APPIUM

A complete guide for installation of Appium and its necessary supporting softwares by Greens Technologys
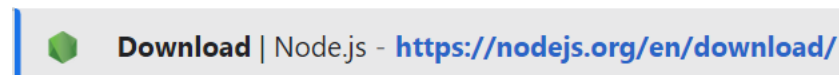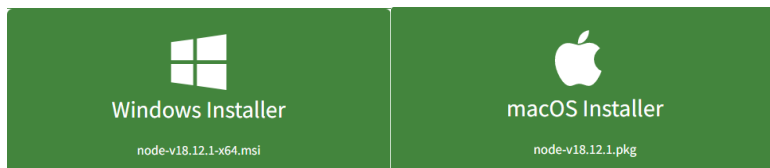
Appium

Getting Started

Congratulations!

Before Installing Appium need to have Java and IDE installed as prerequisites
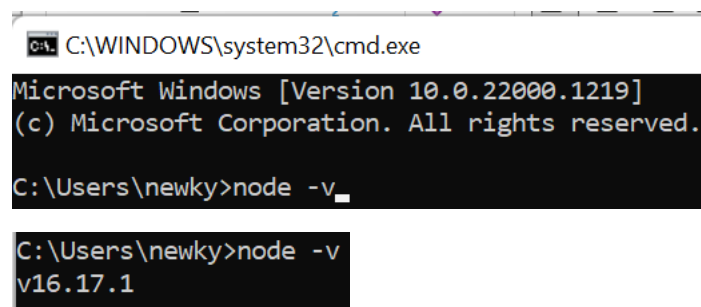
Install node.js on your machine.

Go to Nodejs.org website

Download | Node.js - https://nodejs.org/en/download/

Click based on your OS

Windows Installer
node-v18.12.1-x64.msi

macOS Installer
node-v18.12.1.pkg

Install the same.

Once installed to check if it is successfully installed and also to check the version, open command prompt and

Type node -v

C:\WINDOWS\system32\cmd.exe

Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

C:\Users\newky>node -v

C:\Users\newky>node -v
v16.17.1

This will confirm node.js is installed

Appium Installation

C:\WINDOWS\system32\cmd.exe

```
Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

C:\Users\newky>npm install -g appium
```

Appium is getting installed in your system

npm install appium

```
Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

C:\Users\newky>npm install -g appium
(node:18576) Warning: Setting the NODE_TLS_REJECT_UNAUTHORIZED environment variable to '0' makes TLS connections and HTT
PS requests insecure by disabling certificate verification.
(Use `node --trace-warnings ...` to show where the warning was created)
[               ] \ idealTree:npm: sill idealTree buildDeps
```

Android Studio Installation

As we need JDK for Java programming we need Android SDK

Go to Google, Search for Android Studio

Post Installation.

Appium Doctor Installation

Installation in progress

After installation of Appium Doctor. This will help us analysing the necessary information is proper or not.

Run Appium-doctor in command prompt

This will check and tell the complete status of what is required and what is not available

The Node.js binary was found at: C:\Program Files\nodejs\node.EXE

✔ Node version is 16.17.1

✔ ANDROID_HOME is set to: C:\Users\newky\AppData\Local\Android\Sdk

✔ JAVA_HOME is set to: C:\Program Files\Java\jdk-11.0.16

Checking adb, android, emulator, apkanalyzer.bat

X 'adb' is in C:\Users\newky\AppData\Local\Android\Sdk\platform-tools\adb.exe

X 'android' is in C:\Users\newky\AppData\Local\Android\Sdk\tools\android.bat

X 'emulator' is in C:\Users\newky\AppData\Local\Android\Sdk\emulator\emulator.exe

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SDK Platform tools

After Setting up the path. If in case SDK platform tools are not present, go to

https://developer.android.com/studio/releases/platform-tools#downloads.html

download and install the same

Downloads

If you're an Android developer, you should get the latest SDK Platform-Tools from Android Studio's SDK Manager or from the `sdkmanager` command-line tool. This ensures the tools are saved to the right place with the rest of your Android SDK tools and easily updated.
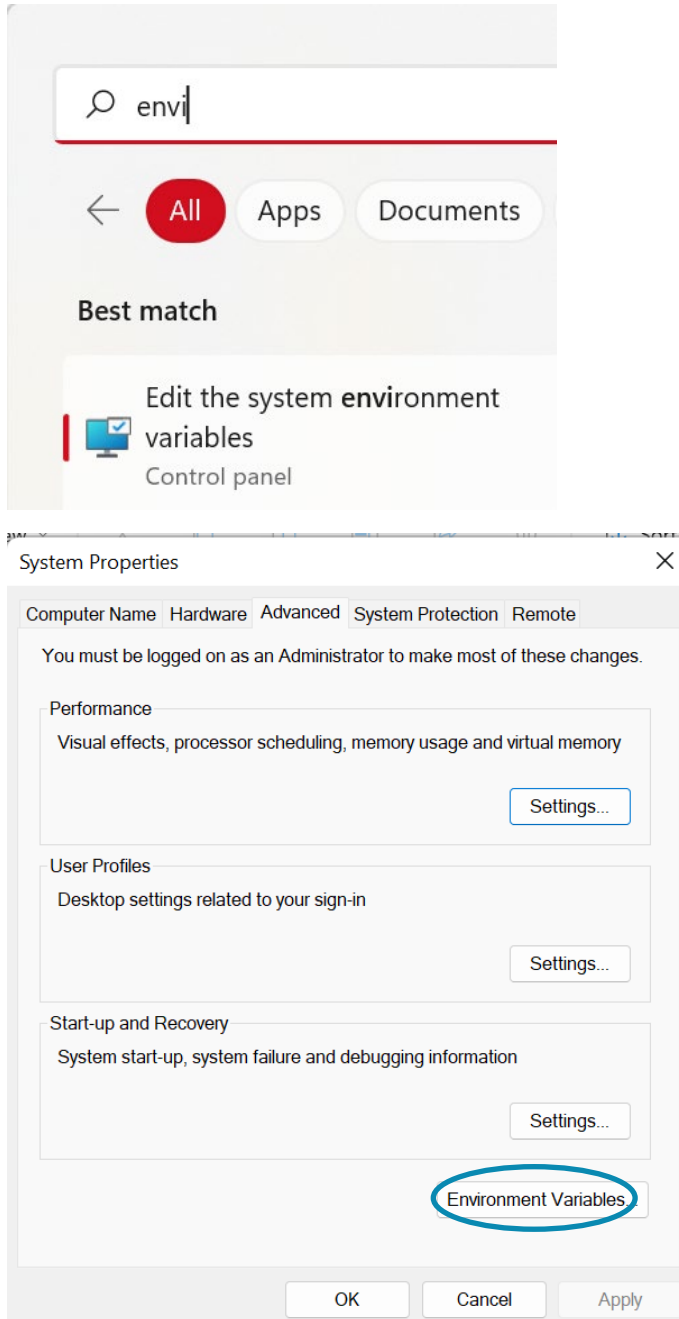
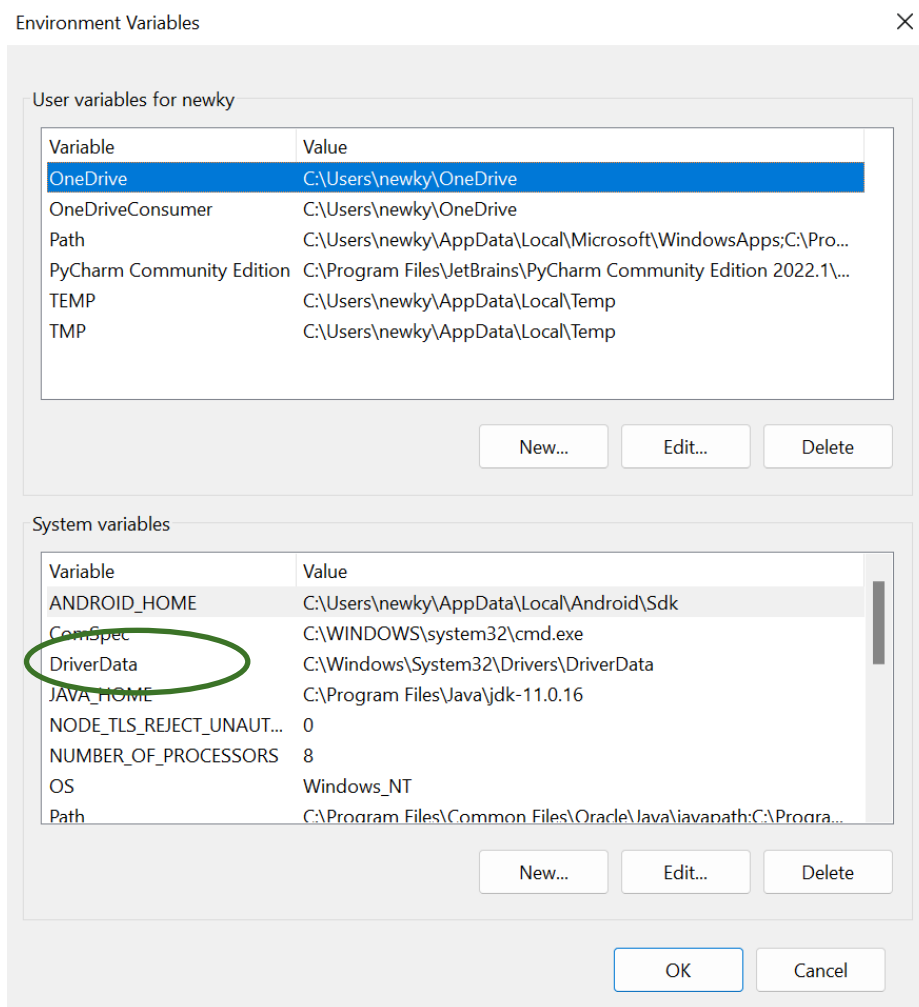But if you want just these command-line tools, use the following links:

- Download SDK Platform-Tools for Windows

- Download SDK Platform-Tools for Mac

- Download SDK Platform-Tools for Linux

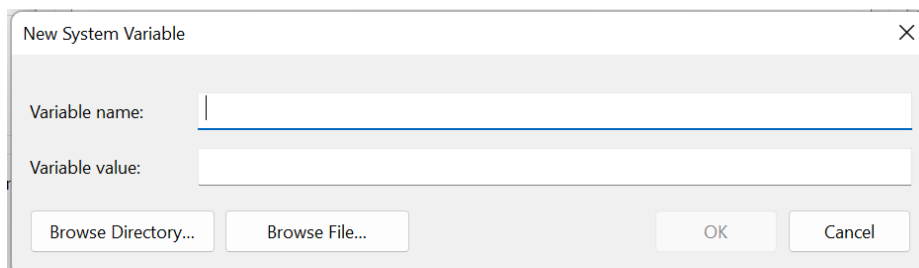Although these links do not change, they always point to the most recent version of the tools.

Environment variables
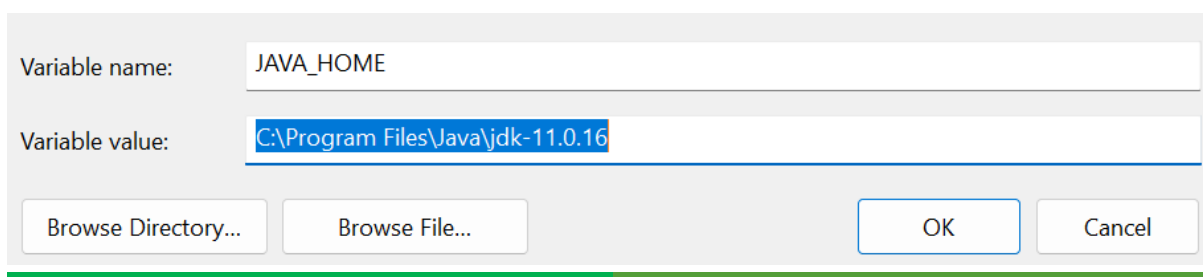
We need to set each of the following

Under System Variable Click New

Set JAVA_HOME as below,

Point to your java JDK file directory **(NEVER point to JRE)**

Browse Directory and set the same.

Set ANDROID_HOME as below,

Path Variables to be set

Click on edit path

Point or provide nodejs path

Provide adb.exe path (C-Users-your user folder-AppData-Local-Android\Sdk\Platform-tools\adb.exe

Give Android home as path

Edit environment variable ✕

```
%SystemRoot%\system32
%SystemRoot%
%SystemRoot%\System32\Wbem
%SYSTEMROOT%\System32\WindowsPowerShell\v1.0\
%SYSTEMROOT%\System32\OpenSSH\
C:\Program Files\Git\cmd
C:\Program Files\nodejs\
C:\Users\newky\AppData\Local\Android\Sdk\platform-tools\adb.exe
%ANDROID_HOME%
C:\Program Files\Java\jdk-17.0.5
%MAVEN_HOME%\bin
C:\Program Files\Common Files\Oracle\Java\javapath
C:\Program Files (x86)\Common Files\Oracle\Java\javapath
```
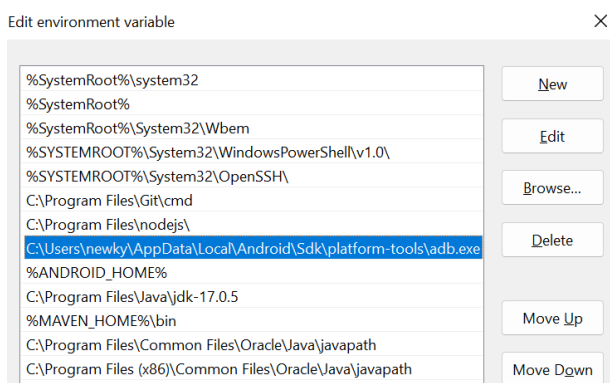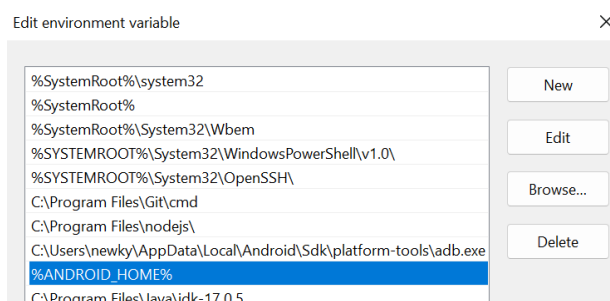
New
Edit
Browse...
Delete
Move Up
Move Down

==Provide java JDK path==

==Run the Appium Doctor Again.==


```
Select C:\WINDOWS\system32\cmd.exe                                        —  □  ✕

C:\Users\newky>appium-doctor
WARN AppiumDoctor [Deprecated] Please use appium-doctor installed with "npm install @appium/doctor --location=global"
info AppiumDoctor Appium Doctor v.1.16.2
info AppiumDoctor ### Diagnostic for necessary dependencies starting ###
info AppiumDoctor ✓The Node.js binary was found at: C:\Program Files\nodejs\node.EXE
info AppiumDoctor ✓Node version is 16.17.1
info AppiumDoctor ✓ANDROID_HOME is set to: C:\Users\newky\AppData\Local\Android\Sdk
info AppiumDoctor ✓JAVA_HOME is set to: C:\Program Files\Java\jdk-11.0.16
info AppiumDoctor   Checking adb, android, emulator, apkanalyzer.bat
info AppiumDoctor     'adb' is in C:\Users\newky\AppData\Local\Android\Sdk\platform-tools\adb.exe
info AppiumDoctor     'android' is in C:\Users\newky\AppData\Local\Android\Sdk\tools\android.bat
info AppiumDoctor     'emulator' is in C:\Users\newky\AppData\Local\Android\Sdk\emulator\emulator.exe
WARN AppiumDoctor ✚apkanalyzer.bat could NOT be found in C:\Users\newky\AppData\Local\Android\Sdk!
info AppiumDoctor ✓'bin' subfolder exists under 'C:\Program Files\Java\jdk-11.0.16'
info AppiumDoctor ### Diagnostic for necessary dependencies completed, one fix needed. ###
info AppiumDoctor
info AppiumDoctor ### Diagnostic for optional dependencies starting ###
WARN AppiumDoctor ✚opencv4nodejs cannot be found.
WARN AppiumDoctor ✚ffmpeg cannot be found
WARN AppiumDoctor ✚mjpeg-consumer cannot be found.
WARN AppiumDoctor ✚bundletool.jar cannot be found
WARN AppiumDoctor ✚gst-launch-1.0.exe and/or gst-inspect-1.0.exe cannot be found
info AppiumDoctor ### Diagnostic for optional dependencies completed, 5 fixes possible. ###
info AppiumDoctor
info AppiumDoctor ### Manual Fixes Needed ###
info AppiumDoctor The configuration cannot be automatically fixed, please do the following first:
WARN AppiumDoctor  → Manually install apkanalyzer.bat and add it to PATH. https://developer.android.com/studio#cmdline-t
ools and https://developer.android.com/studio/intro/update#sdk-manager may help to setup.
info AppiumDoctor
info AppiumDoctor ### Optional Manual Fixes ###
```
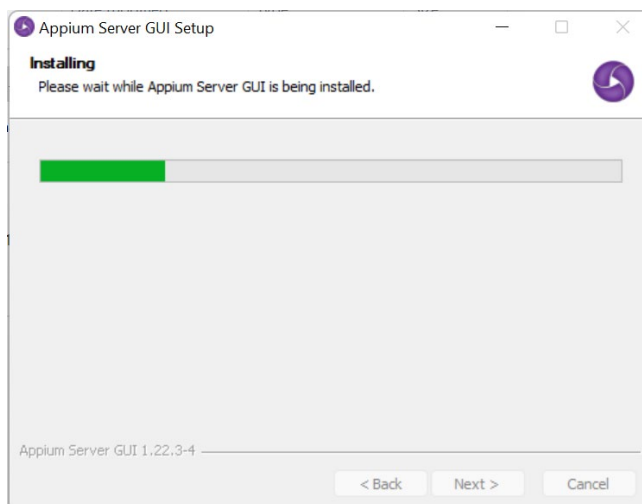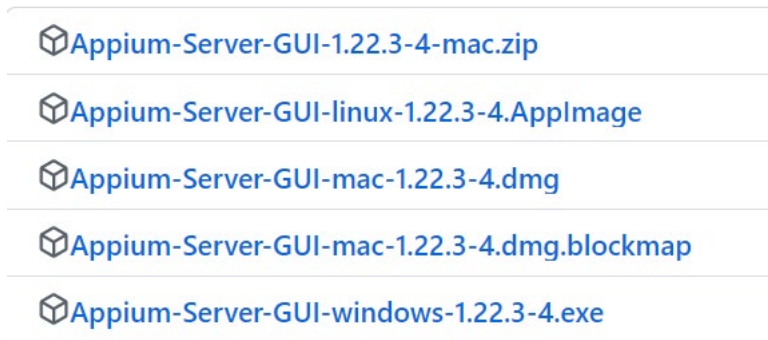
Now APPIUM successfully installed

Appium Desktop Client
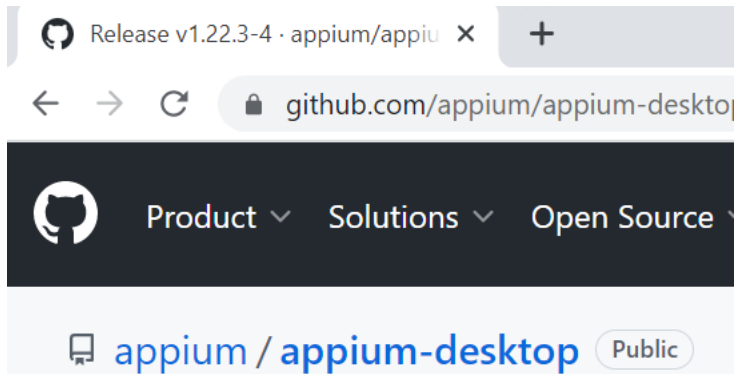

Click Appium server GUI

Appium Desktop client is installed

Developer Option in Android phone

To enable developer options, tap the **Build Number** option 7 times. You can find this option in one of the following locations, depending on your Android version:

- Android 9 (API level 28) and higher: **Settings > About Phone > Build Number**

- Android 8.0.0 (API level 26) and Android 8.1.0 (API level 26): **Settings > System > About Phone > Build Number**

- Android 7.1 (API level 25) and lower: **Settings > About Phone > Build Number**

Once Developer TAB/Option is enabled
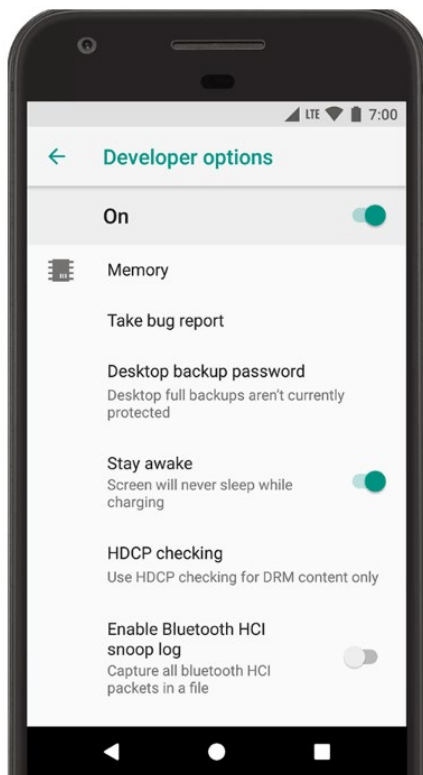
Enable USB debugging

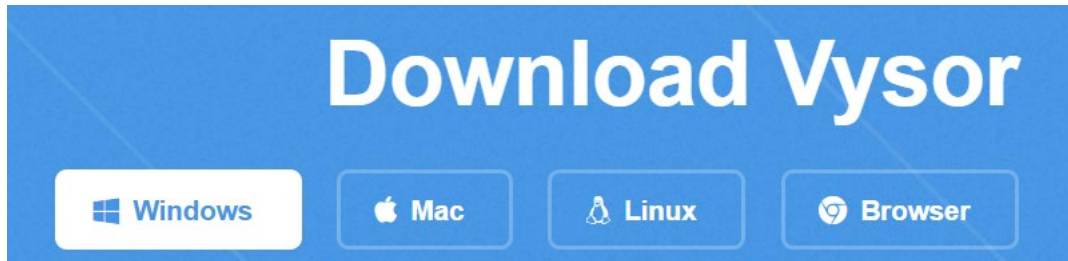Additional phone to phone the following maybe required

Enable Install Via USB

Enable USB Debugging (Security settings)

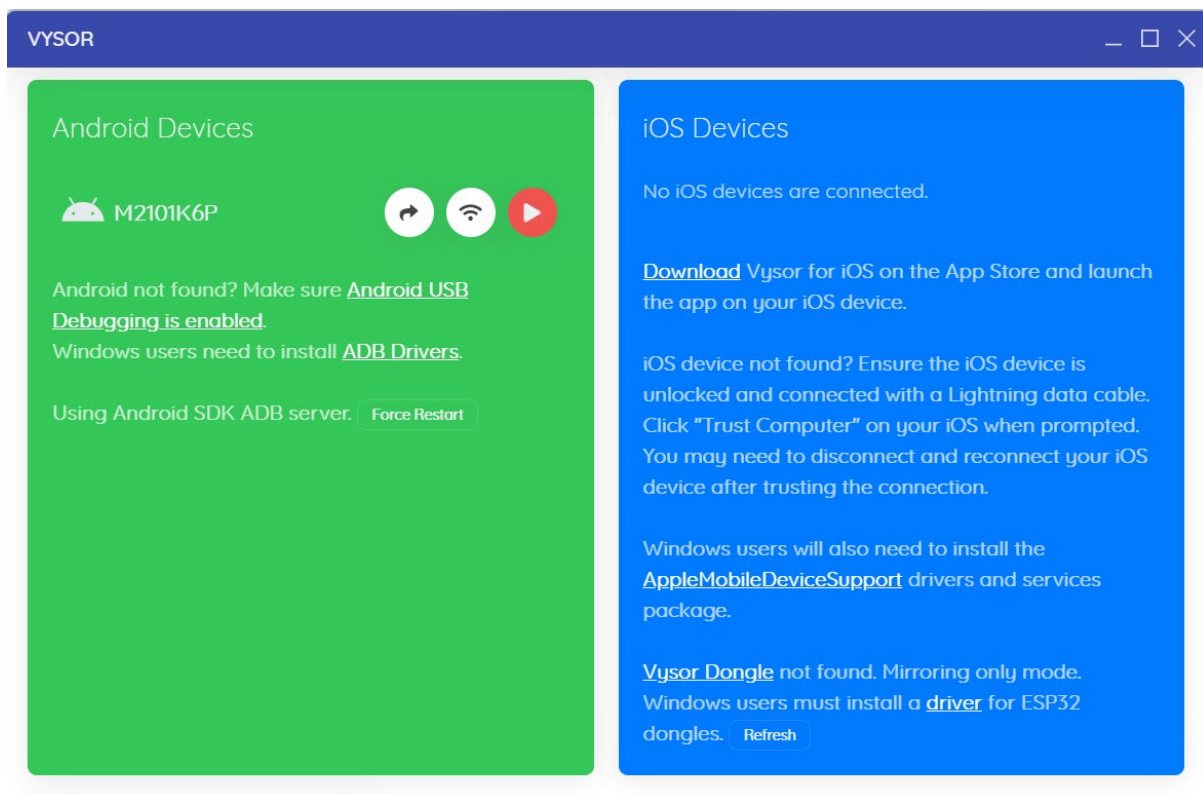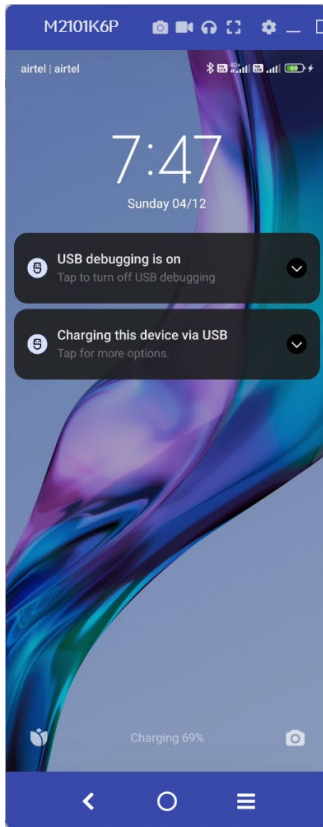# Installing Mobile to System Mirror software

Download Vysor

Post Installation

Your mobile phone will be connected to system like below.

Click on red Play button to mirror your mobile phone on the system

Android Debug Bridge (adb)

Android Debug Bridge (adb) is a versatile command-line tool that lets you communicate with a device. The adb command facilitates a variety of device actions, such as installing and debugging apps. adb provides access to a Unix shell that you can use to run a variety of commands on a device. It is a client-server program that includes three components:

- A client, which sends commands. The client runs on your development machine. You can invoke a client from a command-line terminal by issuing an adb command.
- A daemon (adbd), which runs commands on a device. The daemon runs as a background process on each device.

- A server, which manages communication between the client and the daemon. The server runs as a background process on your development machine.

Now to check the connected devices use the following command in command prompt

adb devices

note if adb devices command is not working change directory to

This will give the list of devices connected to the system

If no device connected

If device is connected the following will be the output

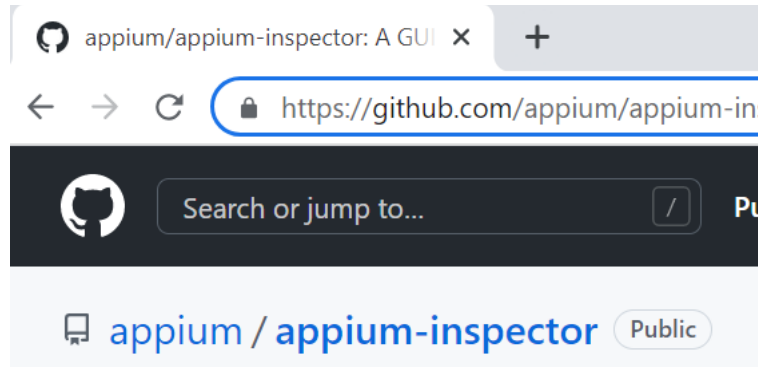If Multiple devices connected the following will be the output

Vysor will look like this if multiple device is connected
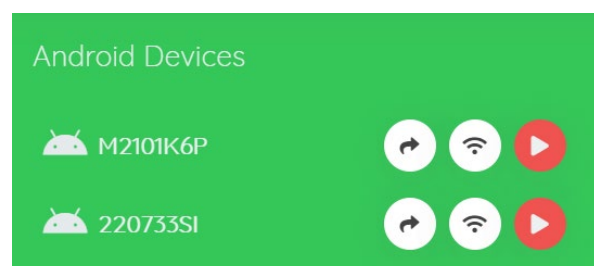
we need to download third-party inspector

Installation of Appium Inspector

Click on Releases

Use version as per your system

Appium-Inspector-2022.11.1-universal-mac.zip	160 MB	19 days ago
Appium-Inspector-linux-2022.11.1.AppImage	97.4 MB	19 days ago
Appium-Inspector-mac-2022.11.1.dmg	167 MB	19 days ago
Appium-Inspector-mac-2022.11.1.dmg.blockmap	178 KB	19 days ago
Appium-Inspector-windows-2022.11.1.exe	138 MB	19 days ago
Appium-Inspector-windows-2022.11.1.exe.blockmap	146 KB	19 days ago
Appium-Inspector-windows-2022.11.1.zip	96.5 MB	19 days ago
Appium.Inspector-2022.11.1-universal-mac.zip.blockmap	172 KB	19 days ago
latest-linux.yml	408 Bytes	19 days ago
latest-mac.yml	554 Bytes	19 days ago
Source code (zip)		19 days ago
Source code (tar.gz)		19 days ago

In Eclipse assuming Java and Selenium already installed.

Now Create a New Maven project
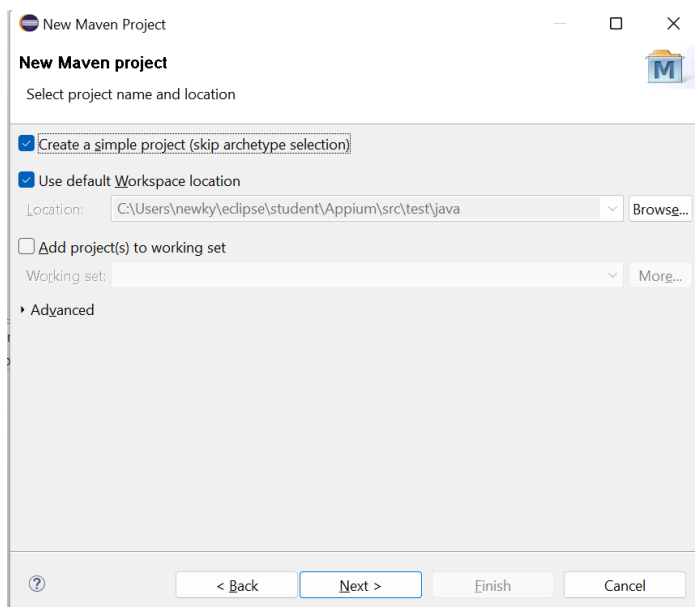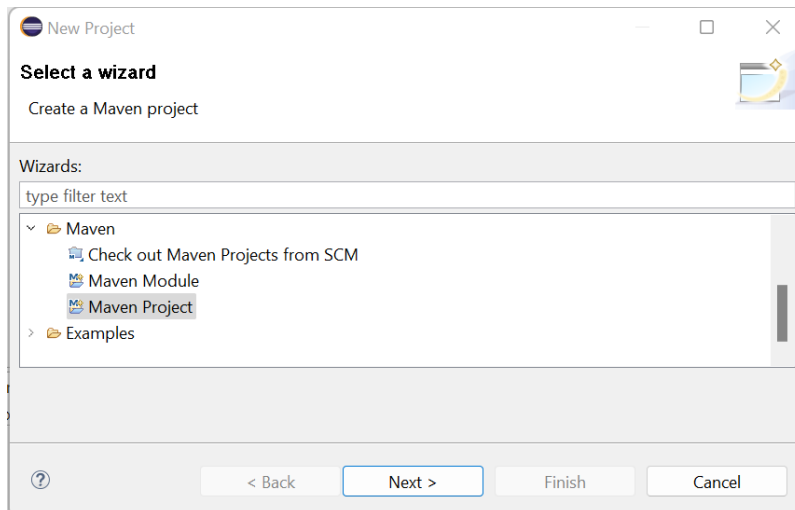
Now Maven dependencies to be added

    1)   Selenium Java maven dependency

<!-- https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium-java -->

<dependency>

   <groupId>org.seleniumhq.selenium</groupId>

   <artifactId>selenium-java</artifactId>

   <version>4.6.0</version>

</dependency>

    2)   Appium java client

```
<!-- https://mvnrepository.com/artifact/io.appium/java-client -->

<dependency>

    <groupId>io.appium</groupId>

    <artifactId>java-client</artifactId>

    <version>8.2.1</version>

</dependency>
```

3) Java plugin to be 1.8 most stable version

```
<build>

<plugins>

<plugin>

 <groupId>org.apache.maven.plugins</groupId>

   <artifactId>maven-compiler-plugin</artifactId>

   <version>3.7.0</version>

   <configuration>

   <source>1.8</source>

   <target>1.8</target>

   </configuration>

</plugin>

</plugins>

</build>
```

Then Update Maven project