

**WA2607 Comprehensive Spring
Boot - Cloud**

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.....	4
Part 4 - Instructions.....	4
Part 5 - Privileges to Users.....	5
Part 6 - Installing JDK 8 Update 45.....	8
Part 7 - Verification of JDK 8 Update 45.....	13
Part 8 - Verification of Eclipse Mars.....	15
Part 9 - Installing Erlang 19.1.....	17
Part 10 - Installing RabbitMQ server 3.6.6.....	19
Part 11 - Install Maven 3.3.9.....	20
Part 12 - Installing Postman 5.2	22
Part 13 - MongoDB 3.4.13 - 32/64 bits.....	24
Part 14 - Summary.....	25

Part 1 - Minimum Hardware Requirements

- CPU to meet the minimum requirements of the operating system being used
- 2 GB RAM minimum, 3 GB recommended
- 64 bits OS
- 15 GB in the hard disk
- Internet connectivity.

Part 2 - Minimum Software Requirements

- One of the following Windows versions:
 - Windows 7 (Professional, Enterprise, or Ultimate)
- Adobe Acrobat Reader
- Zip extraction utility
- Chrome
- eclipse *
- JDK *
- Erlang OTP *
- RabbitMQ Server *
- Maven *
- Postman *
- MongoDB 3.4.13 *

* 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:

WA2607_REL_2_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. Create a user called **wasadmin** with password **wasadmin** and grant this user administrative access, or create an admin user and share this information to the instructor.

__2. Restart the computer and log in as **wasadmin**.

__3. Make sure you have internet access.

__4. Install the latest Chrome version.

__5. Extract the **.ZIP** file to **C:**

__6. Review that the following folders were created:

- **C:\LabFiles**
- **C:\Software\eclipse**
- **C:\Software\apache-maven-3.3.9**
- **C:\Software\NotepadPlus**
- **C:\Software\mongodb**

__7. Review that the following files were created:

- **C:\Software\jdk-8u45-windows-i586.exe**
- **C:\Software\otp_win32_19.1.exe**
- **C:\Software\rabbitmq-server-3.6.6.exe**
- **C:\Software\Postman-win32-5.2.0-Setup.exe**

__8. Make a shortcut in the desktop to **C:\Software\NotepadPlus\notepad++.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.

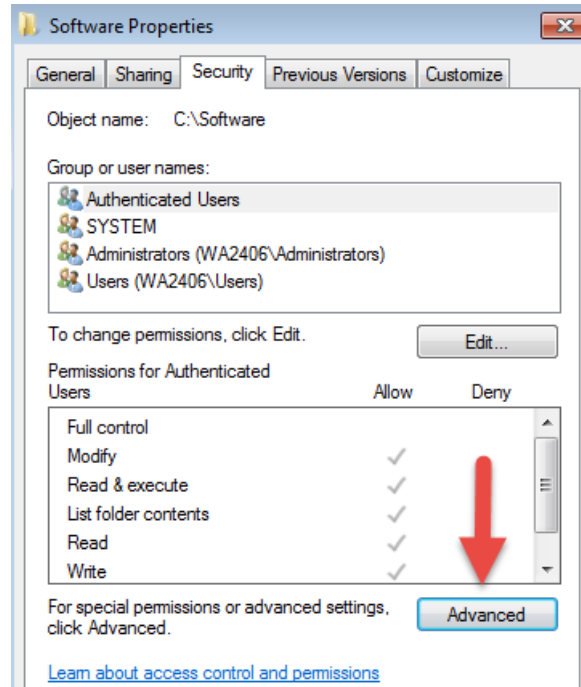
__2. Give the student user account administrative rights. During the labs the student requires this to install software.

__3. Open Windows Explorer.

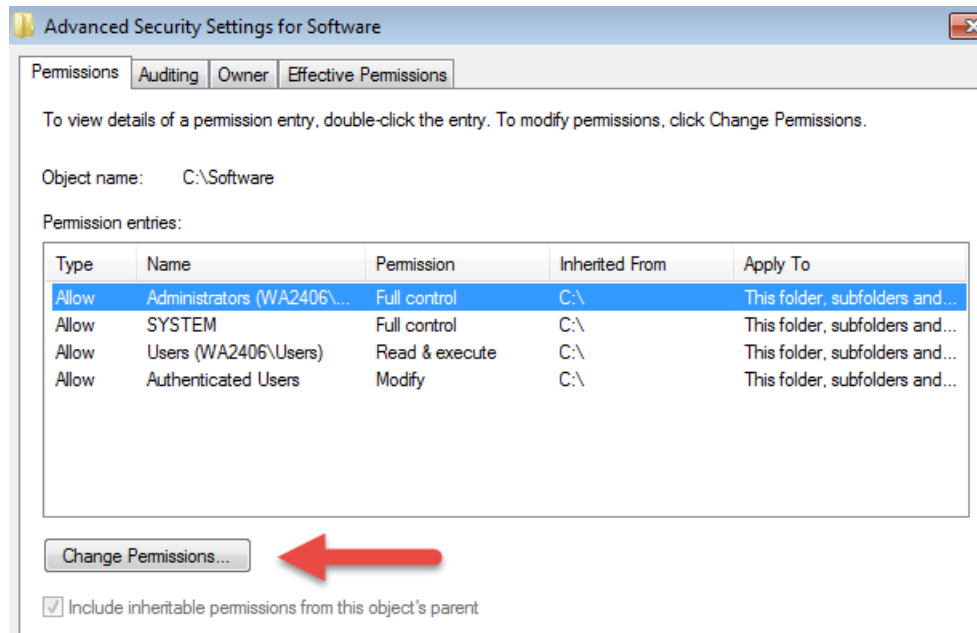
__4. Right click **C:\Software** and select **Properties**.

__5. Click the **Security** tab.

__6. Click **Advanced**.

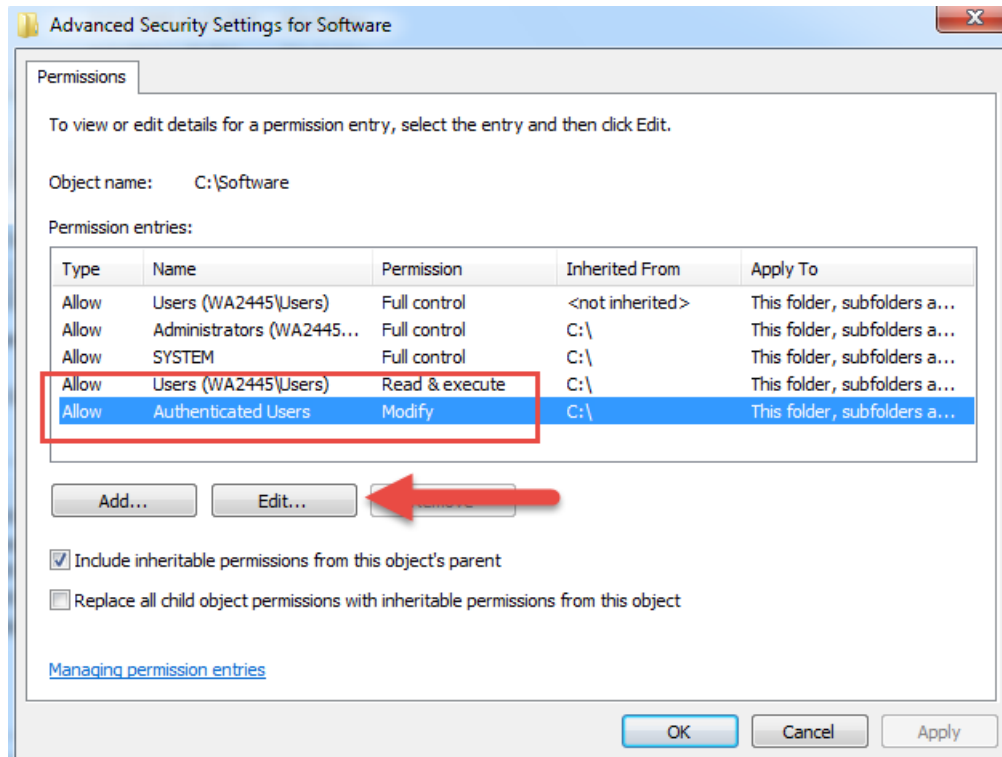


__7. Click **Change Permissions**.

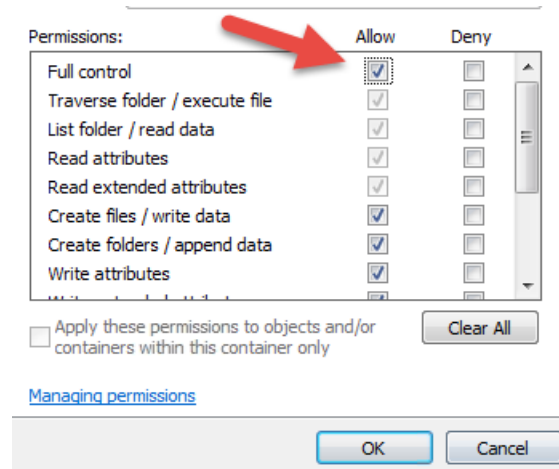


__8. Select the **Authenticated Users** entry and click **Edit...**

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 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:

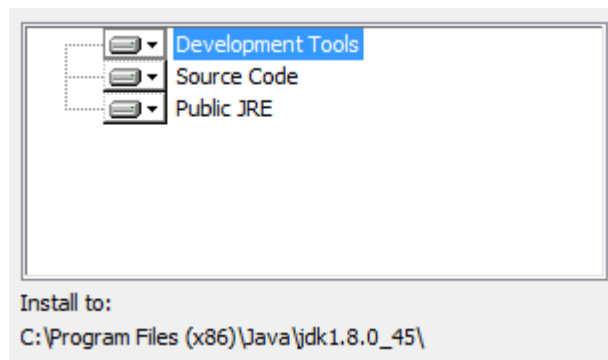
```
jdk-8u45-windows-i586
```

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**.



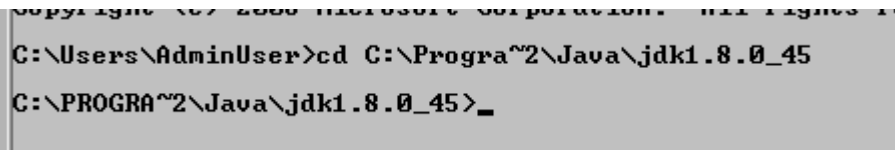
__7. Close any browser that appears asking to register the JDK software.

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
```



```
Copyright (c) 2009 Microsoft Corporation. All rights reserved.  
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

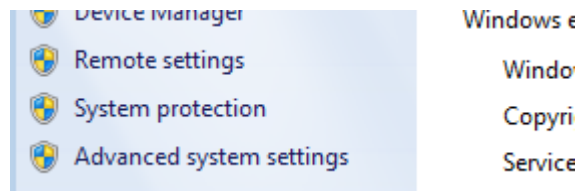
Some of the remaining steps will use the slightly different directory.

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

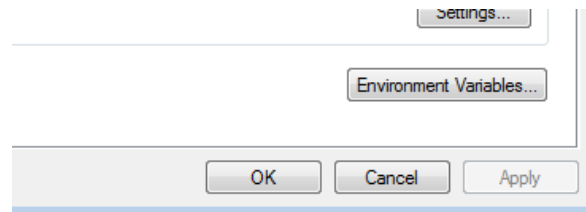
__4. Close the command prompt window.

__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**.

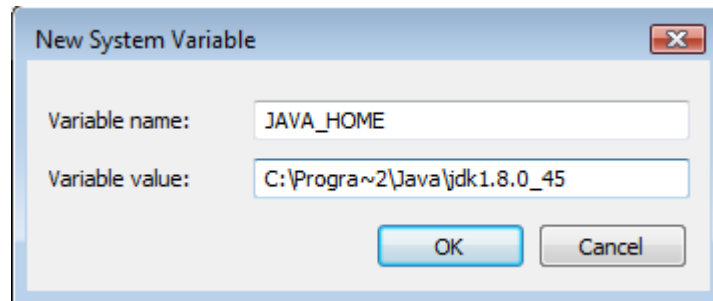


__8. Under the **System Variables** list, click the **New** button.

__9. Enter **JAVA_HOME** as Variable name.

__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



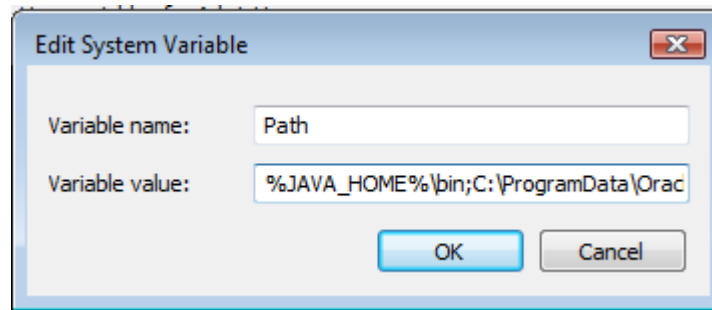
Note: If you are using a 32-bit OS you may have to use **C:\Progra~1\Java\jdk1.8.0_45**

__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 7 - 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.

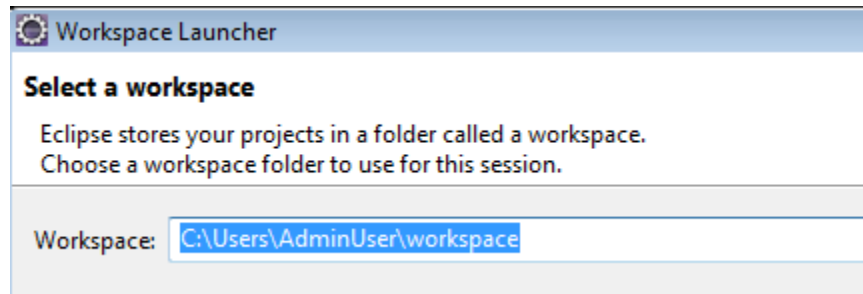
Part 8 - Verification of Eclipse Mars

__1. Run `C:\Software\eclipse\eclipse.exe`

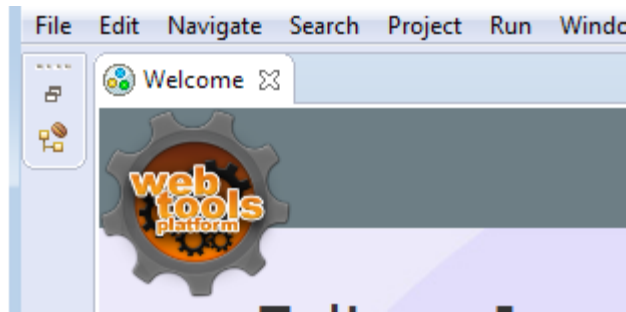
Eclipse Mars will start.



__2. A Workspace Launcher dialog will appear. Leave the default workspace directory and click **OK**.



Eclipse will open showing the Welcome page. (The Welcome screen may vary between versions).



3. From the menu, select **File > Exit** to close Eclipse. Confirm you want to exit Eclipse if prompted.

Eclipse Mars is working fine.

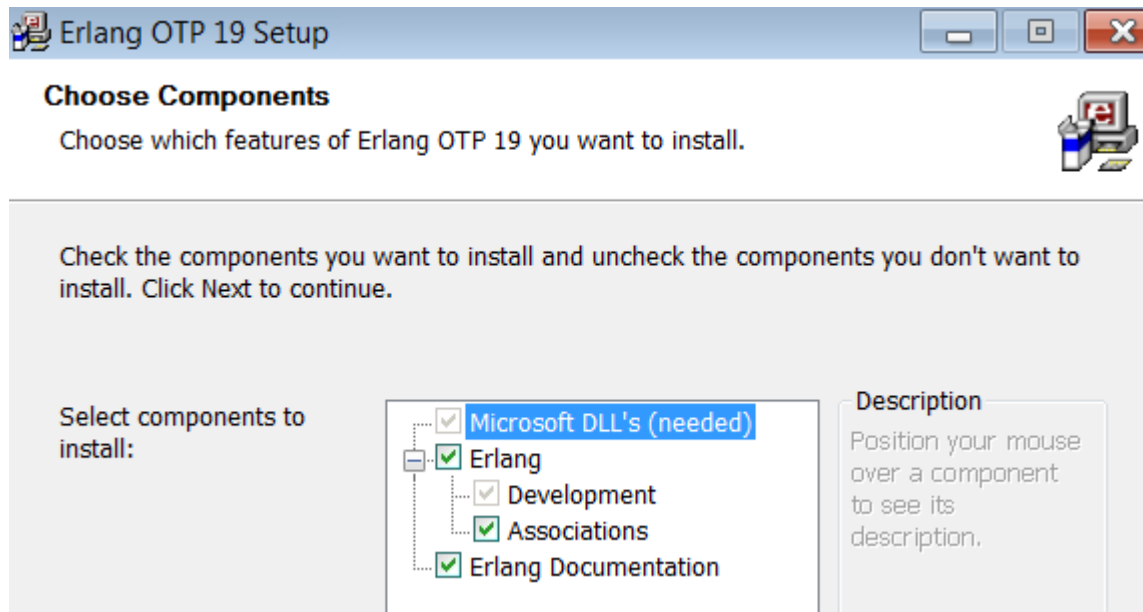
Part 9 - Installing Erlang 19.1

__ 1. Locate and run:

C:\Software\otp_win32_19.1.exe

__ 2. If window open Allow access in all similar windows.

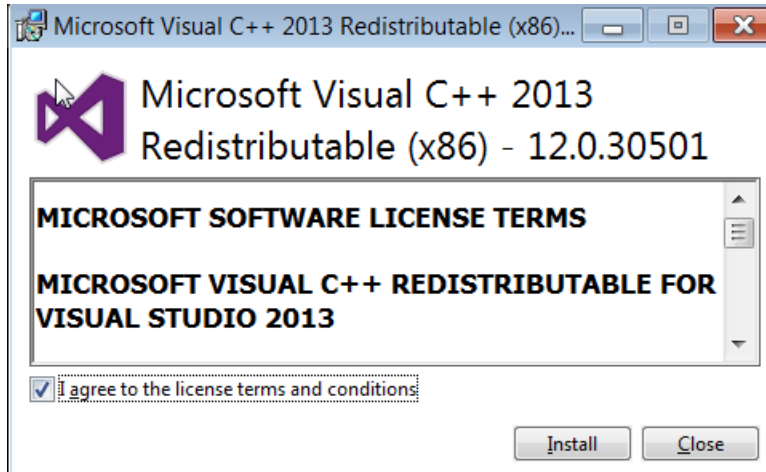
__ 3. Click **Next** in the Choose Components window.



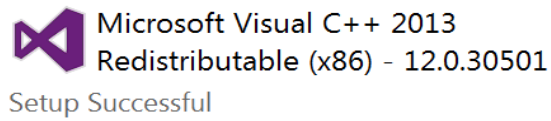
__ 4. Leave the default destination folder and click **Next**.

__ 5. Click **Install**.

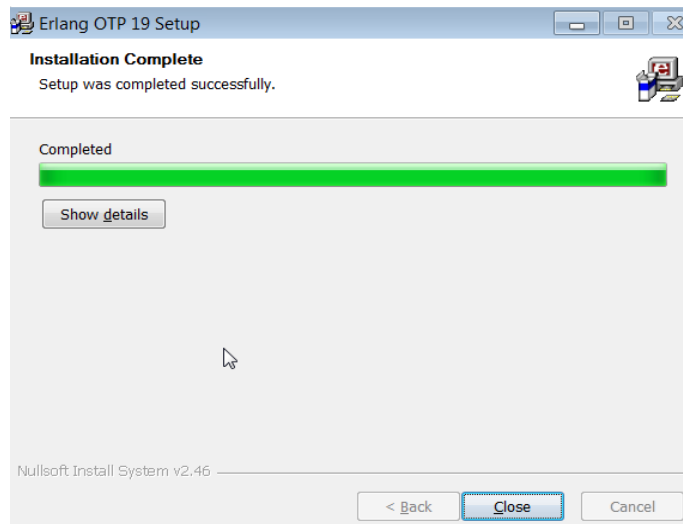
__ 6. If the following window appears then check the agreement box and click **Install**.



__7. Click **Close**.



__8. Click **Close**.



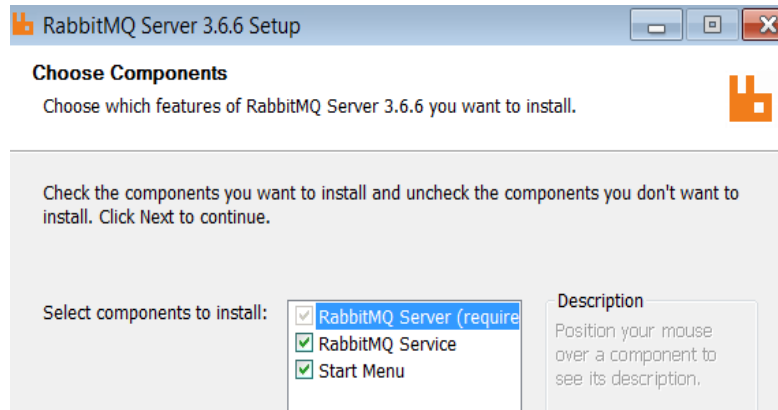
Part 10 - Installing RabbitMQ server 3.6.6

__1. Locate and run:

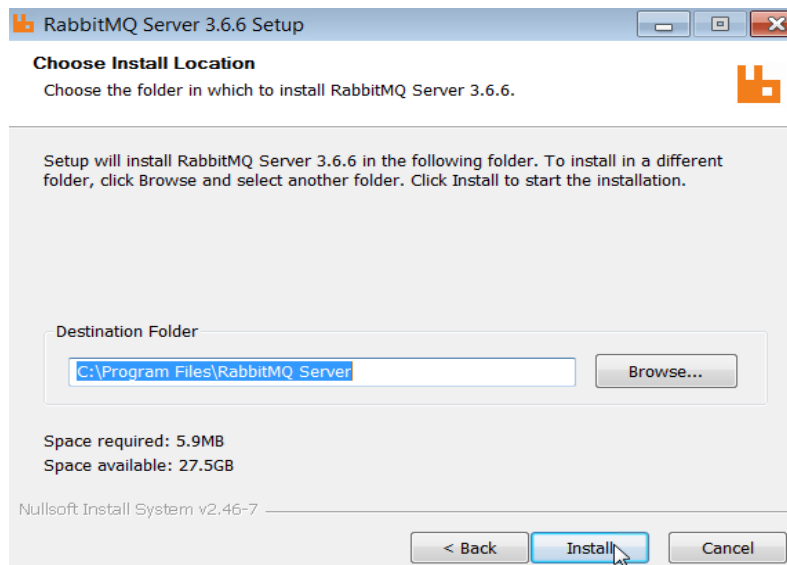
C:\Software\rabbitmq-server-3.6.6.exe

__2. If window open Allow access in all similar windows.

__3. Click **Next**.

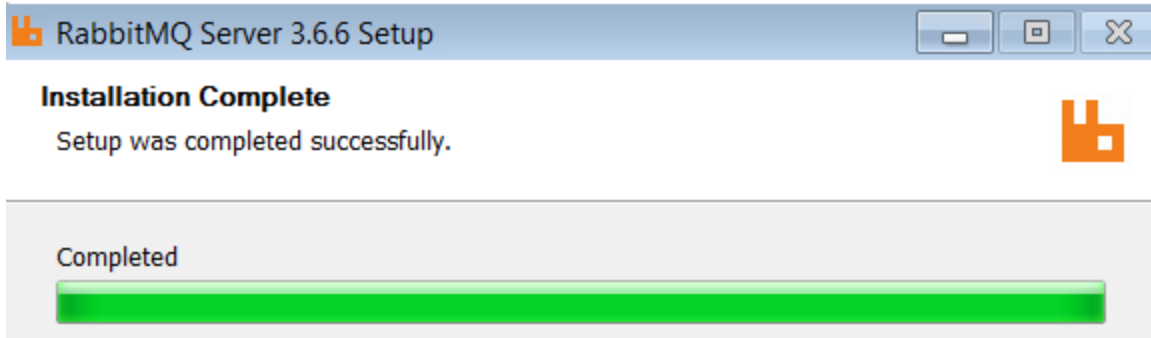


__4. Leave the default destination folder and click **Install**.

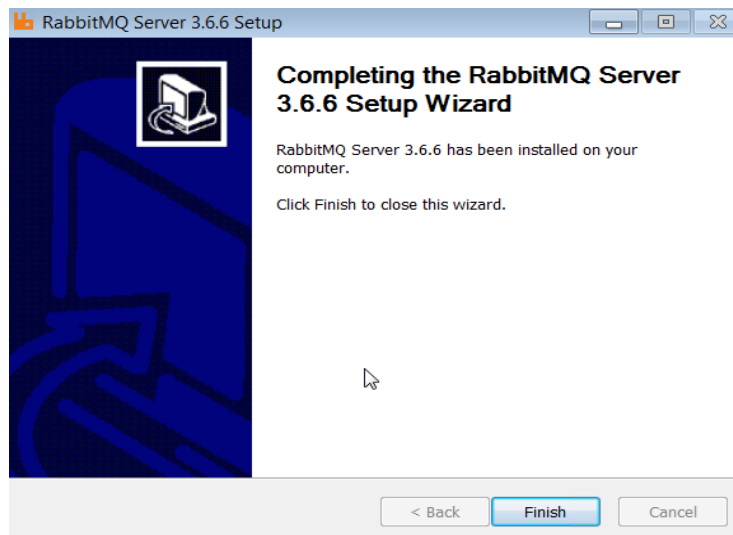


__5. If a Firewall window open, then click **Allow access** in all similar windows.

__6. Click **Next**.



__7. Click **Finish**.

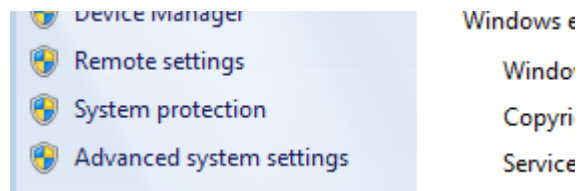


Part 11 - Install Maven 3.3.9

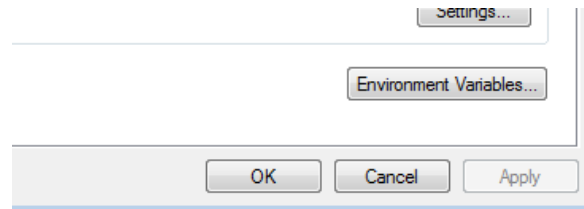
The following steps are based on Windows 7, other Windows versions instructions may vary.

__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**.

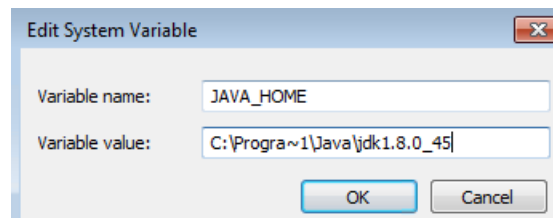
__2. Click on **Advanced system settings**.



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



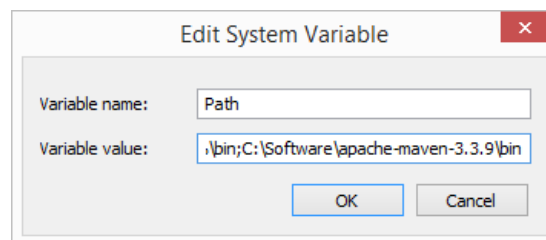
__4. Verify the JAVA_HOME variable is set to **C:\Progra~1\Java\jdk1.8.0_45** or similar path.



__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-3.3.9\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 (in the start menu, click **All Programs --> Accessories --> DOS Prompt**).

__ 11. In the command window, type:

```
mvn -version
```

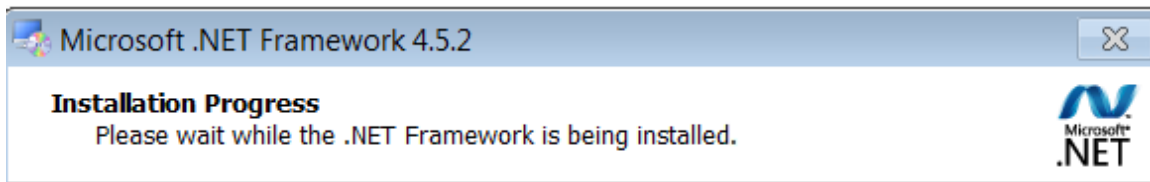
__ 12. You should see output similar to:

```
C:\Users\wasadmin>mvn -version
Apache Maven 3.3.9 (bb52d8502b132ec0a5a3f4c09453c07478323dc5; 2015-11-10T11:41:4
7-05:00)
Maven home: C:\Software\apache-maven-3.3.9\bin\..
Java version: 1.8.0_101, vendor: Oracle Corporation
Java home: C:\Program Files\Java\jdk1.8.0_101\jre
Default locale: en_US, platform encoding: Cp1252
OS name: "windows 8.1", version: "6.3", arch: "amd64", family: "dos"
```

You have completed Apache Maven installation.

Part 12 - Installing Postman 5.2

- __ 1. Open C:\Software\
- __ 2. Double click **Postman-win32-5.2.0-Setup.exe** to begin installation.
- __ 3. Click **Install** if the **.NET Framework 4.5** is required to be installed.
- __ 4. Click **Yes** to continue the installation.
- __ 5. Wait until Framework is installed.



- __ 6. After a while Postman will be installed and will be launched.



Sign Up with Google

OR

email
username
password

Sign Up (it's free)

By signing up you agree to the [EULA](#)

Already have an account? [Sign In](#)

__7. Close Postman.

Part 13 - 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 mongod 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 14 - 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