\_\_6. Create a folder on the local file-system named **c:\RW\**

\_\_7. Create a shortcut to the Windows Command Prompt onto the desktop.



\_\_8. Double click the Command Prompt shortcut to open the Command Prompt window.

\_\_9. In the Command Prompt window, click the black icon in the top left-hand corner and select **Properties** from the context menu.



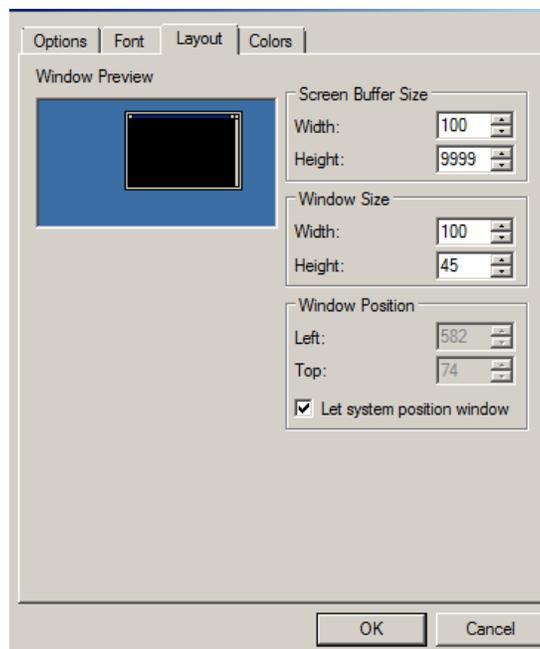
\_\_10. Click the **Options** tab.

\_\_11. Check **Quick Edit Mode**.

**Note:** This option allows a user to copy and paste text in the command prompt using mouse actions instead of an edit menu.

\_\_12. Click the **Layout** tab.

\_\_13. In the *Layout* tab, enter **100** for *Width* property (for both *Width* text windows in the *Layout* tab window), **9999** for the *Height* of the *Screen Buffer Size* property, and **45** for the *Height* property of the *Window Size* property.



\_\_14. Click **OK** to close the Properties dialog.

\_\_15. If an *Apply Properties to Shortcut* dialog appears, select **Modify shortcut that started this window** and click **OK**.



## Part 5 - Installing JDK 8 Update 45

\_\_1. Make sure there is no previous Java version already installed on the system. You can check this by using the Windows “Add/Remove Programs” utility. For the best compatibility with the labs it is suggested that all previous versions of Java be uninstalled before proceeding with these instructions. If this is an issue, please contact the setup support person for the course.

\_\_2. From the **C:\Software** directory run the following file:

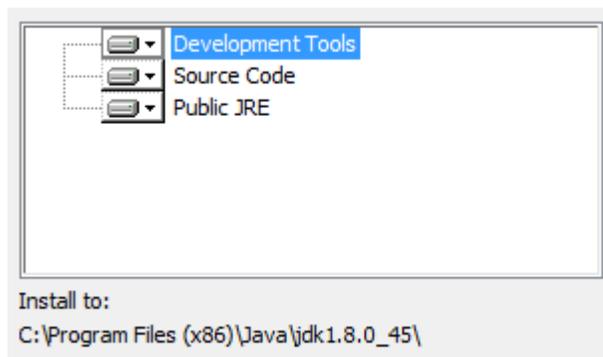
`jdk-8u45-windows-i586.exe`

**Note:** If using prompted by a security prompt allow the installation to continue.

\_\_3. When the initial step of the setup appears, press the **Next** button.



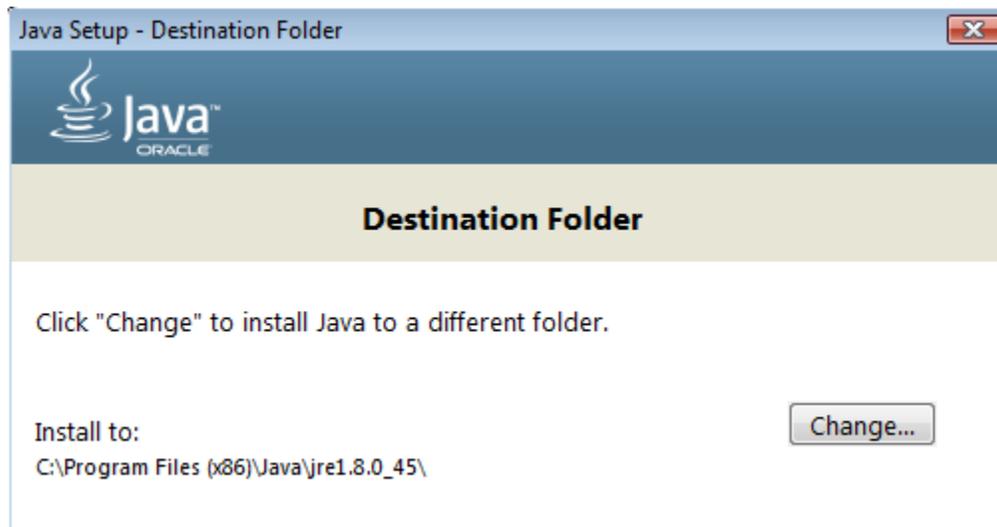
\_\_4. Leave the defaults for installation location and options, and press the **Next** button.



**Note:** The installation directory may be slightly different.

The installation will begin installing files.

\_\_5. The Destination Folder will appear, leave the default folder and click **Next**.



**Note:** The installation directory may be slightly different.

Wait until the software is completely installed.

\_\_6. Click **Close**.



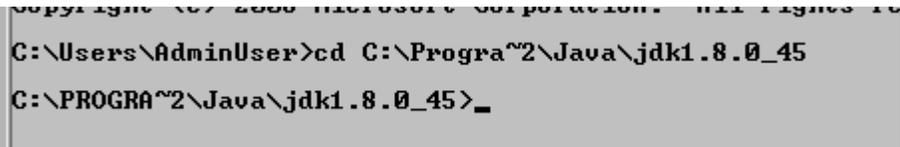
\_\_7. Close any browser that appears asking to register the JDK software.

## Set the Environment variables.

\_\_1. Open a Command Prompt. You can do this with '**Start → Programs → Accessories → Command Prompt**'.

\_\_2. Use the 'cd' command to attempt to switch to the following directory. This will verify the presence of a directory used later so make sure you do not get any errors about not being able to “find the path specified”.

```
cd C:\Progra~2\Java\jdk1.8.0_45
```



```
C:\Users\AdminUser>cd C:\Progra~2\Java\jdk1.8.0_45  
C:\PROGRA~2\Java\jdk1.8.0_45>_
```

**Note:** The installation directory may be slightly different depending your operating system. You may need to use the following directory instead of the one listed above:

**C:\Progra~1\Java\jdk1.8.0\_45**

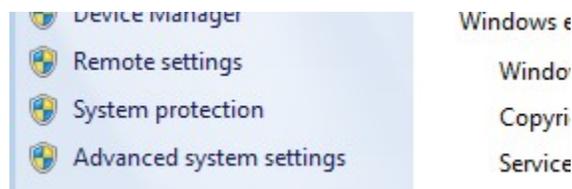
Some of the remaining steps will use the slightly different directory.

\_\_3. Make sure you can reach the java folder and remember the value entered because you will use this value in the following steps.

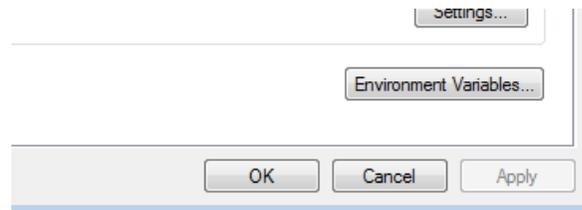
\_\_4. Close the command prompt window.

\_\_5. In the Windows Start Menu, right-click on the **Computer** link in the right-hand side of the Start panel, and then select **Properties**.

\_\_6. Click on **Advanced system settings**.



\_\_7. The system will display the **System Properties** dialog. Select the **Advanced** tab and click **Environment Variables**.



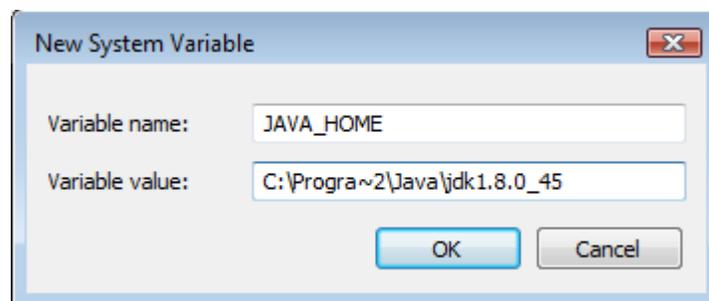
\_\_8. Under the **System Variables** list, click the **New** button.

\_\_9. Enter the following as Variable name:

**JAVA\_HOME**

\_\_10. As Variable value enter the following. This should be the value you verified in the *Set the Environment variables section - step 2*.

**C:\Progra~2\Java\jdk1.8.0\_45**



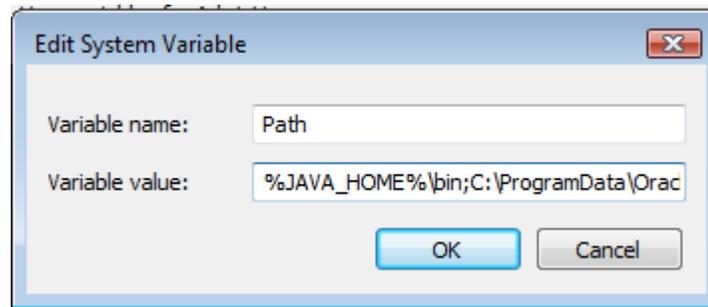
**Note:** If you are using a 32-bit OS you may have to use **C:\Progra~1\Java\jdk1.8.0\_45**

\_\_11. Click **OK** to create the variable.

\_\_12. From the *System Variables* list, select **Path** and click **Edit**.

\_\_13. At the beginning of the line enter the following. Make sure to include the semi-colon on the end:

**%JAVA\_HOME%\bin;**



\_\_14. Click **OK**.

\_\_15. Click **OK** to close the *Environment Variables* window.

\_\_16. Click **OK** to close the *System Properties* window.

## Part 6 - Verification of JDK 8 Update 45

\_\_1. Open a Windows command prompt. You can do this by selecting '**Start -> Run**', entering '**cmd**', and then pressing the **OK** button. Make sure it is a new command prompt and not one open previously.

\_\_2. Enter the following command:

```
echo %PATH%
```

Make sure you see the Java 'bin' directory listed at the beginning.

Note: You may see **C:\Progra~1\Java\jdk1.8.0\_45** or **C:\Progra~2\Java\jdk1.8.0\_45**

\_\_3. Enter the following command:

```
java -version
```

Make sure you see the response shown below.

```
C:\Users\AdminUser>java -version
java version "1.8.0_45"
Java(TM) SE Runtime Environment (build 1.8.0_45-b15)
Java HotSpot(TM) Client VM (build 25.45-b02, mixed mode)

C:\Users\AdminUser>_
```

Troubleshooting: If you get an error message means that your Environment variable was incorrectly entered, go back and fix the values.

\_\_4. Enter the following command:

```
javac
```

Verify that you get the options to run the Java compiler:

```
C:\Users\AdminUser>javac
Usage: javac <options> <source files>
where possible options include:
  -g                Generate all debugging info
  -g:none           Generate no debugging info
  -g:<lines,vars,source> Generate only some debugging info
```

\_\_5. Enter the following command:

```
java -XshowSettings:all 2>&1 | findstr /c:"sun.arch.data.model"
```

```
C:\Users\wasadmin>java -XshowSettings:all 2>&1 | findstr /c:"sun.arch.data.model"
"
sun.arch.data.model = 32
```

Verify that it displays the correct value of 32. This indicates that it is 32-bit java that is installed.

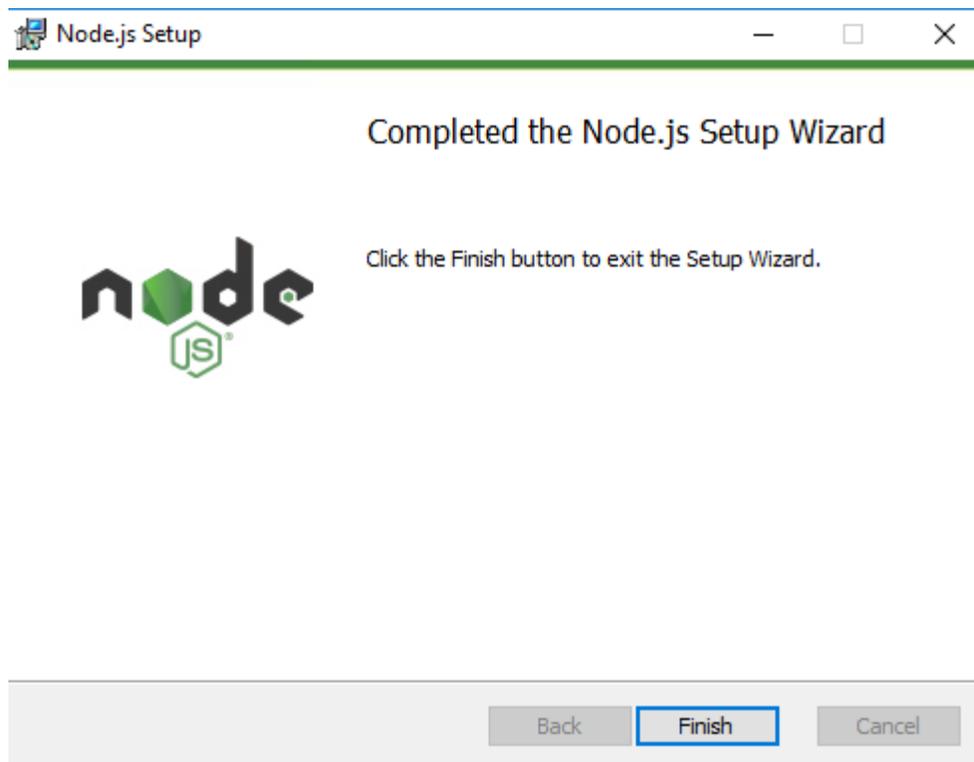
Troubleshooting: If it displays 64 for the value, then you have 64 bit java installed and this will cause issues. Please uninstall the 64-bit java and reinstall the indicated 32-bit jdk.

\_\_6. Close the command prompt window and any extra windows that are open.

Java has been installed.

## Part 7 - Installing Node.js node-v14.15.1-x64

- \_\_ 1. Open C:\Software\
  - \_\_ 2. Double click on **node-v14.15.1-x64.msi** to begin installation.
  - \_\_ 3. In the Welcome page, click **Next**.
  - \_\_ 4. Check **I accept the terms...** and click **Next**.
  - \_\_ 5. Accept default destination folder and click **Next**.
  - \_\_ 6. Accept default Custom Setup selection and click **Next**.
  - \_\_ 7. Accept default tools selection and click **Next**.
  - \_\_ 8. Click **Install**.
  - \_\_ 9. A popup window may open asking to install the software. Click Yes to continue.
  - \_\_ 10. Click **Finish**.



## Installation verification of Node.js

\_\_1. Open a command prompt window.

\_\_2. Enter the command:

```
node --version
```

\_\_3. Make sure that you see **14.15.1** as the output.

\_\_4. Close all.

## Part 8 - MongoDB 3.4.13 - 32/64 bits

\_\_1. Open a command prompt window and type in the following command at the prompt and press **ENTER** (execute the command)

```
mkdir c:\data\db
```

\_\_2. Enter the following command:

```
cd C:\Software\mongodb\bin
```

\_\_3. Verify mongodb version

```
mongod -version
```

Make sure your version matches version below.

```
C:\Software\mongodb\bin>mongo -version
MongoDB shell version v3.4.13-20-g1edf4ba
git version: 1edf4baa102a0a26dad5730ebafb5dfcb1714bed
allocator: tcmalloc
modules: none
build environment:
  distarch: x86_64
  target_arch: x86_64
```

\_\_4. Start MongoDB server by running:

```
mongod
```

\_\_5. If a Windows Security Alert open, click **Allow Access**.

```
e Pack 1 ) BOOST_LIB_VERSION=1_49
2015-09-03T15:12:57.935-0400 I CONTROL [initandlisten] allocator: tcmalloc
2015-09-03T15:12:57.936-0400 I CONTROL [initandlisten] options: {}
2015-09-03T15:12:57.943-0400 I NETWORK [initandlisten] waiting for connections
on port 27017
```

You will see the "waiting for connections on port 27017" message.

\_\_6. End MongoDB by hitting **Control+C**.

\_\_7. Close all.

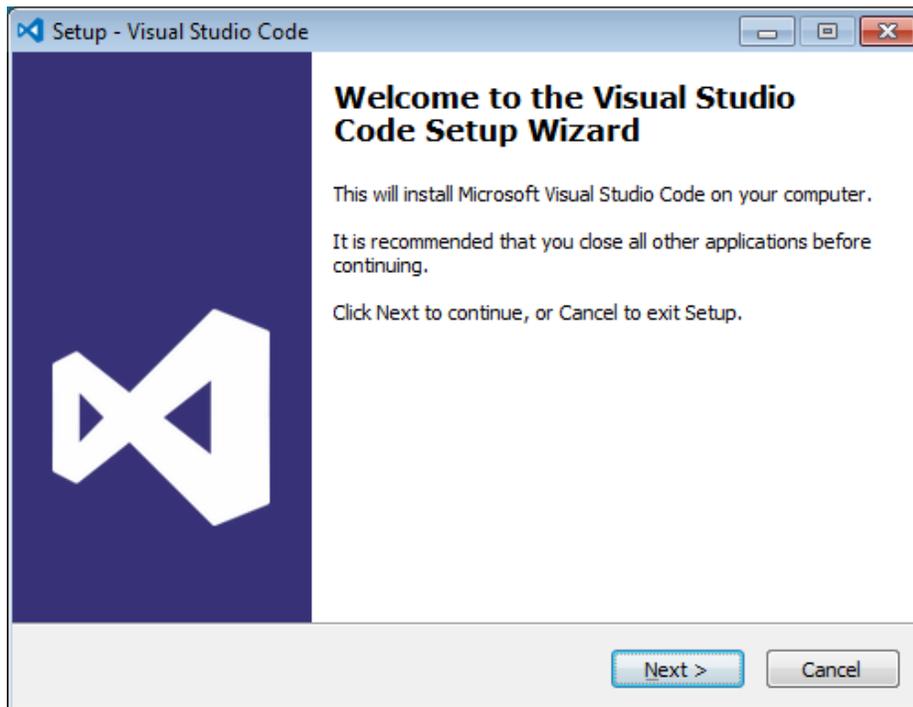
## Part 9 - Installing Visual Studio Code

\_\_1. Download the latest VScode for Windows (stable build installer) from the following site:

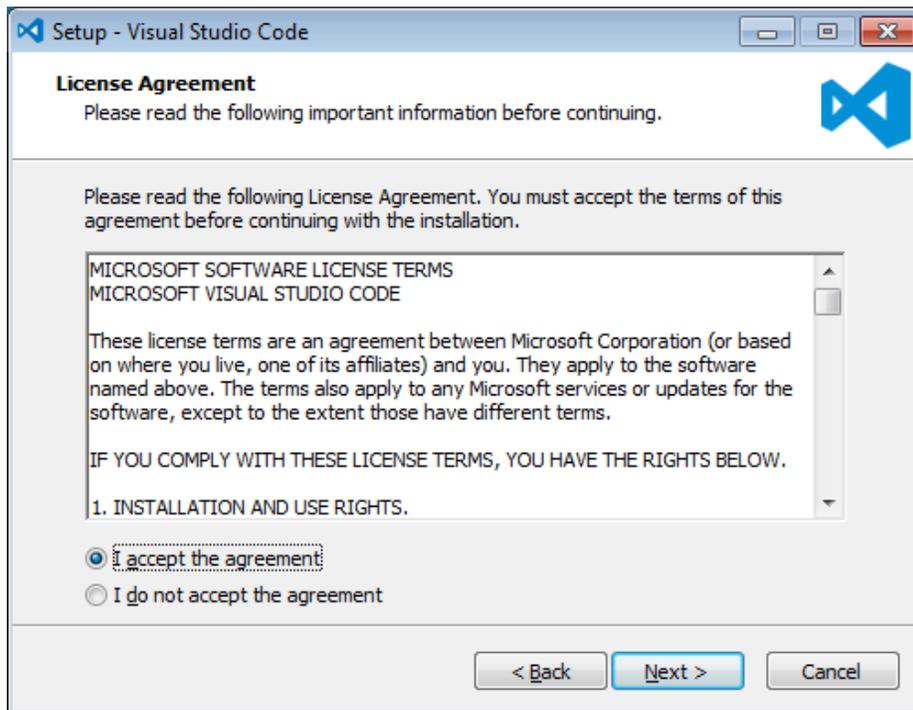
`https://code.visualstudio.com/`

\_\_2. Run the downloaded installer to begin the installation.

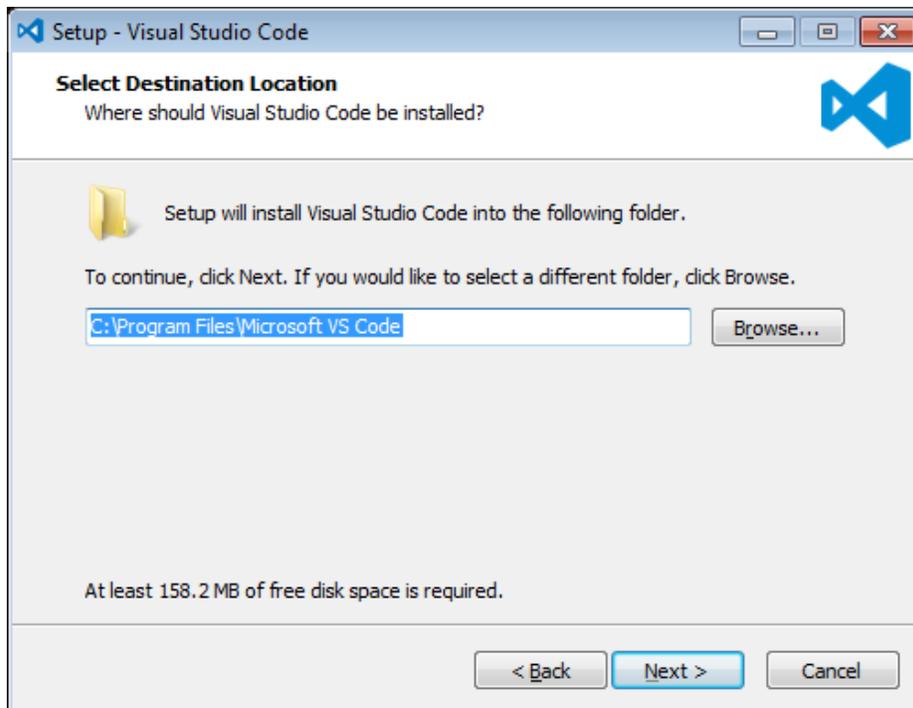
\_\_3. Click **Next** on the welcome screen.



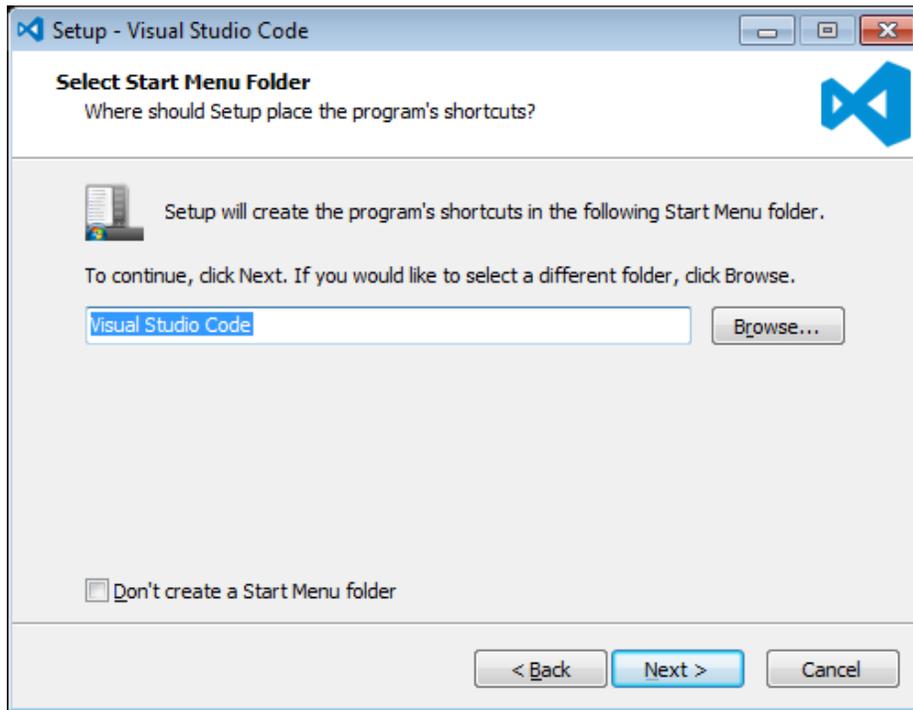
\_\_4. Check **I accept the agreement...** and click **Next**.



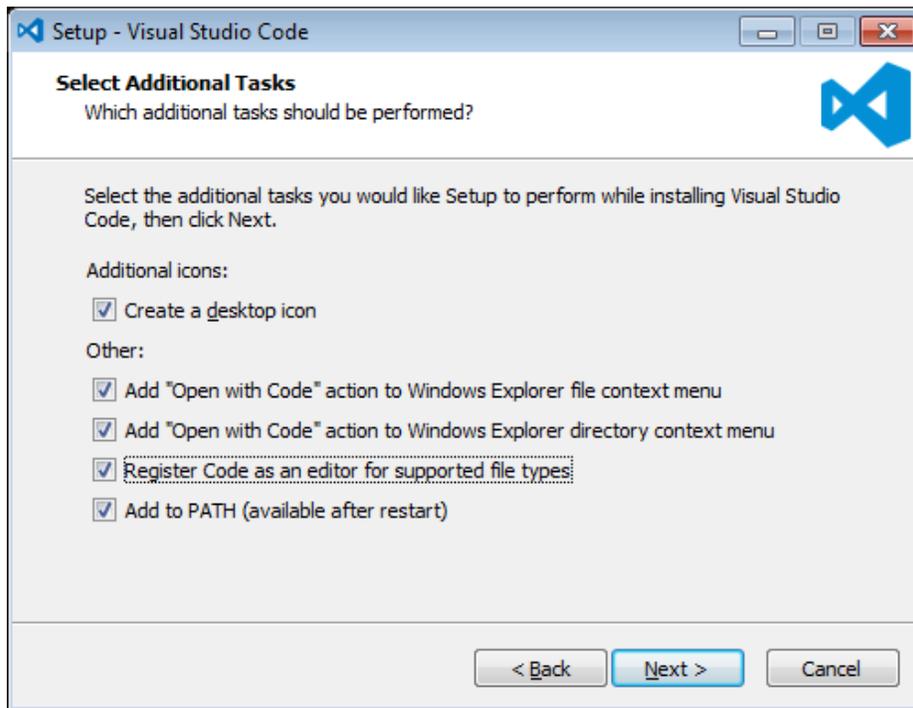
5. Leave the default installation location and click **Next**.



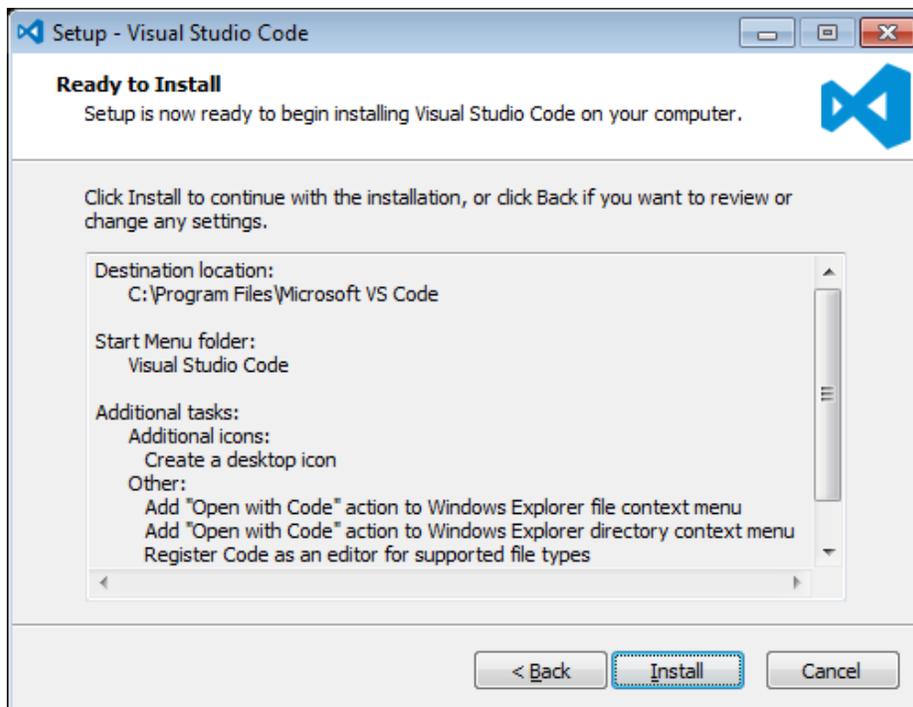
\_\_6. Leave the default start menu folder and click **Next**.



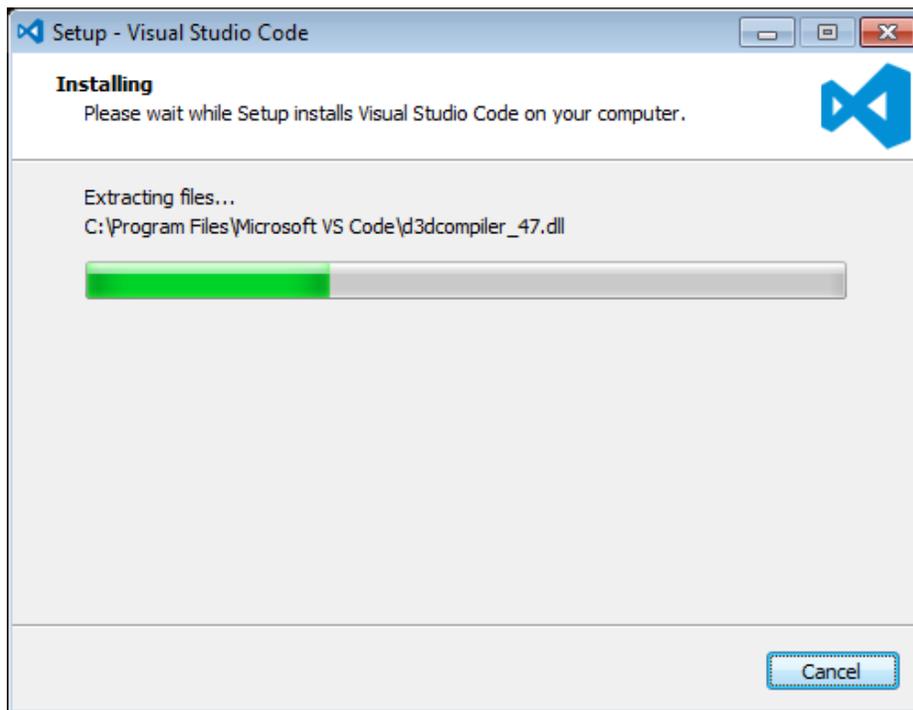
\_\_7. Put a check mark on all items under Additional Tasks and click **Next**.



8. Now click **Install**.



\_\_9. Give it some time to install.

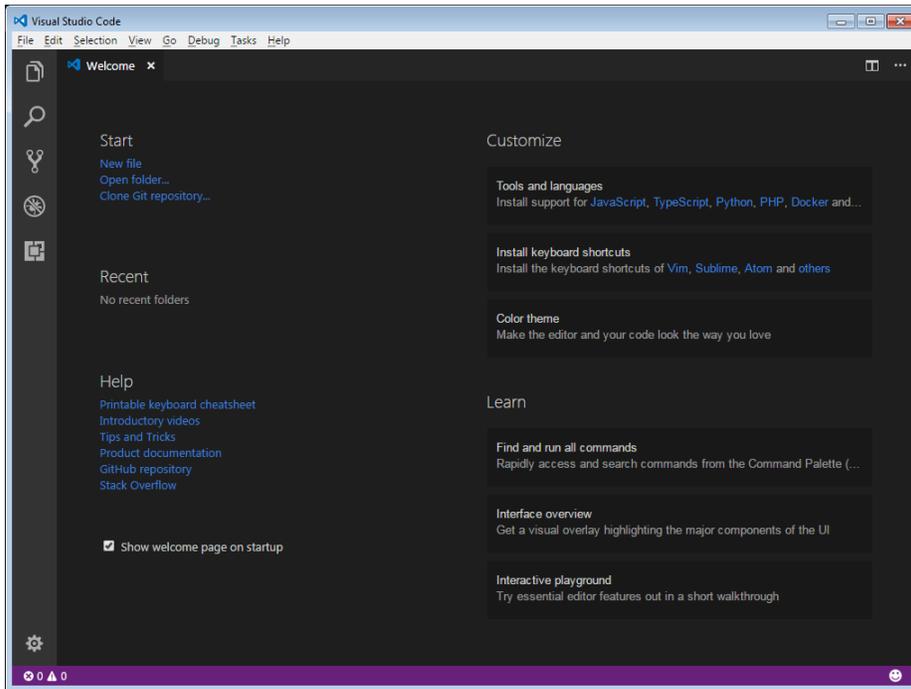


\_\_10. When it is complete, **uncheck Launch Visual Studio Code** and click **Finish**.

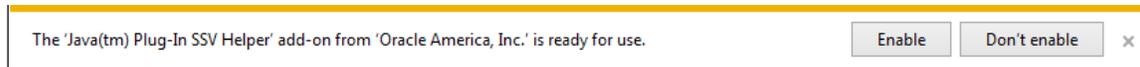


### **Installation verification of VScode.**

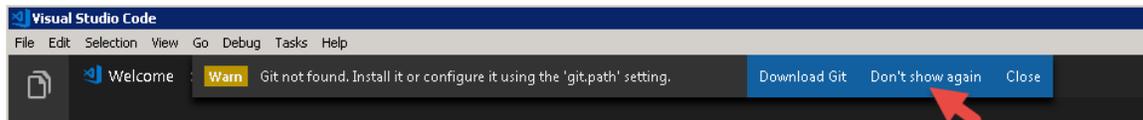
- \_\_1. Launch Visual Studio Code using the shortcut on the desktop.
- \_\_2. Verify Visual Studio Code opens and that you see the Welcome screen.



3. You may see a message to enable Java(tm) Plug-In, if so click Enable.



4. You may see a message regarding Git, if so click **Don't show again**.



5. Close all windows.

## **Part 10 - Summary**

**You have successfully installed the software for this course!**

If you have any question please contact us by email at [support@webagesolutions.com](mailto:support@webagesolutions.com)

From US and Canada call: 1-877-812-8887 ext. 26

International call: 416-406-3994 ext. 26