

**WA2535 Apache Cordova From the
Ground Up**

Classroom Setup Guide

Web Age Solutions Inc.

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Part 1 - Minimum Hardware Requirements

- 8 GB RAM minimum
- 40 GB in the hard disk
- Internet connection

Intel processor.

The student machine must support virtualization.

This feature is referred to as VT-x/AMD-V hardware acceleration.

This feature may be disabled in the computer BIOS by default, and if so, it must be enabled manually.

Part 2 - Minimum Software Requirements

- Windows OS: Windows Vista / 7 [64 bit].
- Latest Google Chrome browser
- Java 8 *
- Android Studio 2.0 *
- Notepad+ *
- NodeJS *

* - indicates software provided as part of the courseware.

Part 3 - Software Provided

You will receive the following file:

- **WA2535.ZIP**

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 - Important Ghosting or Imaging Information

Some of the software installed for this course will not function after changing the computer hostname. As such, cloning or imaging should not be used on a fully installed system.

You can save time by extracting the contents of the USB memory stick to C:\ on a clean OS install (no other software installed) and then imaging that hard drive. After restoring the image to the other computers and changing the hostnames, you can then install the software on each computer individually by following the instructions that are detailed later in this document.

Part 5 - Instructions

__1. Make sure the account that you are using to install the software has administrative privileges and the student using this machine will have the same rights.

__2. Extract the **WA2535.ZIP file to C:**

__3. Review that the following folders were created:

- **C:\LabFiles**
- **C:\Software**
- **C:\Software\Android**
- **C:\Software\NodeJS5.4.1**
- **C:\Software\NotepadPlus**

__4. Review that the following files were created:

- **C:\Software\jdk-8u45-windows-x64.exe**
- **C:\Software\Android\android-studio-bundle-143.2739321-windows.exe**

__5. Make sure the **C:\Software** and **C:\LabFiles** folders are **writable**, if they are read-only then the software won't work and students will have problems during the labs.

__6. Download and install the latest Google Chrome browser from:

<https://www.google.com/intl/en/chrome/browser>

Part 6 - Installing JDK 8 Update 45 - 64 bit

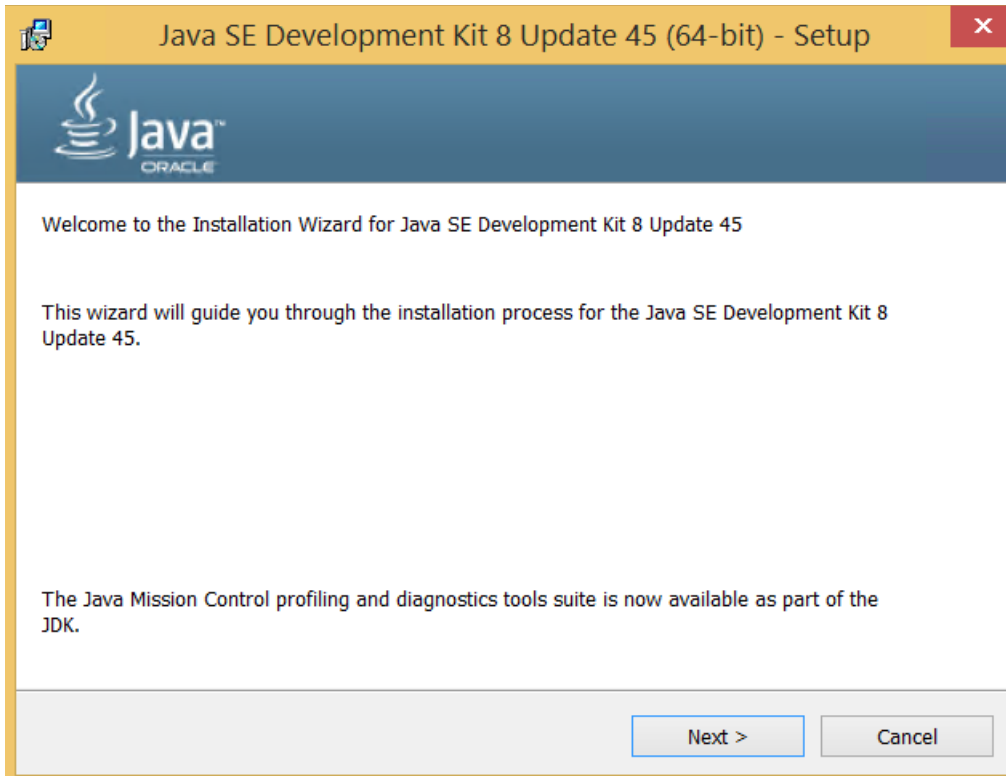
__1. Make sure there is no previous Java version already installed on the system. You can check this by using the Windows “Add/Remove Programs” utility. For the best compatibility with the labs it is suggested that all previous versions of Java be uninstalled before proceeding with these instructions. If this is an issue, please contact the setup support person for the course.

__2. From the **C:\Software** directory run the following file:

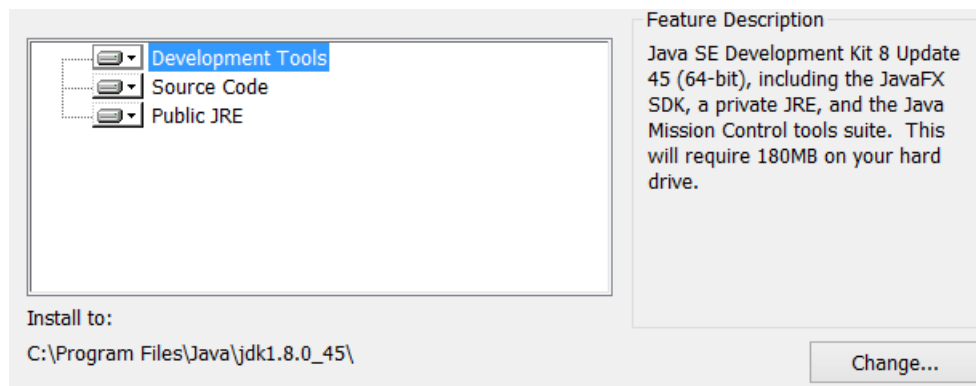
jdk-8u45-windows-x64.exe

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**.

Destination Folder

Click "Change" to install Java to a different folder.

Install to:

C:\Program Files\Java\jre1.8.0_45\

Change...

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~1\Java\jdk1.8.0_45
```

```
C:\>cd C:\Progra~1\Java\jdk1.8.0_45
C:\PROGRA~1\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~2\Java\jdk1.8.0_45

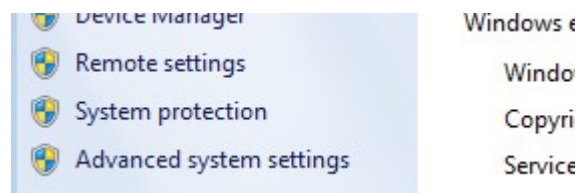
Some of the remaining steps will use the slightly different directory.

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

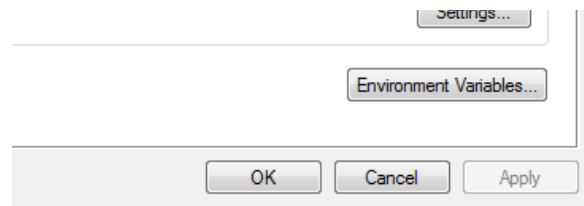
__4. Close the command prompt window.

__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**.

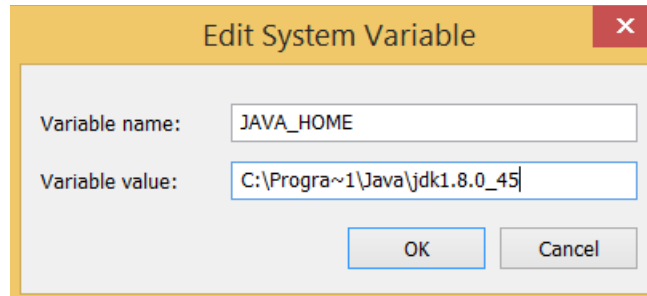


__8. Under the **System Variables** list, click the **New** button.

__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~1\Java\jdk1.8.0_45

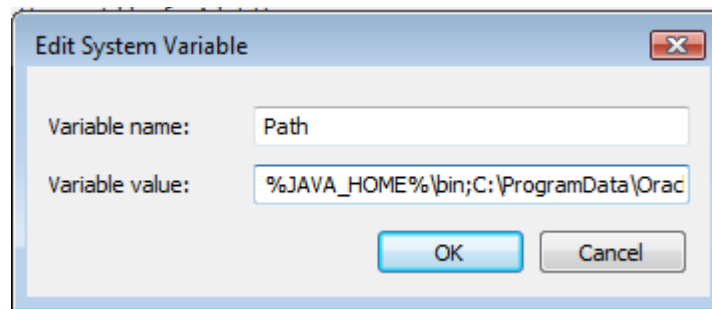


__11. Click **OK** to create the variable.

__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.

__3. Enter the following command:

```
java -version
```

Make sure you see the response shown below.

```
C:\Users\wasadmin>java -version
java version "1.8.0_45"
Java(TM) SE Runtime Environment (build 1.8.0_45-b15)
Java HotSpot(TM) 64-Bit Server VM (build 25.45-b02, mixed mode)
```

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

Java has been installed.

Part 8 - Installing Android Studio and SDK 2.0

Before you begin, read the following prerequisite requirements:

* Android Studio 2.0 requires JDK 1.8 – 64 bit (Java 8).

* Make sure that there is no previously installed Android SDKs, ADTs, and other such software on the target computer as Android Studio may decide to pick up existing user configuration settings in spite of you declining the offer to import those settings.

__1. From the **C:\Software\Android** directory run the following file as Administrator:

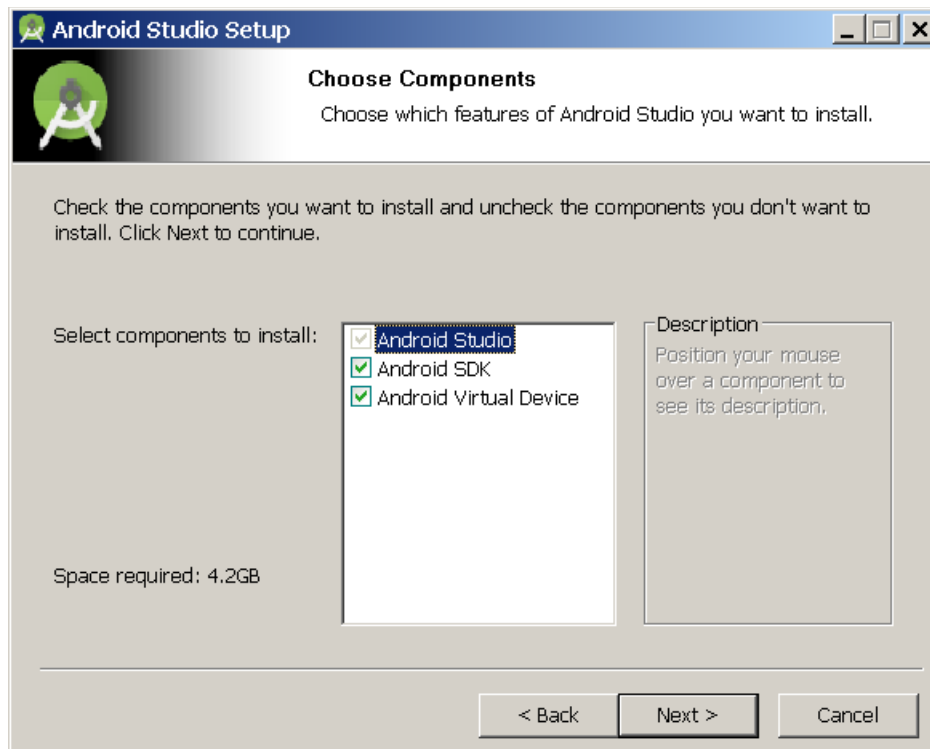
android-studio-bundle-143.2739321-windows.exe

It's very important to run as Administrator or the installation may fail.

If prompted by security related dialogs, confirm your intentions to continue.

__2. On the *Welcome* screen, click the **Next** button.

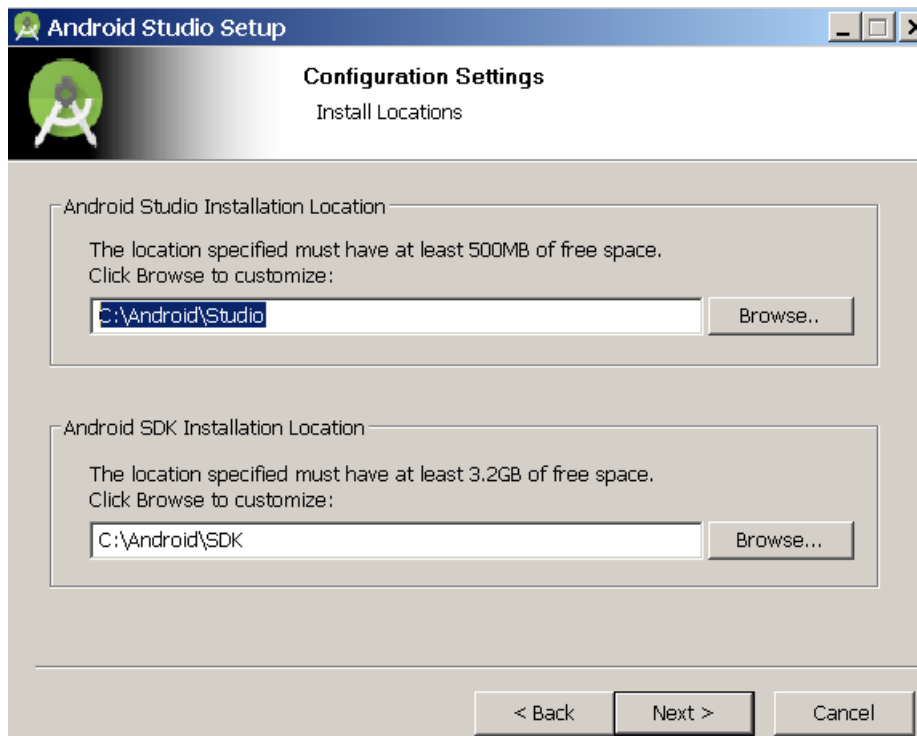
__3. Leave all components checked and click the **Next** button.



__4. Click the **I Agree** button on the license agreement screen. You may need to click this more than once if it doesn't move to the next screen.

__5. On the *Configuration Settings, Install Locations* screen,

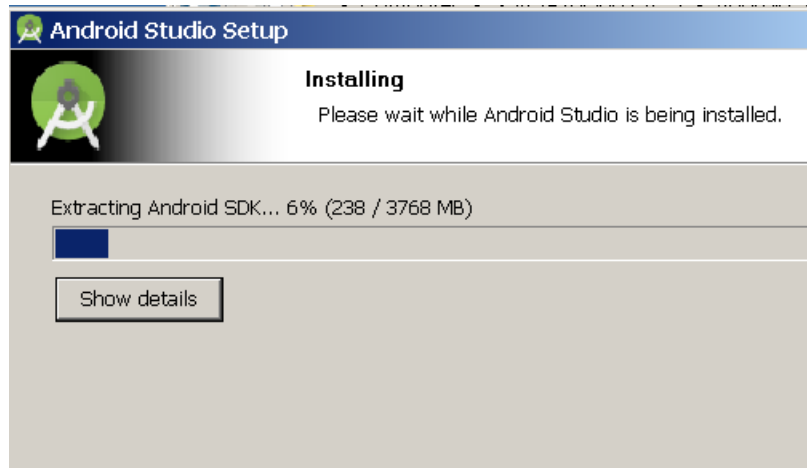
- Change the location of the Android Studio in the **first** box to **C:\Android\Studio**
- Change the location of the Android SDK in the **second** box to **C:\Android\SDK**
- **Note:** The installation program will create those folders for you.



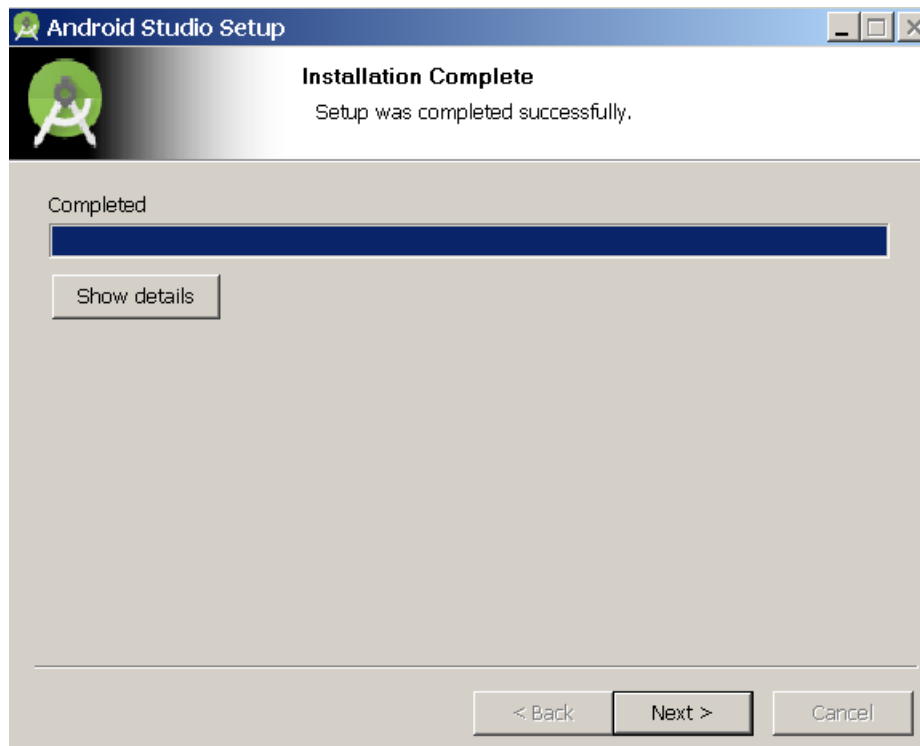
__6. Click the **Next** button.

__7. Leave the default Start Menu folder and click the **Install** button.

Wait for the installation process to complete -- it may take a while.



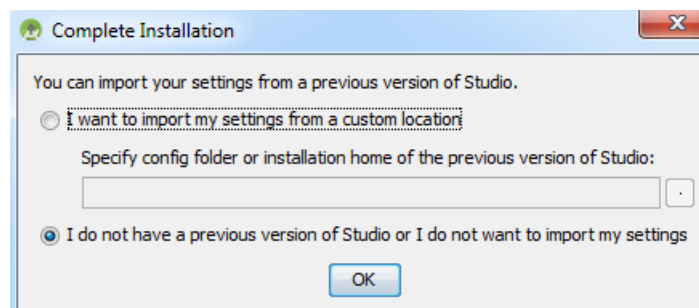
__8. When the *Installation Completed* dialog is displayed, click the **Next** button.



__9. On the *Completing Android Studio Setup* dialog, leave the **Start Android Studio** box checked and click the **Finish** button.

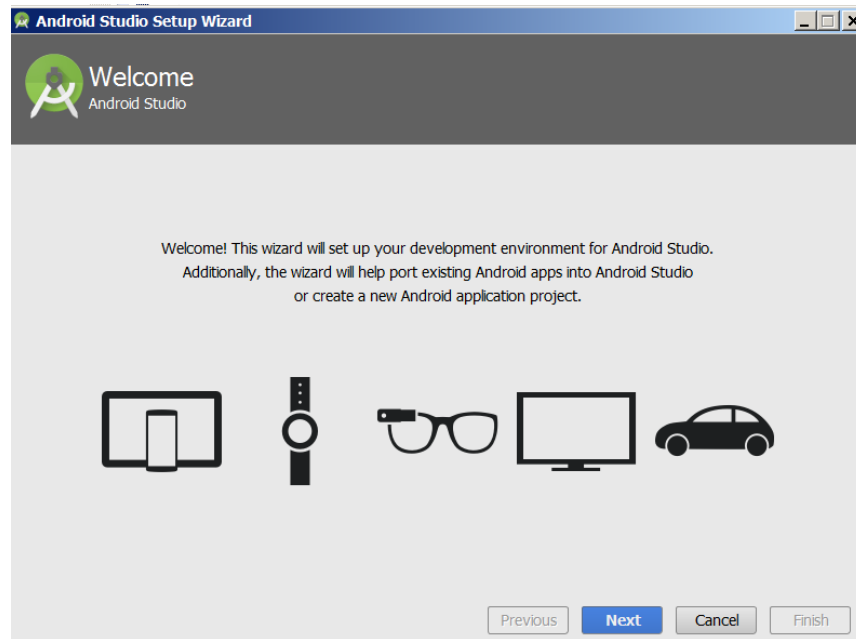


__10. On the next dialog, click **I do not have a previous version of Studio or ...** and click **OK** (**Note:** the overly smart setup program may still decide to import some existing configuration settings, e.g. from the location of the old Android SDK software and screwing up your work down the road).



__11. Wait while Android Studio starts up.

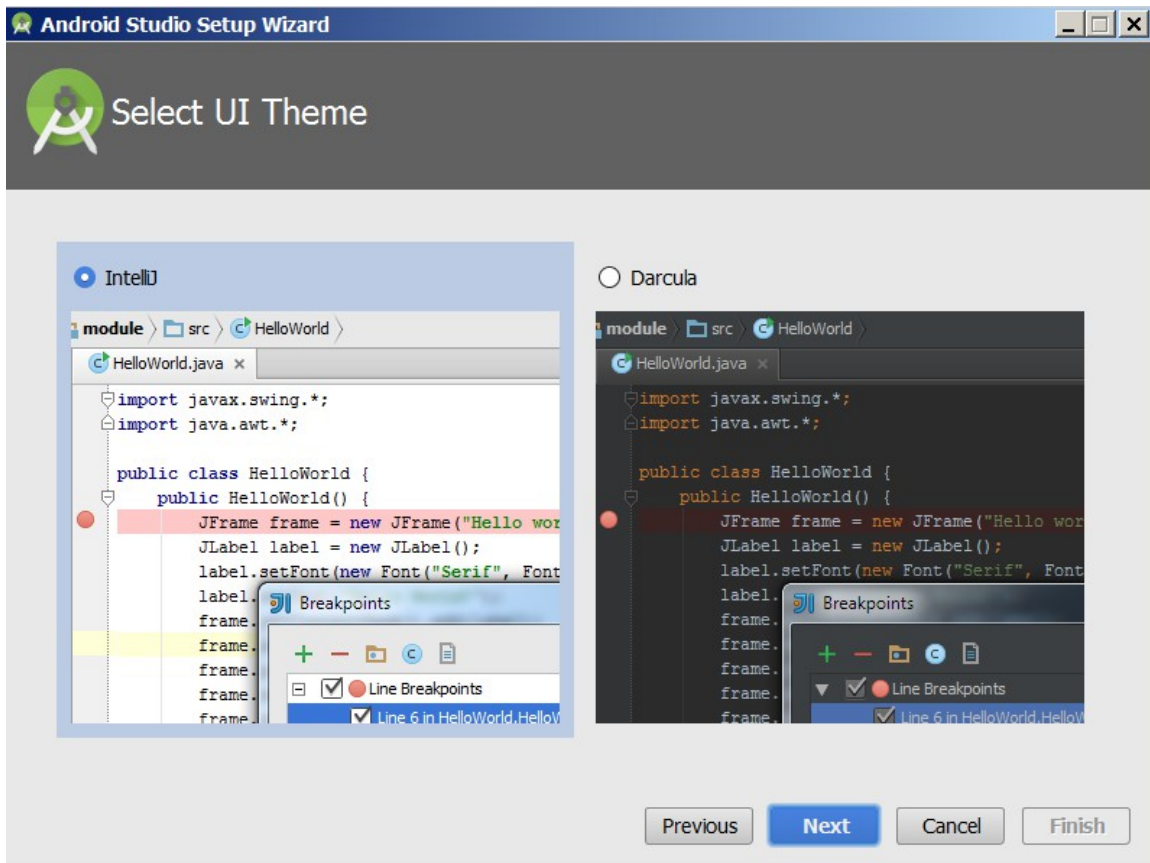
You should be presented with the Android Studio Welcome screen.



__12. Click **Next**.

__13. In the *Install Type* dialog that opens, select **Custom** radio button and click **Next**.

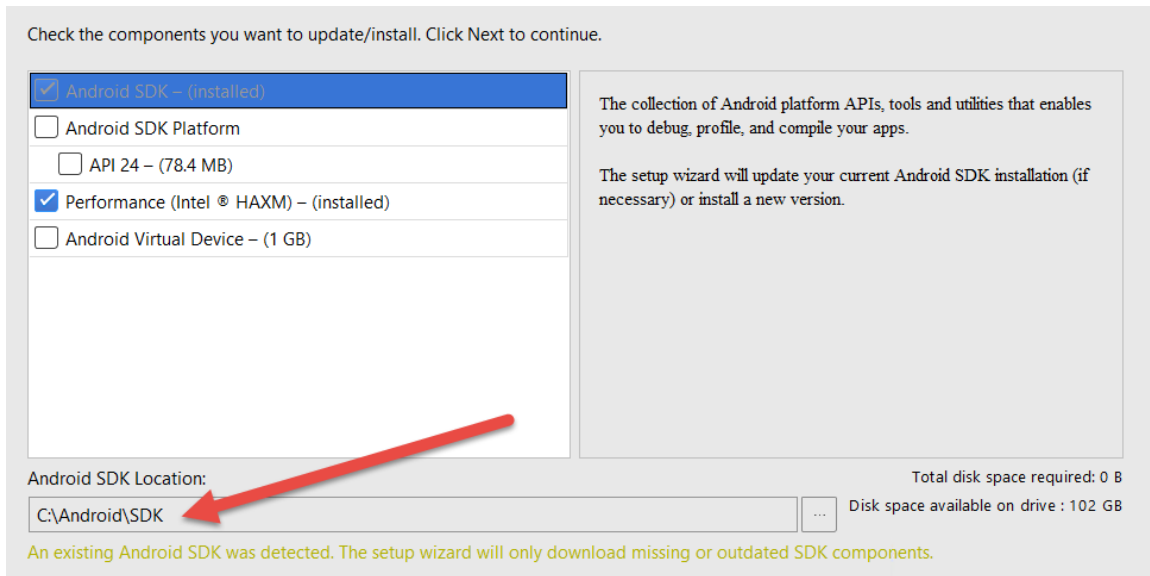
You will be presented with the *Select UI Theme* dialog.



__14. Click Next.

__15. Change the *Android SDK Location* to **C:\Android\SDK** (as you selected in one of the previous steps above); keep other defaults.

Note: The future Android Studio setup programs may go about fixing this defect.



You may see slightly different configuration details of software components on the screen, e.g. *HAXM* may not have already been installed on your computer -- just accept those parameters AS IS.

Note: *HAXM* is Intel's hardware acceleration technology that will improve the performance of your emulator when running on your student machine.

For more details about this technology, visit

<https://software.intel.com/android/articles/intel-hardware-accelerated-execution-manager>

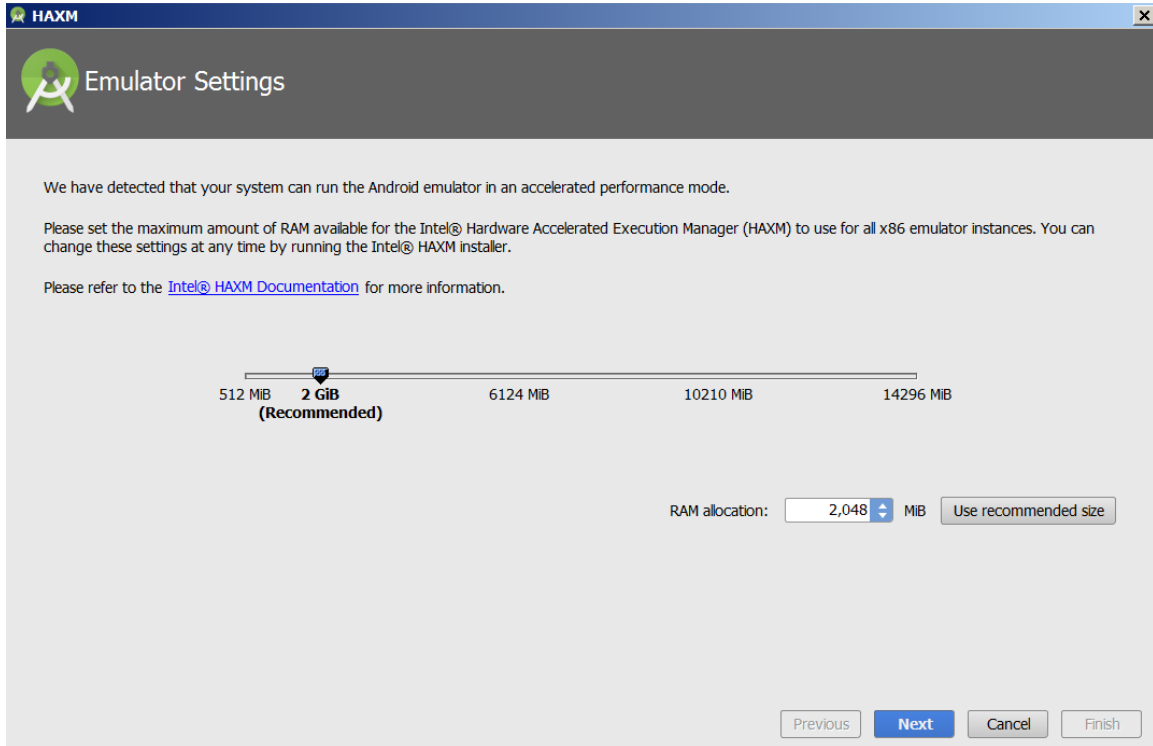
__16. Click **Next**.

At this point, two installation paths are possible depending on the initial state of the target computer:

1. You may be presented with the **HAXM Emulator Settings** dialog with the required

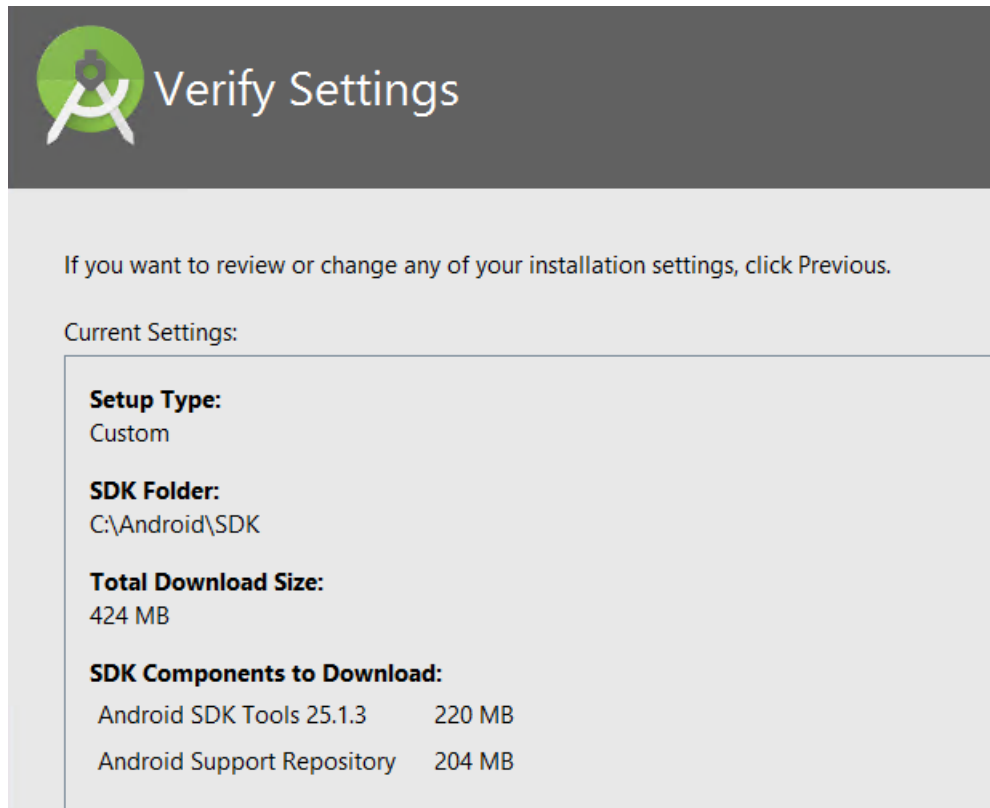
installation steps listed below.

2. The *Downloading Components* dialog may appear showing the progress of downloading the required component. In this case, skip the *HAXM Emulator Settings* dialog related steps below.



__17. Accept the pre-selected values and click **Next**.

The *Verify Settings* dialog should open.



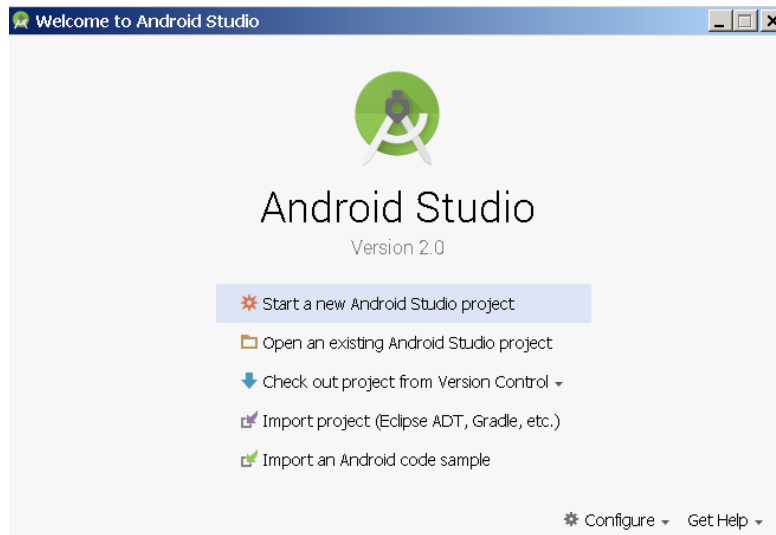
__18. Click **Finish**.

__19. If you are presented with a security dialog, confirm your intentions to proceed.

The *Downloading Components* progress dialog should appear. **It may take a while.**

__20. When the download process ends, click **Finish**.

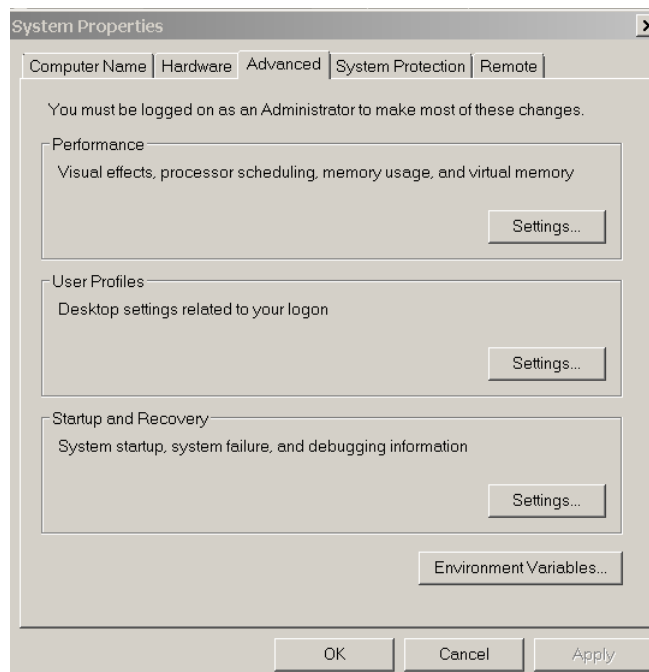
You will be presented with the *Android Studio* welcome screen.



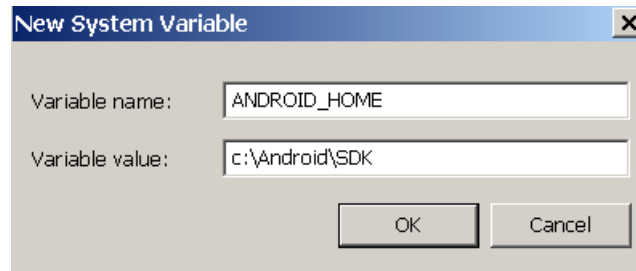
__21. Close the *Android Studio* welcome screen.

Now we need to configure some system variables.

__22. Open the **System Properties** dialog and click the **Environment Variables** button.



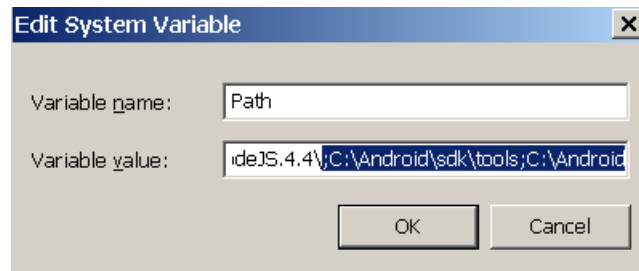
__23. Add a new system variable named **ANDROID_HOME** with a value of **C:\Android\SDK**



__24. Click OK and save the changes.

__25. Edit the Path system variable: add the following entries at the end of the path value:

```
;C:\Android\sdk\tools;C:\Android\sdk\platform-tools;
```



__26. Click OK and save the changes.

__27. Close the *System Properties* dialog.

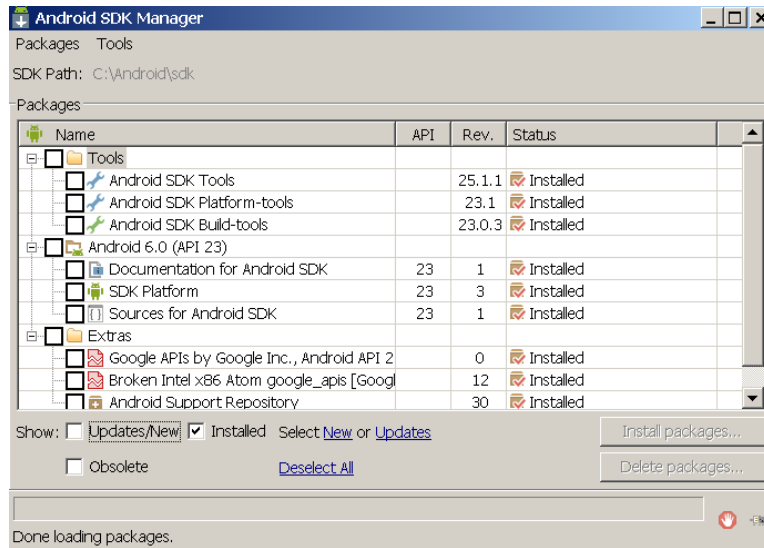
__28. Open a new command prompt window and enter this command:

```
android
```

The Android SDK Manager window should open.

Wait for synchronization between your local package repository and the central one to get fully complete.

__29. Deselect the **Updates/New** checkbox. Your Android SDK version may vary.



__30. Close the dialog.

__31. Close the command prompt window.

__32. Give full privileges to all users to **C:\Android** folder.

The installation of the Android Studio is complete.

Congratulation if all the things work as described above!

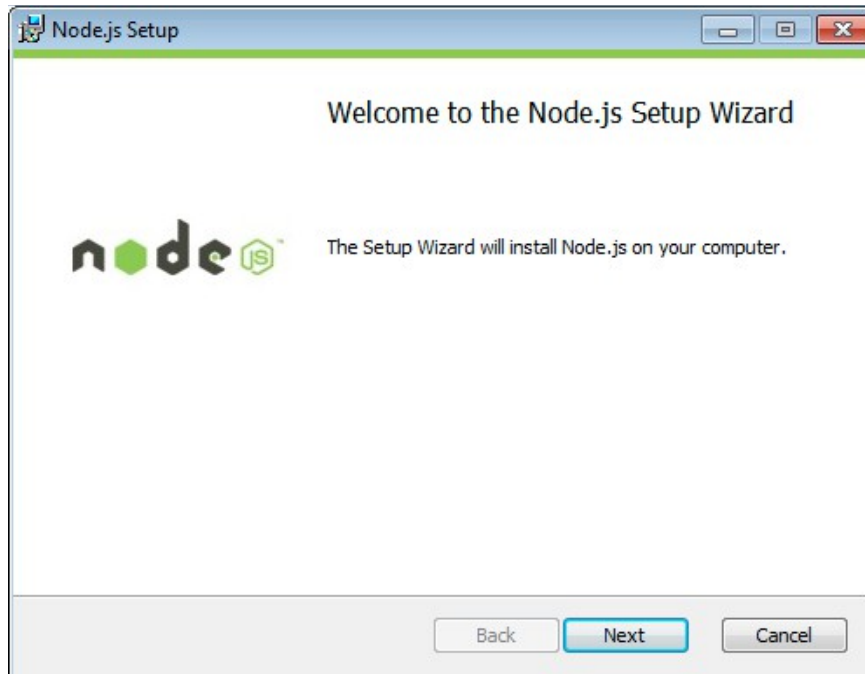
This is the last step of the Android installation.

Part 9 - Installing Node.js 5.4.1 – 64 bit

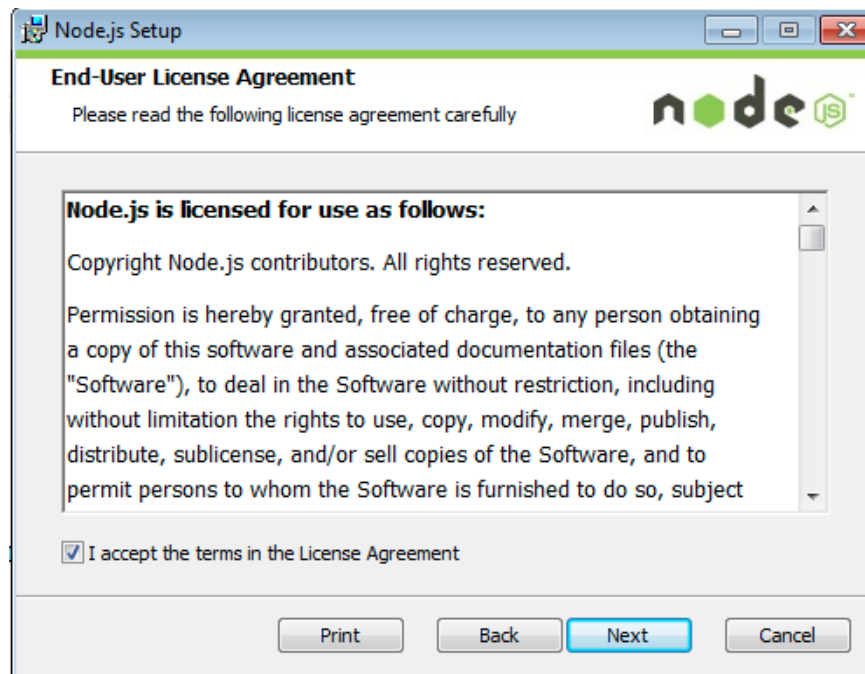
__1. Open **C:\Software\Nodejs.5.4.1**

__2. Double click **node-v5.4.1-x64.msi** to begin installation.

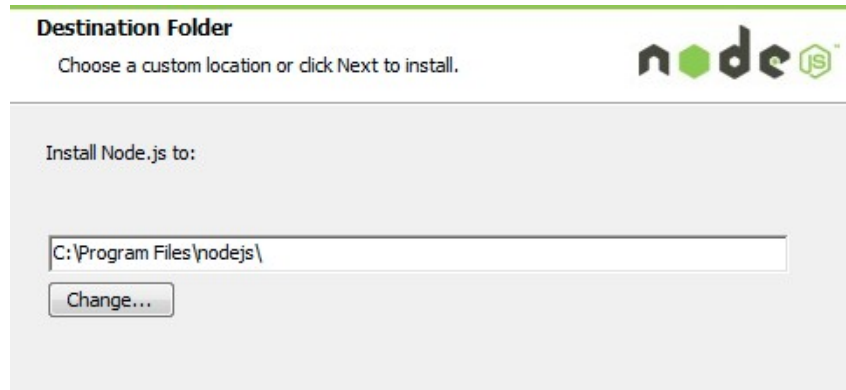
__3. Click **Next**.



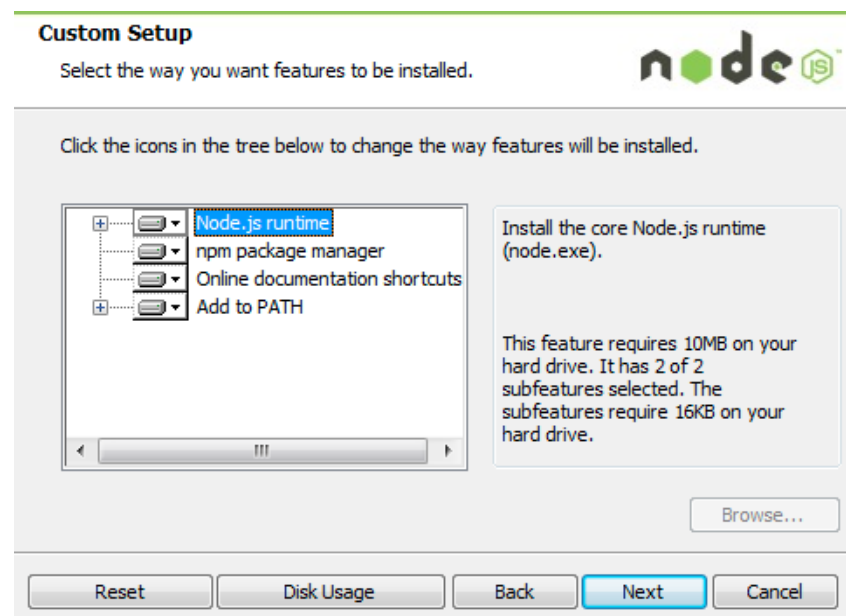
__4. Check **I accept the terms...** and click **Next**.



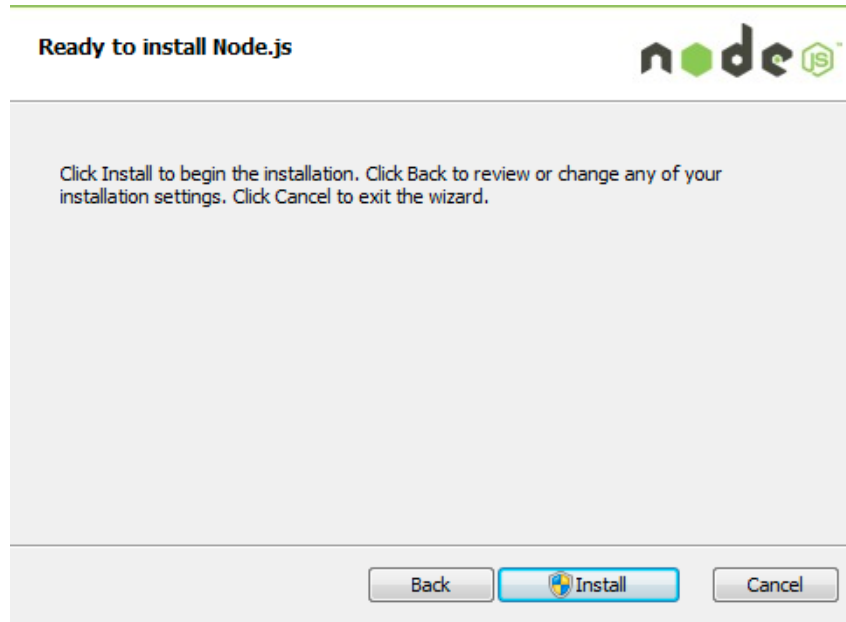
__5. Accept default destination folder and click **Next**.



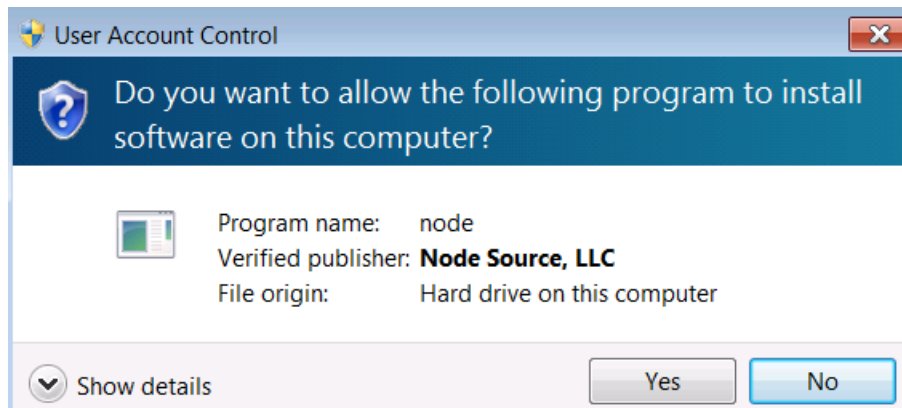
__6. Accept default package selection. Click **Next**.



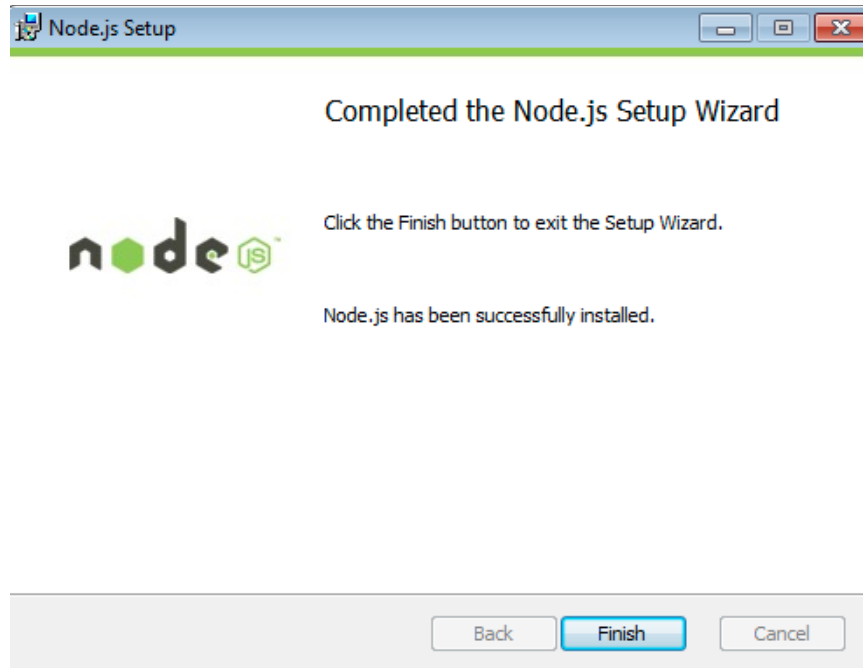
__7. Click **Install**.



__8. A popup window may open asking to install the software. Click Yes to continue.



__9. 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 **v5.4.1** as the output.

```
C:\Users\wasadmin>node --version  
v5.4.1
```

__ 4. Close all.

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

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

International call: 416-406-3994 ext. 26