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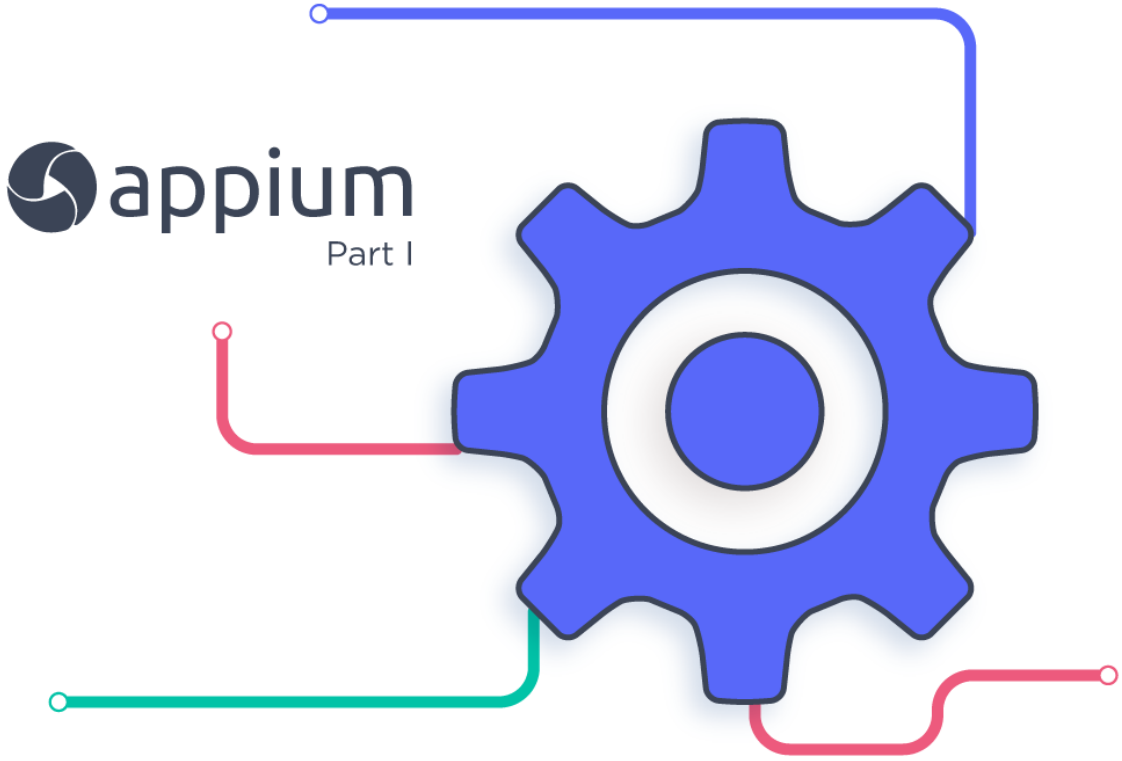
#TECH

11 simple steps to set up your Appium environment for windows- Appium Basics (Part 1)

APPIUM AUTOMATION SOFTWARE TESTING



Appium is a mobile automation tool which is used for testing both Android as well as iOS mobile platforms. Apart from this, it is also used for testing mobile web applications, providing support for a number of browser types (Chrome, Firefox, IE, etc.) One of the major advantages of Appium is “Code-reusability” as it provides support for cross-platform testing. Also, Appium supports a wide range of languages including Java, Objective-C, PHP, Python, Ruby to name a few.

information scattered all over Google.

So this is to you my fellow prospective Appium enthusiast! I have consolidated all the information which I gathered from multiple resources. I hope I help you with a better explanation and provide a hassle-free installation of Appium.

First of all, we need to install a number of software/tools on our machine before we can actually begin automating Android applications:

1. Java Development Kit (JDK)
2. Android SDK
3. Node.js
4. Microsoft Webdriver
5. PDANet+
6. Appium
7. GenyMotion
8. ADT Plugin
9. Java Client Drivers
10. Appium Client Libraries

The following depicts the in-detail process of installing an Appium environment on your Windows machine for the very first time :-

1. Download and install Java (JDK) and set path of jdk and bin folder

a) Download the ".exe" file from http://www.oracle.com/technetwork/java/javase/downloads/index.html (Version: jdk1.8.0_91 or whichever is the latest you find there.)

b) Install the ".exe" file.

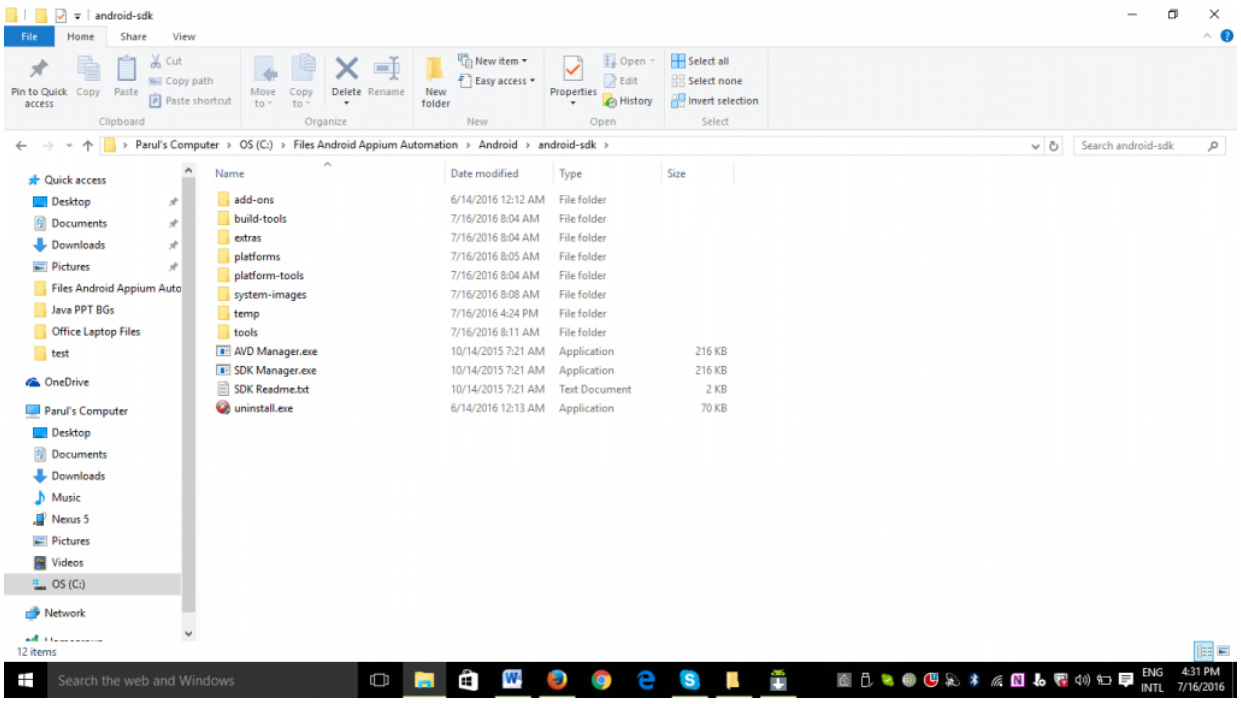
c) Set JDK folder path in your system's environment variable.

d) Set JDK bin folder path in your system's environment variable.

a) Download Android SDK from https://developer.android.com/studio/index.html

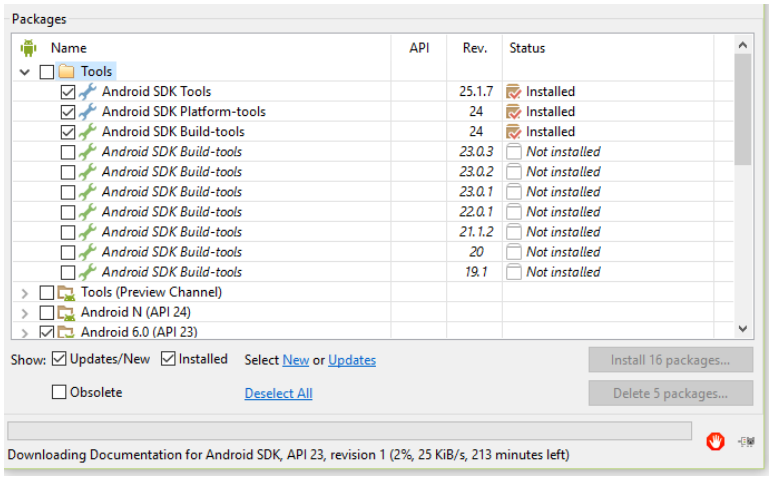
b) Click on the link “android-sdk_r24.4.1-windows.zip” (or whichever is the latest you find there) and then click on the download button.

c) Once a zip file gets downloaded, unzip the folder. You will get the following list of folders inside the Android SDK.



d) Now click on the “SDK Manager.exe” file.

e) This opens the Android SDK Manager window. Select the first 3 packages under “Tools”, select the package under Tools (Preview Channel) and finally the Android platform based on the platform of the device on which you will be performing your tests (Android 6, in my case).



Only after all the selected packages are installed you would be able to write and execute your test scripts. (**Please note:** This could take a few hours depending on your internet speed 🙂)

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3. Set SDK path in Windows

After all the packages are successfully installed, you need to set the SDK path.

a) Click on Environment Variables -> Create a new user variable ANDROID_HOME -> and set the Android SDK path as the value for it. (e.g.: C:\Files Android Appium Automation\Android\android-sdk)

b) Set 2 paths in the system variable Path:

i) Path of "platform tools" folder in the SDK (e.g.: C:\Files Android Appium Automation\Android\android-sdk\platform-tools)

ii) Path of "tools" folder in SDK (e.g.: C:\Files Android Appium Automation\Android\android-sdk\tools)

Now, to check whether or not Android is configured properly in your system, run command "android" in the command prompt. This will open the Android SDK Manager dialogue box, which verifies successful configuration of Android in your system.

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4. Node.js

Follow these steps:-

a) Go to the link https://nodejs.org/en/download/

c) Download starts.

d) Install it.

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5. Microsoft Webdriver

Follow these steps:-

a) Go to the link https://www.microsoft.com/en-us/download/details.aspx?id=48212

b) Click on the Download link on this page.

c) Install it.

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6. PDANet+

To download and install PDANet+ on your machine, follow these steps:-

a) Go to the link pdanet.co/

b) Download and install it.

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7. Appium

This is a test automation tool for mobile applications.

a) Go to the link appium.io

b) Click on “AppiumForWindows.zip” link from here.

c) Download starts.

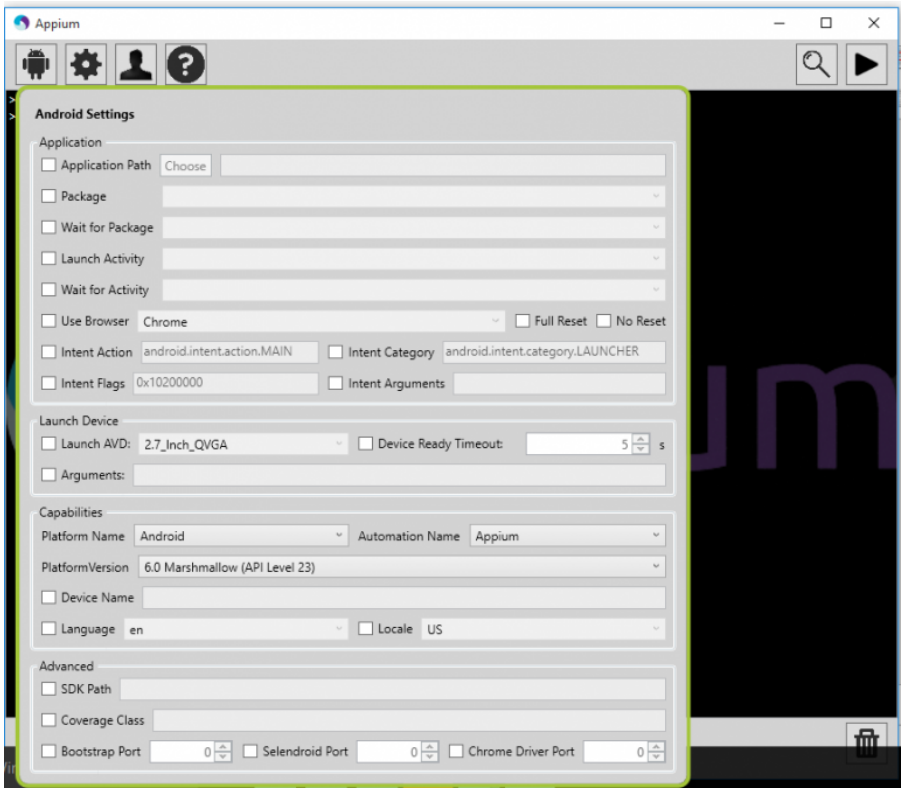
d) Unzip the donwloaded zipped folder.

e) Install the exe file “appium-installer”.

Configure Appium

a) Click on Android Settings button in the top left corner of Appium window.

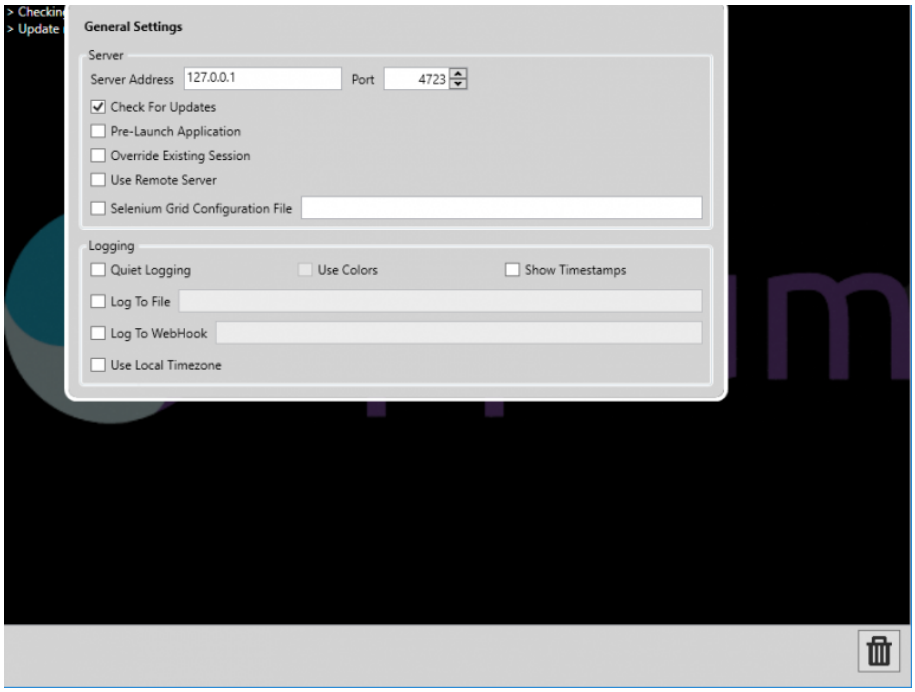
b) Select Platform Name as Android, Automation Name as Appium and Platform version as your device's OS version.



General Settings:

a) Click on the General Settings button.

b) Just note down the Server Address and the Port Number. You'll be needing it during automation script creation.



SETUP FOR AUTOMATING ANDROID APPLICATIONS USING ANDROID VIRTUAL DEVICE(OR EMULATOR): You can even run your test scripts on a virtual device or an emulator, instead of running it on a real device. But before doing that, there are some further installations you need to make (apart from the above mentioned ones).

8. GenyMotion

a) Go to the link https://www.genymotion.com

b) Create a new Account there.

c) Login using the same credentials.

d) Click on the Download tab.

e) Click on the "Download with Virtual Box" link.

f) Install it.

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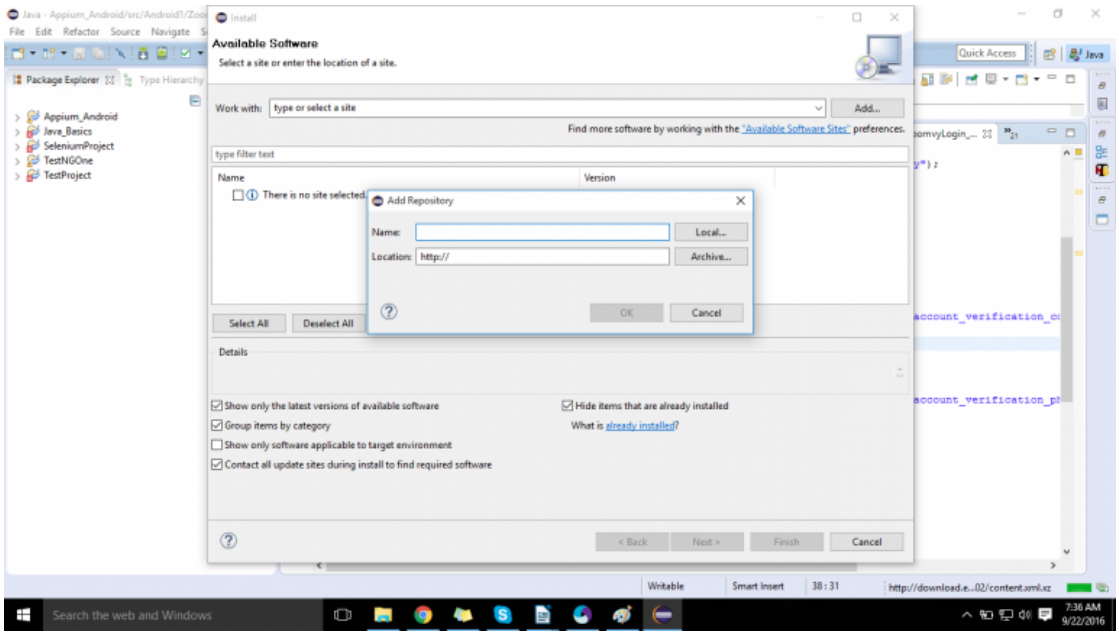
9. ADT Plugin: It is used to access Android SDK within Eclipse. ADT Plugin tool is basically used to launch Android Emulators in Eclipse using the test script that we have created. By installing this plugin you can basically launch AVD Manager from Eclipse.

a) Open Eclipse IDE.

b) Go to Help -> Install New Software. This will open Install Software dialogue.

c) Click on the add button here. This will open a new dialogue.



d) Set URL “https://dl-ssl.google.com/android/eclipse/” in location text box and click on OK button.

e) It will open Developer tools option along with a checkbox.

f) Select it and click on the Next button.

g) Click on the next button from here, accept the Terms & Conditions and click on the Finish button.

h) This will start installing the Plugin.

i) After successful installation, restart Eclipse.

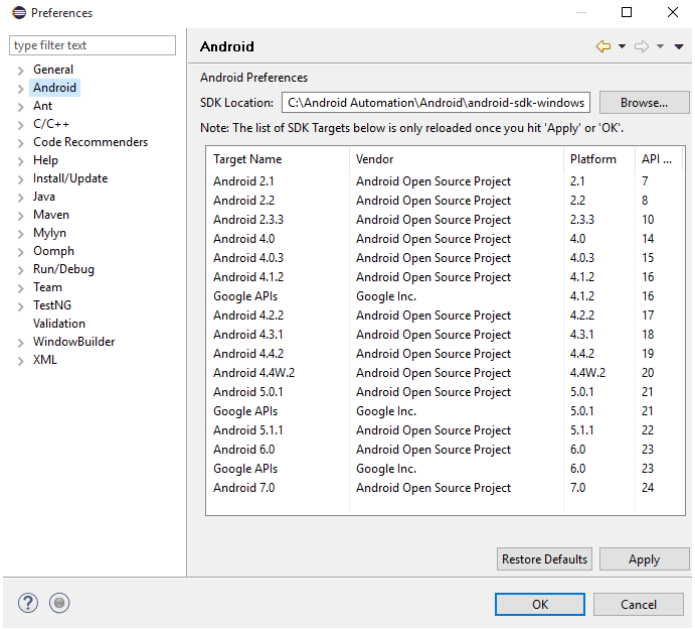
Set SDK Location: You need to set the SDK folder path after installing ADT Plugin

a) Open Eclipse.

b) Go to Window -> Preferences

d) Set SDK folder path in the “SDK Location” box.

e) Click on “OK” after this.

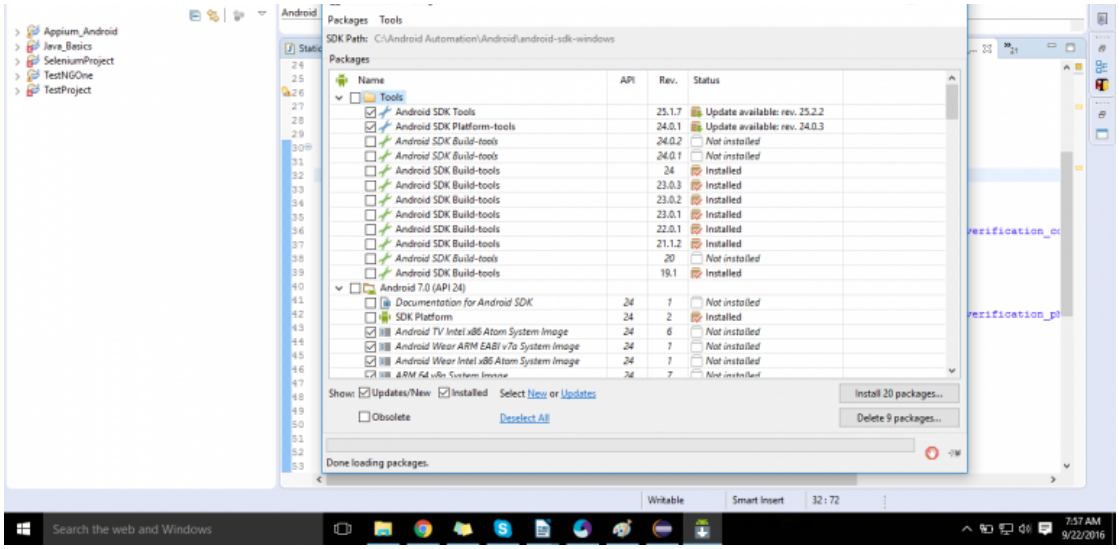


To verify if Android SDK is integrated properly or not

a) Open Eclipse IDE.

b) Go to Window -> Android SDK Manager.

c) This will open the Android SDK Manager dialogue.



This verifies that Android SDK has been properly integrated with Eclipse IDE.

Now, before you can begin creating and running your own test scripts using Appium, there are some configurations that you need to make for your Java Project in Eclipse.

10. Eclipse Configuration with Selenium WebDriver: This is needed for the interaction between your test scripts and the Selenium WebDriver. For the same, you will be needing language-specific client drivers. Since we will be working on Java, we will be needing the Java client drivers.

a) Go to this link: http://docs.seleniumhq.org/download/

b) Click on the Download link here for the latest JAR available (selenium-2.53.0 in my case)

c) Extract the downloaded zipped folder

d) Open Eclipse IDE

e) Create a new Java Project -> Create a new package under this project -> Create a new class under this package

f) Right click on your Project name -> Select Build Path -> Select Configure Build Path

g) Click on "Add External JARs" button -> go to the path where you had saved the Selenium WebDriver zip folder (e.g. in my case: C:\Android Automation\selenium-java-2.53.0\selenium-2.53.0)

h) Select both .jar files from here.

Don't close the Properties Dialogue, since there are a few more JARs which need to be added to your project.

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11. Eclipse Configuration with Appium:

a) Go to this link: http://appium.io/downloads.html

b) Click on the **Java** link under the **Appium Client Libraries** section.

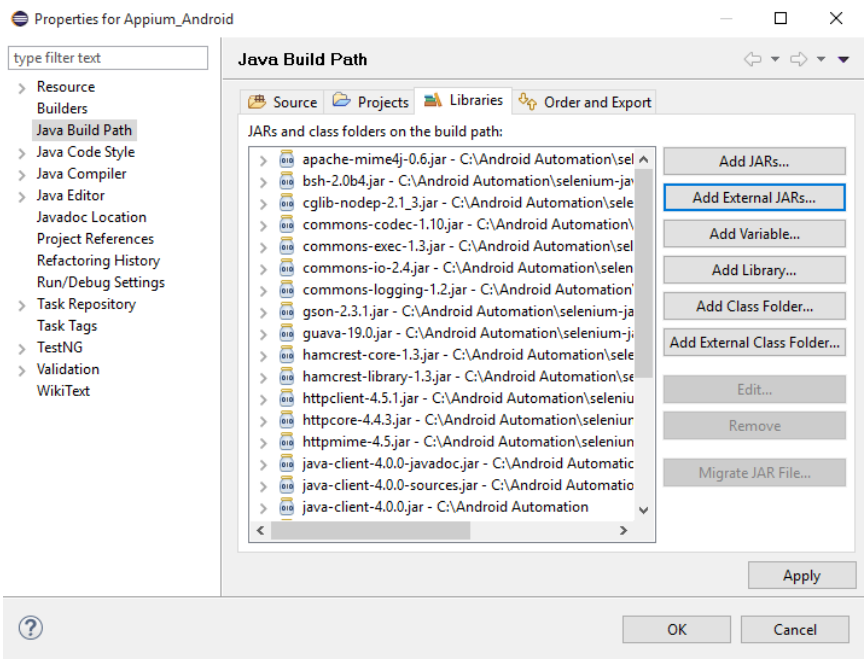
c) Click on the JAR link here.

d) Download starts.

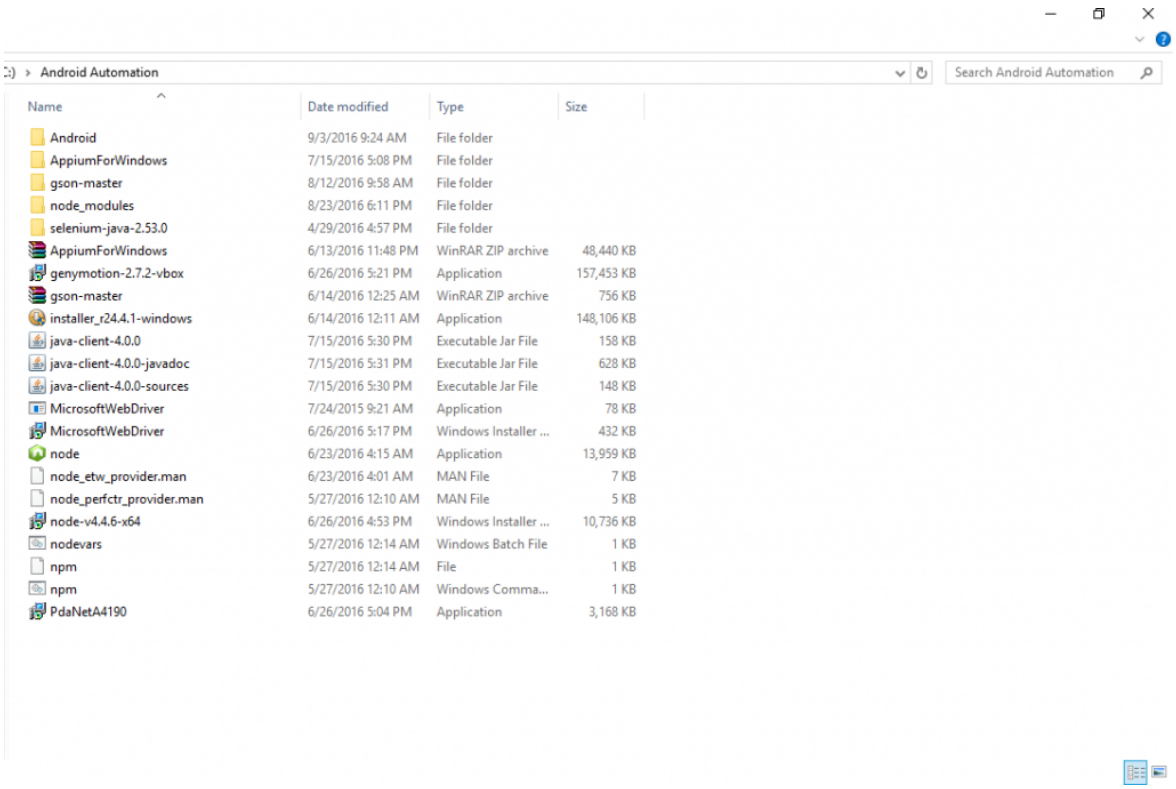
e) Follow the same steps as in **10.** to import Appium client libraries into your Eclipse project.

f) Click on OK after importing all the JAR files.

So this is how it'll look:



Conclusion:



This was **Part I** of Appium Basics, which comprised of steps to make all necessary installations to begin with Appium automation test script creation. My next blog, Part II of Appium Basics will give you an insight on how to perform a simple Login process in a demo application using Appium.

Thanks for reading! 🙂

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