

WA2511 Spring Boot

Classroom Setup Guide

Web Age Solutions Inc.

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Part 1 - Minimum Hardware Requirements

- 64 bits OS
- 2 cores
- 4 GB RAM minimum
- 12 GB in the hard disk
- Internet access.

Part 2 - Minimum Software Requirements

- Windows 8.1
- Firefox latest
- Chrome latest
- Adobe Acrobat Reader
- Zip extraction utility
- JDK 14-64 bits *
- Eclipse IDE-2020-03 *
- Maven 3.6.3 *
- Postman 7.21.0 *
- Rabbit MQ server 3.66 *
- Erlang 19.1 *
- Gradle 6.6.1 *
- 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:

WA2511_REL_6_0.ZIP

Send an email to 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. Extract the **ZIP** file to C:\

__2. Review that the following folders were created:

- **C:\LabFiles**
- **C:\Software\apache-maven-3.6.3**
- **C:\Software\gradle-6.6.1**

__3. Review that the following files were created:

- **C:\Software\Eclipse-IDE-2020-03-eclipse-inst-win64.exe**
- **C:\Software\jdk-14_windows-x64_bin.exe**
- **C:\Software\otp_win32_19.1.exe**
- **C:\Software\Postman-win64-7.21.0-Setup.exe**
- **C:\Software\rabbitmq-server-3.6.6.exe**

Part 5 - Privileges to Users

During the labs students will require privileges on several directories. They will need to be able to write, read, and modify files in these directories for the labs. Although the directions below are provided as an example, this may differ depending on Windows version. The important thing is to make sure students have full permissions on the folders below or they may not be able to accomplish some labs.

- **C:\Software**
- **C:\LabFiles**
- **C:\Workspace**

__1. Create the user that the students will use during the class.

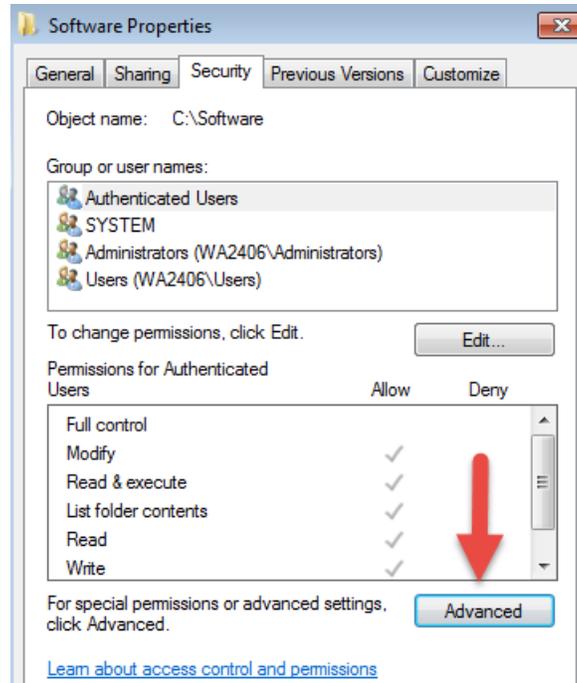
__2. Give the student user account administrative rights. During the labs the student requires this to install software.

__3. Open Windows Explorer.

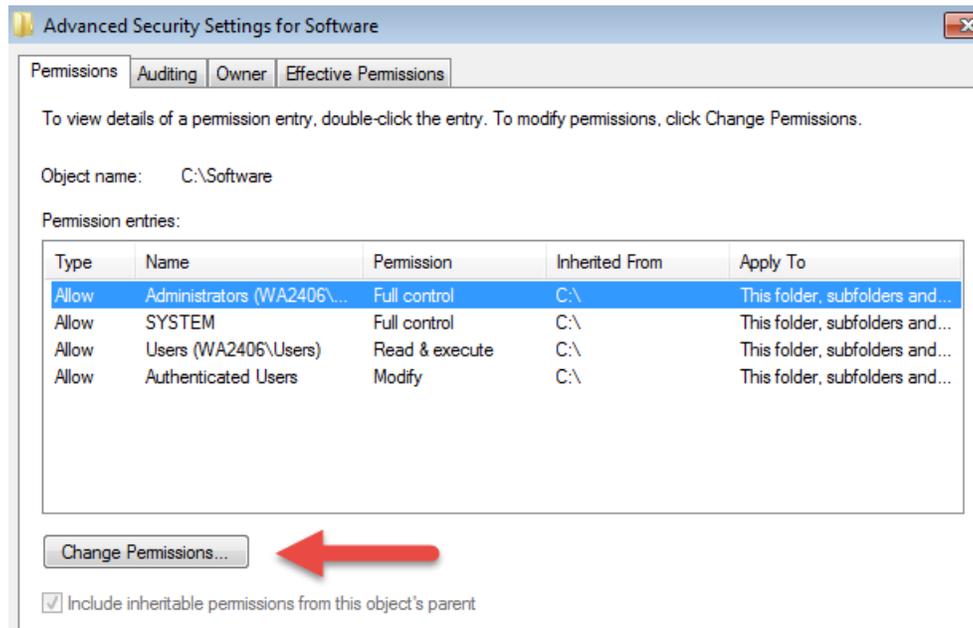
__4. Right click C:**Software** and select **Properties**.

__5. Click the **Security** tab.

__6. Click **Advanced**.

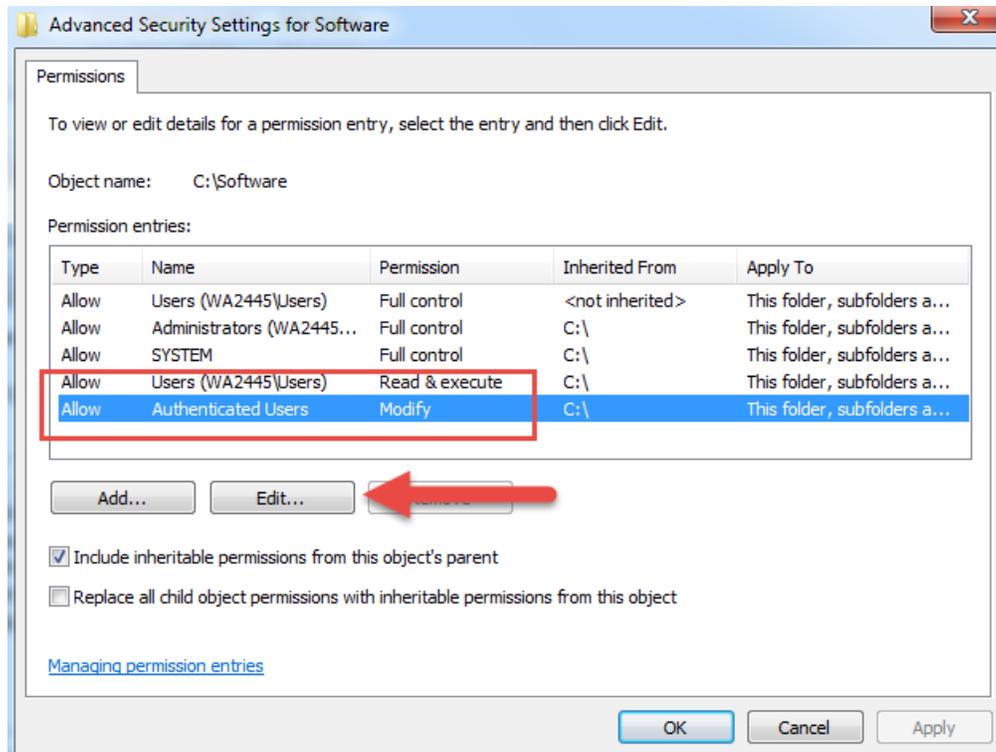


__7. Click **Change Permissions**.

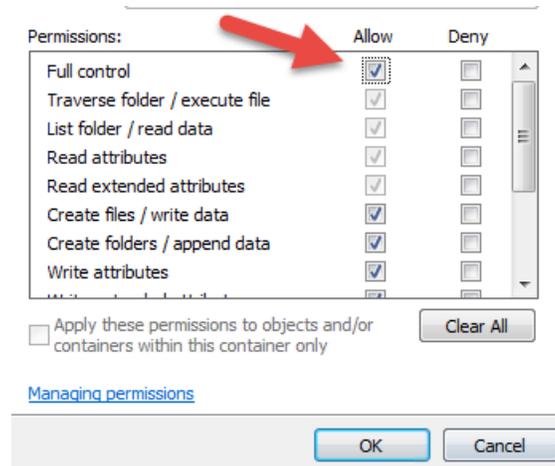


__8. Select the **Authenticated Users** entry and click **Edit...**

Note. If you don't have a domain in your environment the select **Users** instead **Authenticated Users**.



__9. Check the **Allow** checkbox to the right of **Full Control** and click **OK**.



__10. Select the checkbox for **Replace all child permissions with inheritable permissions from this objects** and then click **OK**.



- Include inheritable permissions from this object's parent
- Replace all child object permissions with inheritable permissions from this object

- __ 11. A *Windows Security* dialog will open. Click **Yes**.
- __ 12. Wait until Windows finishes updating security.
- __ 13. Back in the *Advanced Security Settings* dialog, click **OK**.
- __ 14. Back in the *Properties* dialog, click **OK**.
- __ 15. Do the same steps to the **C:\LabFiles** folder.
- __ 16. Create a folder called **C:\Workspace** if its not already created.
- __ 17. Do the same steps to the **C:\Workspace** folder.

Part 6 - Installing JDK 14 64 bit

__ 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-14_windows-x64_bin.exe
```

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

- __ 3. When the Welcome page of the setup appears, press the **Next** button.
- __ 4. Leave the defaults for installation location and options, and press the **Next** button.

The installation will begin installing files. Wait until the software is completely installed.

__5. Click **Close**.

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~1\Java\jdk-14
```

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~2\Java\jdk-14

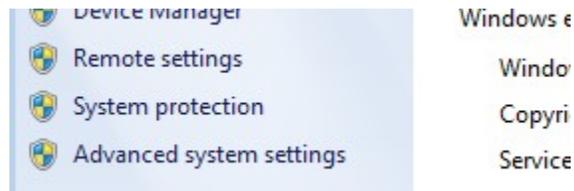
Some of the remaining steps will use the slightly different directory.

__3. Make sure you can reach the java folder and remember the value entered because you will use this value in the following steps.

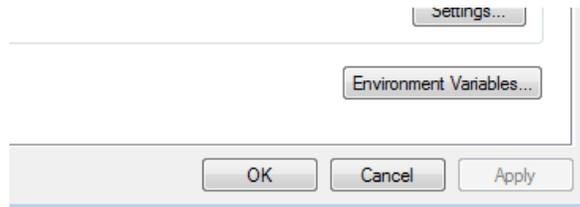
__4. Close the command prompt window.

__5. Open the system properties. The way to do this varies slightly by Windows version. The easiest way is often to open a File Explorer window, right click on the 'This PC' shortcut and 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.

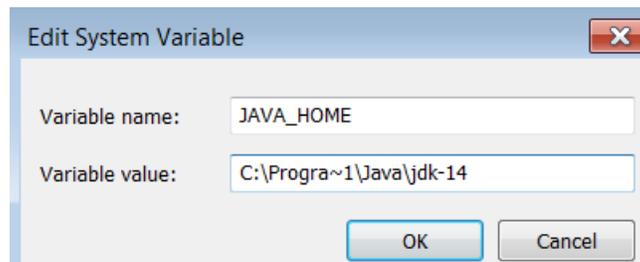
__9. As Variable name enter:

JAVA_HOME

__10. As Variable value enter the following. This should be the value you verified before.

C:\Progra~1\Java\jdk-14

__11. Click **OK** to create the variable.

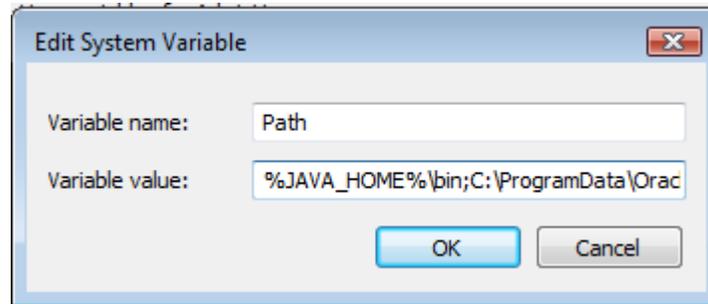


__12. From the *System Variables* list, select **Path** and click **Edit**.

__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.

Verification

__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.

__3. Enter the following command:

```
java -version
```

Make sure you see the response shown below.

```
C:\Users\wasadmin>java -version
java version "14" 2020-03-17
Java(TM) SE Runtime Environment (build 14+36-1461)
Java HotSpot(TM) 64-Bit Server VM (build 14+36-1461,
```

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:\>javac
Usage: javac <options> <source files>
where possible options include:
  @<filename>           Read options and filenames from file
  -Akey[=value]         Options to pass to annotation proces
  --add-modules <module>(,<module>)*
                        Root modules to resolve in addition to the initial modules,
                        on the module path if <module> is ALL-MODULE-PATH.
  boot-class-path <path>  bootclasspath <path>
```

__5. Enter the following command:

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

Verify that it displays the correct value of 64. This indicates that it is 64-bit java that is installed.

__6. Close the command prompt window and any extra windows that are open.

You have completed Java installation.

Part 7 - Installing Eclipse-IDE-2020-03

__1. Open C:\Software\

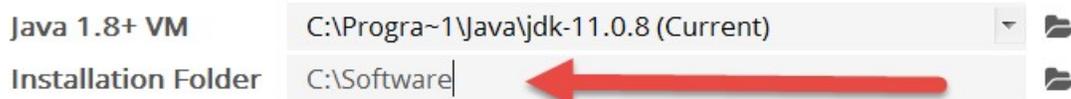
__2. Double click in this file to install eclipse:

Eclipse-IDE-2020-03-eclipse-inst-win64.exe

__3. Select **Eclipse IDE for Enterprise Java and Web Developers**.



__4. Enter the **Installation folder** as C:\Software



Note that Java version may vary.

__5. Click **Install**.

__6. Click **Accept Now**.

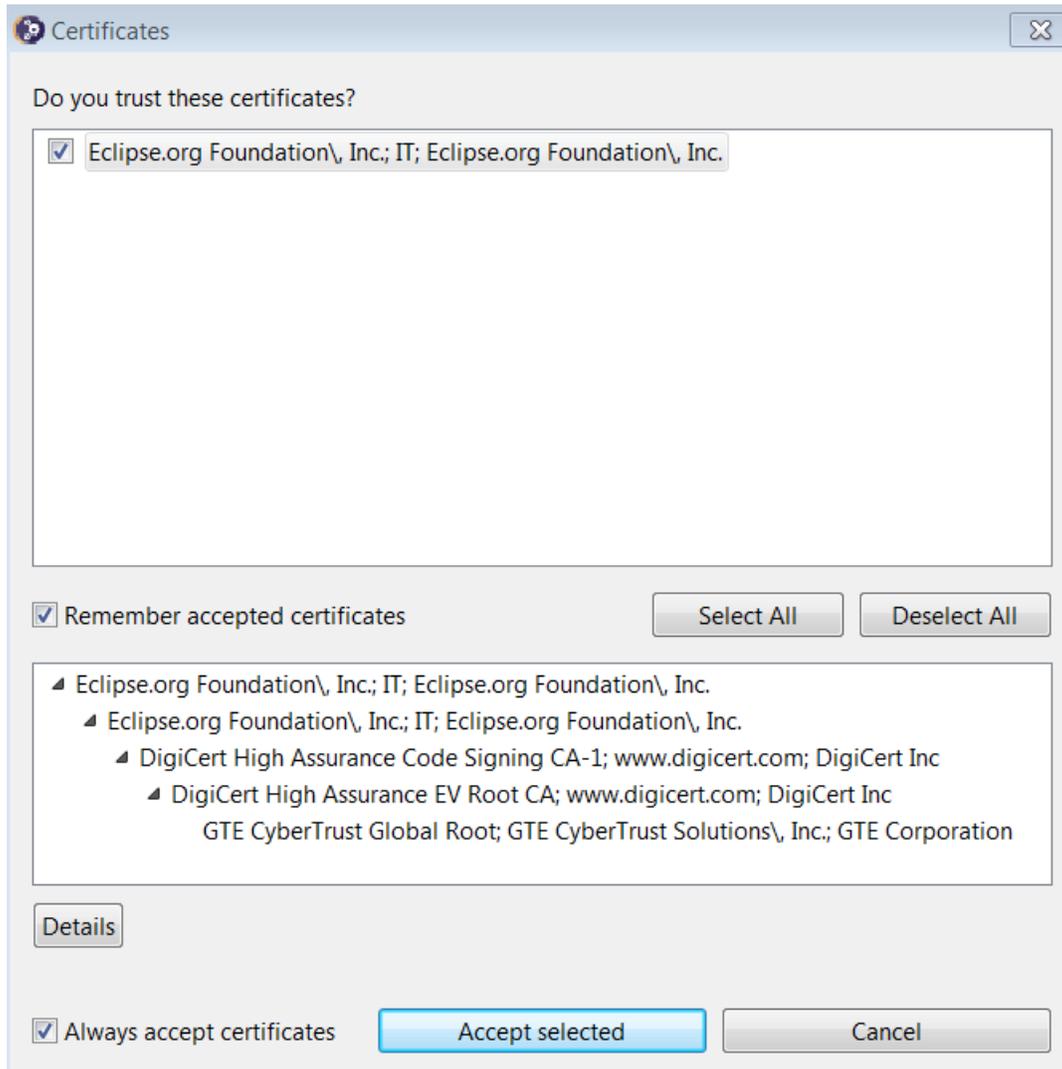
The installation will start and may take a while.

__7. In the Certificates page, click **Select All**.

__8. You may see a pop-up message about the installation is taking longer. Just close that pop-up.

__9. Check the boxes for **Remember accepted certificates**.

__10. Check the boxes for **Always accept certificates**.



__11. Click **Accept selected** to continue with the installation.

__12. Finally it will finish installing eclipse. Click **Launch**.



Eclipse IDE for Enterprise Java Developers

[details](#)

Tools for developers working with Java and Web applications, including a Java IDE, tools for Web Services, JPA and Data Tools, JavaServer Pages and Faces, Mylyn, Maven and Gradle, Git, and more.

Java 1.8+ VM	C:\Progra~1\Java\jdk-11.0.8 (Current) 	
Installation Folder	C:\Software	
	<input checked="" type="checkbox"/> create start menu entry	
	<input checked="" type="checkbox"/> create desktop shortcut	
▶ LAUNCH		

Eclipse will start.



__13. Change the workspace directory to **C:\Workspace** and click **Launch**.

__14. Eclipse will open showing the Welcome page. Close the page by clicking on the X in the tab.

__15. From the menu, select **File > Exit** to close Eclipse.

You have completed Eclipse installation.

Part 8 - Installing Maven 3.6.3

The following steps are based on Windows 7, other Windows versions instructions may vary.

__1. In the Windows Start Menu, right-click on the **Computer** link in the right-hand side of the Start panel, and then select **Properties**.

__2. Click on **Advanced system settings**.

__3. The system will display the **System Properties** dialog. Select the **Advanced** tab and click **Environment Variables**.

__4. Verify there is a JAVA_HOME variable.

__5. In the 'System Variables' panel, locate the entry for '**Path**' and double-click on it.

__6. Add the following to the **end** of the **Variable Value** field (including the semi-colon)

```
;C:\Software\apache-maven-3.6.3\bin
```

__7. Click **OK** on the variable editor dialog.

__8. Click **OK** on the **Environment Variables** dialog.

__9. Click **OK** in the **System Properties** dialog.

__10. Open a command prompt window.

__11. In the command window, type:

```
mvn -version
```

__12. Verify the version is 3.6.3 as shown below:

```
C:\Users\wasadmin>mvn -version
Apache Maven 3.6.3 (cecedd343002696d0abb50b321
Maven home: C:\Software\apache-maven-3.6.3\bin
Java version: 1.8.0_45, vendor: Oracle Corpora
Default locale: en_US, platform encoding: Cp12
OS name: "windows 7", version: "6.1", arch: "x
```

__13. Close all.

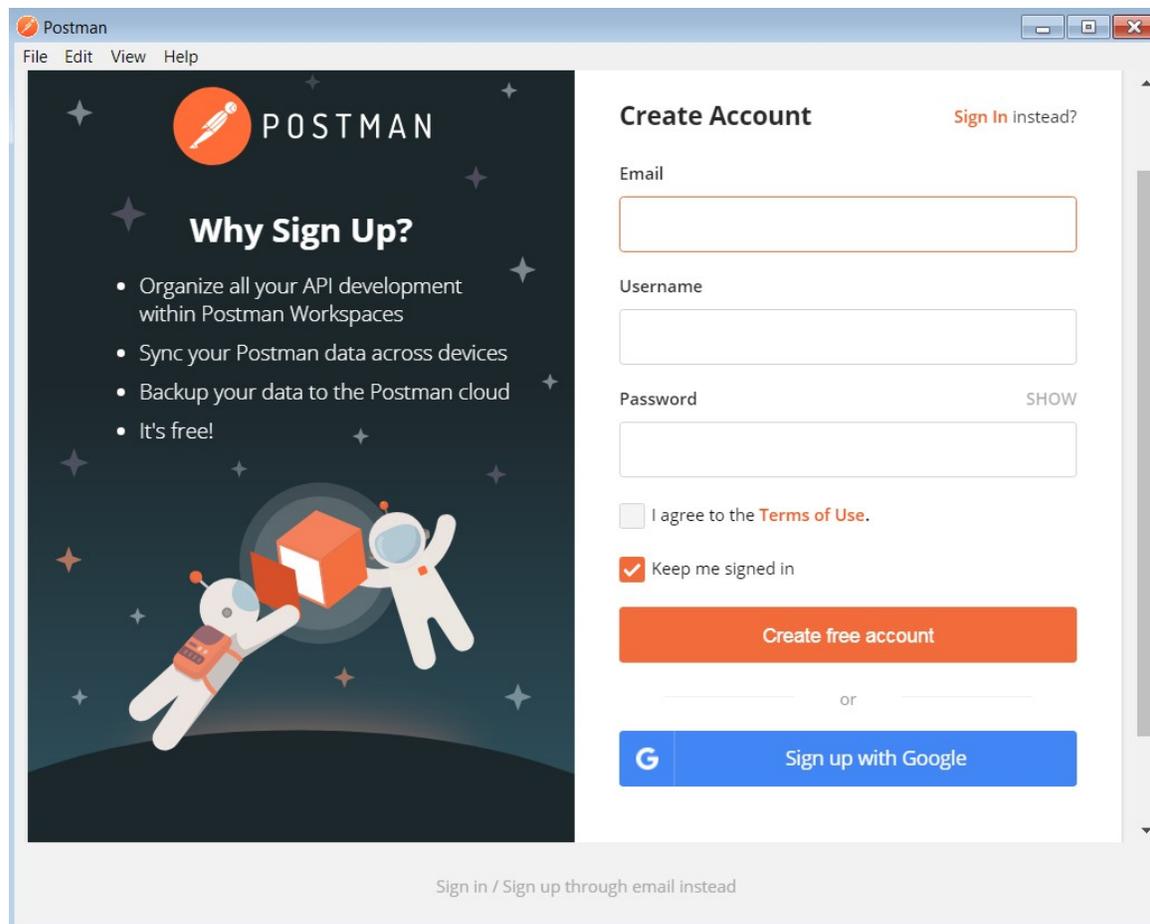
Part 9 - Installing Postman 7.21

__1. Open C:\Software\

__2. Double click this file begin installation:

Postman-win64-7.21.0-Setup.exe

Installation will start and after a while Postman will be launched.



__3. Close Postman.

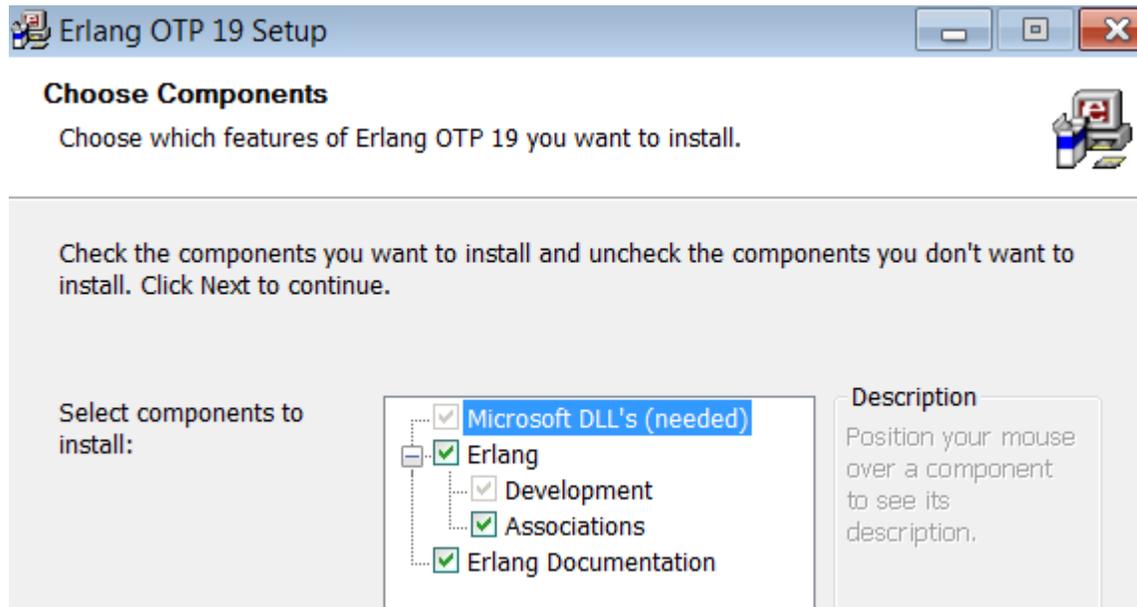
Part 10 - Installing Erlang 19.1

__ 1. Locate and run:

`C:\Software\otp_win32_19.1.exe`

__ 2. If window open, allow access in all similar windows.

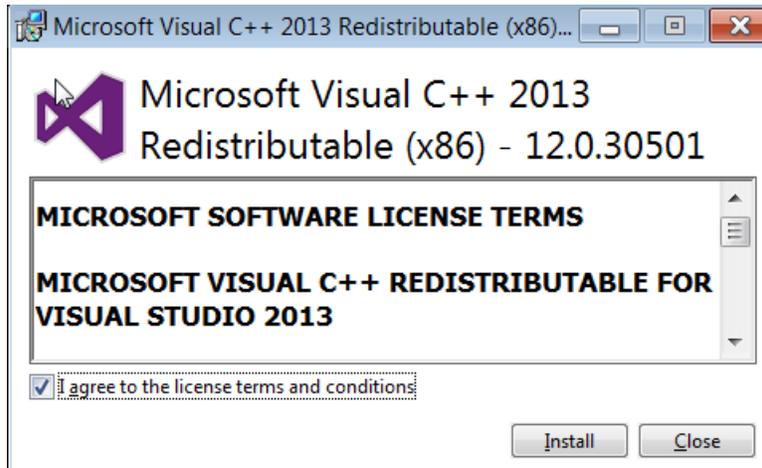
__ 3. Click **Next** in the Choose Components window.



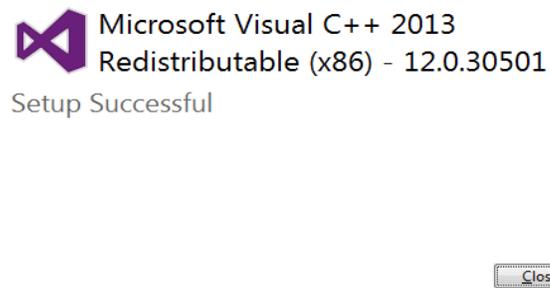
__ 4. Leave the default destination folder and click **Next**.

__ 5. Click **Install**.

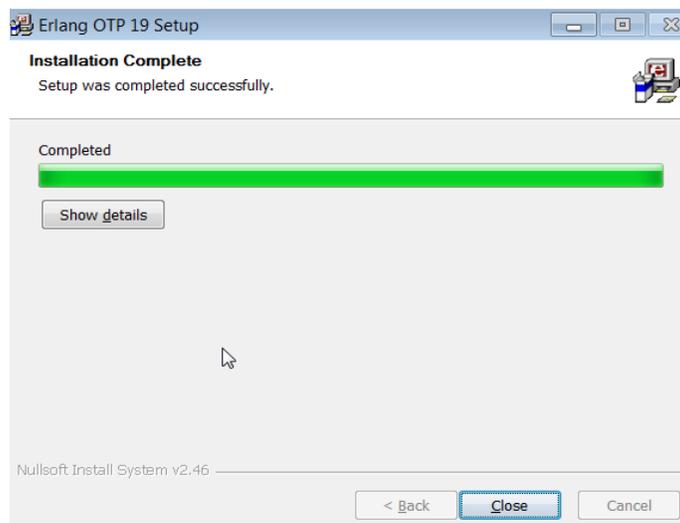
__ 6. If the following window appears then check the agreement box and click **Install**.



__7. If you see this page, click **Close**.



__8. Click **Close**.



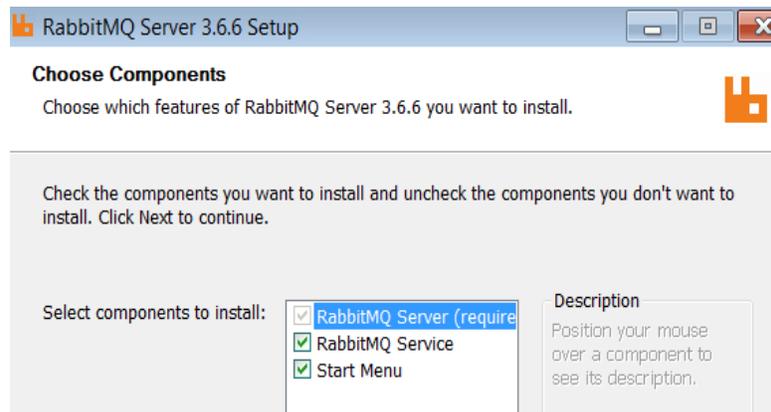
Part 11 - Installing RabbitMQ server 3.6.6

__1. Locate and run:

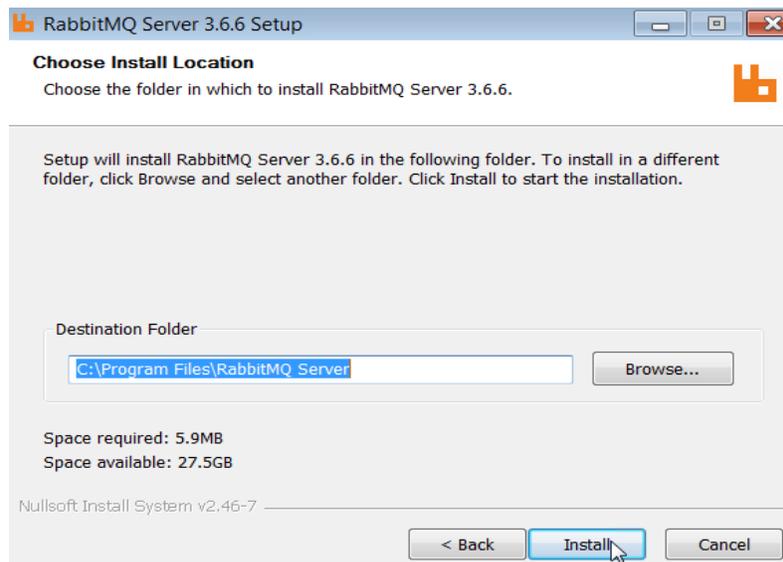
`C:\Software\rabbitmq-server-3.6.6.exe`

__2. If a window open, allow access in all similar windows.

__3. Click **Next**.

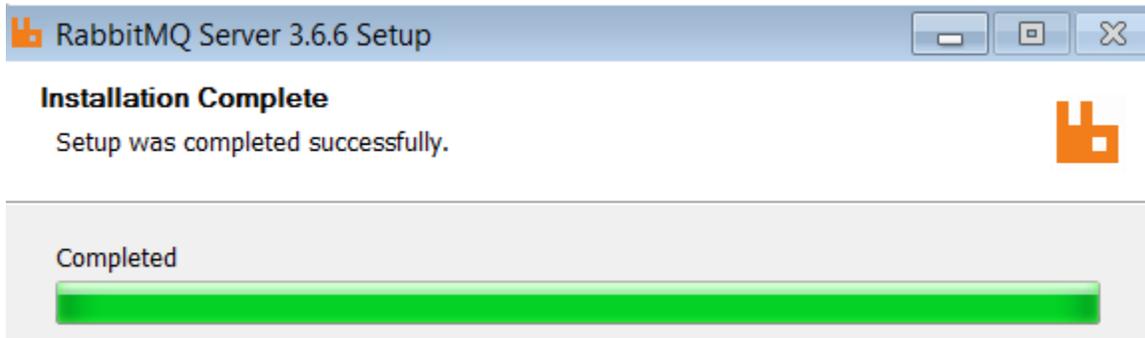


__4. Leave the default destination folder and click **Install**.

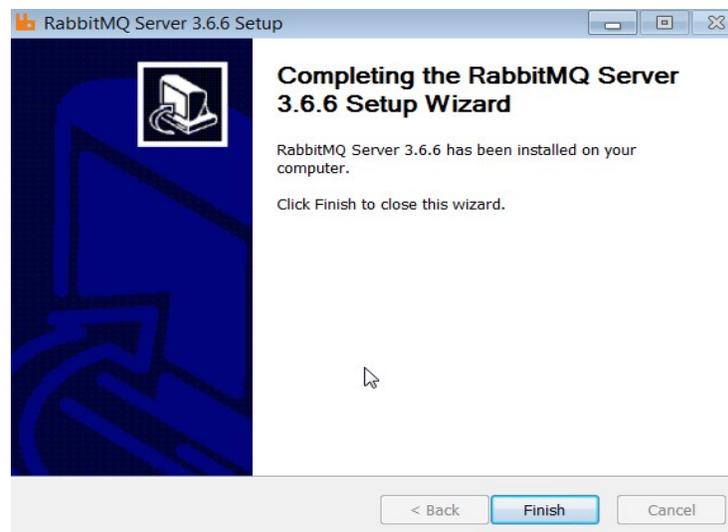


__5. If a Firewall window open, then click **Allow access** in all similar windows.

__6. In the Installation complete page, click **Next**.



__7. Click **Finish**.



Part 12 - Installing Visual Studio Code

__1. Download the latest VScode for Windows (stable build installer) from the following site:

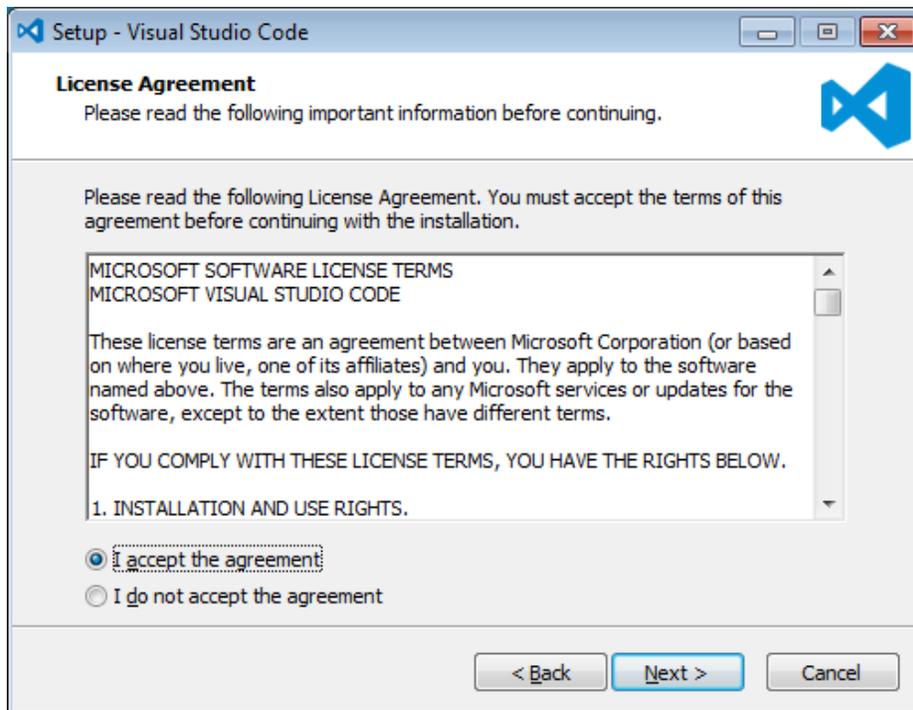
<https://code.visualstudio.com/>

__2. Run the downloaded installer to begin the installation.

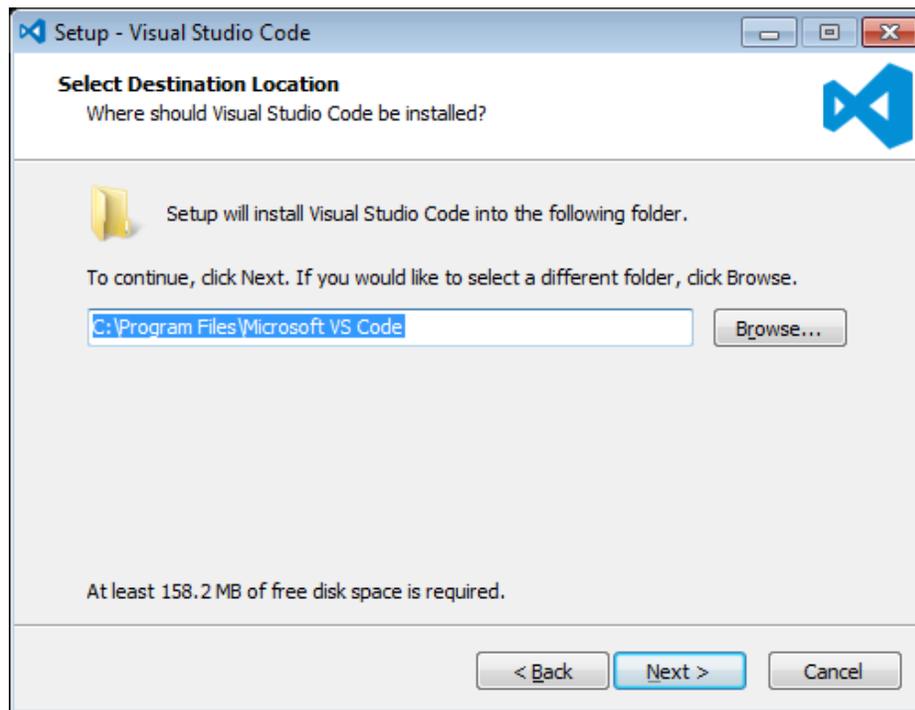
__3. Click **Next** on the welcome screen.



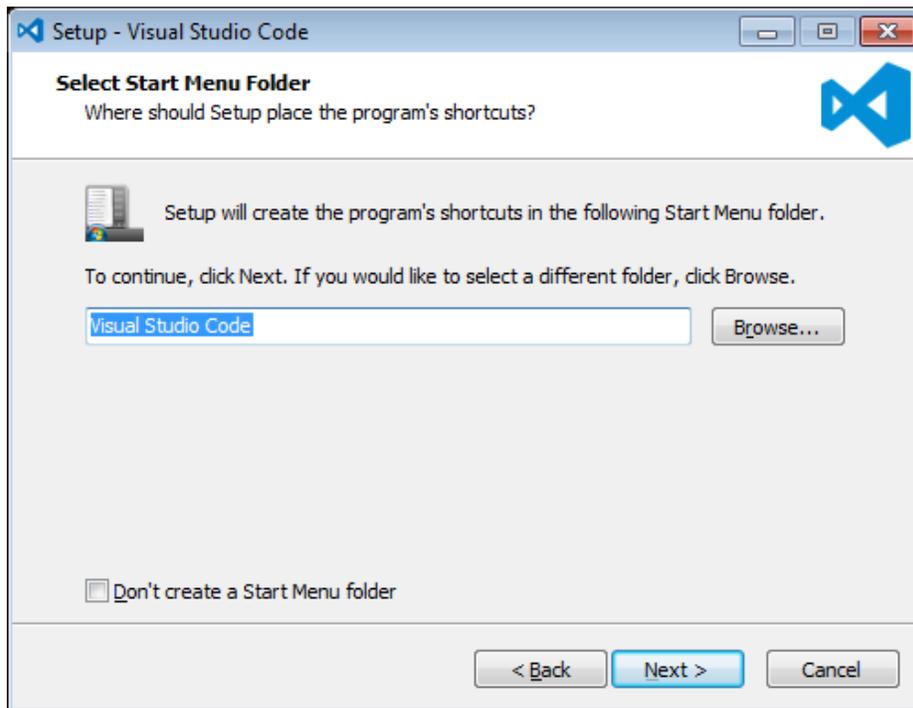
4. Check **I accept the agreement...** and click **Next**.



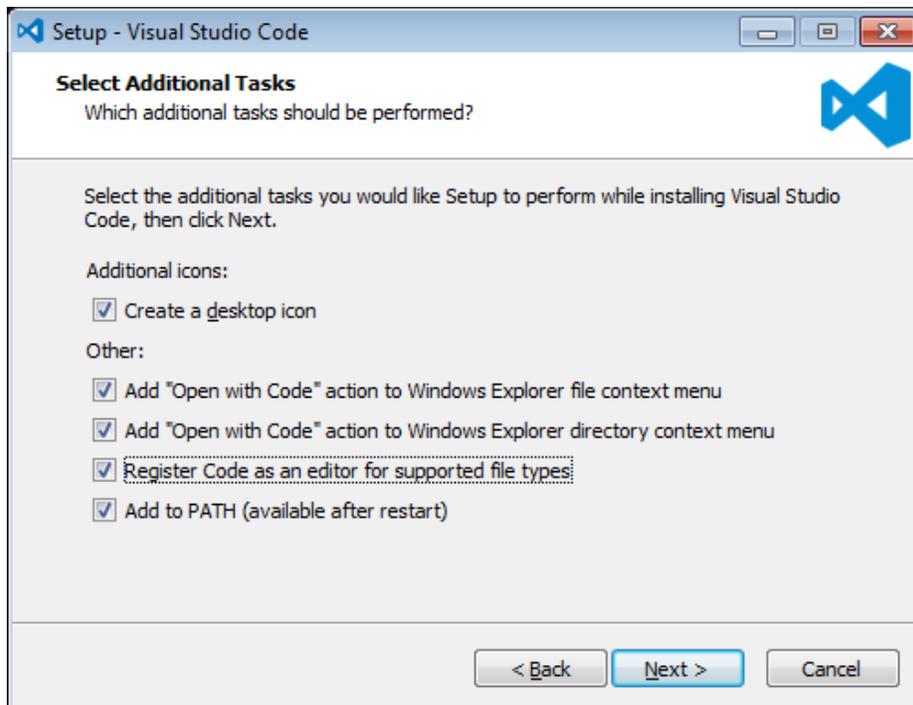
__5. Leave the default installation location and click **Next**.



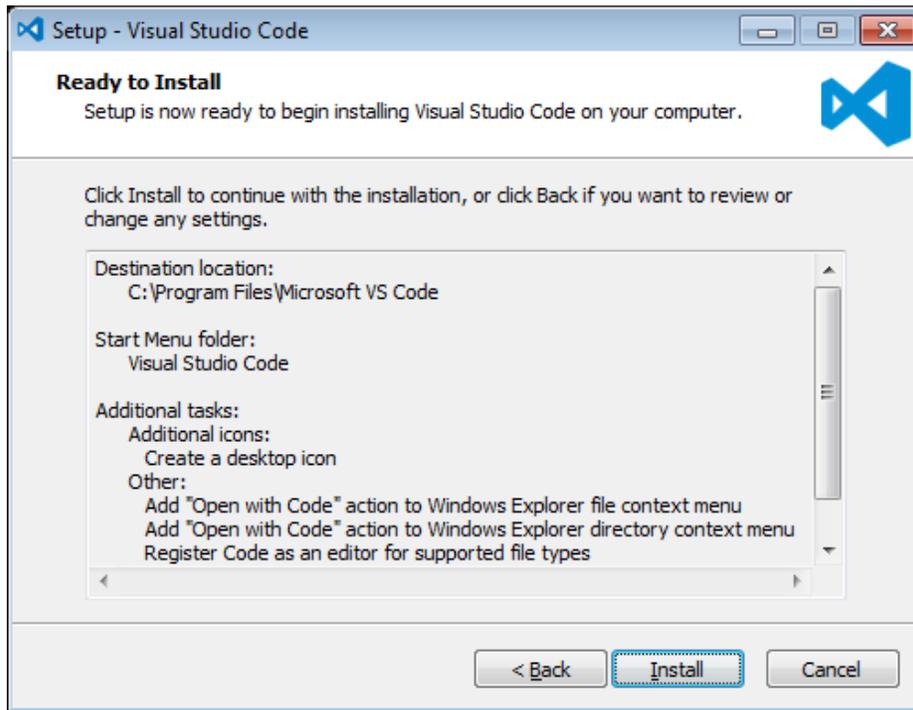
__6. Leave the default start menu folder and click **Next**.



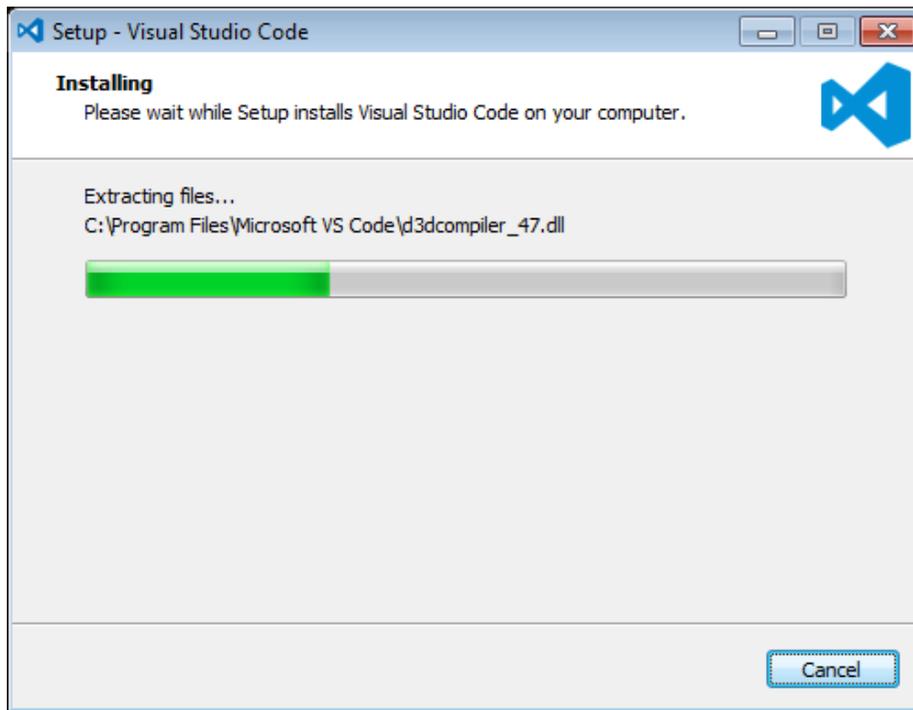
7. Put a check mark on all items under Additional Tasks and click **Next**.



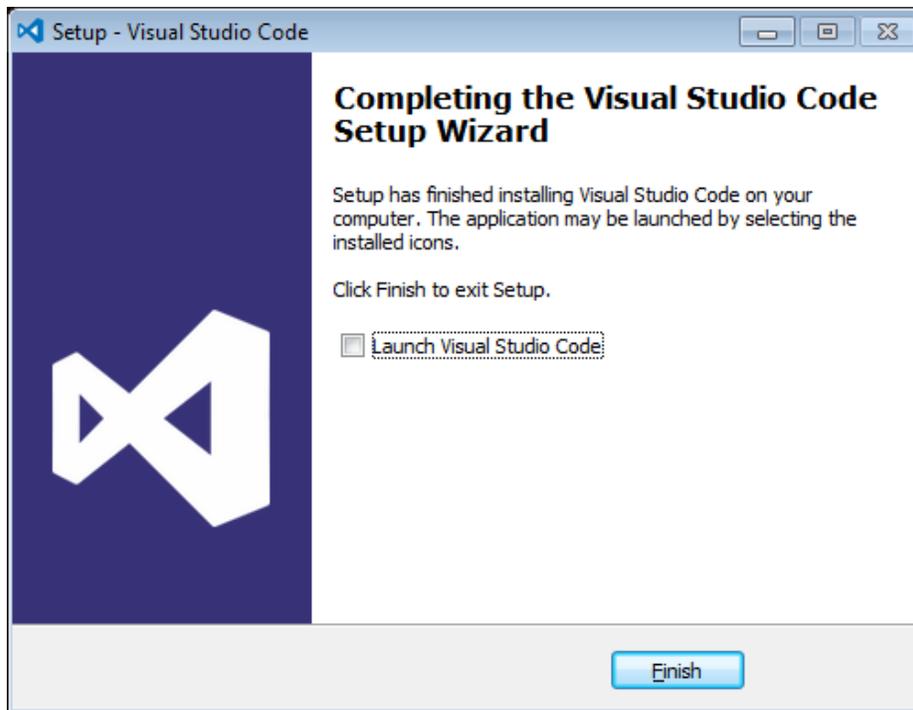
__8. Now click **Install**.



__9. Give it some time to install.

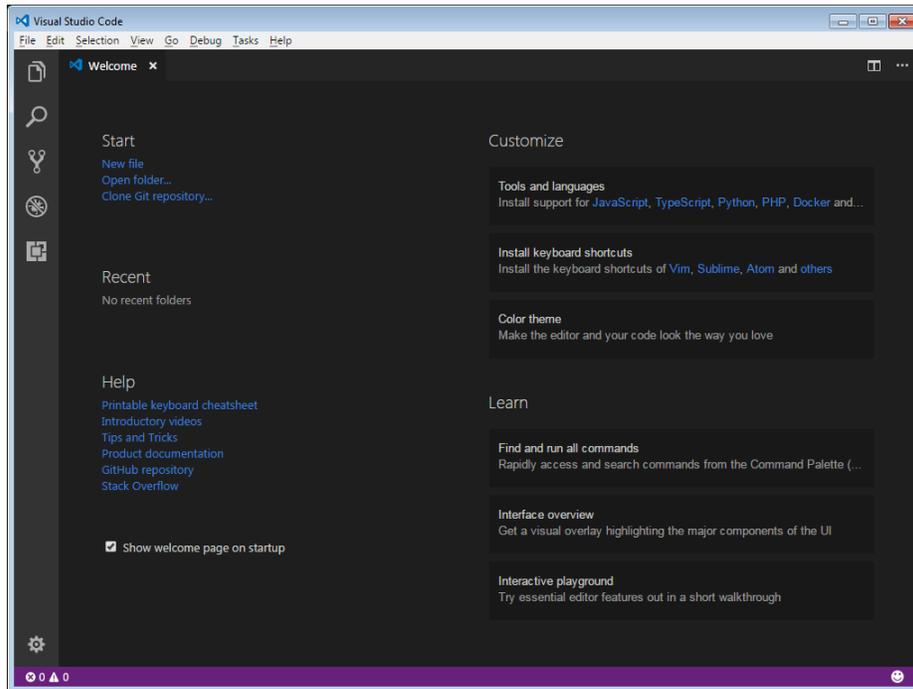


10. When it is complete, **uncheck Launch Visual Studio Code** and click **Finish**.

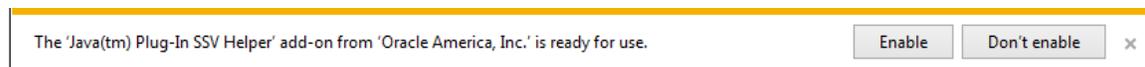


Installation verification of VSCode.

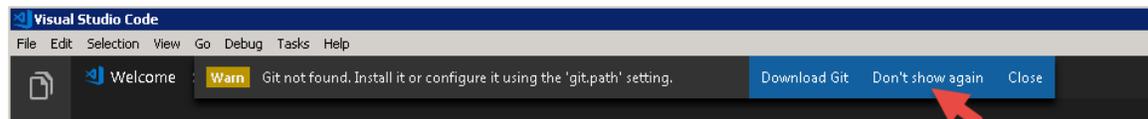
1. Launch Visual Studio Code using the shortcut on the desktop.
2. Verify Visual Studio Code opens and that you see the Welcome screen.



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 13 - Summary

You have successfully installed the software for this course!

If you have any question please contact us by email at support@webagesolutions.com

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

International call: 416-406-3994 ext. 26