

# APPIUM

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

INSTALLATION

# Appium



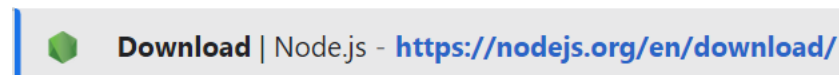
# Getting Started

## Congratulations!

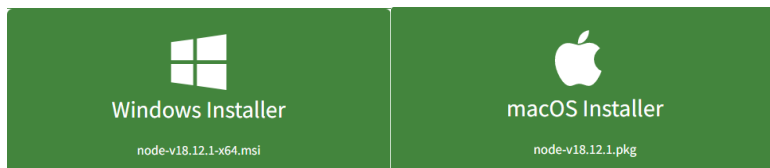
**Before Installing Appium need to have Java and IDE installed as prerequisites**

Install node.js on your machine.

Go to Nodejs.org website



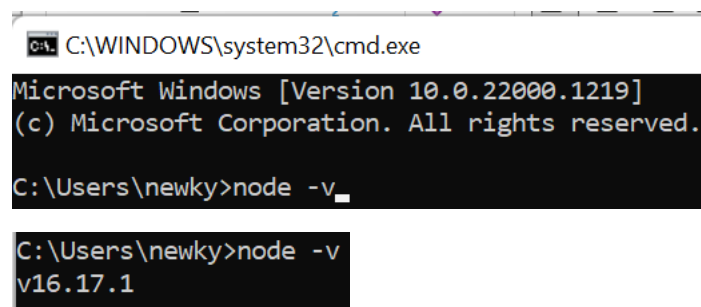
Click based on your OS



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



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

```
ca. 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 HTTP
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

# Android Studio

Get the official Integrated Development Environment (IDE) for Android app development.

Download Android Studio 

Read release notes 

Post Installation.

## Appium Doctor Installation

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

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

Installation in progress

```
npm install appium-doctor
Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

C:\Users\newky>npm install appium-doctor -g
(node:18192) Warning: Setting the NODE_TLS_REJECT_UNAUTHORIZED environment variable to '0' makes TLS connections and HTTP requests insecure by disabling certificate verification.
(Use `node --trace-warnings ...` to show where the warning was created)
[ ] | idealTree:npm: timing idealTree:root Completed in 1256ms
```

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

### Run Appium-doctor in command prompt

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

C:\Users\newky>appium-doctor
```

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

```
info AppiumDoctor Appium Doctor v.1.16.0
info AppiumDoctor ### Diagnostic for necessary dependencies starting ###
info AppiumDoctor [i] The Node.js binary was found at: C:\Program Files\nodejs\node.EXE
info AppiumDoctor [i] Node version is 14.16.1
WARN AppiumDoctor [x] ANDROID_HOME environment variable is NOT set!
WARN AppiumDoctor [x] JAVA_HOME environment variable is NOT set!
WARN AppiumDoctor [x] adb, android, emulator could not be found because ANDROID_HOME or ANDROID_SDK_ROOT is NOT set!
WARN AppiumDoctor [x] Cannot check %JAVA_HOME% requirements since the environment variable itself is not set
info AppiumDoctor ### Diagnostic for necessary dependencies completed, 4 fixes needed. ###
```

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

## 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.

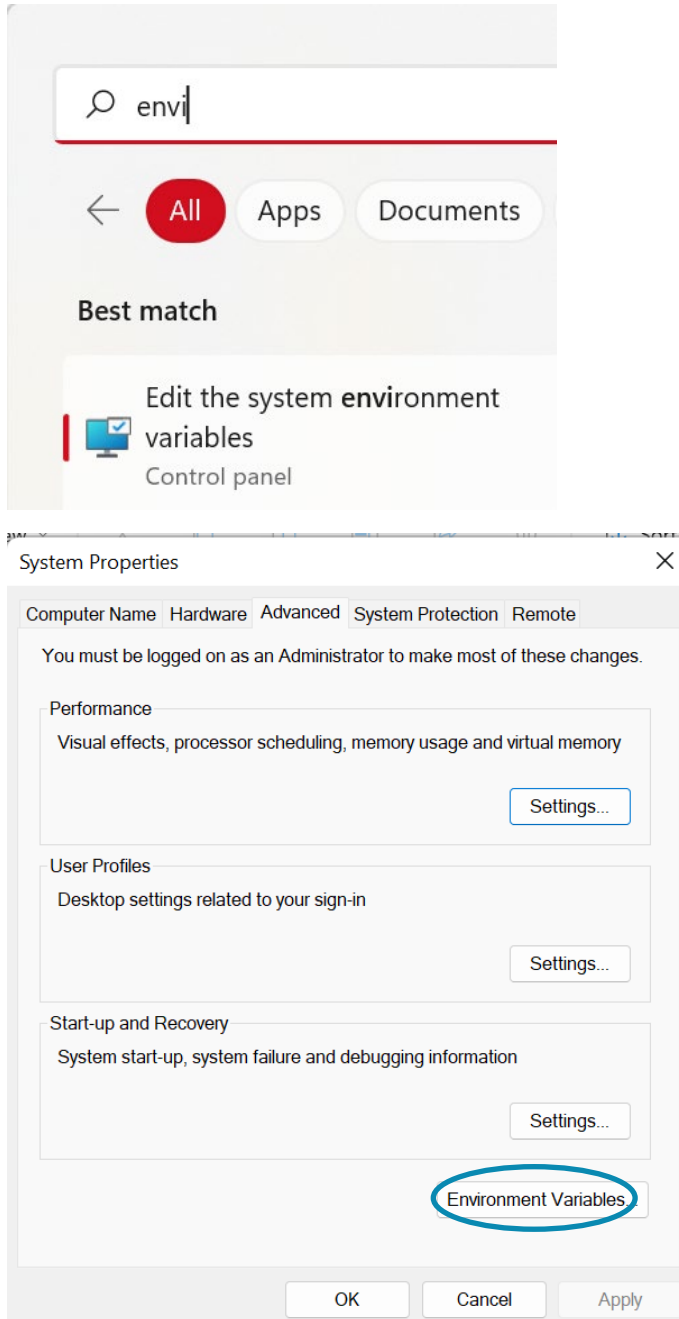
But if you want just these command-line tools, use the following links:

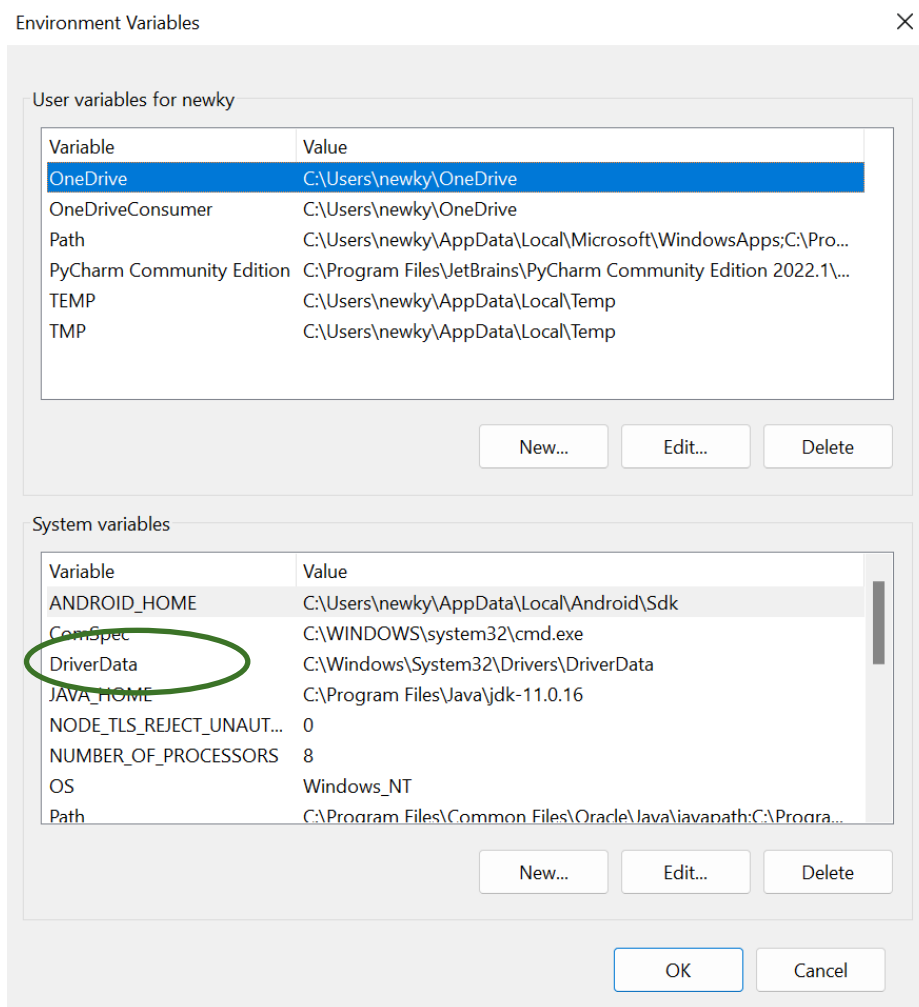
- [Download SDK Platform-Tools for Windows](#)
- [Download SDK Platform-Tools for Mac](#)
- [Download SDK Platform-Tools for Linux](#)

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

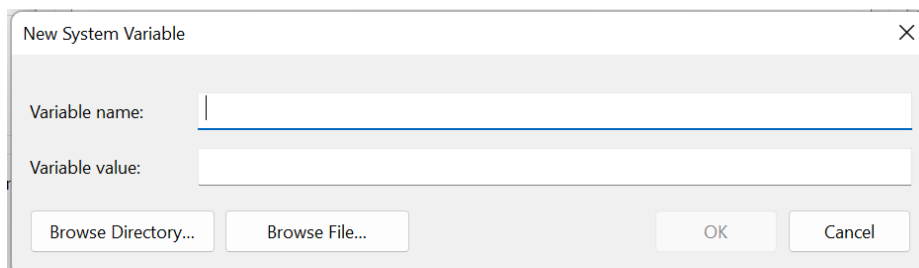
# Environment variables

We need to set each of the following



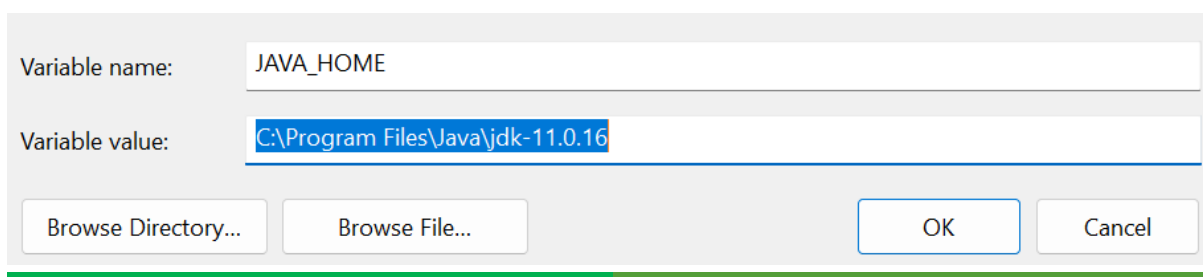


Under System Variable Click New



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,

Edit System Variable

Variable name: ANDROID\_HOME

Variable value: C:\Users\newky\AppData\Local\Android\Sdk

Browse Directory... Browse File... OK Cancel

## Path Variables to be set

Environment Variables

User variables for newky

Variable	Value
OneDrive	C:\Users\newky\OneDrive - MAHARISHI VIDYA MANDIR
OneDriveCommercial	C:\Users\newky\OneDrive - MAHARISHI VIDYA MANDIR
OneDriveConsumer	C:\Users\newky\OneDrive
Path	C:\Users\newky\AppData\Local\Microsoft\WindowsApps;C:\Pro...
PyCharm Community Edition	C:\Program Files\JetBrains\PyCharm Community Edition 2022.1\...
TEMP	C:\Users\newky\AppData\Local\Temp
TMP	C:\Users\newky\AppData\Local\Temp

New... Edit... Delete

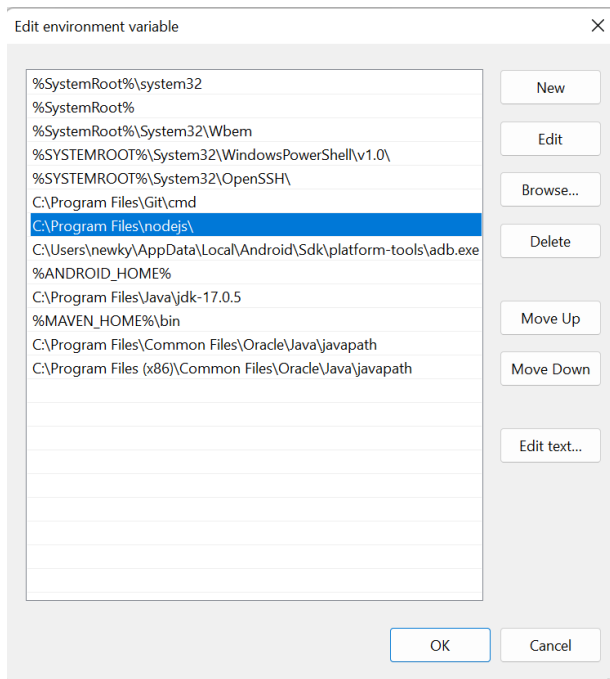
System variables

Variable	Value
Path	C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
PROCESSOR_ARCHITECTURE	AMD64
PROCESSOR_IDENTIFIER	Intel64 Family 6 Model 142 Stepping 12, GenuineIntel
PROCESSOR_LEVEL	6
PROCESSOR_REVISION	8e0c
PSModulePath	%ProgramFiles%\WindowsPowerShell\Modules;C:\WINDOWS\sy...
TEMP	C:\WINDOWS\TEMP

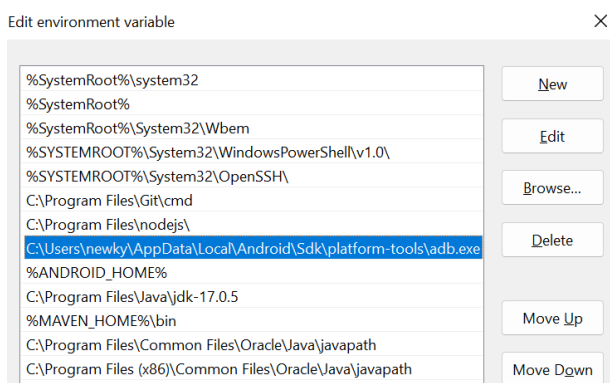
New... Edit... Delete

OK Cancel

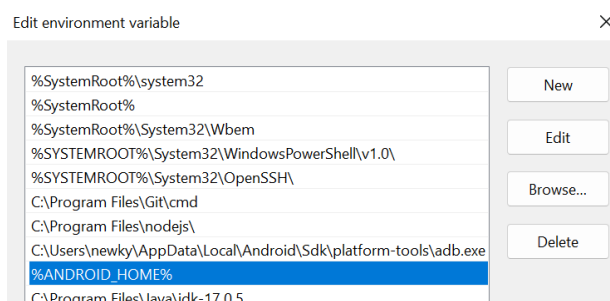
Click on edit path



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

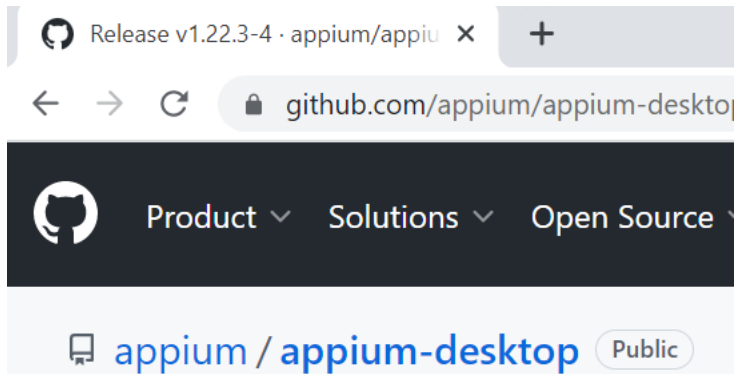
Run the Appium Doctor Again.

```

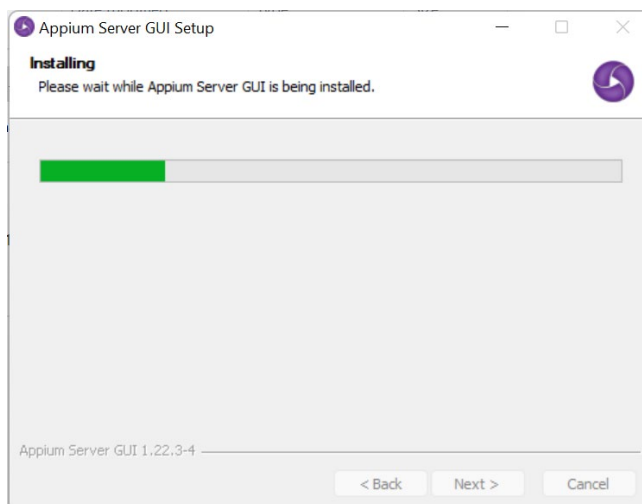
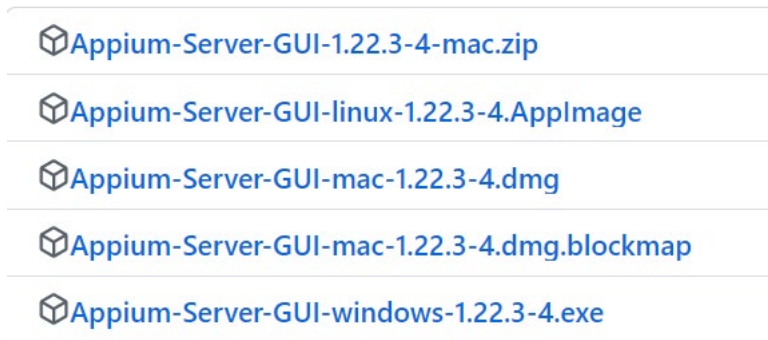
C:\Users\newky>appium-doctor
WARN AppiumDoctor [Deprecated] Please use appium-doctor installed with "npm install @appium/doctor --location=global"
info AppiumDoctor Appium Doctor v.1.16.2
info AppiumDoctor ### Diagnostic for necessary dependencies starting ###
info AppiumDoctor   ✓The Node.js binary 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 ### 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 ### 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
tools 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



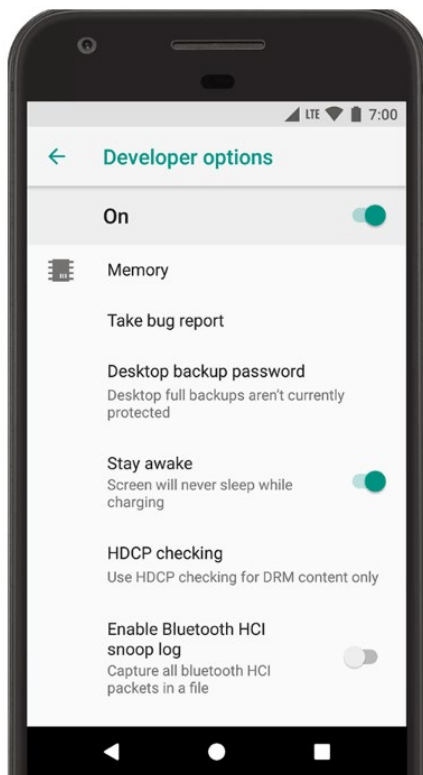
Appium Desktop client is installed

# 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

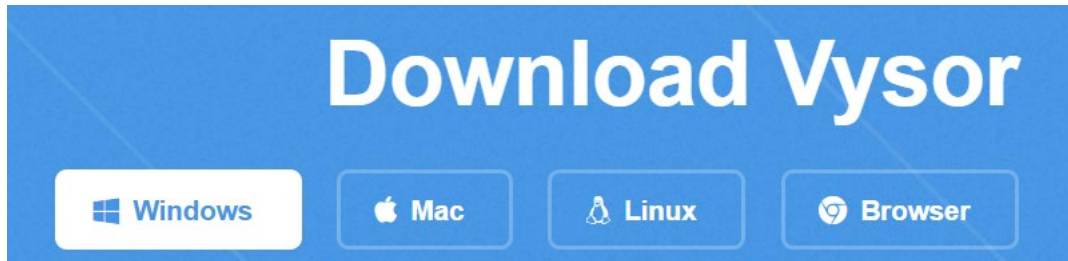
Enable Install Via USB

Enable USB Debugging (Security settings)

# Installing Mobile to System Mirror software

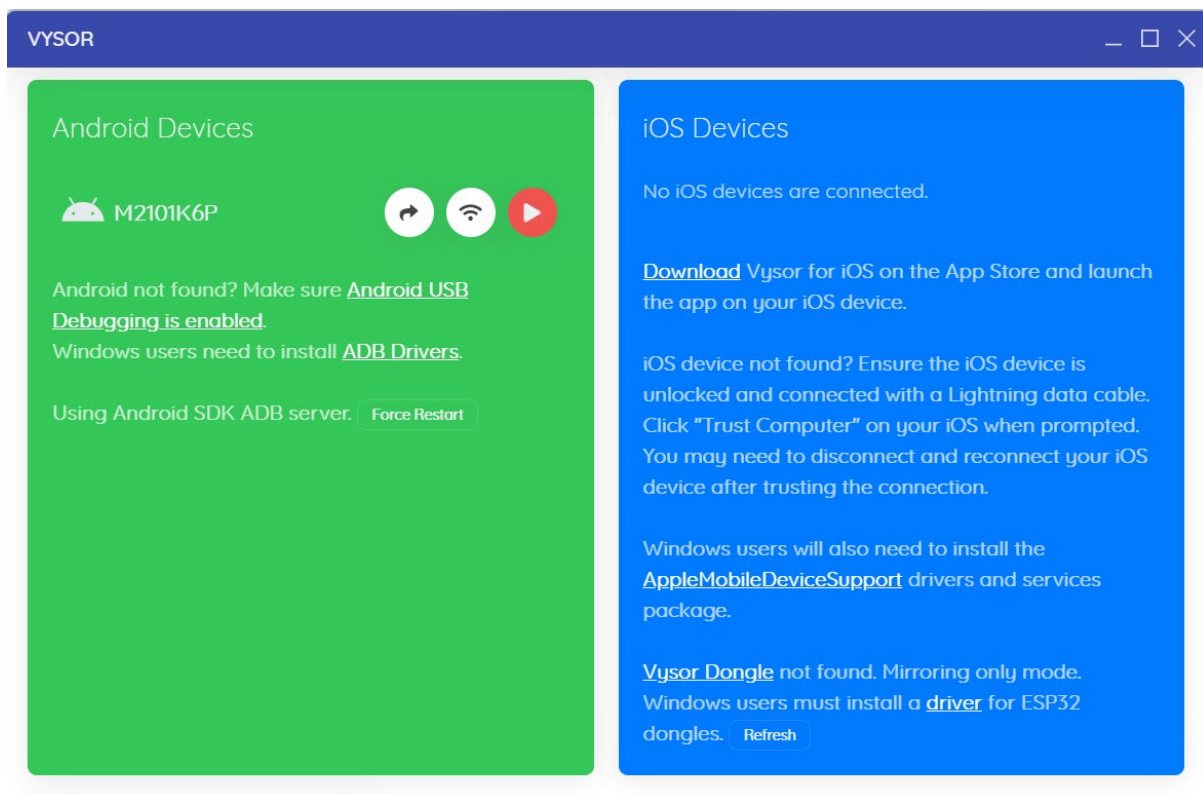
## Download Vysor

Vysor Downloads - <https://www.vysor.io/download/>

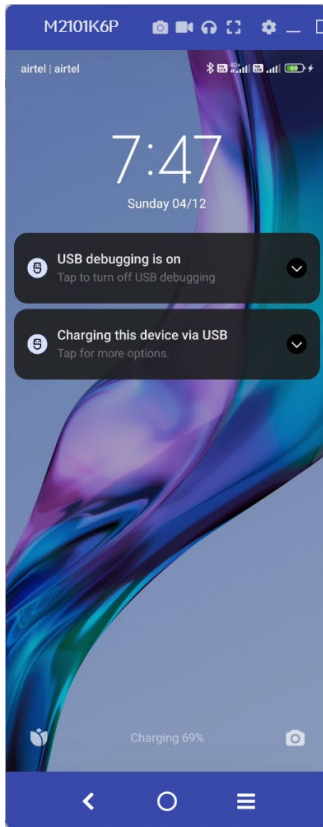


### Post Installation

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 (adb), 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

(C:\Users-your user folder\AppData\Local\Android\Sdk\Platform-tools

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

C:\Users\newky>cd C:\Users\newky\AppData\Local\Android\Sdk\platform-tools
C:\Users\newky\AppData\Local\Android\Sdk\platform-tools>adb devices_
```

This will give the list of devices connected to the system

If no device connected

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.22000.1219]
(c) Microsoft Corporation. All rights reserved.

C:\Users\newky>cd C:\Users\newky\AppData\Local\Android\Sdk\platform-tools
C:\Users\newky\AppData\Local\Android\Sdk\platform-tools>adb devices
List of devices attached

C:\Users\newky\AppData\Local\Android\Sdk\platform-tools>
```

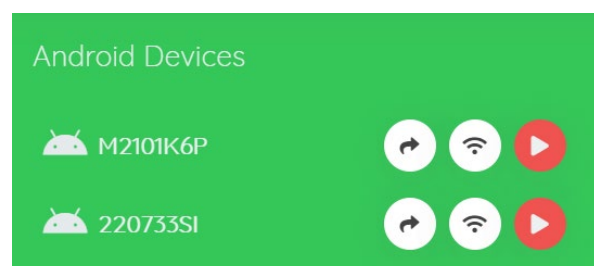
If device is connected the following will be the output

```
C:\Users\newky\AppData\Local\Android\Sdk\platform-tools>adb devices
List of devices attached
52ecdf29      device
```

If Multiple devices connected the following will be the output

```
C:\Users\newky\AppData\Local\Android\Sdk\platform-tools>adb devices
List of devices attached
52ecdf29      device
8LTSMBNBKR45JZ6D      device
```

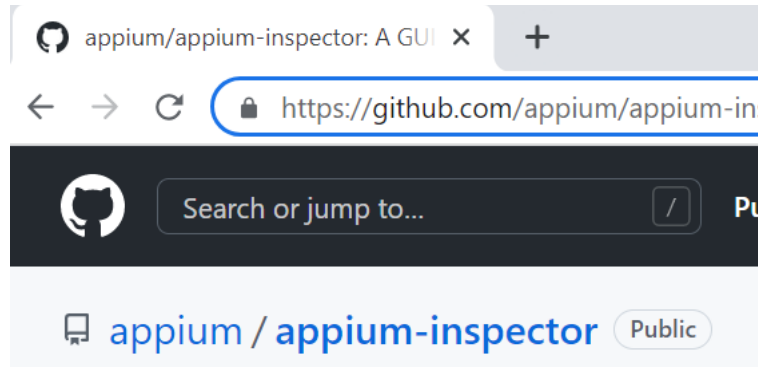
Vysor will look like this if multiple device is connected





we need to download third-party inspector

## Installation of Appium Inspector



Click on Releases

Releases 20

2022.11.1 **Latest**  
19 days ago

+ 19 releases

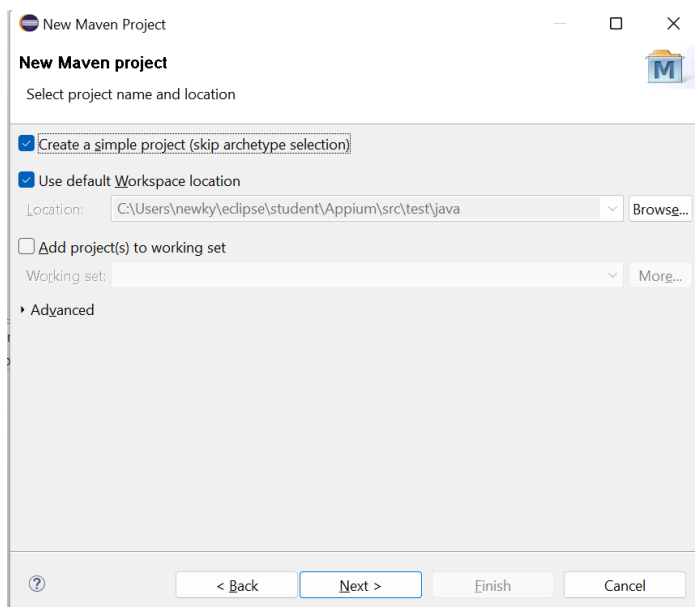
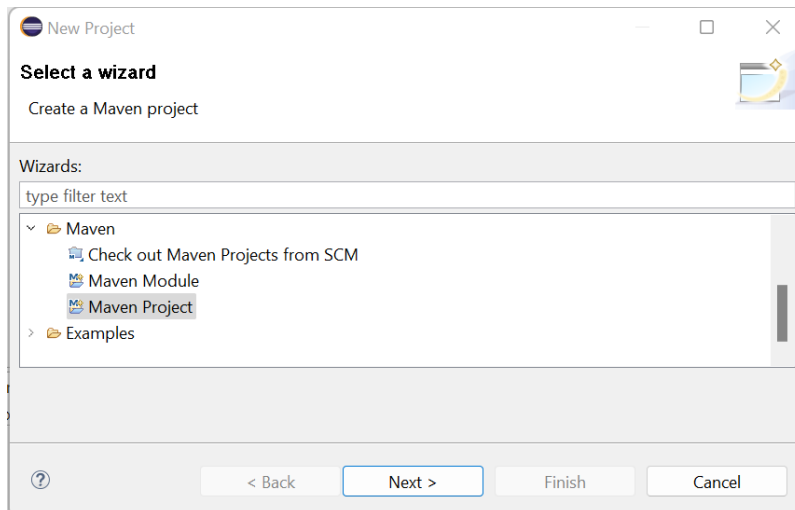
Use version as per your system

▼ Assets 12

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**



New Maven Project

**New Maven project**

Configure project

Artifact

Group Id: com.greenstechnologysAppium

Artifact Id: AppiumTutorial

Version: 0.0.1-SNAPSHOT

Packaging: jar

Name:

Description:

Parent Project

Group Id:

Artifact Id:

Version:

Browse... Clear

Advanced

< Back Next > Finish Cancel

## Now Maven dependencies to be added

### 1) Selenium Java maven dependency



selenium java maven dependency

<https://mvnrepository.com> › [org.seleniumhq.selenium](https://mvnrepository.com/org.seleniumhq.selenium)

### Selenium Java - Maven Repository

**Selenium** provides support for the automation of web browsers. It provides extensions to emulate user interaction with browsers, a distribution server for ...

```
<!-- 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



Appium Java maven dependency

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

### Java Client - io.appium - Maven Repository

**Java Client.** Java client for **Appium** Mobile Webdriver. License, Apache 2.0 ... Version, Vulnerabilities, **Repository**, Usages, Date. 8.2.x. 8.2.1 · Central.

Used By: 260 artifacts

7.3.0 · 7.0.0 · 4.1.2

```
<!-- 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

