

# Importance of Mobile Phone

---

- I want to pay my electricity bill.
- I need to communicate with my manager and submit my reports urgently.
- I want to buy new clothes for my kid, but I don't have the time to go to a store.
- Oh...it's 10 PM; I am running late for my flight. Where is my cab?
- I have been in this city for the first time; which hotel should I book?

Now answer yourself. What do you need to perform these activities in a fraction of second? The answer would be –

- A smartphone,
- Internet connectivity, and
- A mobile app to do the job.

## Various Mobile OS

---

Operating System	Developed by	Popularity (Low, Medium, High)
Android	Google Inc	High
iOS	Apple Inc	High
Blackberry	Blackberry Ltd	Low
Windows	Microsoft Inc	Medium

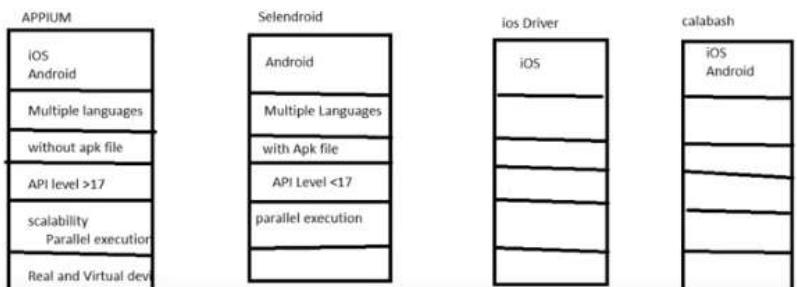
## Types of Mobile Apps

---

- **Mobile Web App**
  - Web apps are not real applications; they are actually websites that open in your smartphone with the help of a web browser. Mobile websites have the broadest audience of all the primary types of applications.
- **Native App**
  - A native app is developed specifically for one platform. It can be installed through an application store (such as Google Play Store or Apple's App Store).
  - Example – Whatsapp, Facebook. This app can use all the system application's(the apps which comes by default with your mobile )
- **Hybrid App**
  - Hybrid Apps are a way to expose content from existing websites in App format. They can be well described as a mixture of Web App and Native App.

# Tools Available

- Appium
- Selendroid
- ios-driver
- Calabash
- MoneyTalk
- Frank
- KIF(keep it functional)
- Robotium



## Open source Tools Requirements

- Application source code should not be modified for test automation : I don't want to compile or modify the source code of the application, whatever the application we are going to submit the same app i need to test
  - Explanation : There are many open source mobile automation testing tools (like Robotium) which needs compilation or modification of the source code before conducting testing and even after testing also we need to remove those changes. It means in these cases we are not going to test the application whatever we are going to submit to the play store.
- Tests should run across Simulators/Emulators & Real Devices: my tool should support simulators(virtual device for iOS), emulators(virtual device for Android), real devices
- Tests should be written using Java and any test automation frameworks: written in java so that it can support any framework
- Large open source community for continuous maintenance and support:larger community support

Requirements	APPIUM	iOS Driver	Calabash
1	Yes	Yes	No
2	Yes	No	Yes
3	Yes	Yes	No
4	Yes	Yes	No

## Why Appium (Advantages)

- Cross platform: Android & iOS: we can test native, hybrid, web app
- Allows you to communicate with other apps , Ex: WhatsApp (Majority of tools doesn't support this)
- No pre-compilation of your app
- support for built-in app : alarm, phone, calendar etc
- Any WebDriver compatible language is supported : Java, objective C, Ruby, php , C# : we just need language specific libraries to work on

# Limitations of Appium

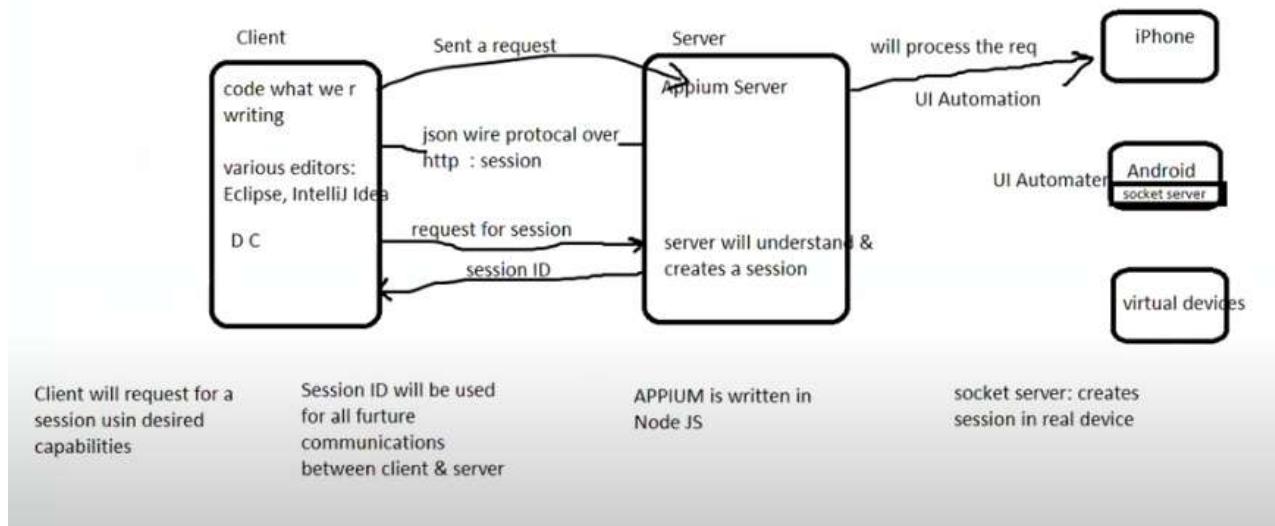
- For Android, No Support for Android API level < 17(for android v>4.1) if you mobile having less than 17 then we need to go for selendroid.
- Script execution is very slow on iOS platform & android virtual devices
- No support for Toast messages: we can handle this
- no parallel execution directly : we can handle using sauce labs

## What is Appium?

- Appium is mobile web, native and hybrid software application test automation tool developed and supported by Sauce Labs .
- It is open-source software automation tool which is useful to automate android and IOS platform apps.

## Appium Architecture

- As Appium is an HTTP server(webserver), its performs pretty much same as Selenium Webdriver server
- Appium works as a Client/Server architecture.
- To JSON wire protocol the communication will happen with session ID's only.
- whenever the client sends a request the server will create a session and it will send back session ID to the client so that the future communication between client and server will happen with this session ID only
- Q) How come the server will identify which session it needs to create?  
A) usually the client has desired capabilities which we need to pass using which the session will be created .. DC contains application name, platform version, package name, activity name
- Appium Desired capabilities?**
- Desired Capabilities are sent by the Client to Server via JSON Objects by requesting the automation session we need.
- These desired capabilities are found in the link below**
- <http://appium.io/slate/en/v1.2.0/?java#appium-server-capabilities>



# Prerequisite to use APPIUM (Windows)

## Pre-requisites

- [Install Java](#) (JDK)
- [Eclipse](#)
- [Maven plugin for Eclipse](#)
- [TestNG plugin for Eclipse](#)
- [Selenium Standalone Server](#)

## Android Tools

- [Android Studio](#) (IDE, SDK, virtual env)
- [Appium Server/Appium Desktop](#)
- [Appium Client Library](#) (jar)

## Install Java(JDK)

**Java SE Development Kit 11.0.2**

You must accept the [Oracle Technology Network License Agreement](#) for Oracle Java SE to download this software.

Accept License Agreement  Decline License Agreement

Product / File Description	File Size	Download
Linux	147.28 MB	<a href="#">jdk-11.0.2_linux-x64_bin.deb</a>
Linux	154.01 MB	<a href="#">jdk-11.0.2_linux-x64_bin.rpm</a>
Linux	171.32 MB	<a href="#">jdk-11.0.2_linux-x64_bin.tar.gz</a>
macOS	166.13 MB	<a href="#">jdk-11.0.2_osx-x64_bin.dmg</a>
macOS	166.49 MB	<a href="#">jdk-11.0.2_osx-x64_bin.tar.gz</a>
Solaris SPARC	186.78 MB	<a href="#">jdk-11.0.2_solaris-sparcv9_bin.tar.gz</a>
Windows	150.94 MB	<a href="#">jdk-11.0.2_windows-x64_bin.exe</a>
Windows	170.96 MB	<a href="#">jdk-11.0.2_windows-x64_bin.zip</a>

Java SE - Downloads | Oracle Technology Network

<https://www.oracle.com/technetwork/java/javase/downloads/index.html>

**Java SE Licensing Information User Manual**

- Java SE Licensing Information User Manual
  - Includes Third Party Licenses
  - Certified System Configurations
  - Readme

**Looking for Oracle OpenJDK builds?**

- **Oracle Customers and ISVs targeting Oracle LTS releases:** Oracle JDK is Oracle's supported Java SE version for customers and for developing, testing, prototyping or demonstrating your Java applications.
- **End users and developers looking for free JDK versions:** Oracle OpenJDK offers the same features and performance as Oracle JDK under the GPL license.

To Learn more about these options visit [Oracle JDK Releases for Java 11 and Later](#)

**Java SE 8u201 / Java SE 8u202**

Java SE 8u201 / Java SE 8u202 includes important bug fixes. Oracle strongly recommends that all Java SE 8 users upgrade to this release.

[Learn more](#)

**JDK DOWNLOAD**

**Server JRE DOWNLOAD**

**JRE DOWNLOAD**

**Which Java package do I need?**

- **Software Developers:** JDK (Java SE Development Kit). For Java Developers. Includes a complete JRE plus tools for developing, debugging, and monitoring Java applications.
- **Administrators running applications on a server:** Server JRE (Server Java Runtime)

# Install Java(JDK)

**Java SE Development Kit 11.0.2**

You must accept the [Oracle Technology Network License Agreement](#) for Oracle Java SE to download this software.

Accept License Agreement    Decline License Agreement

Product / File Description	File Size	Download
Linux	147.28 MB	<a href="#">jdk-11.0.2_linux-x64_bin.deb</a>
Linux	154.01 MB	<a href="#">jdk-11.0.2_linux-x64_bin.rpm</a>
Linux	171.32 MB	<a href="#">jdk-11.0.2_linux-x64_bin.tar.gz</a>
macOS	166.13 MB	<a href="#">jdk-11.0.2_osx-x64_bin.dmg</a>
macOS	166.49 MB	<a href="#">jdk-11.0.2_osx-x64_bin.tar.gz</a>
Solaris SPARC	186.78 MB	<a href="#">jdk-11.0.2_solaris-sparcv9_bin.tar.gz</a>
Windows	150.94 MB	<a href="#">jdk-11.0.2_windows-x64_bin.exe</a>
Windows	170.96 MB	<a href="#">jdk-11.0.2_windows-x64_bin.zip</a>

**Java SE Downloads**

  
[DOWNLOAD](#)

  
[DOWNLOAD](#)

**Java Platform, Standard Edition**

Java SE 8.0.1  
Java SE 9.0.1 includes important bug fixes. Oracle strongly recommends that all Java SE 9 users upgrade to this release.  
[Learn more](#)

[Installation Instructions](#)

[Release Notes](#)

[Oracle License](#)

[Java SE Licensing Information User Manual](#)

[Third Party Licenses](#)

[Certified System Configurations](#)

[Resources](#)

**JDK DOWNLOADS**

[JDK DOWNLOADS](#)

**Server JRE DOWNLOADS**

[Server JRE DOWNLOADS](#)

**JRE DOWNLOADS**

[JRE DOWNLOADS](#)

**Java SE Development Kit 9 Downloads**

Thank you for downloading this release of the Java™ Platform, Standard Edition Development Kit (JDK™). The JDK is a development environment for building applications, and components using the Java programming language.

The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.

See also:

- [java Developer Newsletter](#): From your Oracle account, select Subscriptions, expand Technology, and subscribe to Java.
- [java Developer Day hands-on workshop](#) (free) and other events
- [Java Magazine](#)
- [Java 9.0.1 checksum](#)

**Java SE Development Kit 9.0.1**

You must accept the Oracle Binary Code License Agreement for Java SE to download this software.

Accept License Agreement    Decline License Agreement

Product / File Description	File Size	Download
Linux	304.99 MB	<a href="#">jdk-9.0.1_linux-x64_bin.rpm</a>
Linux	328.11 MB	<a href="#">jdk-9.0.1_linux-x64_bin.tar.gz</a>
macOS	383.11 MB	<a href="#">jdk-9.0.1_macos-x64_bin.rpm</a>
Windows	375.51 MB	<a href="#">jdk-9.0.1_windows-x64_bin.exe</a>
Solaris SPARC	409.93 MB	<a href="#">jdk-9.0.1_solaris-sparcv9_bin.tar.gz</a>

**Java Development Kit 8 Update 131 (64-bit) - Setup**

Welcome to the Installation Wizard for Java SE Development Kit 8 Update 131

This wizard will guide you through the installation process for the Java SE Development Kit 8 Update 131.

The Java Mission Control profiling and diagnostics tools suite is now available as part of the JDK.

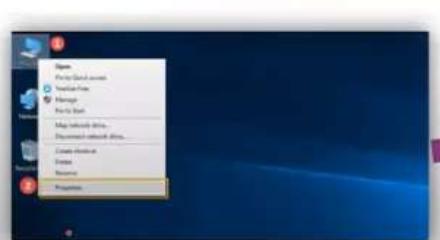
[Next >](#)   [Cancel](#)

**Java SE Development Kit 8 Update 131 (64-bit) - Complete**

Java SE Development Kit 8 Update 131 (64-bit) Successfully Installed

Click Next Steps to access tutorials, API documentation, developer guides, release notes and more to help you get started with the JDK.

[Next Step](#)   [Close](#)



**System Properties**

Computer Name: Hardware Advanced System Protection: Results

You must be logged on as an Administrator to make most of these changes.

**Performance**

Visual effects, processor scheduling, memory usage and virtual memory

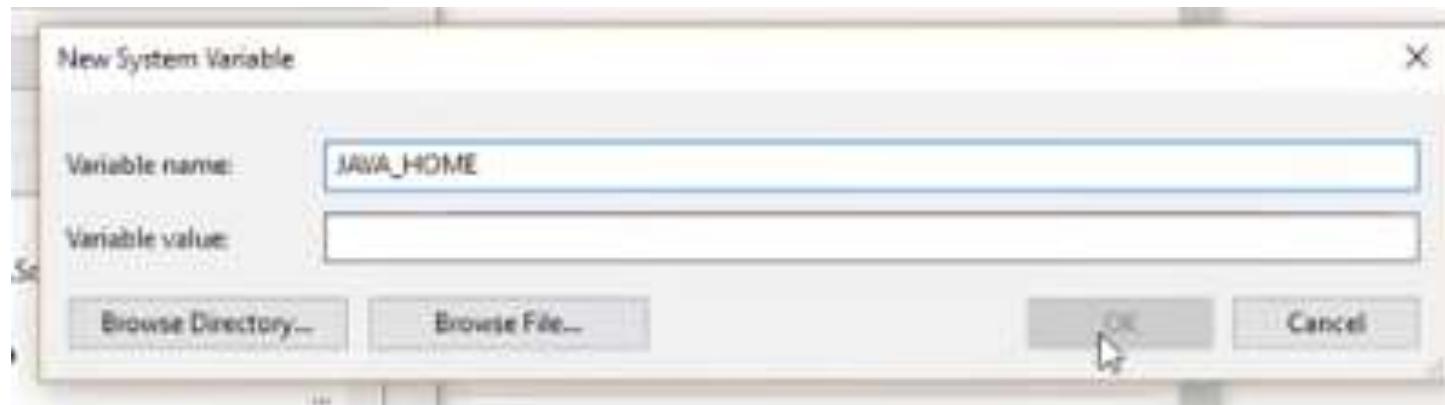
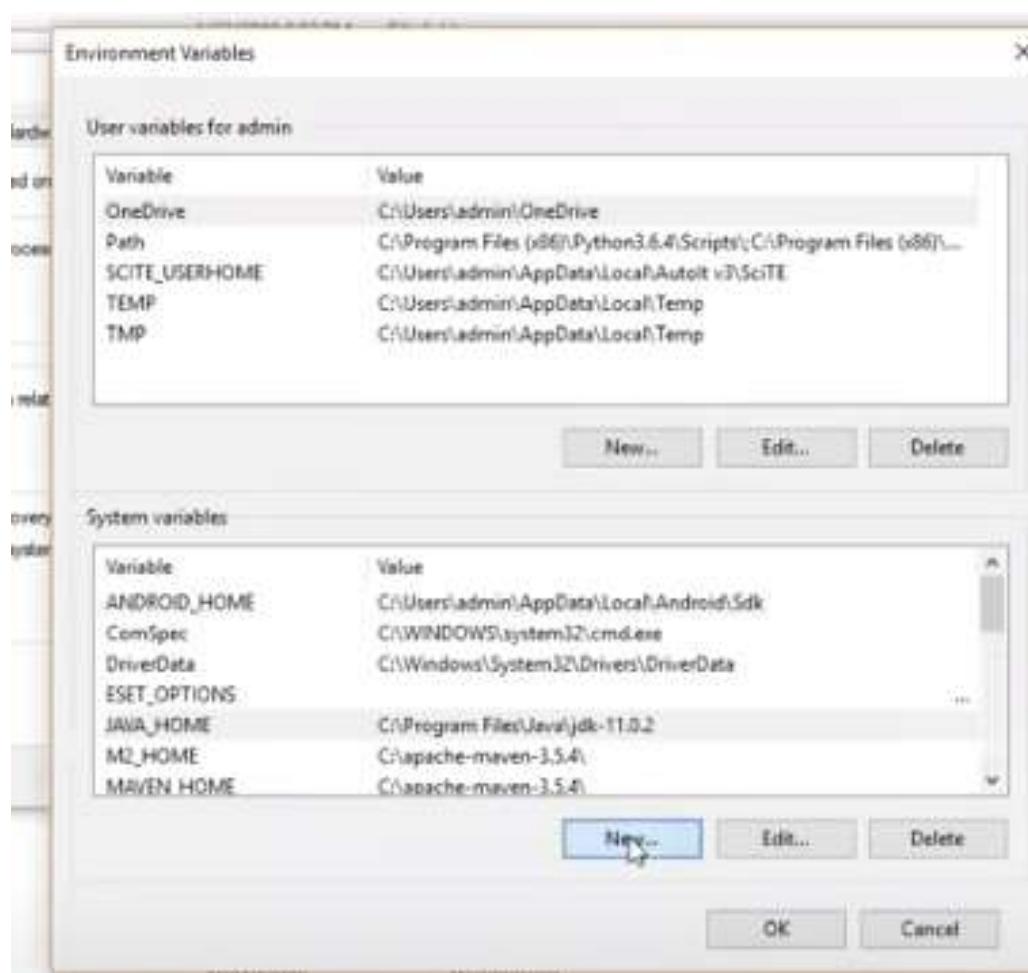
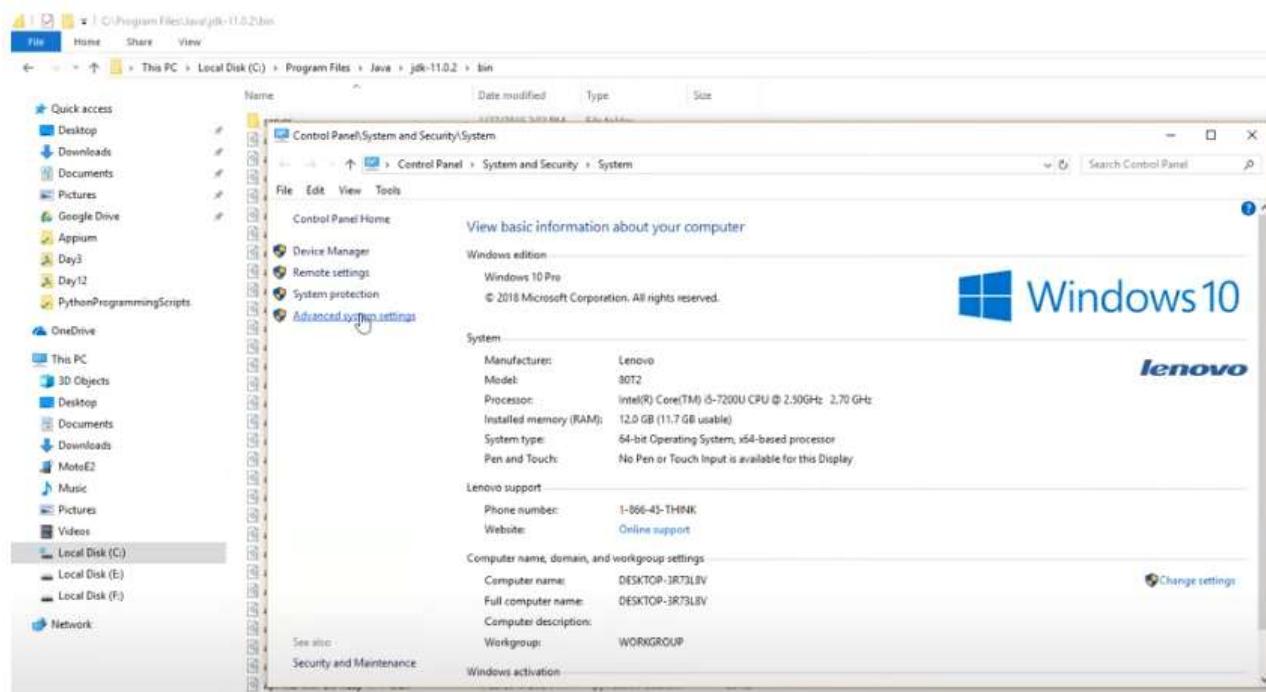
**User Profiles**

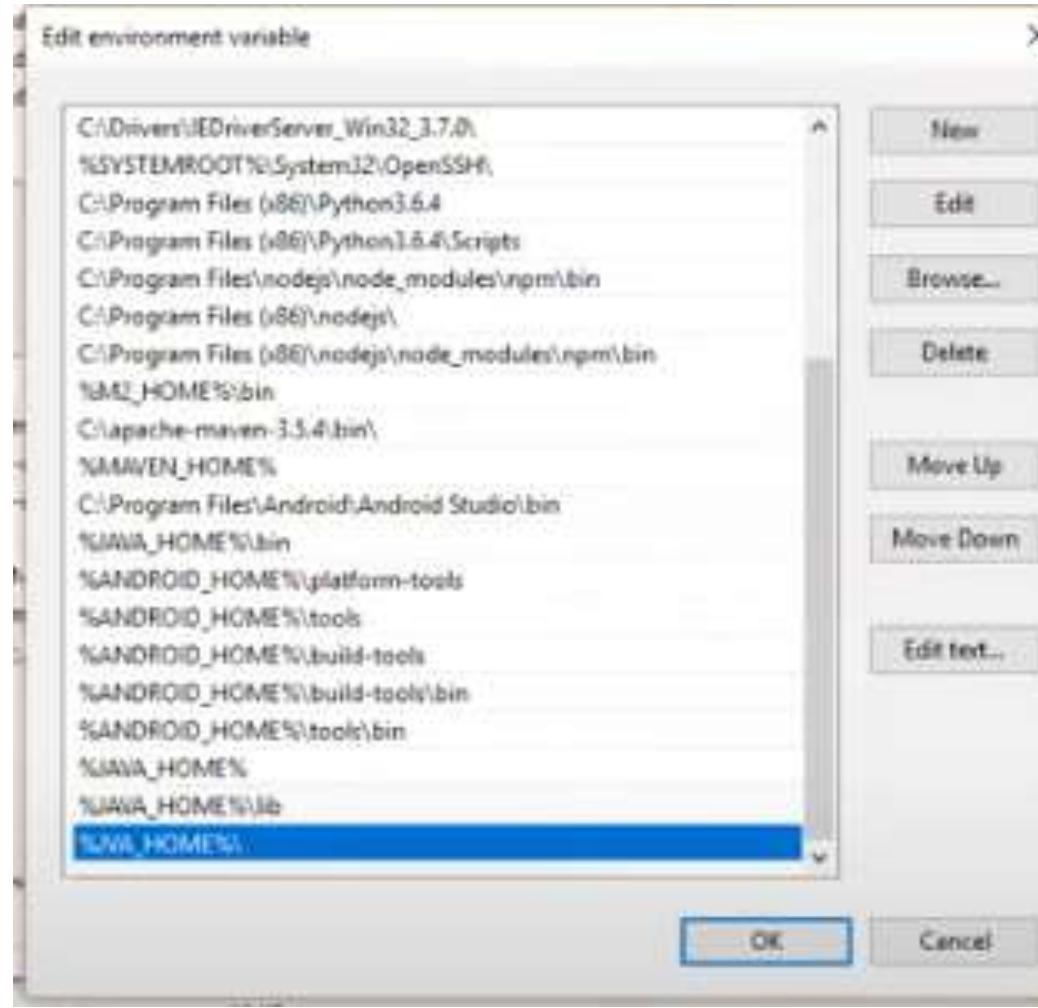
Desktop settings related to your sign-in

**Startup and Recovery**

System status, system failure and debugging information

[OK](#)   [Cancel](#)





```
Microsoft Windows [Version 10.0.17134.523]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\admin>java -version
java version "1.8.0_202"
Java(TM) SE Runtime Environment (build 1.8.0_202-b08)
Java HotSpot(TM) 64-Bit Server VM (build 25.202-b08, mixed mode)

C:\Users\admin>which java
'which' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\admin>which is java
'whichis' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\admin>javac
```

# Install Eclipse

The screenshot shows the Eclipse Foundation's 'Downloads' section. At the top, there's a 'Members' link. Below it, a message states: 'All downloads are provided under the terms and conditions of the Eclipse Foundation Software User Agreement unless otherwise specified.' A large orange 'Download' button is prominently displayed. Below it, the text 'Download from: Japan - Yamagata University (http)' and the file name 'File: eclipse-inst-win64.exe [SHA-512]' are shown. A link '>> Select Another Mirror' is also present.

Eclipse Downloads | The Eclipse Foundation

https://www.eclipse.org/downloads/



## Get Eclipse IDE 2018-12

Install your favorite desktop IDE package.

[Download 64-bit](#)

[Download Packages](#) | [Need Help?](#)

This screenshot is identical to the one above, showing the Eclipse Foundation's 'Downloads' page with a download link for 'eclipse-inst-win64.exe'.



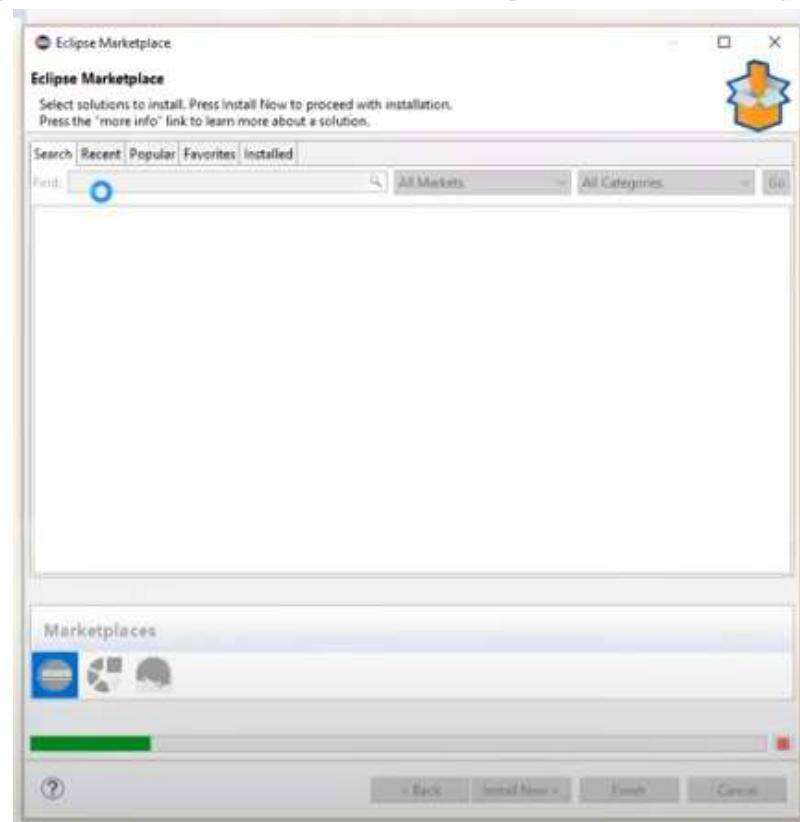
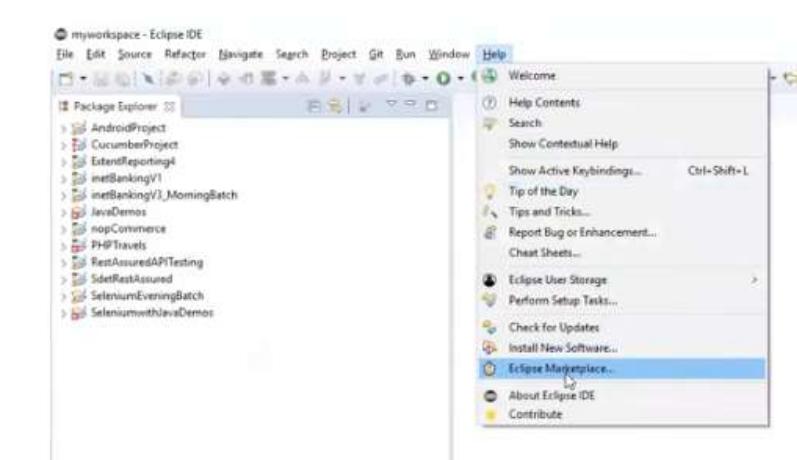
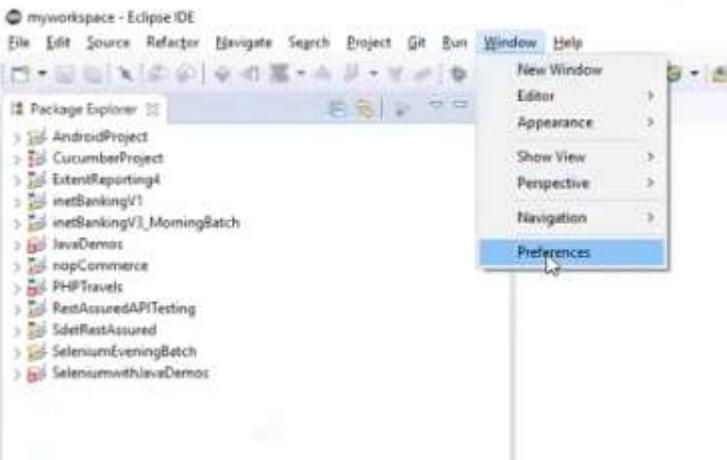
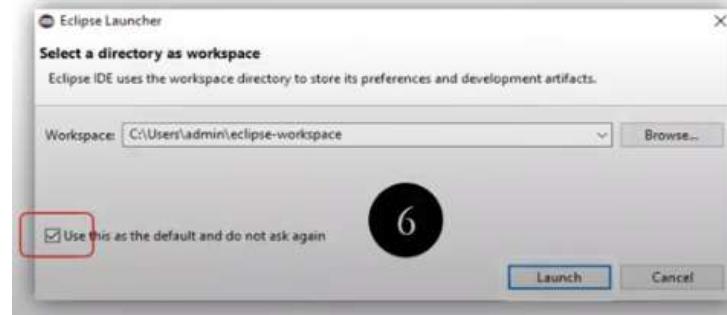
This screenshot shows the 'eclipseinstaller by Oomph!' application window. It features the Eclipse logo and the text 'eclipseinstaller by Oomph!'. There are two large purple arrows pointing from the previous screenshots towards this window.

This screenshot shows the 'Available Packages' screen of the 'eclipseinstaller by Oomph!' application. It lists several Eclipse IDE variants:

- Eclipse IDE for Java Developers
- Eclipse IDE for Java EE Developers
- Eclipse IDE for C/C++ Developers
- Eclipse IDE for JavaScript and Web Developers
- Eclipse IDE for PHP Developers

A large purple arrow points from the previous window towards this one.

This screenshot shows the 'Installation' configuration screen of the 'eclipseinstaller by Oomph!' application. It displays the selected package ('Eclipse IDE for Java Developers'), the 'Installation folder' ('C:\Program Files\Java\j8'), and two checked options: 'create start menu entry' and 'create desktop shortcut'. A large purple arrow points from the previous window towards this one.



Eclipse Marketplace

Select solutions to install. Press Install Now to proceed with installation.

Press the "more info" link to learn more about a solution.

Search: Recent Popular Favorites Installed Eclipse Newsletter: Boot & Build Eclipse...

Find: maven All Markets All Categories Go

**Updates available**

Some of your installed plug-ins have updates available. Please update now to benefit from the latest improvements.

Show updates Update now

**Featured**

**CodeMix CI 2018.12.13**

Promoted - With CodeMix 2, unlock a wide array of technologies from Visual Studio Code and add-on extensions built for Code OSS directly inside your Eclipse IDE. [Find... more info](#)

by Gemutter, LLC. Commercial

VSCODE editor PHP Python go ...

★ 104 installs: 126K (18,607 last month) [Install](#)

**Vaadin Plugin for Eclipse 4.0.2**

**Marketplaces**

?

< Back Install Now! Finish Cancel



Eclipse Marketplace

Select solutions to install. Press Install Now to proceed with installation.

Press the "more info" link to learn more about a solution.

Search: Recent Popular Favorites Installed Eclipse Newsletter: Boot & Build Eclipse...

Find: maven All Markets All Categories Go

We have been helping our client migrate to maven tycho, and the biggest problem that we face is when filling the parent pom to remember the maven-tycho plugin... [more info](#)

by ANCT CONSULTING EPL

maven maven-tycho build utilities eclipse build

★ 9 installs: 50.1K (1,009 last month) [Install](#)

**Maven Integration for Eclipse (Luna) 1.5.0**

m2e provides comprehensive Maven integration for Eclipse. You can use m2e to manage both simple and multi-module Maven projects, execute Maven builds via the... [more info](#)

by Eclipse.org EPL

maven java build development

★ 112 installs: 105K (761 last month) [Installed](#)

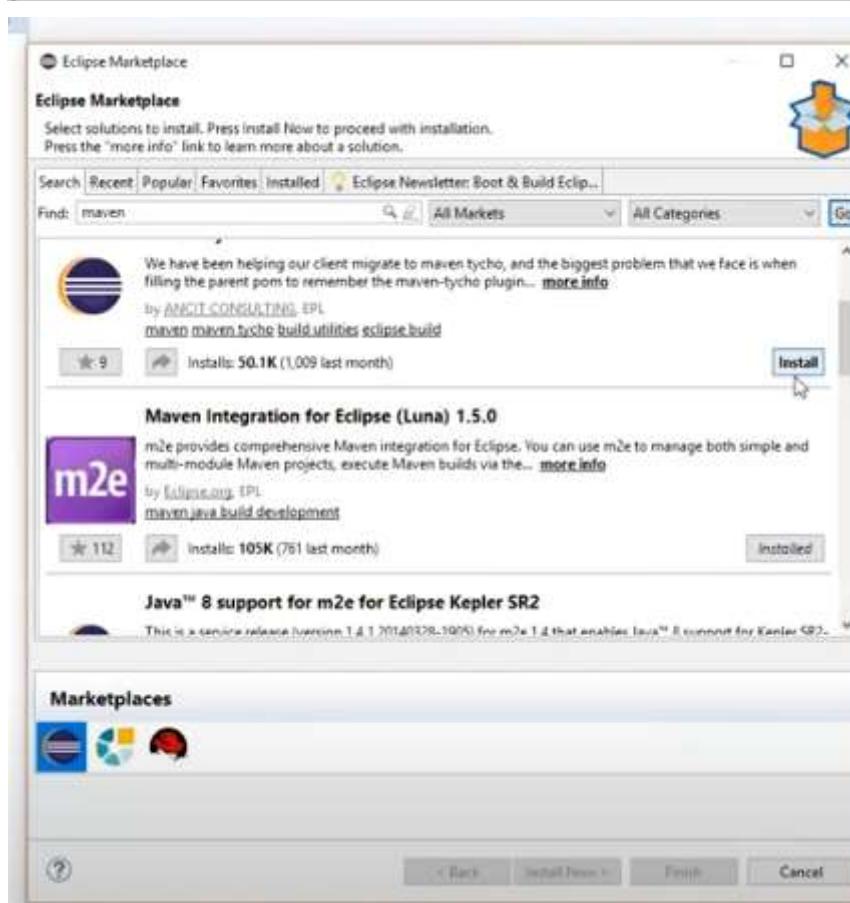
**Java™ 8 support for m2e for Eclipse Kepler SR2**

This is a service release (version 1.4.1 20140328-1005) for m2e 1.4 that enables Java™ 8 support for Kepler SR2.

**Marketplaces**

?

< Back Install Now! Finish Cancel



## Eclipse Marketplace

### Eclipse Marketplace

Select solutions to install. Press **Install Now** to proceed with installation.  
Press the "more info" link to learn more about a solution.

The screenshot shows the Eclipse Marketplace window. At the top, there's a search bar with 'testNG' typed in, and dropdown menus for 'All Markets' and 'All Categories'. Below the search bar, a section titled 'TestNG for Eclipse' is displayed. It includes a brief description: 'This plug-in lets you run your TestNG tests from Eclipse. You can run suites, groups or individual methods. Errors are reported in a separate tab that lets you... [more info](#)', the developer's name 'by Cédric Beust, Apache 2.0', and the plugin's tags: 'testing, junit, testing, unit, integration, functional, selenium'. There are also icons for 507 ratings and 804K installs. A large button labeled 'Install Now' is visible. On the left side of the main content area, there's a sidebar titled 'Marketplaces' with three icons. At the bottom of the window, there are buttons for '?', 'Back', 'Install Now', 'Finish', and 'Cancel'.

The screenshot shows the 'Download Android Studio and...' page at <https://developer.android.com/studio/>. The page has a navigation bar with links for 'Android Developers', 'Platform', 'Android Studio' (which is underlined), 'Google Play', 'Android Jetpack', 'Docs', and 'News'. Below the navigation bar, there's a heading 'Android Studio'. Underneath it, there are four buttons: 'DOWNLOAD', 'WHAT'S NEW', 'USER GUIDE', and 'PREVIEW'. The 'DOWNLOAD' button is highlighted with a green background.

## android studio

Android Studio provides the fastest tools for building apps on every type of Android device.

[DOWNLOAD ANDROID STUDIO](#)

[3.3 for Windows 64-bit \(944 MB\)](#)

[DOWNLOAD OPTIONS](#)   [RELEASE NOTES](#)

## Download Android Studio

Before downloading, you must agree to the following terms and conditions:

4.1 Subject to the terms of the License Agreement, Google grants you a limited, worldwide, royalty-free, non-exclusive, and non-sublicensable license to use the SDK solely to develop applications for compatible implementations of Android.

4.2 You may not use the SDK to develop applications for other platforms (including non-compatible implementations of Android) or to develop another SDK. You are of course free to develop applications for other platforms, including non-compatible implementations of Android, provided that this SDK is not used for that purpose.

4.3 You agree that Google is not liable for all legal rights, title and interest in and to the SDK, including any Intellectual Property Rights that subsist in the SDK. "Intellectual Property Rights" means any and all rights under patent law, copyright law, trademark law, and any and all other proprietary rights. Google reserves all rights not expressly granted to you.

4.4 You may not use the SDK for any purpose not expressly permitted by the License Agreement. Subject to the extent required by applicable third party licenses, you may sublicense the SDK for the development, testing, related, redistributable, diagnostic, reverse-engineering, documentation, or certain derivative works of the SDK or any part of the SDK.

4.5 Use, modification and/or distribution of components of the SDK (not Google's own) are not covered by the terms of that open source software license and not the License Agreement.

4.6 You agree that the form and nature of the SDK (and Google's own) may change without prior notice to you and that future versions of the SDK may be incompatible with applications developed on previous versions of the SDK. You agree that Google may stop (permanently or temporarily) providing the SDK (or any features within the SDK) to you or to cease providing it at Google's sole discretion, without prior notice to you.

4.7 Nothing in the License Agreement gives you the right to use any of Google's trademarks, trade names, service marks, logos, domain names, or other distinctive brand features.

4.8 Paragraphs four through seven, above, as well as any proprietary rights notice (including copyright and trademark notices) that may be affixed to or contained within the SDK.

**4. Use of the SDK by You:**

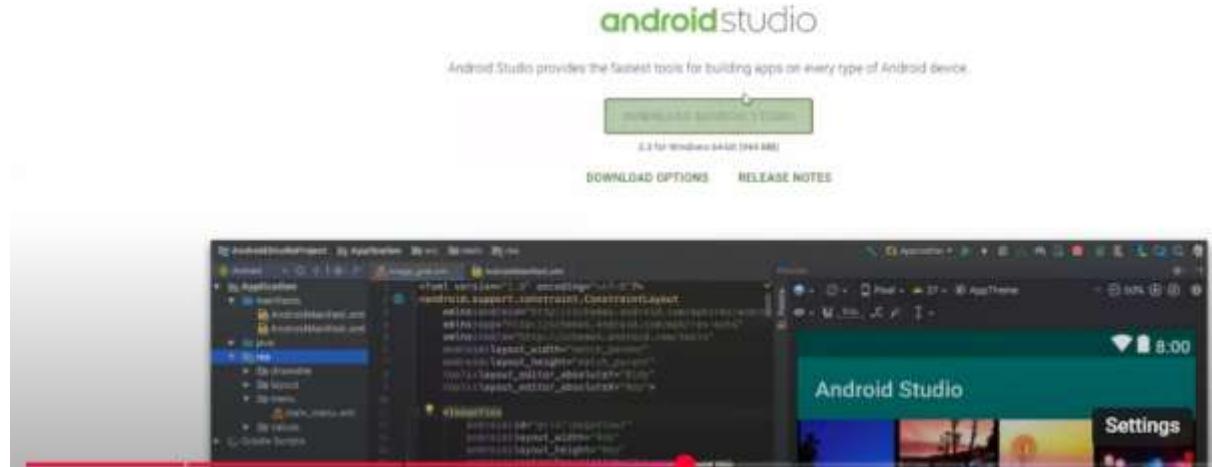
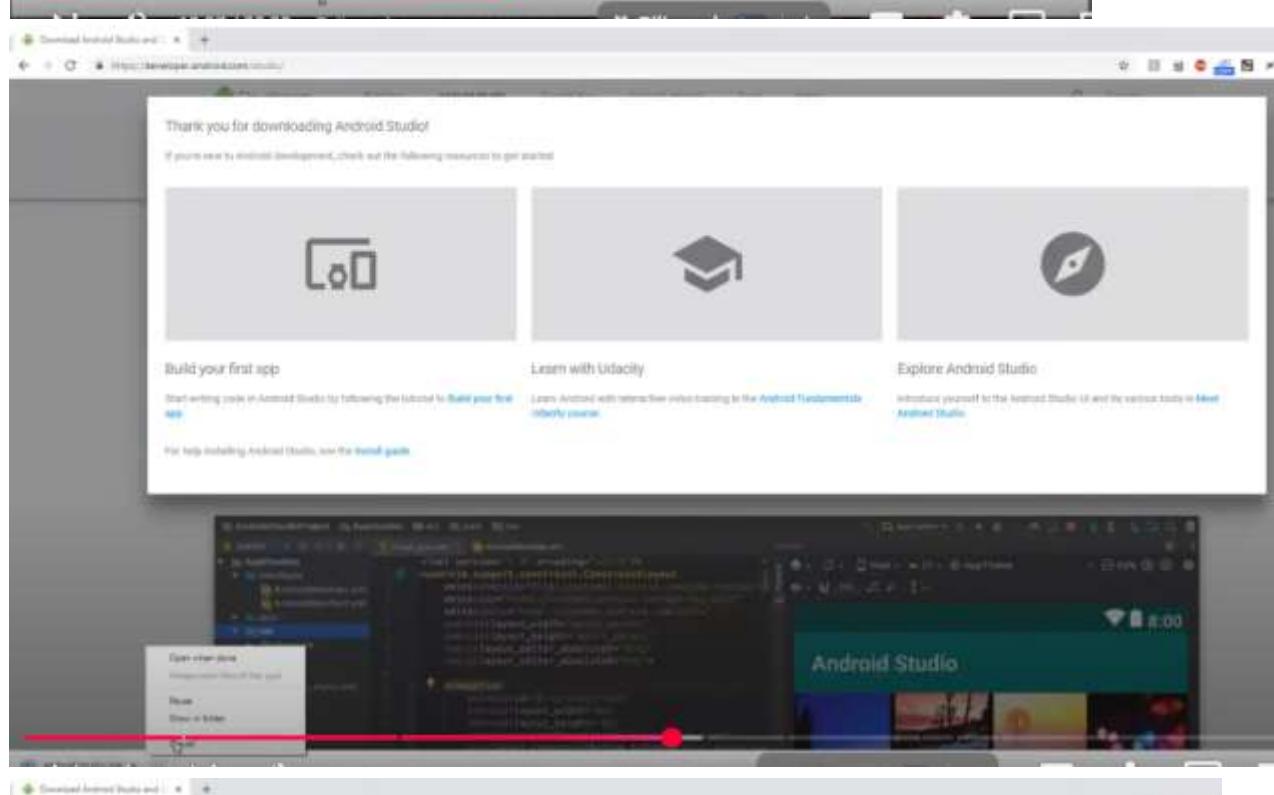
4.1 You agree that, subject to the rights, title and interest in and to the SDK granted under the License Agreement, to (i) any software applications that you directly using the SDK, including any intellectual property rights that subsist in those applications;

4.2 You agree to use the SDK and other applications only for purposes that are permitted by (a) the License Agreement and (b) any applicable law, regulation or generally accepted practices or guidelines in the relevant jurisdiction, including any laws regarding the receipt of data privacy notices from the users, states or other relevant countries;

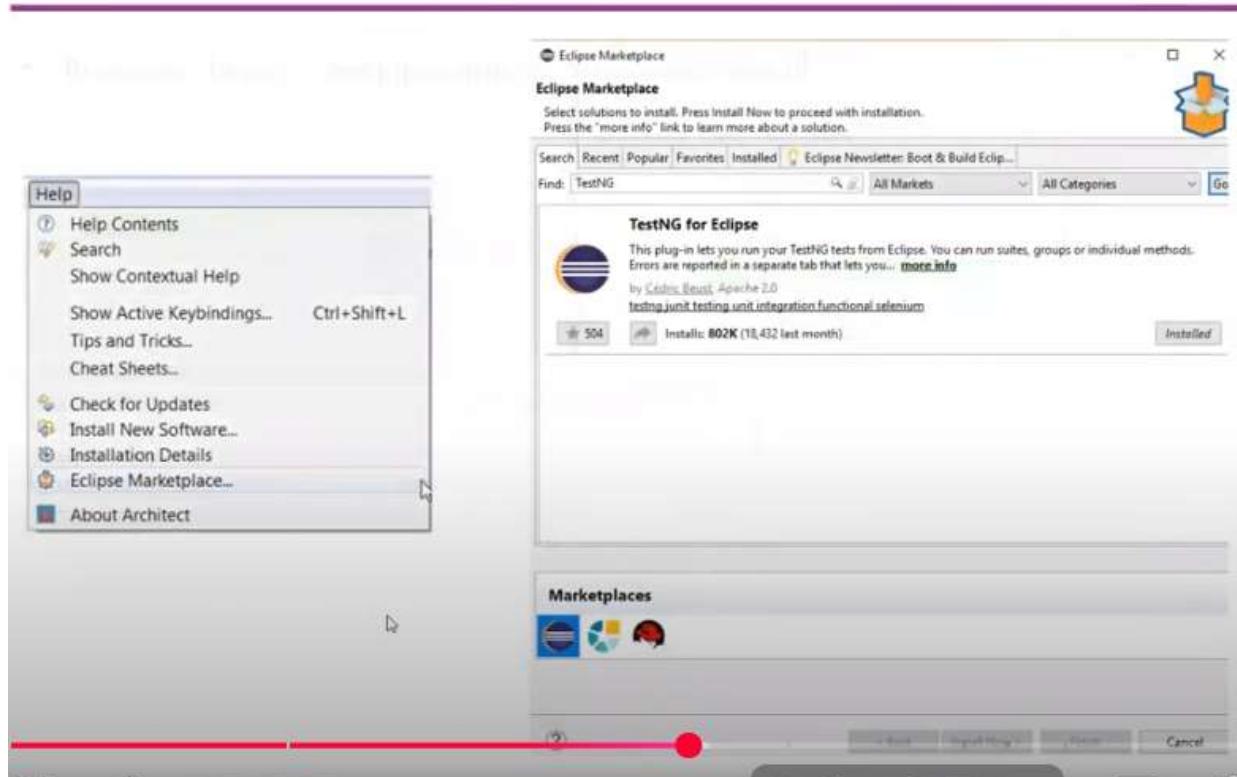
4.3 You agree that if you use the SDK to receive applications for general public users, you will protect the privacy and legal rights of those users. If the users provide you with user names, passwords, or other login information or personal information, you must treat the users' data that the user information will be available to third parties, and you must delete such personal information and password for those users. If your application does not collect or store user information, you do not need to worry about this.

I have read and agree with the above terms and conditions.

[DOWNLOAD ANDROID STUDIO FOR FREE](#)



# TestNG

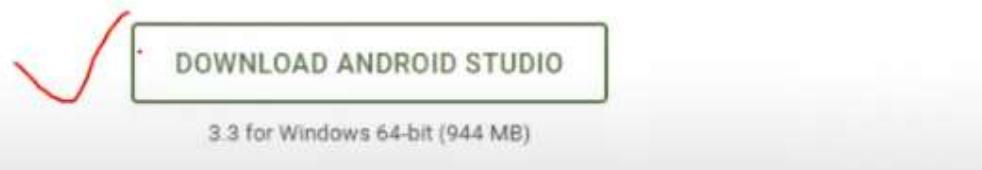


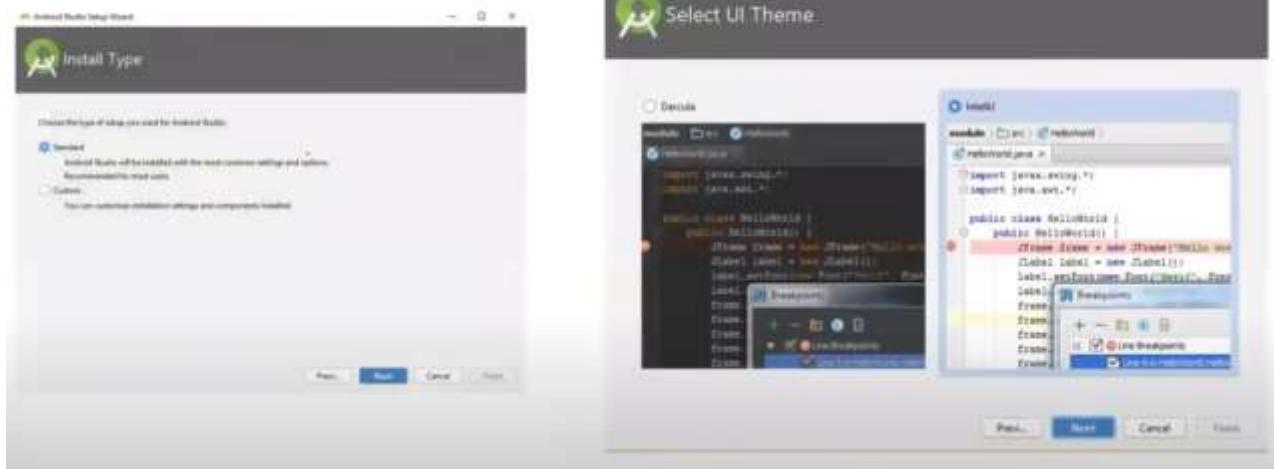
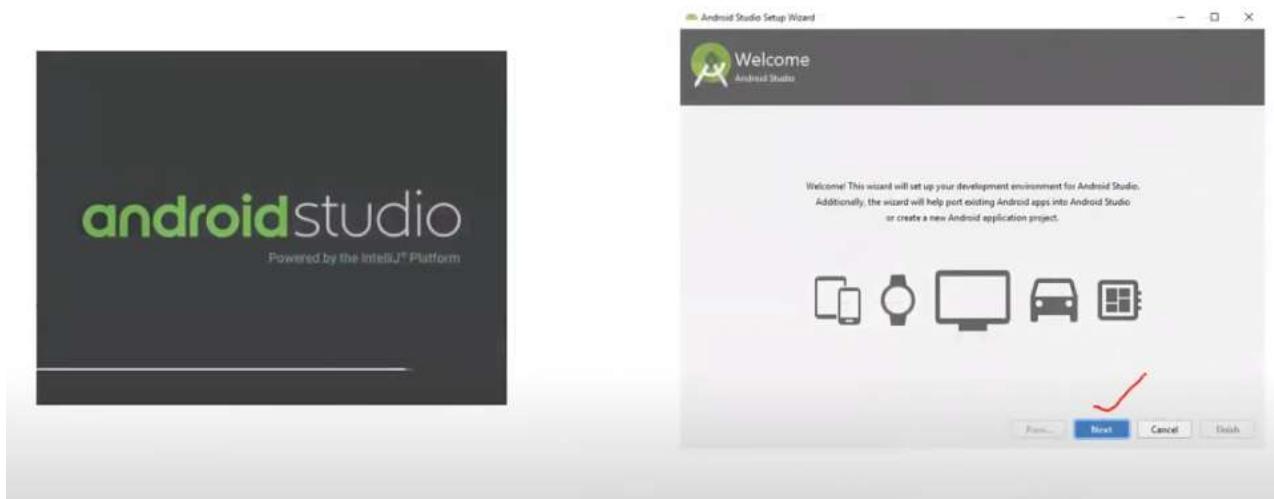
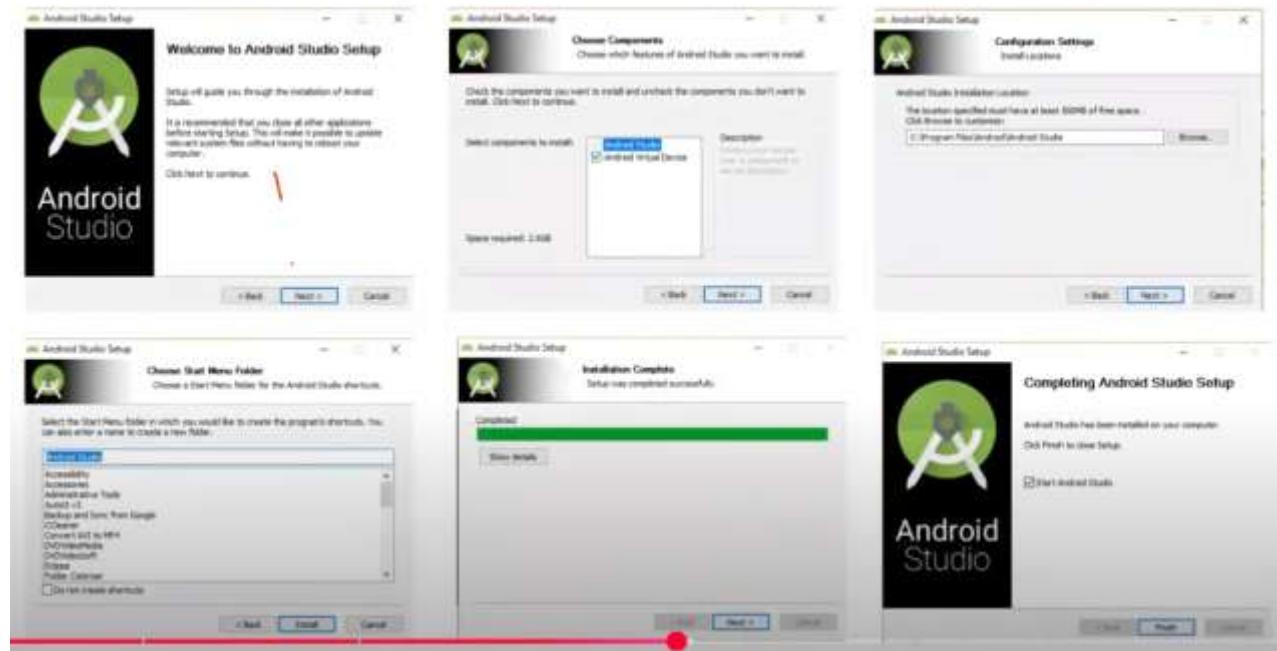
## Download & Install Android Studio

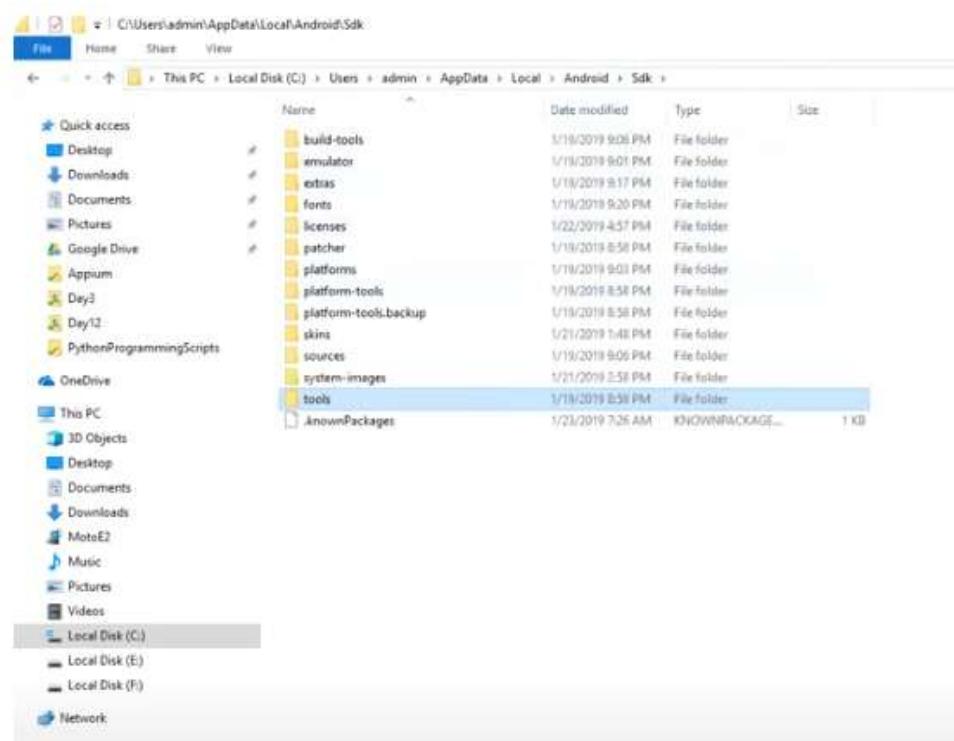
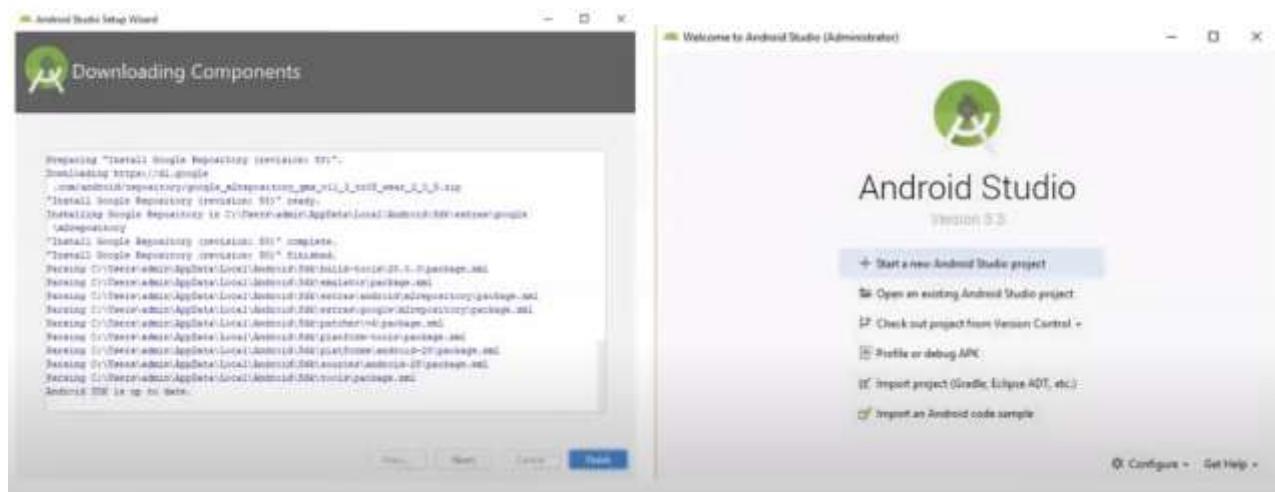
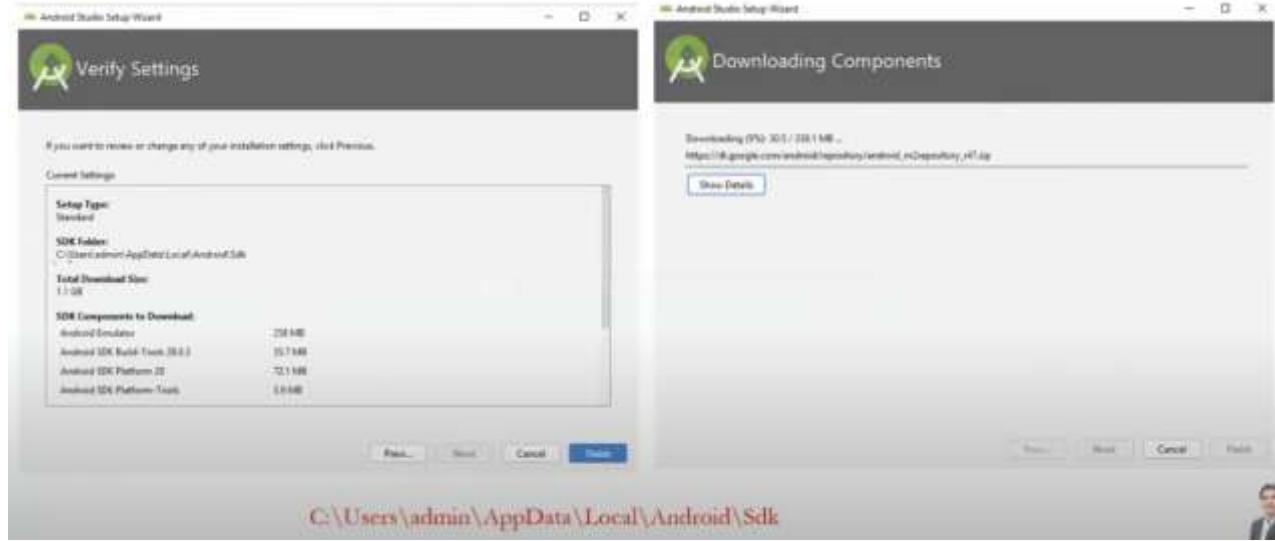
- Reference: <https://developer.android.com/studio/install>

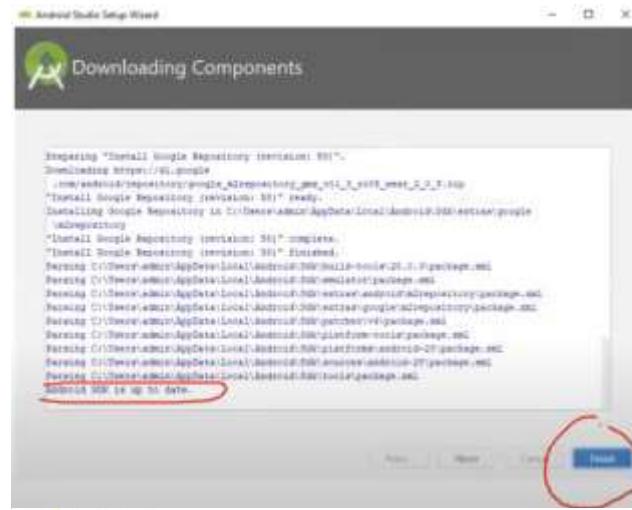
android studio

Android Studio provides the fastest tools for building apps on every type of Android device.





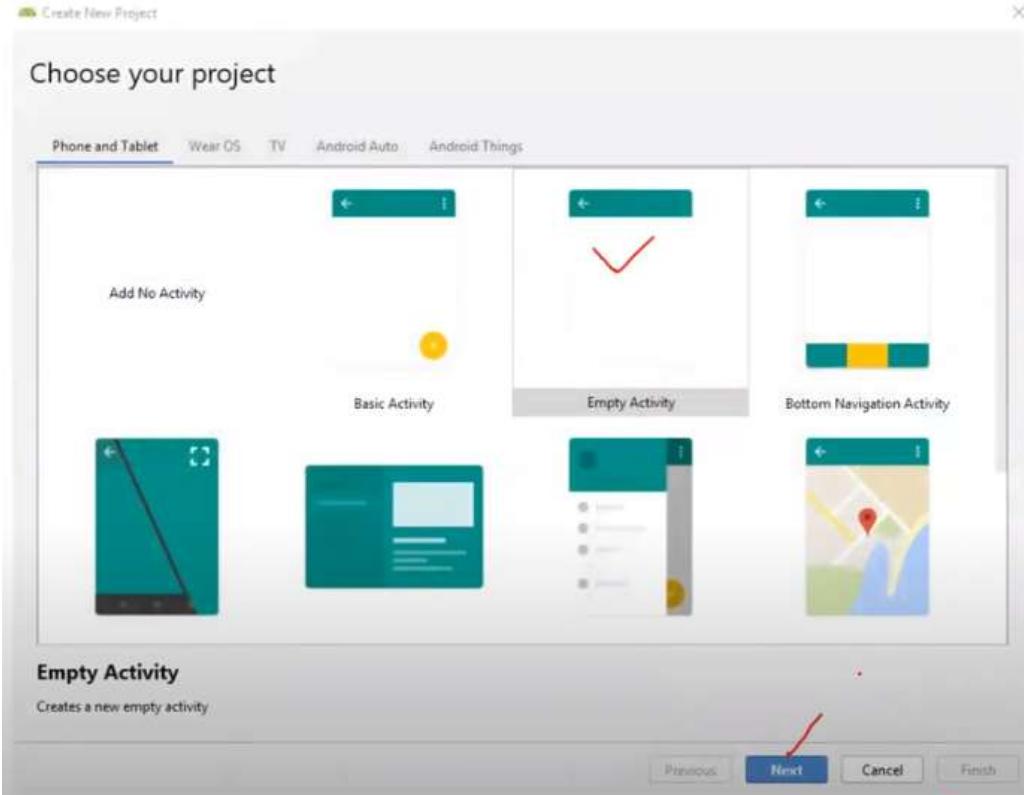




### Create New Project

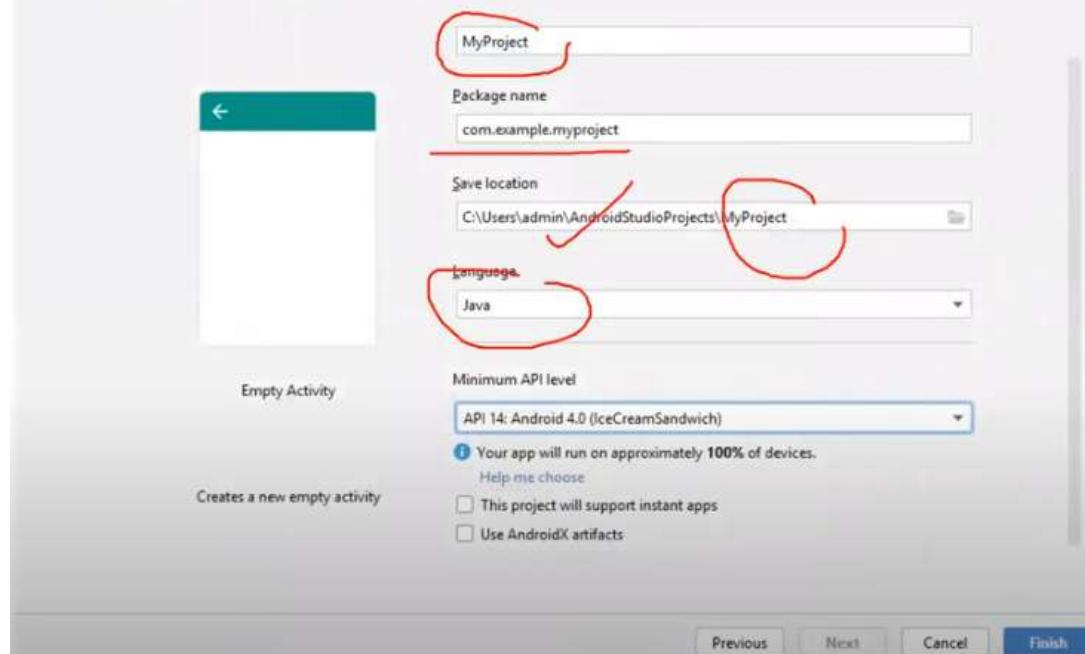
## Choose your project

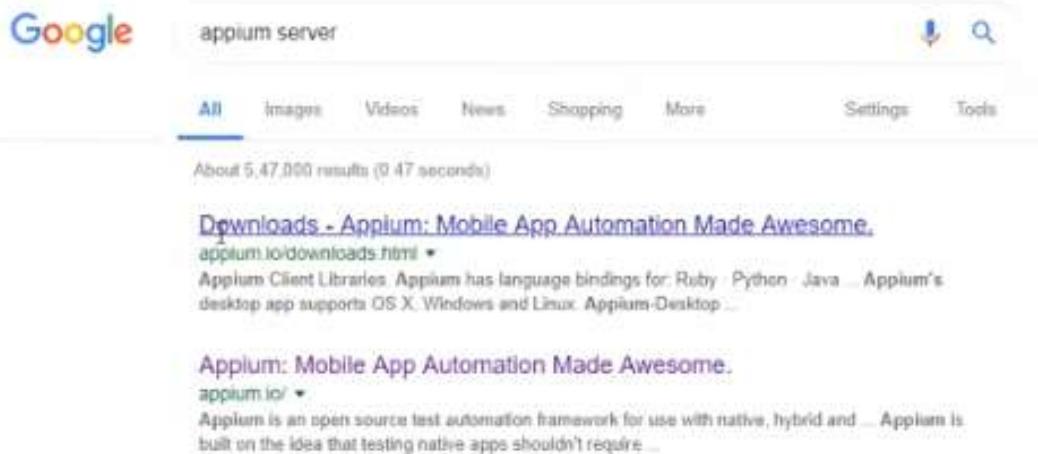
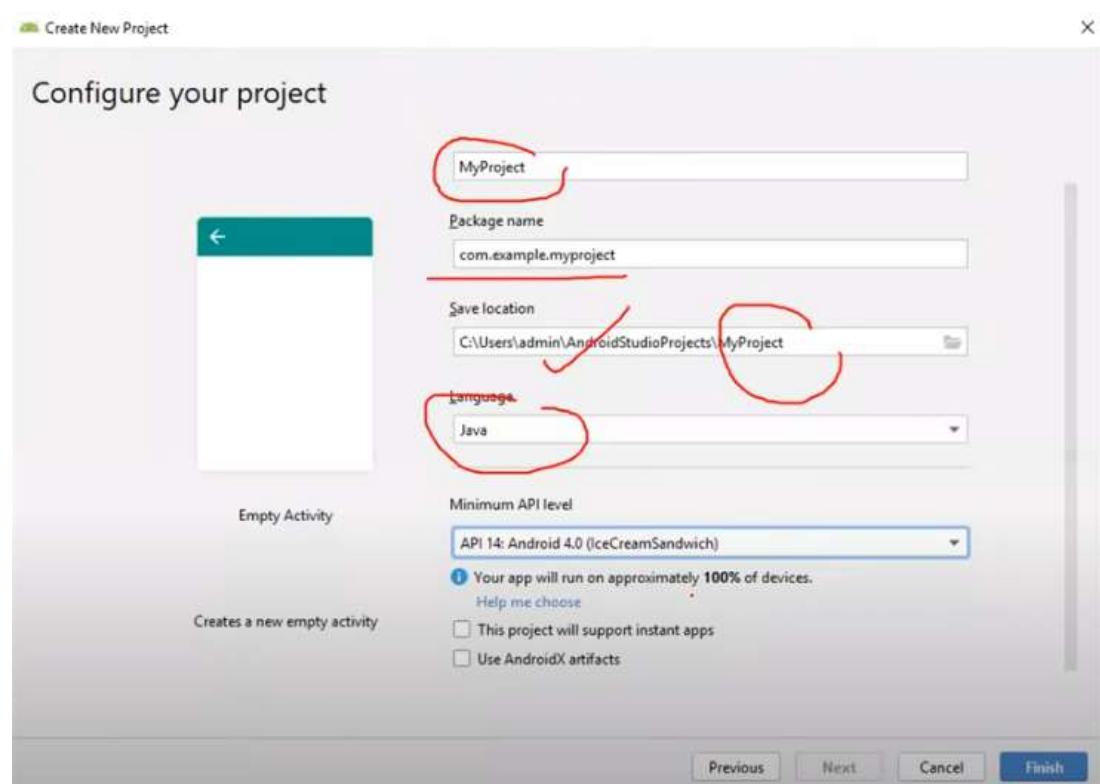
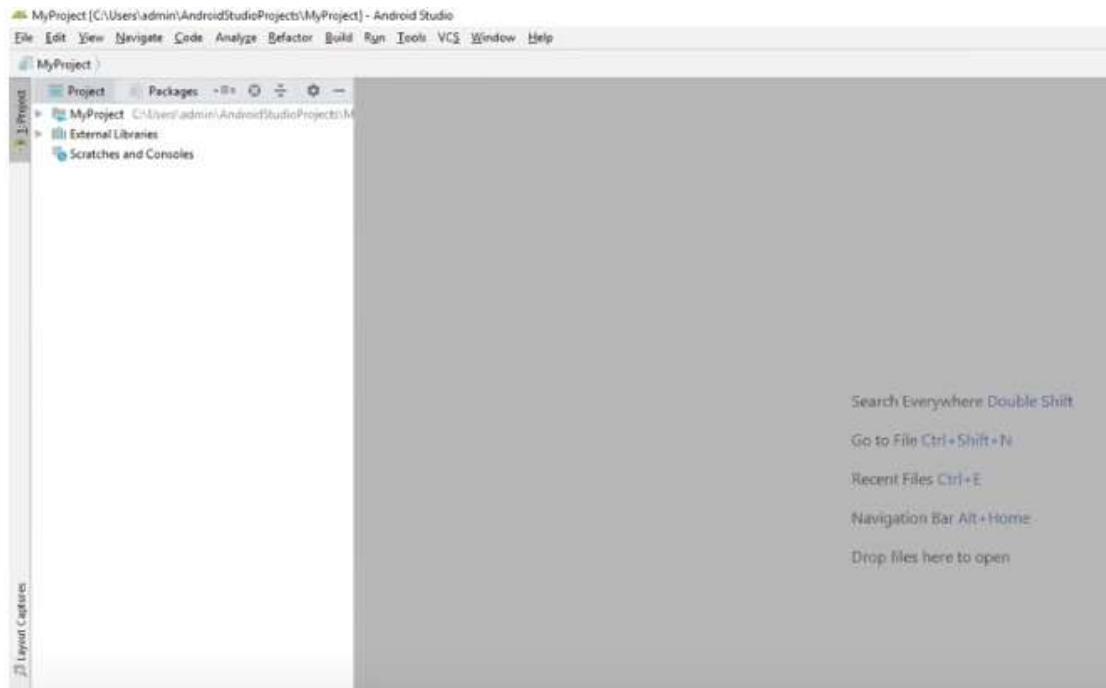
Phone and Tablet Wear OS TV Android Auto Android Things



Create New Project

## Configure your project





Appium: Mobile App Automation

Not secure | appium.org/downloads.html

A JS Foundation Project

Appium Home Introduction Get started History Get Involved Documentation Books & Resources

# Downloads

## Appium libraries & apps

## Appium Client Libraries

Appium has language bindings for:

- Ruby
- Python
- Java
- JavaScript
- PHP
- C#
- RobotFramework

## Appium Desktop Apps

Appium's desktop app supports OS X, Windows and Linux

- Appium-Desktop for OSX, Windows and Linux

Appium Mobile App Automation

Not secure | appium.org

A JS Foundation Project

Appium Home Introduction Get started History Get Involved Documentation Books & Resources

# appium

## Automation for Apps

Appium is an open source test automation framework for use with native, hybrid and mobile web apps.  
It drives iOS, Android, and Windows apps using the WebDriver protocol.

[Download Appium](#)

appium CONFERENCE Join us for the official Appium Conference • 13-15 June 2019 • Bengaluru

[View on GitHub](#) [Downloads](#) [Examples](#) [Contributing](#)

### Introducing Appium.



Release 1.10.0 · appium/appium

https://github.com/appium/appium-appium-desktop/releases/tag/v1.10.0

Search or jump to... Full requests Issues Marketplace Explore

appium / appium-desktop

Code Issues Pull requests Projects Wiki Insights

Watch 180 Star 1,421 Fork 405

Releases Tags

Latest release v1.10.0 · triager · 22 days ago · 9 commits to master since this release

Assets 16

File	Size
Appium-1.10.0-mac.zip	125 MB
Appium-1.10.0.dmg	120 MB
Appium-1.10.0.dmg.blockmap	130 KB
appium-desktop-1.10.0-full.nupkg	116 MB
appium-desktop-1.10.0-ia32.nsis.7z	93.4 MB
appium-desktop-1.10.0-x86_64.AppImage	117 MB
appium-desktop-Setup-1.10.0-ia32.exe	117 MB
appium-desktop-setup-1.10.0.exe	93.9 MB
appium_desktop-setup-1.10.0.exe.blockmap	101 KB

# Selenium Standalone Server

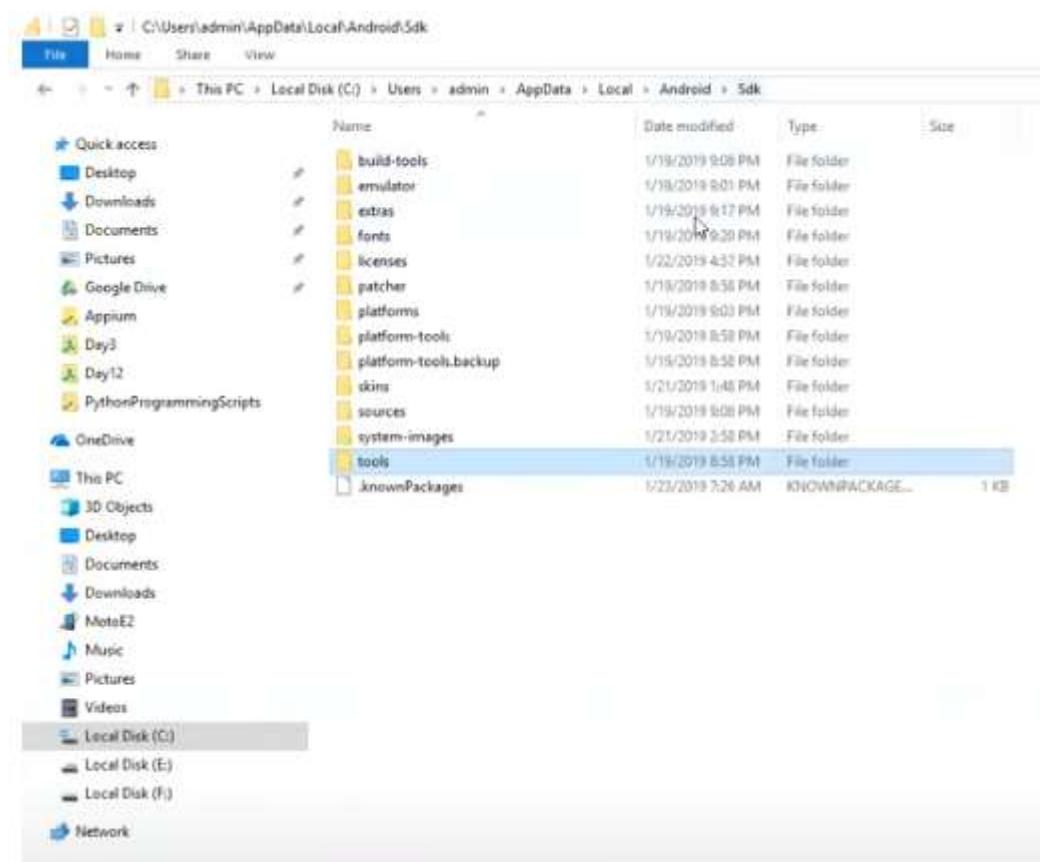
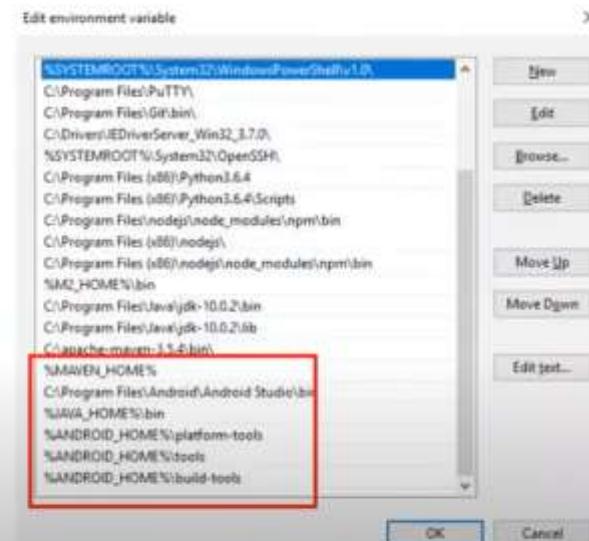
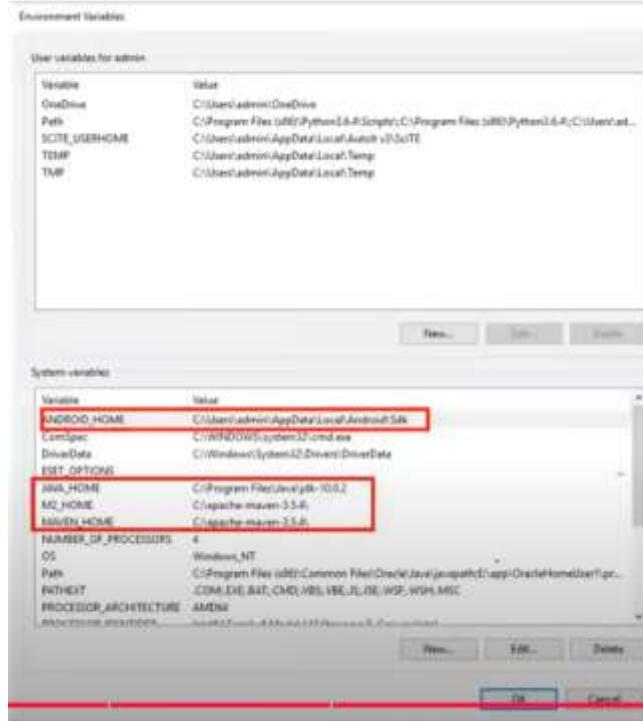
The screenshot shows the SeleniumHQ website with a dark header bar. On the left, there's a logo with 'Se' and the text 'SeleniumHQ Browser Automation'. To the right are links for 'edit this page', 'search selenium:', 'Go', 'Projects', 'Download', 'Documentation', 'Support', and 'About'. Below the header, a sidebar on the left lists 'Selenium Downloads', 'Previous Releases', 'Source Code', and 'Maven Information'. A main content area titled 'Downloads' contains information about the Selenium Standalone Server, including a link to 'Download version 3.141.59'. It also provides instructions for running Selenium tests and using it in a Grid configuration. A 'Donate' button with payment method icons (Visa, Mastercard, American Express) is visible.

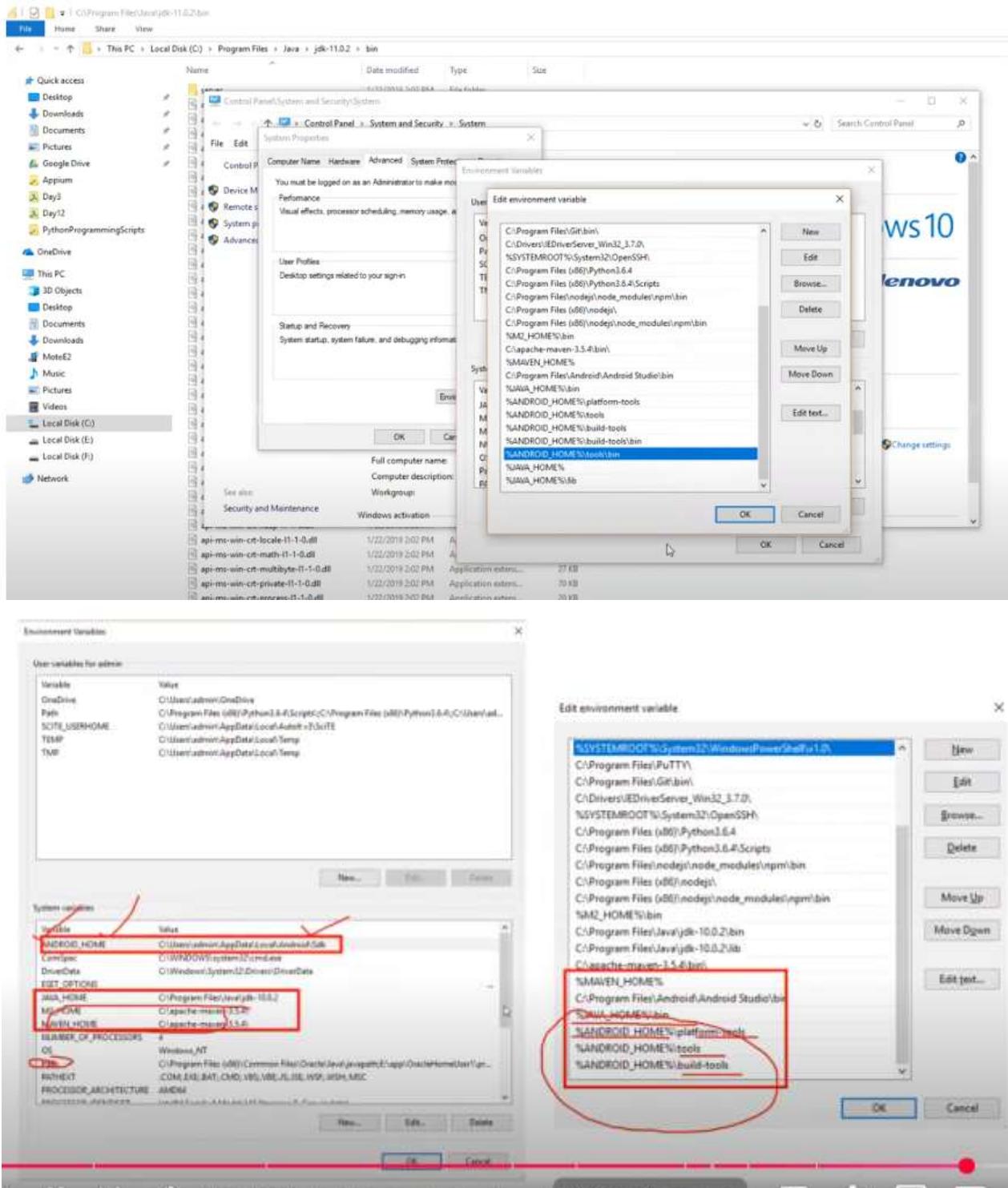
## Install Appium Desktop

The first part of the screenshot shows the Appium website homepage. It features the 'appium' logo and the tagline 'Automation for Apps'. A large orange button labeled 'Click Download Appium' points to a download link. Below the button, text explains that Appium is an open source test automation framework for native, hybrid, and web apps, supporting iOS, Android, and Windows. A call-to-action 'Join us for the first Appium Conference • 8 April 2018 • London' with a 'BOOK NOW' button is also present. Navigation links at the bottom include 'View on GitHub', 'Downloads', 'Examples', and 'Contributing'.

The second part shows three screenshots of the Appium Setup application:

- Choose Installation Options:** A window asking 'Who should this application be installed for?' with two radio button options: '(\*) Anyone who uses this computer (all users)' (selected) and '( ) Only for me (admin)'. A note below says 'Fresh install for all users.. (will prompt for admin credentials)'. Buttons 'Install' and 'Cancel' are at the bottom.
- Installing:** A window showing a progress bar with the message 'Please wait while Appium is being installed.' A note at the bottom says 'Appium 1.10.0'. Buttons 'Install' and 'Cancel' are at the bottom.
- Completing Appium Setup:** A window confirming 'Appium has been installed on your computer. Click Finish to close Setup.' A checkbox 'Run Appium' is checked. Buttons 'Back', 'Finish', and 'Cancel' are at the bottom.





## Appium Jar files for Java(Appium Client Library)

Jars Location: <https://appium.io/downloads.html>

```

<repositories>
  <repository>
    <id>jitpack.io</id>
    <url>https://jitpack.io</url>
  </repository>
</repositories>
<dependency>
  <groupId>com.github.appium</groupId>
  <artifactId>java-client</artifactId>
  <version>latest commit ID from master
branch</version>
</dependency>

```



The screenshot shows the Appium Mobile App Automatics website. The top navigation bar includes links for Home, Introduction, Get Started, History, Get Involved!, Documentation, and Books & Resources. The main title is "Downloads" with the subtitle "Appium libraries & apps".

## Appium Client Libraries

Appium has language bindings for:

- Ruby
- Python
- Java
- JavaScript
- PHP
- C#
- RobotFramework

## Appium Desktop Apps

Appium's desktop app supports OS X, Windows and Linux

- Appium-Desktop for OSX, Windows and Linux

The screenshot shows the Sonatype Central Repository search results for the query "gio.appium AND java-client". The results table includes columns for Group ID, Artifact ID, Latest Version, Updated, and Download. One result is listed: Group ID "io.appium" and Artifact ID "java-client" with Version 7.0.0, updated on 27-Dec-2018.

Group ID	Artifact ID	Latest Version	Updated	Download
io.appium	java-client	7.0.0	(All) 27-Dec-2018	

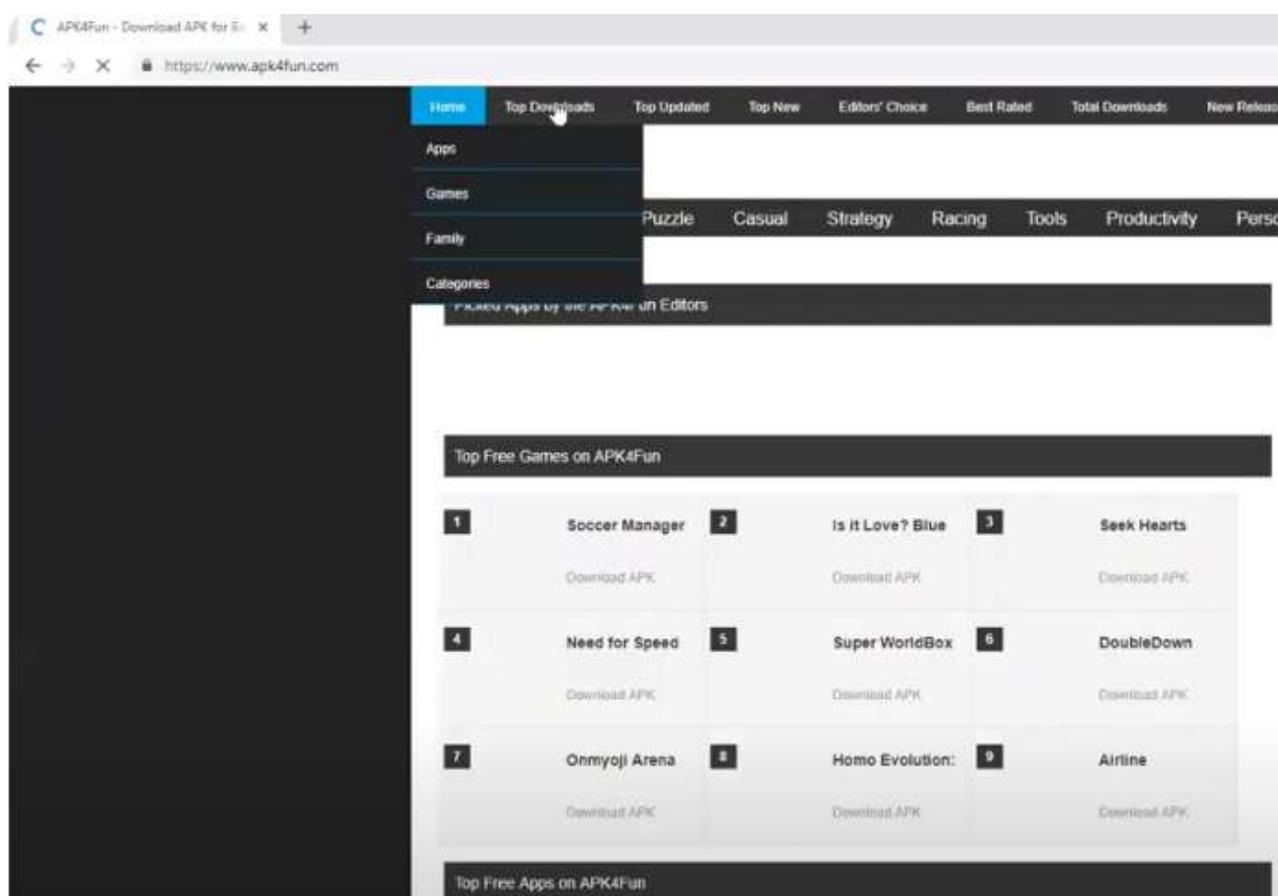
The screenshot shows a Notepad application window titled "notes.txt - Notepad". The content of the file is "Mobile Testing/Appium Introduction".

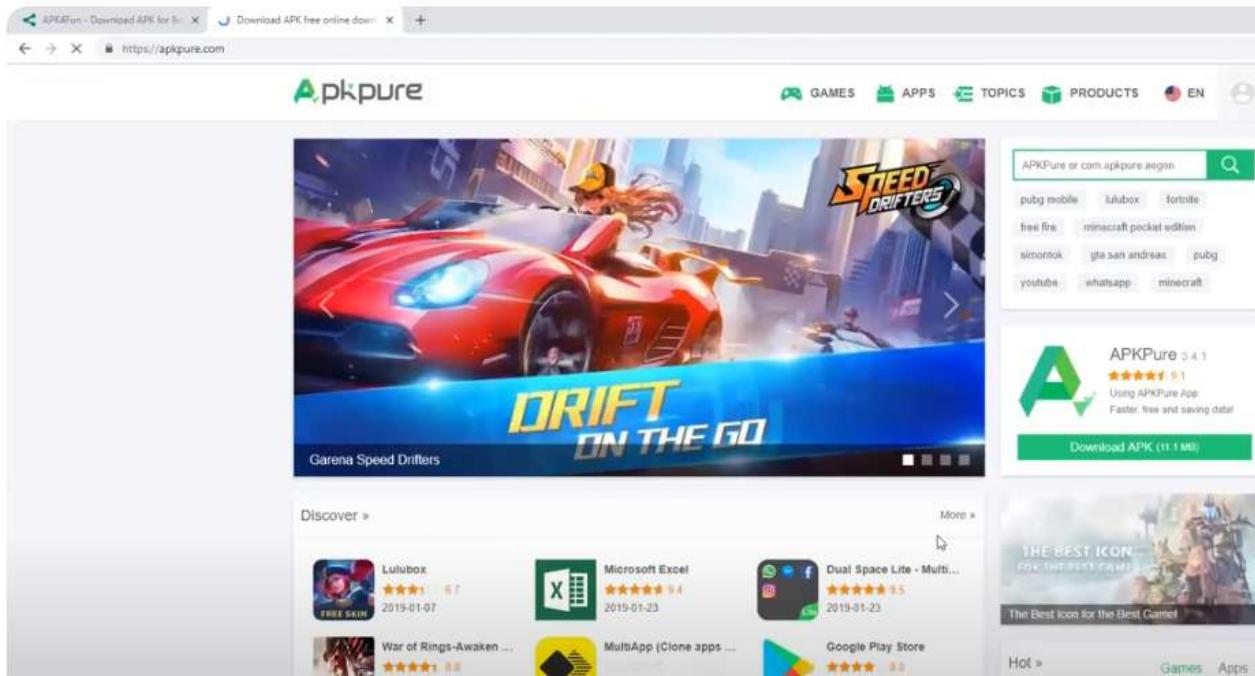
**Java+Eclipse+Maven+TestNG  
Selenium jars**

**Android studio(IDE, SDK, Virtual devices)  
Appium server(desktop)  
Appium Java client library**

# What is an APK File?

- **APK**: Android Application package.
- This is similar to .exe files which are used to install programs on windows. The only difference is that .apk files are designed to be used exclusively on Android device and you may be required to download additional files before you run the application in the android.
- **We can download apk files from various sites:**
  - <https://www.apk4fun.com/>
  - <https://apkpure.com/>
- Why we are using them what is the use?
- See as of now we are going to test mobile applications means once after the application was developed , in android it will be apk file only. So to automate that application we need apk files, generally in really time we can get this apk files from the developer and for generic application we can download from playstore too.





## Real Device Vs Simulator Vs Emulator Testing

- **What is Real Testing Device?**
- Testing on real device allows you to run your mobile applications and checks its functionality. Real device Testing assures you that your application will work smoothly in customer handsets.
- **What is Emulator & Simulator?**
- Emulators and Simulators are virtual devices. A virtual device is not the real phone but software which gives same functionality as the real phone (Except few functionality like the camera).
- Android Virtual devices : Emulator
- ▷ • iOS Virtual devices : Simulator

### Agenda

-----  
What is APK File?

What is Simulator, Emulator and real device?

### Agenda

-----  
1) Creating Virtual Device using Android studio

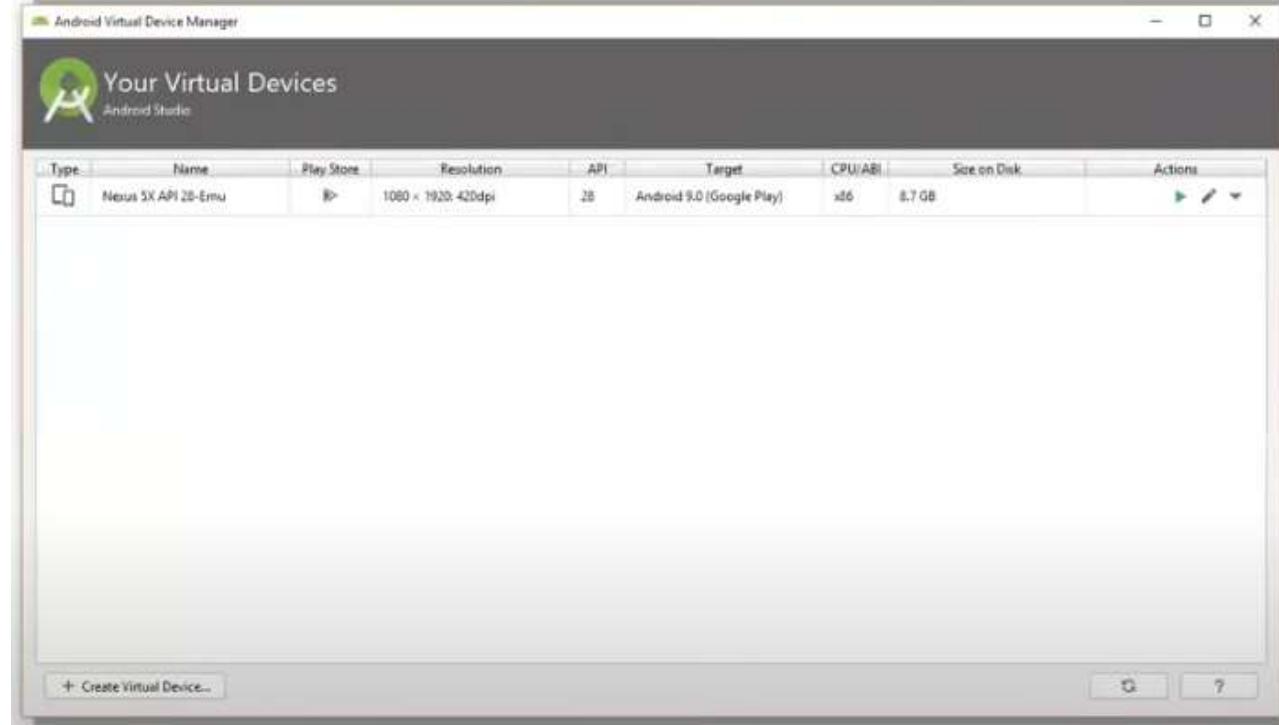
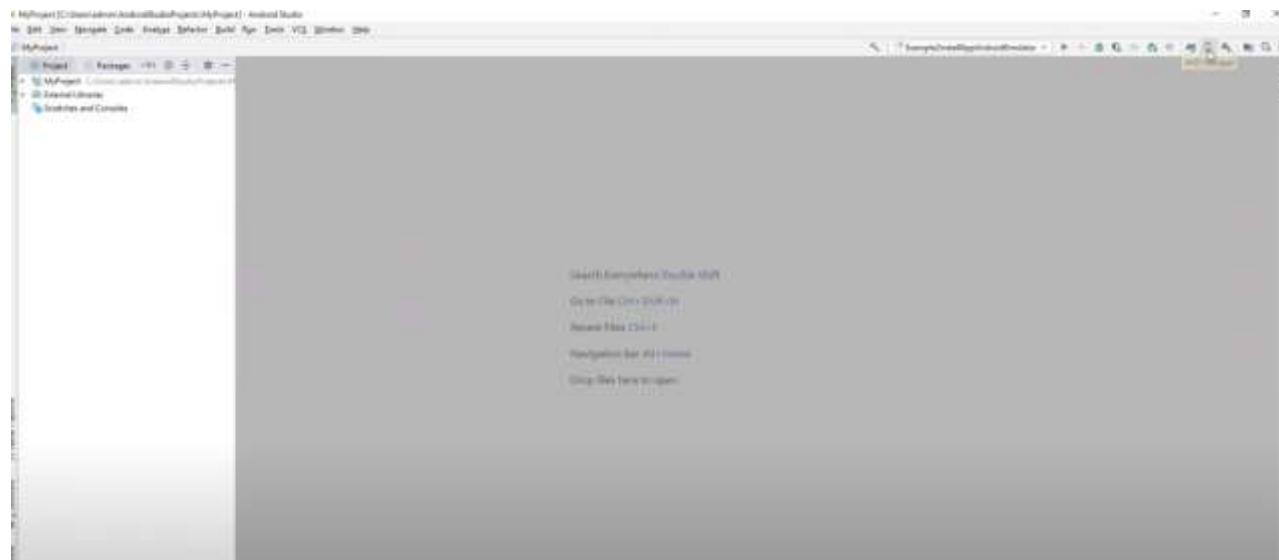
- **AVD Manager**

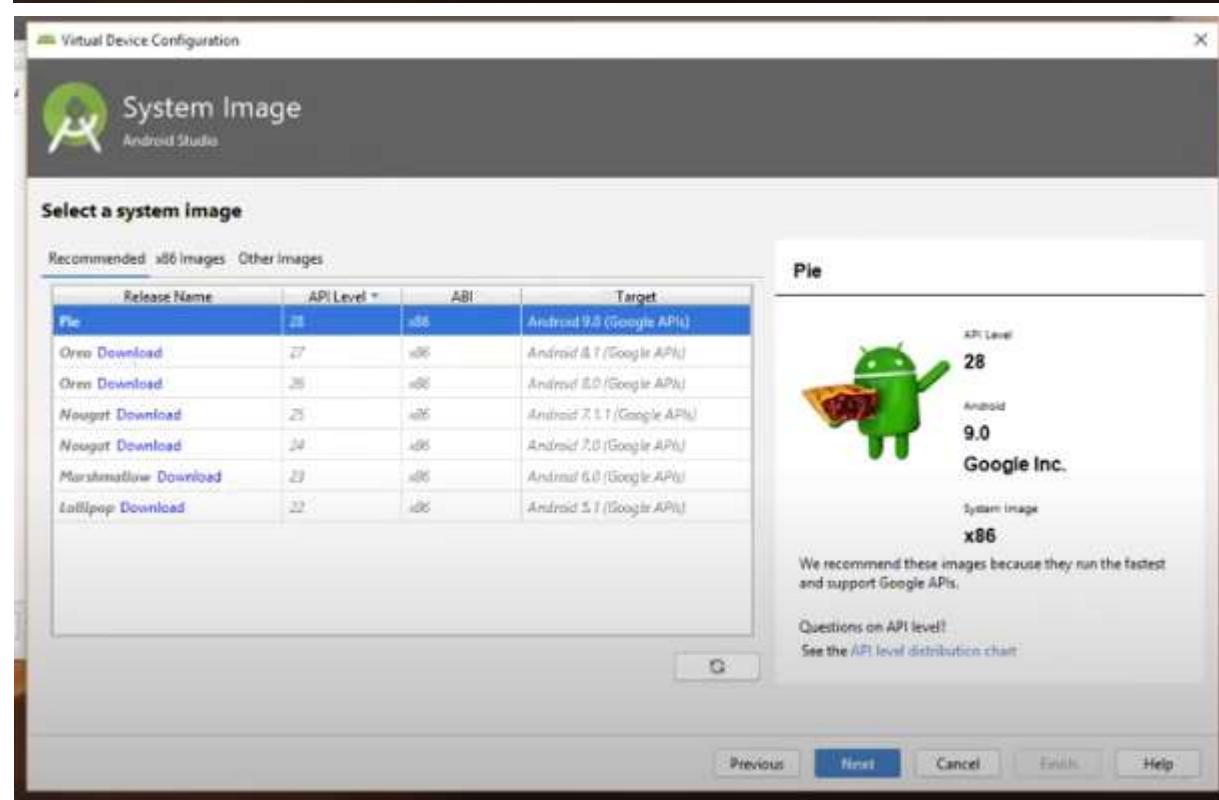
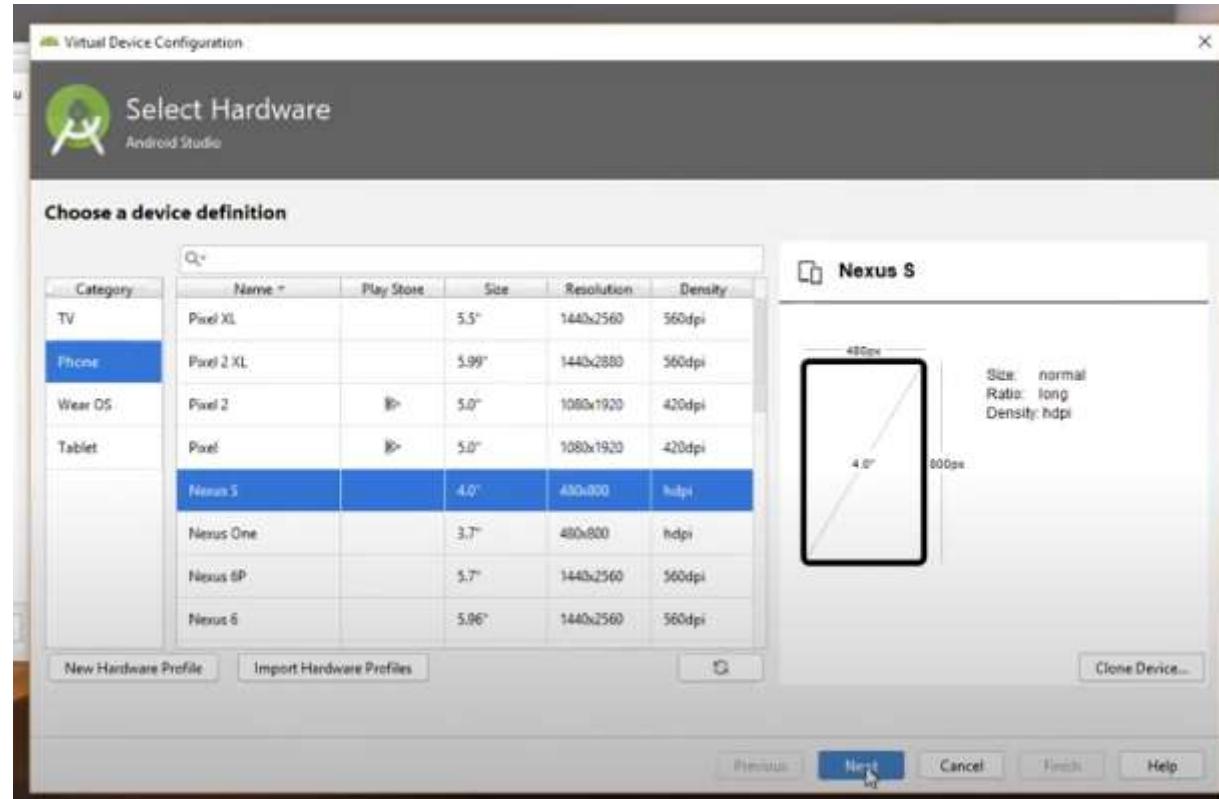
2) SDK Manager & adb.exe and usage

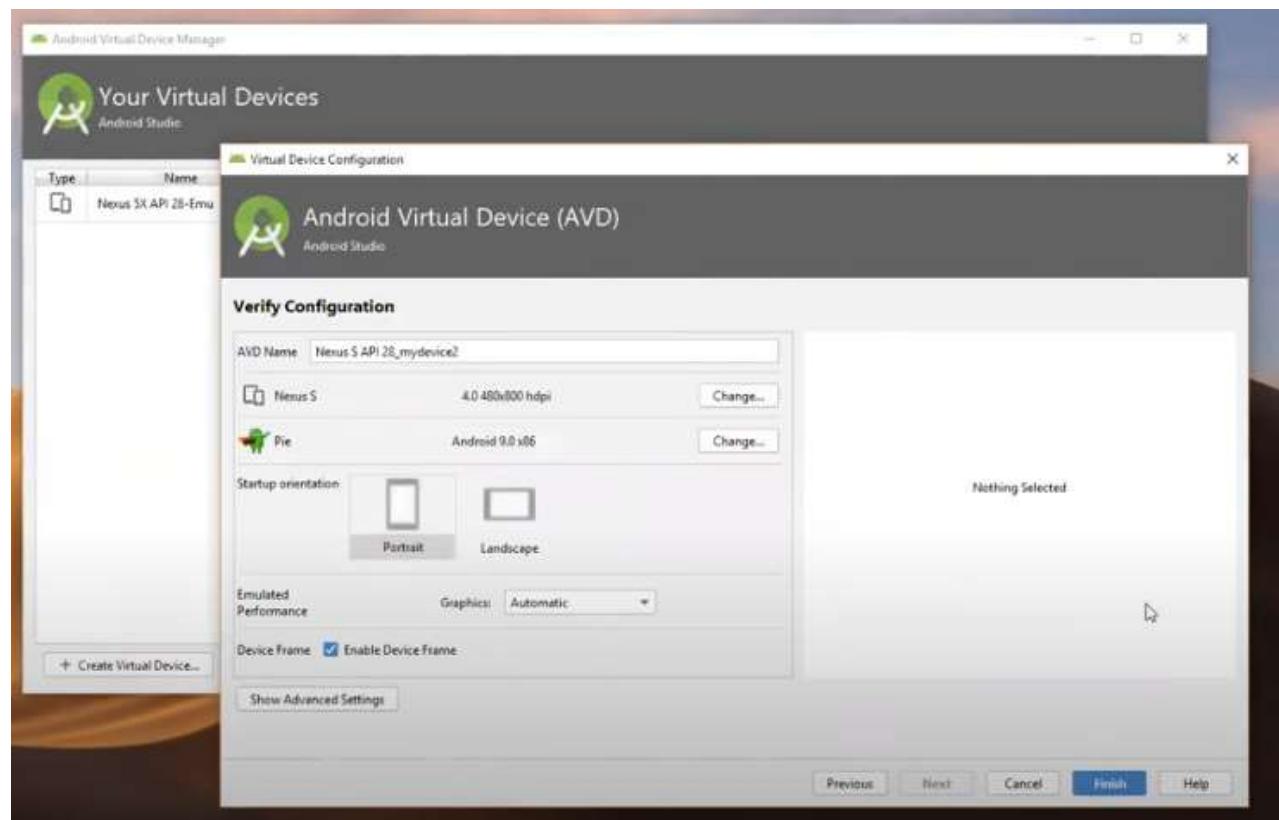
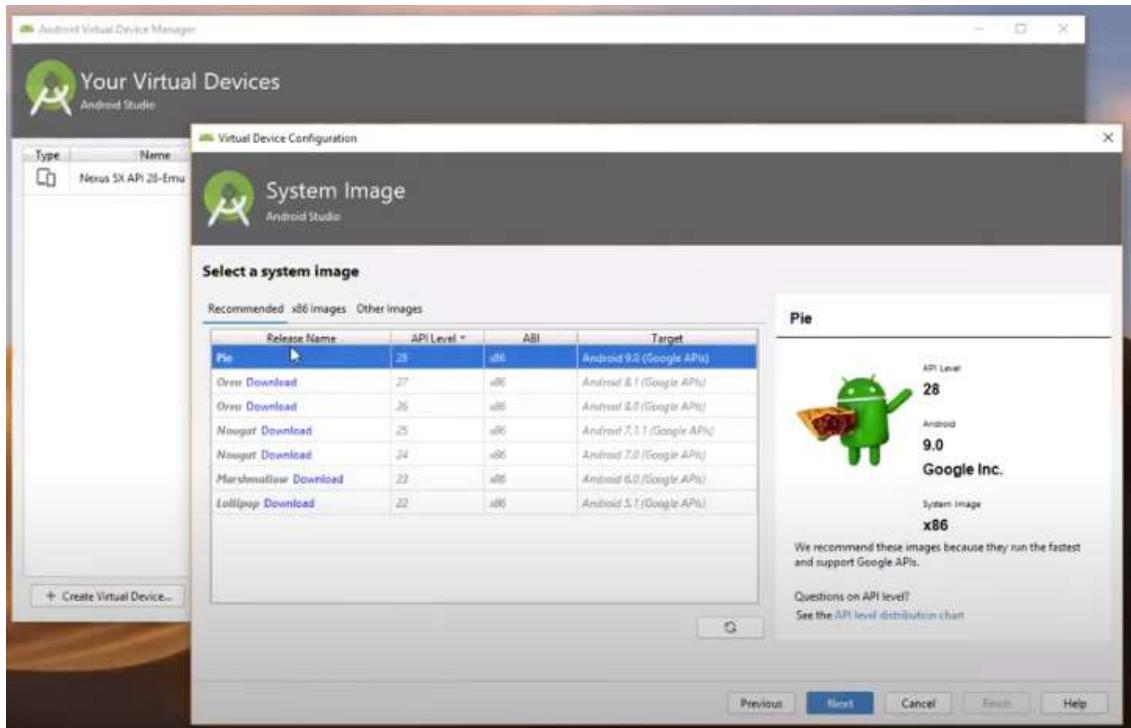
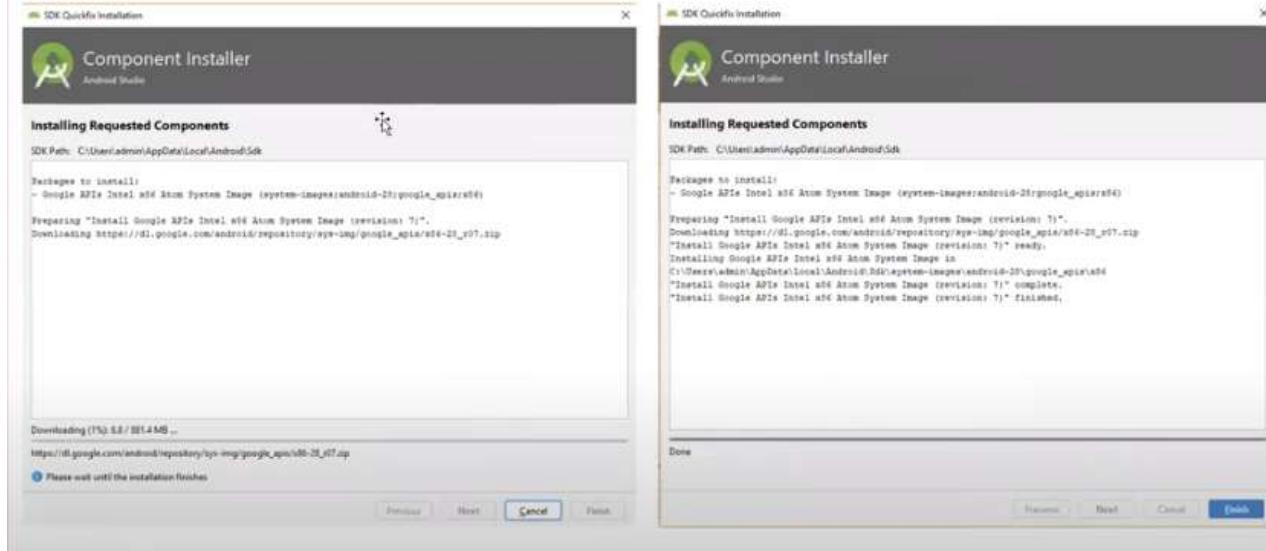
-----

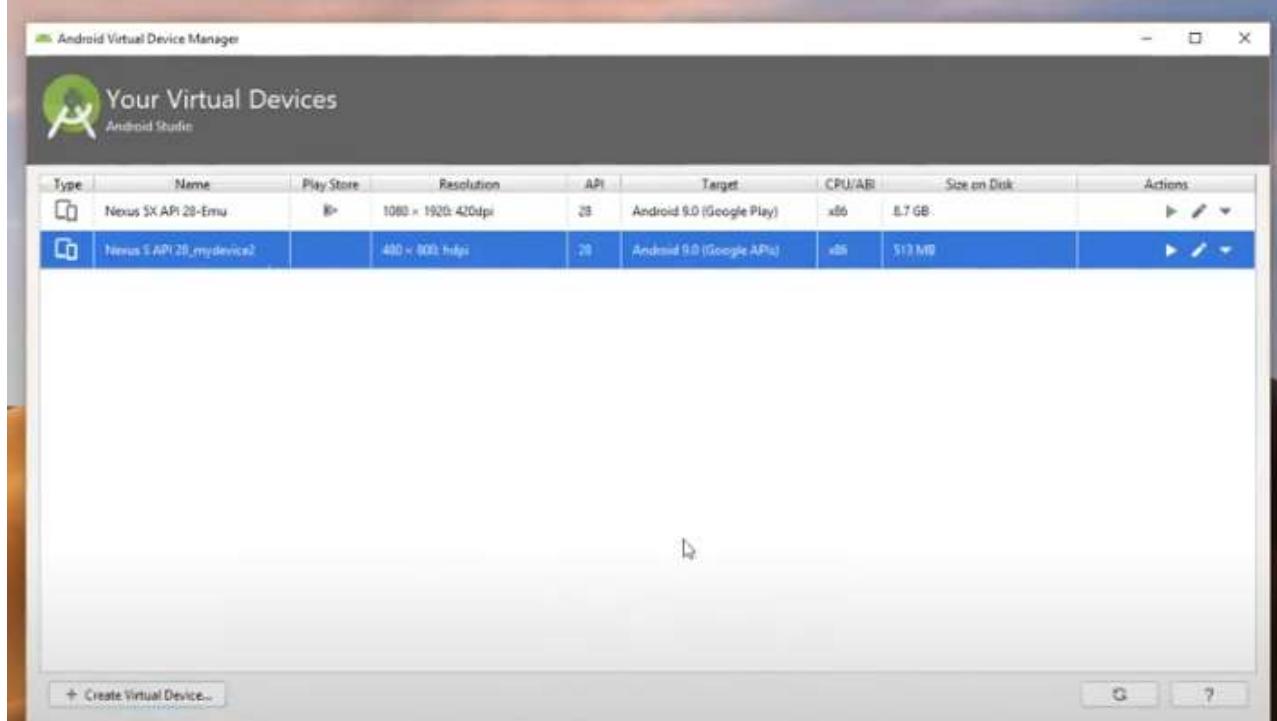
C:\Program Files\Android\Android Studio\bin

	Name	Date modified	Type	Size
Quick access				
Desktop	lldb	1/19/2019 6:40 PM	File folder	
Downloads	append.bat	12/25/2018 4:13 PM	Windows Batch File	1 KB
Documents	appletviewer.policy	12/25/2018 4:13 PM	POLICY File	1 KB
Pictures	breakgen.dll	12/25/2018 4:13 PM	Application extens...	60 KB
Google Drive	breakgen64.dll	12/25/2018 4:13 PM	Application extens...	79 KB
2019-01-23 20.03.27 Selenium with J	elevator.exe	12/25/2018 4:13 PM	Application	149 KB
Appium	format.bat	12/25/2018 4:13 PM	Windows Batch File	1 KB
DemoFiles	fsnotifier.exe	12/25/2018 1:39 PM	Application	89 KB
my recordings	fsnotifier64.exe	12/25/2018 1:39 PM	Application	101 KB
OneDrive	idea.properties	12/25/2018 4:13 PM	PROPERTIES File	12 KB
This PC	IdeaWin32.dll	12/25/2018 4:13 PM	Application extens...	71 KB
3D Objects	IdeaWin64.dll	12/25/2018 4:13 PM	Application extens...	84 KB
Desktop	inspect.bat	12/25/2018 4:13 PM	Windows Batch File	1 KB
Documents	jumpListBridge.dll	12/25/2018 4:13 PM	Application extens...	54 KB
Downloads	jumpListBridge64.dll	12/25/2018 4:13 PM	Application extens...	81 KB
Music	launcher.exe	12/25/2018 4:13 PM	Application	123 KB
Pictures	log.xml	12/25/2018 4:13 PM	XML Document	3 KB
Videos	restarter.exe	12/25/2018 1:39 PM	Application	86 KB
Local Disk (C)	runnerw.exe	12/25/2018 1:39 PM	Application	121 KB
Local Disk (E)	studio.bat	12/25/2018 4:13 PM	Windows Batch File	5 KB
Local Disk (F)	studio.exe	12/25/2018 1:33 PM	Application	359 KB
Network	studio.exe.vmoptions	12/25/2018 4:13 PM	VMOPTIONS File	1 KB
	studio.ico	12/25/2018 4:13 PM	Icon	346 KB
	studio64.exe	12/25/2018 1:39 PM	Application	907 KB
	kudio64.exe.vmoptions	12/25/2018 4:13 PM	VMOPTIONS File	1 KB
	WinProcessListHelper.exe	12/25/2018 1:39 PM	Application	171 KB



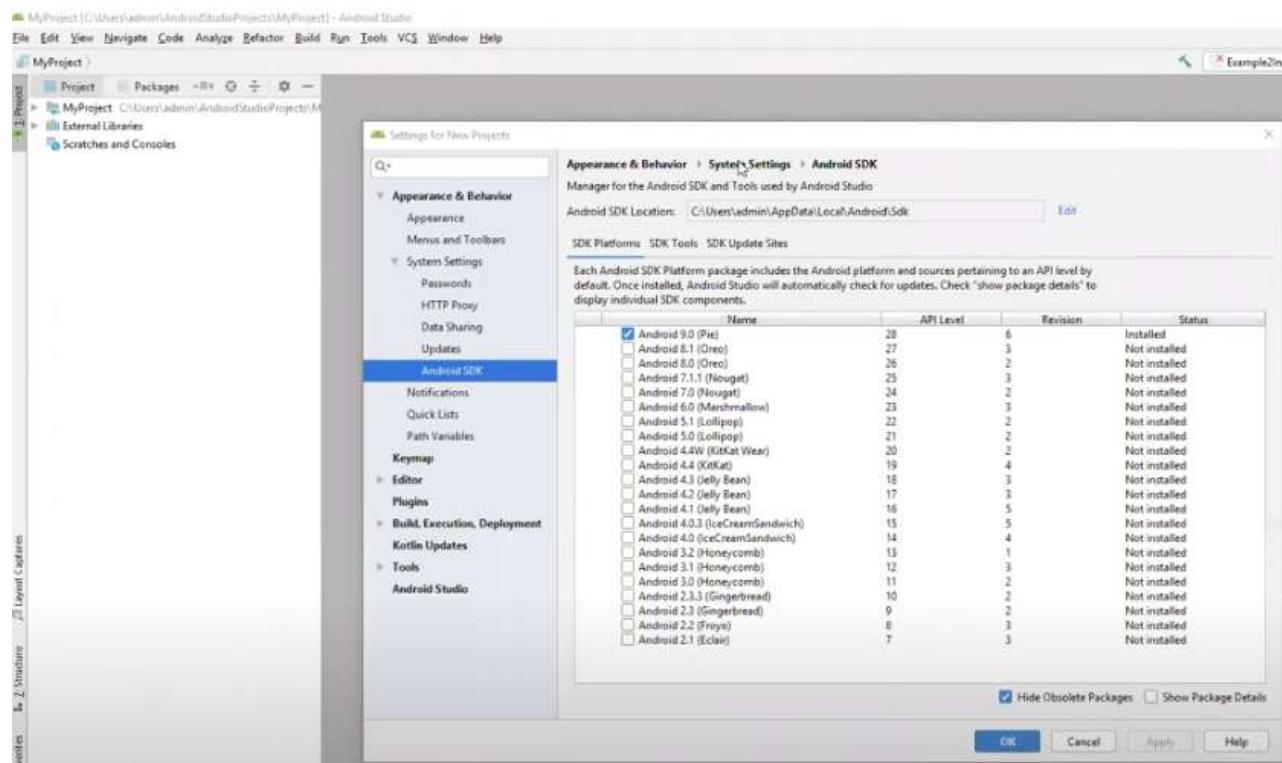


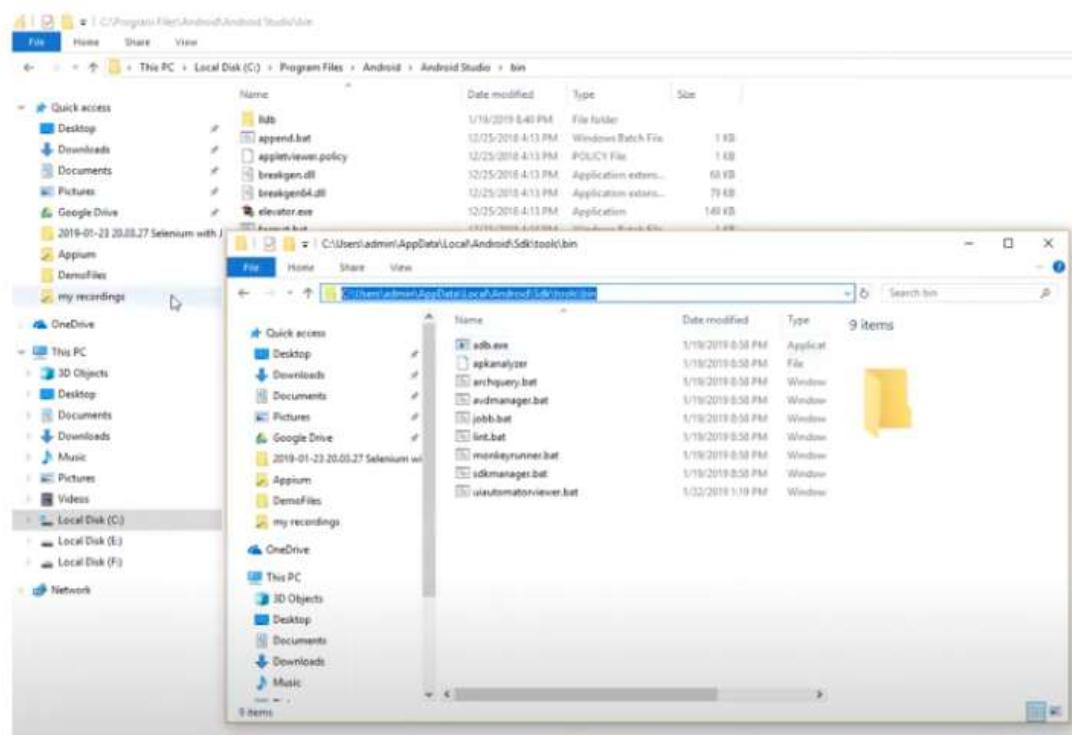
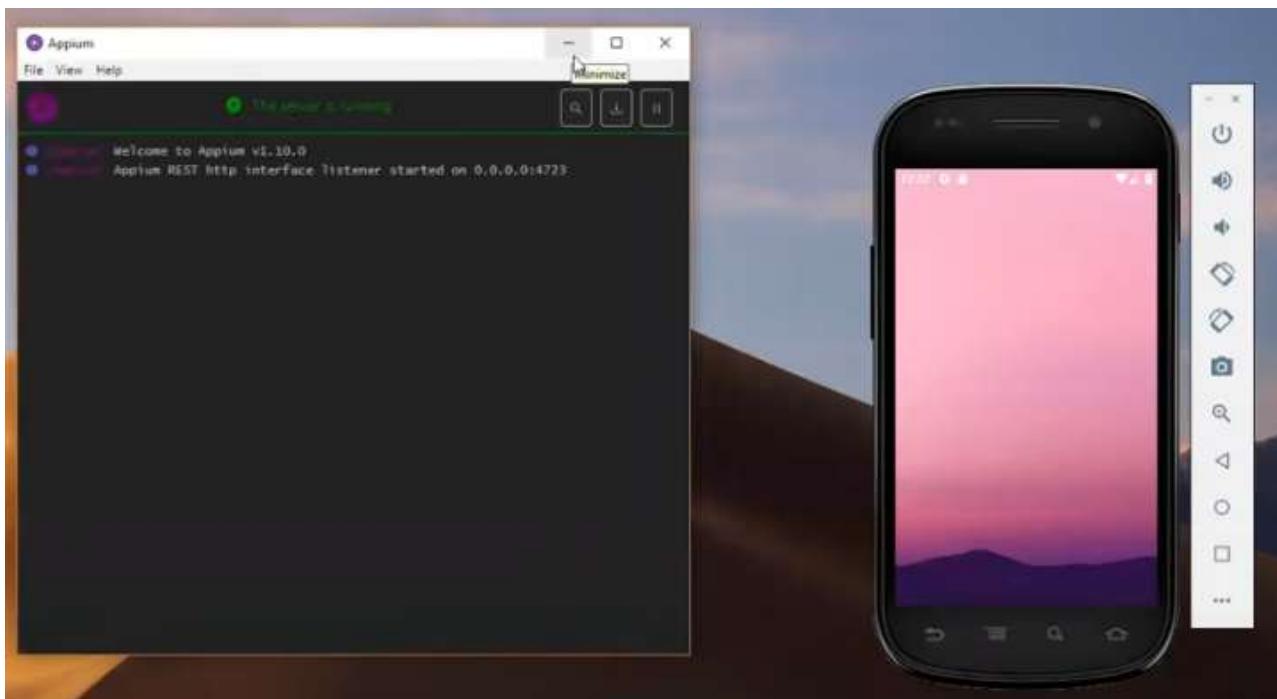




## Agenda

- 
- 1) Creating Virtual Device using Android studio
    - AVD Manager
  - 2) SDK Manager & **adb.exe** and usage
- 





```
Microsoft Windows [Version 10.0.17134.523]
(c) 2018 Microsoft Corporation. All rights reserved.

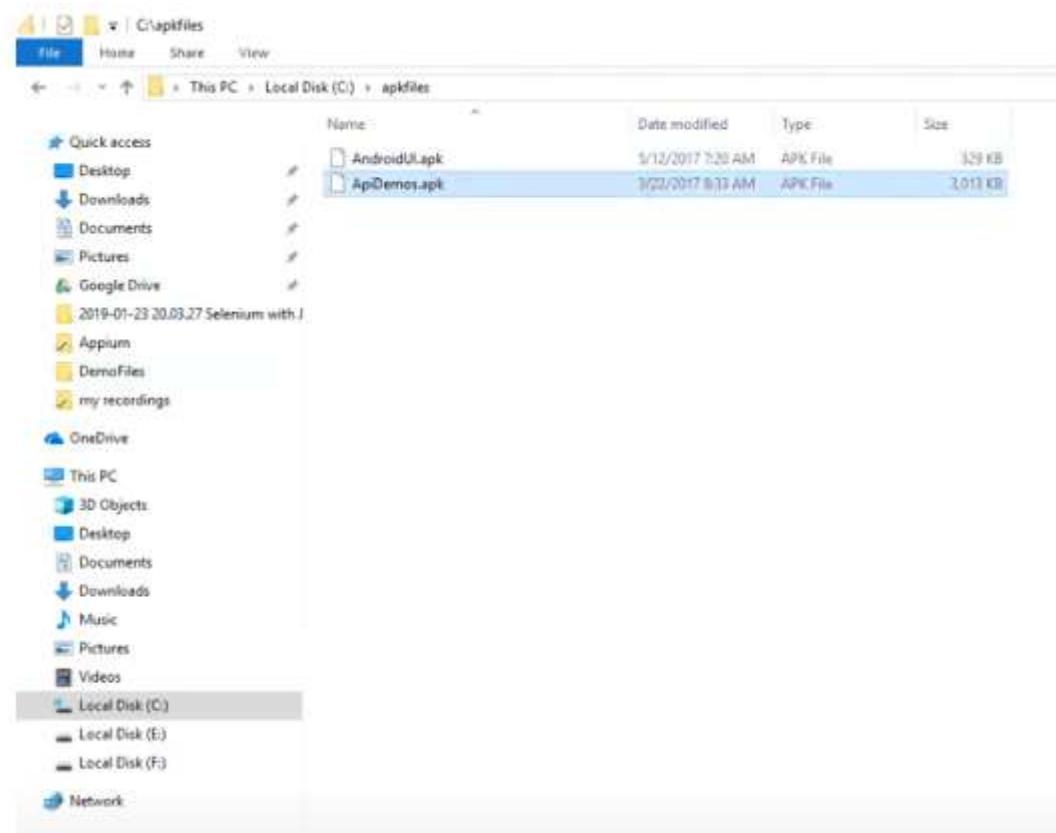
C:\Users\admin\AppData\Local\Android\Sdk\tools\bin>adb.exe devices
List of devices attached
emulator-5554    device
```

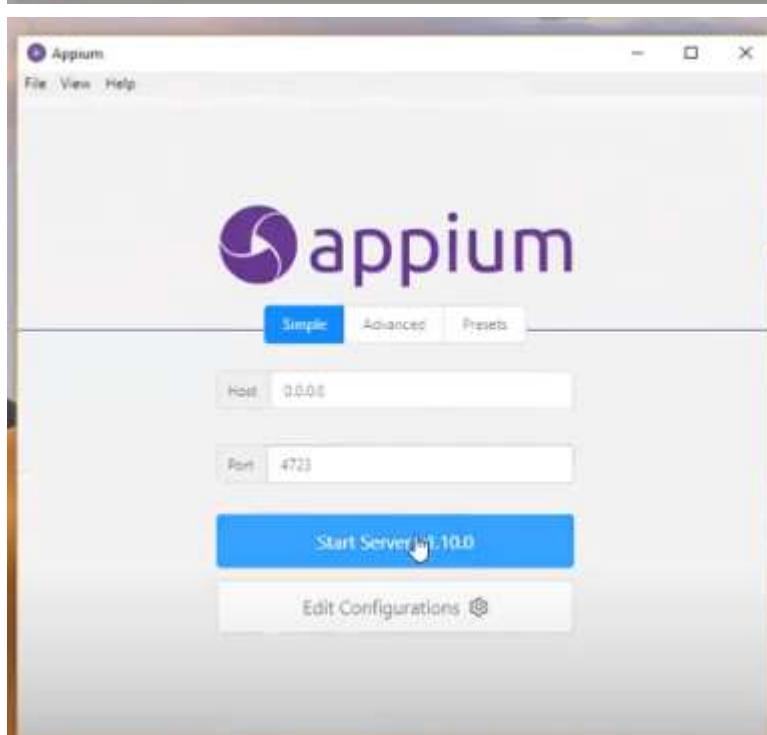
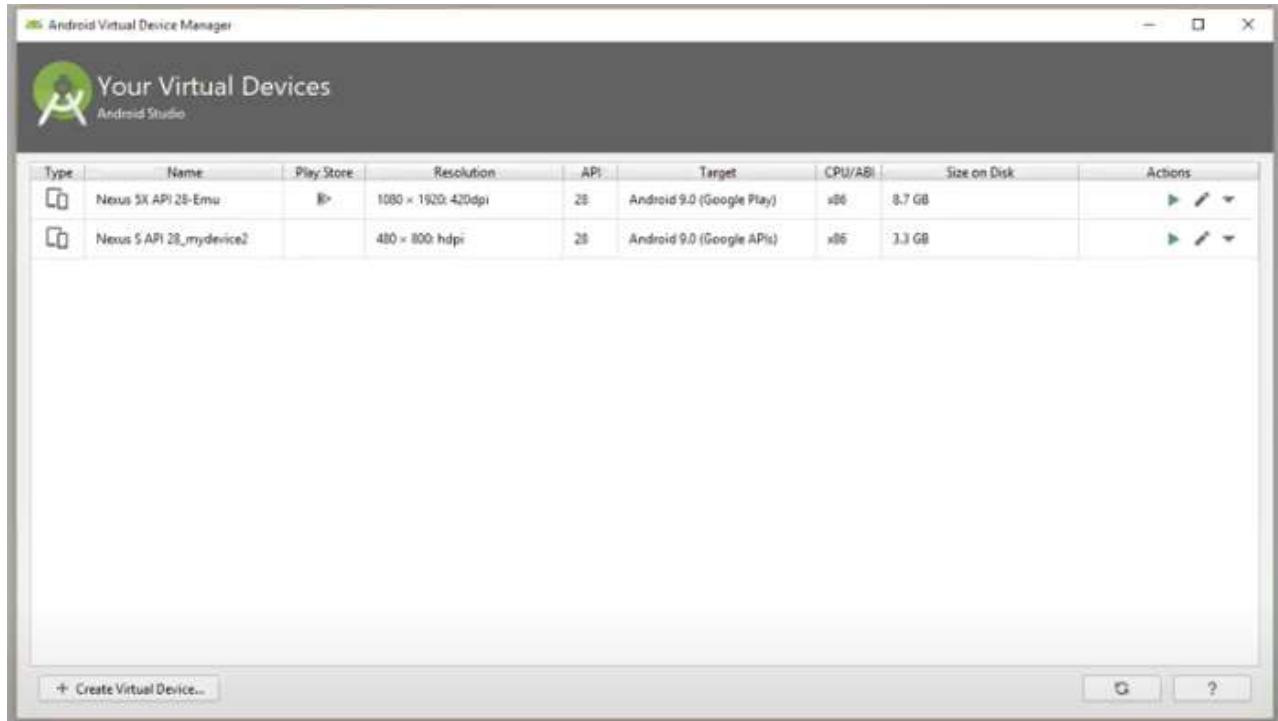
```
Microsoft Windows [Version 10.0.17134.523]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\admin\AppData\Local\Android\Sdk\tools\bin>adb.exe devices
List of devices attached
emulator-5554    device
```

## Agenda

### Install APK file(Mobile App) on Virtual Device using Appium Desktop

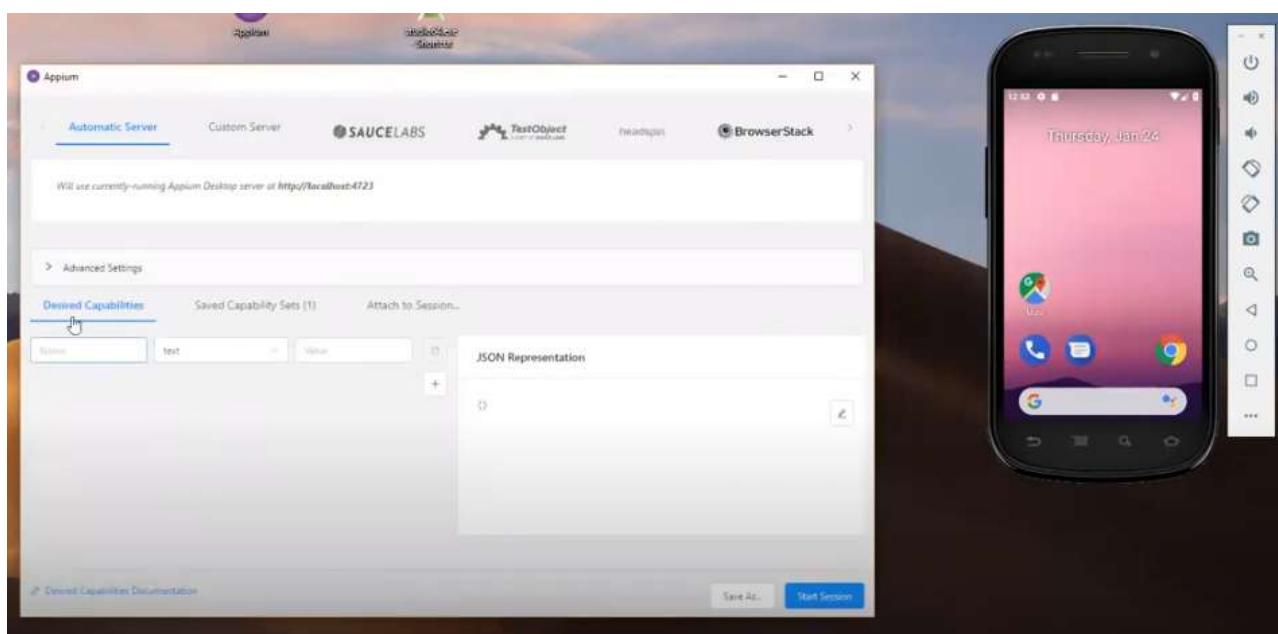




```
Select C:/Windows/System32/cmd.exe
Microsoft Windows [Version 10.0.17134.523]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\admin\AppData\Local\Android\Sdk\tools\bin>adb devices
List of devices attached
emulator-5554    device

C:\Users\admin\AppData\Local\Android\Sdk\tools\bin>
```



Desired Capabilities - Appium

Appium Desired Capabilities

General Capabilities

- Android Only
- UIAutomator2 Only
- Espresso Only
- iOS Only
- iOS Only, using XCUI Test
- YouEngine Only

## Appium Desired Capabilities

Desired Capabilities are keys and values encoded in a JSON object, sent by Appium clients to the server when a new automation session is requested. They tell the Appium drivers all kinds of important things about how you want your test to work. Each Appium client builds capabilities in a way specific to the client's language, but at the end of the day, they are sent over to Appium as JSON objects.

Some important capabilities are demonstrated in the following example:

```
{
  "platformName": "iOS",
  "platformVersion": "11.0",
  "deviceName": "iPhone 7",
  "automationName": "XCUITest",
  "app": "/path/to/my.app"
}
```

This set of Desired Capabilities expresses the desire for Appium to begin an automation session on an iPhone 7 simulator with iOS 11, using the XCUITest Driver, with `/path/to/my.app` as the app under test.

There are many, many Capabilities that Appium supports. Capabilities also differ by driver, though there are a standard set that most drivers pay attention to. What follows are a series of tables outlining the various

Introduction - Appium

Appium

About Drivers Commands Writing & Running Tests Advanced Contributing Search Previous Next

## Introduction to Appium

Appium is an open-source tool for automating native, mobile web, and hybrid applications on iOS mobile, Android mobile, and Windows desktop platforms. **Native apps** are those written using the iOS, Android, or Windows SDKs. **Mobile web apps** are web apps accessed using a mobile browser (Appium supports Safari on iOS and Chrome or the built-in "Browser" app on Android). **Hybrid apps** have a wrapper around a "webview" – a native control that enables interaction with web content. Projects like Apache Cordova or Phonegap make it easy to build apps using web technologies that are then bundled into a native wrapper, creating a hybrid app.

Importantly, Appium is "cross-platform": it allows you to write tests against multiple platforms (iOS, Android, Windows), using the same API. This enables code reuse between iOS, Android, and Windows test suites.

For specific information about what it means for Appium to "support" its platforms, and automation modalities, please see the [platform support doc](#).

### Appium Philosophy

Appium was designed to meet mobile automation needs according to a philosophy outlined by the following four tenets:

1. You shouldn't have to recompile your app or modify it in any way in order to automate it.
2. You shouldn't be locked into a specific language or framework to write and run your tests.
3. A mobile automation framework shouldn't reinvent the wheel when it comes to automation APIs.
4. A mobile automation framework should be open source, in spirit and practice as well as in name!

### Appium Design

Desired Capabilities - Appium

Appium

About Drivers Commands Writing & Running Tests Advanced Contributing Search Previous Next

Appium Desired Capabilities

General Capabilities

- Android Only
- UIAutomator2 Only
- Espresso Only
- iOS Only
- iOS Only, using XCUI Test
- YouEngine Only

## General Capabilities

These Capabilities span multiple drivers.

Capability	Description	Values
<code>automationName</code>	Which automation engine to use	Appium (default) or Selendroid or UIAutomator2 or Espresso for Android or XCUI Test for iOS or YouEngine for application built with YouEngine
<code>platformName</code>	Which mobile OS platform to use	iOS, Android, or FirefoxOS
<code>platformVersion</code>	Mobile OS version	e.g., 7.1, 4.4
<code>deviceName</code>	The kind of mobile device or emulator to use	iPhone Simulator, iPad Simulator, iPhone Retina 4-inch, Android Emulator, Galaxy S4, etc.... On iOS, this should be one of the valid devices returned by instruments -s devices. On Android this capability is currently ignored, though it remains required.
<code>app</code>	The absolute local path or remote http URL to a .ipa file (iOS), .apk folder (Android), .aab file (Android) or .apk file (Android App Bundle), or a .zip file containing one of these (.ipa, .apk, .aab) files. The app folder must be the root of the zip file. Appium will attempt to install this app binary on the appropriate device first. Note that this capability is not required for Android if you specify <code>appPackage</code> and <code>appActivity</code> capabilities (see below). Incompatible with <code>browserName</code> . See here about <code>.ipa</code> , <code>.apk</code> , <code>.aab</code> and <code>.zip</code> files.	<code>/abs/path/to/my.apk</code> or <code>http://myapp.com/app.ipa</code>
<code>browserName</code>	Name of mobile web browser to automate. Should be an empty string for iOS and 'Chrome'.	Safari for iOS and 'Chrome'

Automatic Server Custom Server SAUCELABS TestObject Headless BrowserStack

Will use currently-running Appium Desktop server at <http://localhost:4723>

> Advanced Settings

Desired Capabilities Saved Capability Sets (1) Attach to Session...

platformName	text	Android	⋮
deviceName	text	Android Emulator	⋮

+

JSON Representation

```
{ "platformName": "Android", "deviceName": "Android Emulator" }
```

Save As... Start Session

Automatic Server Custom Server SAUCELABS TestObject Headless BrowserStack

Will use currently-running Appium Desktop server at <http://localhost:4723>

> Advanced Settings

Desired Capabilities Saved Capability Sets (1) Attach to Session...

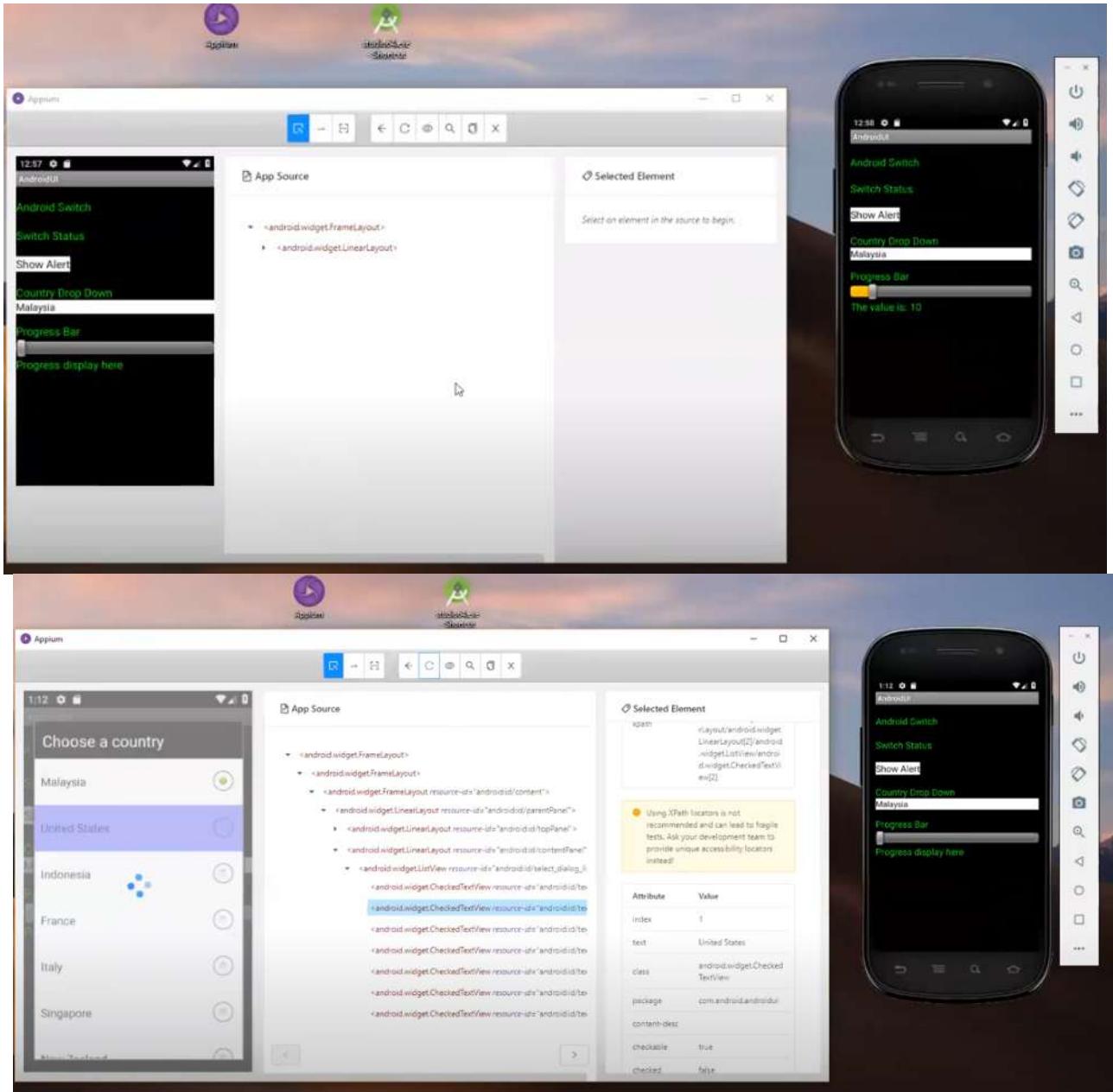
platformName	text	Android	⋮
deviceName	text	Android Emulator	⋮
app	text	C:\apkfiles\AndroidUI.apk	⋮

+

JSON Representation

```
{ "platformName": "Android", "deviceName": "Android Emulator", "app": "C:\\apkfiles\\AndroidUI.apk" }
```

Save As... Start Session



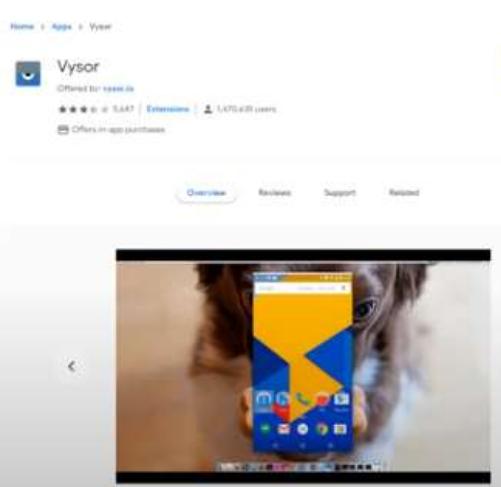
## Agenda

Install APK(Mobile App) on Real Device using Appium serverDesktop

- vysorApp
- Real Device/Mobile settings

## Vysor App

- Vysor App is used for displaying mobile screens on your computer.
- Vysor is available as a extension for Chrome. You have to install it.
- And also available on Playstore. Download and install it.
- Only for training purpose.



Google Search - Google Search

https://www.google.com/search?q=vysor+for+chrome&rlz=1C1CHBD\_enIN793IN793&oq=vysor+for+chrom

Google

vysor for chrome

All Videos Images News Shopping More Settings Tools

About 91,900 results (0.46 seconds)

**Vysor - Google Chrome**  
https://chrome.google.com/webstore/detail/vysor/gidgenkbtabolejbgbprnbingjbfefm  
Nov 14, 2018 - Vysor lets you view and control your Android on your computer. Easy peasy.  
Changelog: 2.0.9 Audio fixes 2.0.1 Fix accessibility service  
You visited this page on 20/1/19

**Vysor - Android control on PC – Apps on Google Play**  
https://play.google.com/store/apps/details?id=com.koushikdutta.vysor&hl=en...  
Vysor lets you view and control your Android on your computer. Use apps, play games, control your Android with your mouse and keyboard. Go wireless, and...

**Vysor**  
https://www.vysor.io/

Vysor - Chrome Web Store

chrome web store

Home > Apps > Vysor

Vysor

Offered by: vysor.io

★★★ 5+ 5.649 | Extensions | 1,478,513 users

Offers in-app purchases

Overview Reviews Support Related

Launch app

Real Mobile Device Settings

Settings

Motorola ID

System

Date & time

Accessibility

Printing

Developer options

About phone

4:40

4:43 pm Monday 21 January

USB debugging connected

Connected as a media device

Mobile Device Settings

4:44

USB computer connection

Connect as

Media device (MTP)

Lets you transfer media files on Windows or using Android File Transfer on Mac (see www.android.com/filetransfer)

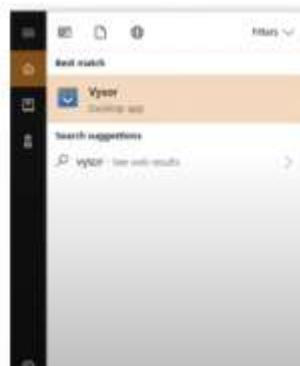
Camera (PTP)

Lets you transfer photos using camera software and transfer any files on computers that don't support MTP

## Agenda

Install APK(Mobile App) on Real Device using Appium server/Desktop

- vysorApp
- Real Dvice/Mobile settings



Vysor

Choose a device

MotoE2  
Serial: TA094033D4

View Share WiFi

Find Devices

Settings

International Keyboard Share All Devices Customize Vysor Manage Key Bindings and Buttons Start automatically Notification Prompt

Status

You've used Vysor for 4.5 hours.  
An advertisement will be shown every 30 minutes while viewing an Android.

Purchase Vysor Pro to remove ads and unlock all features.

Login for offline usage and Vysor Share.

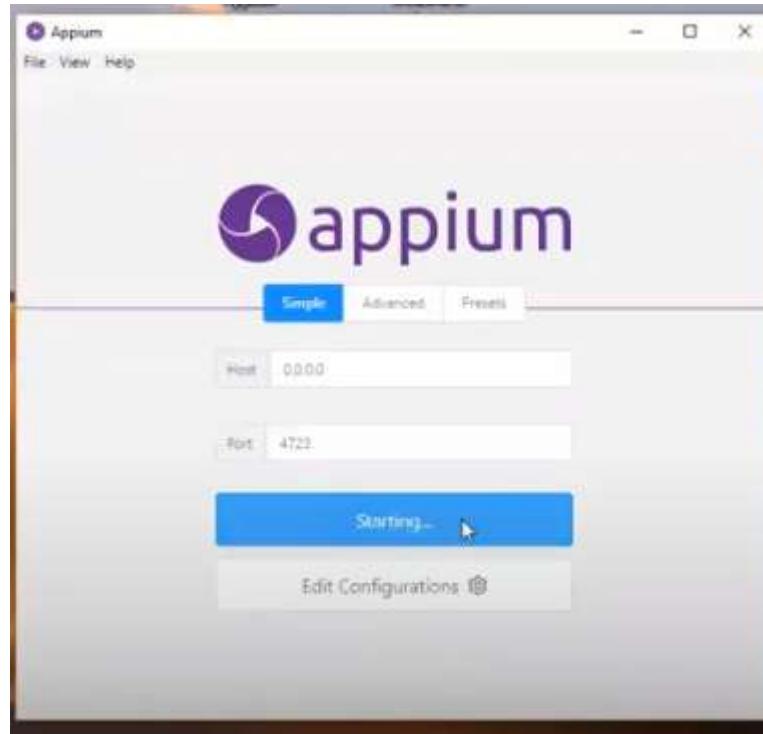
Windows users need ADB Drivers.

Using built-in Vysor ADB.

Vysor Version 2.0.9

Get the standalone Vysor desktop app for better performance!

Developers Support Bug Report Manual Load Vysor

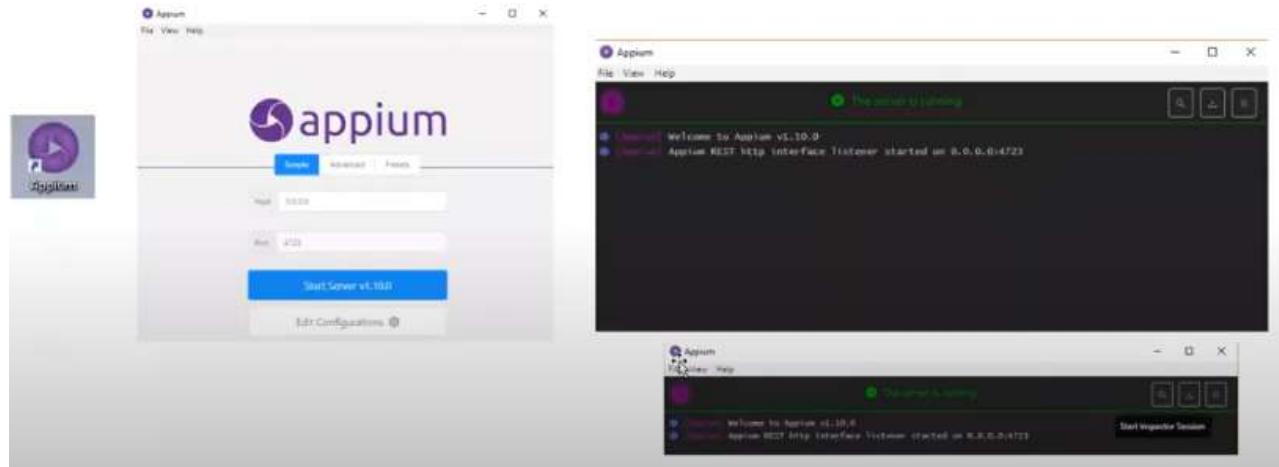


```
Microsoft Windows [Version 10.0.17134.523]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\admin>adb devices
List of devices attached
TA094033D4       device

C:\Users\admin>
```

## How to install apk file on Real device using Appium Desktop



Will use currently-running Appium Desktop server at <http://localhost:4723>

Save Capability Set As...

Name: DC\_MotoE

Cancel Save

Advanced Settings

Desired Capabilities

platformName	text	Android
deviceName	text	Android
app	text	F:\\Google Drive\\Training

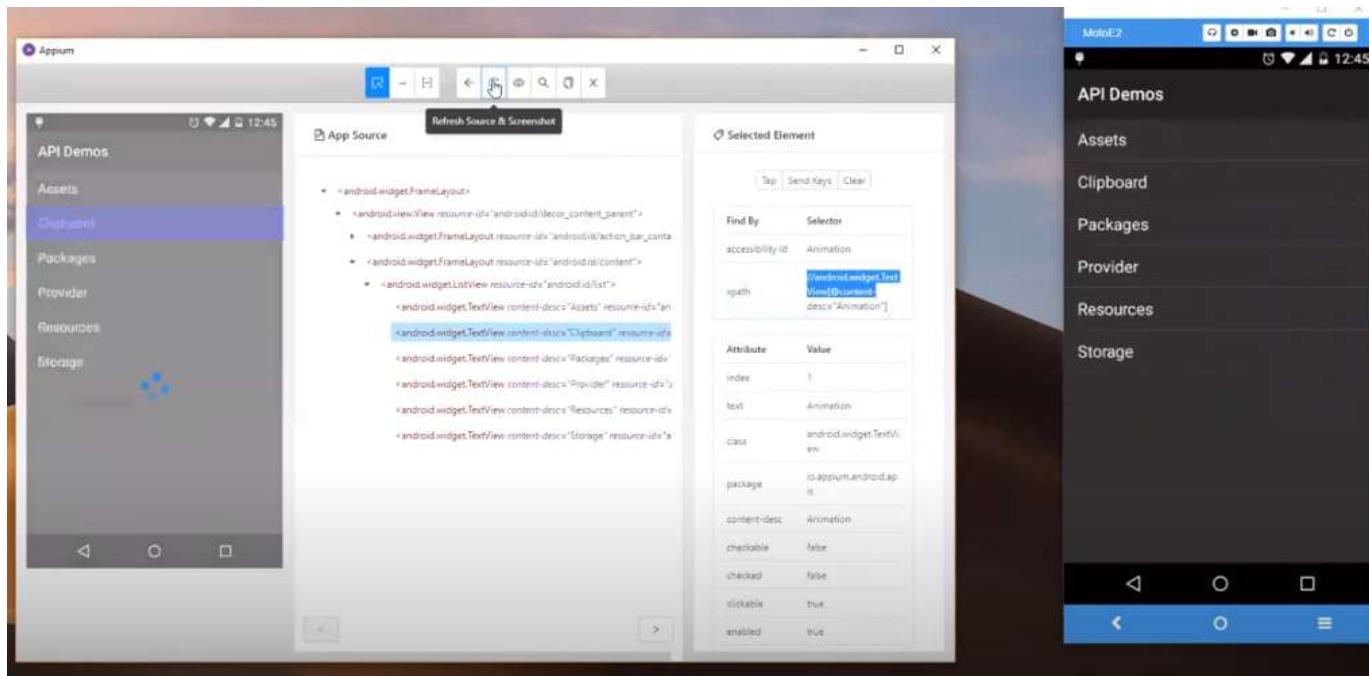
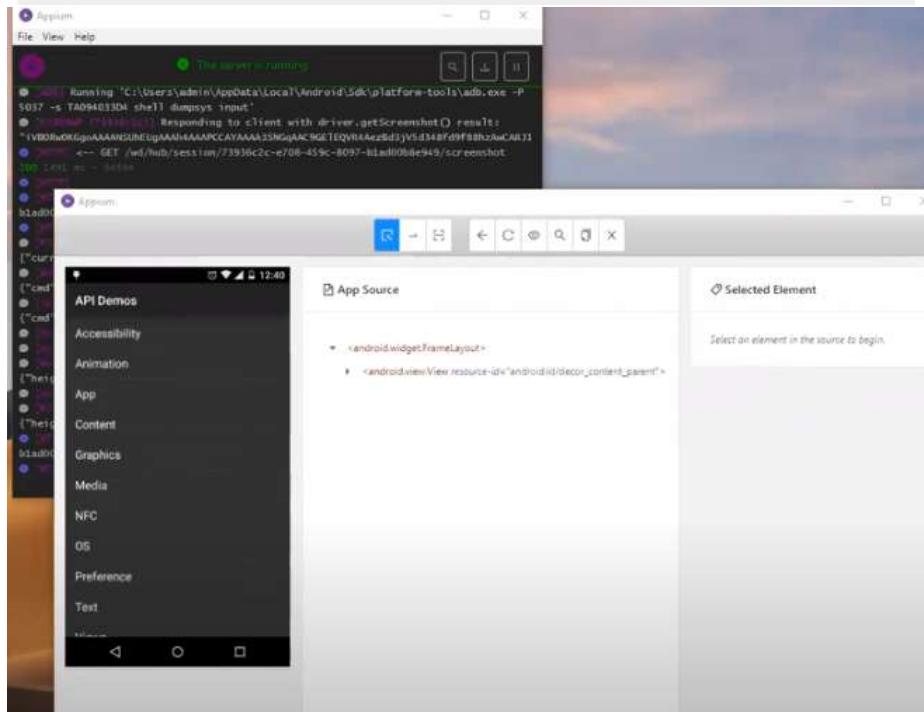
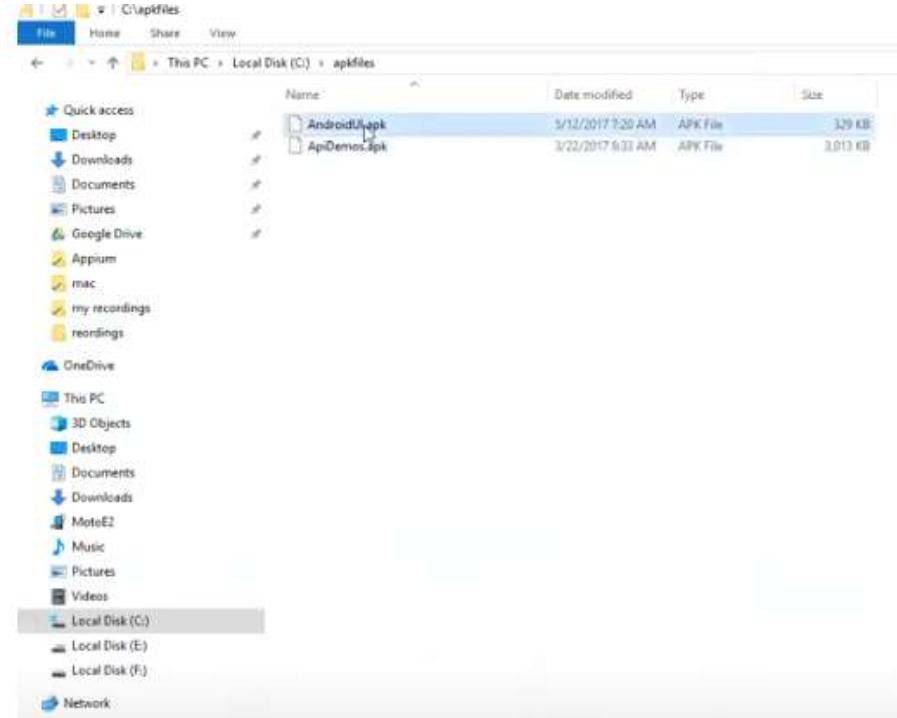
JSON Representation

```
{"platformName": "Android", "deviceName": "Android", "app": "F:\\Google Drive\\Training Materials\\Appium\\API\\
```

Save As... Start Session

SAUCELABS TestObject headspin BrowserStack

Desired Capabilities Documentation



## Agenda

-----  
Install APK(Mobile App) on Real Device using Appium serverDesktop

- - vysorApp  
- Real Dvice/Mobile settings

Ways to install APK file(App) on Mobile devices(Virtual/Real device)

- 1) Using Appium server Desktop(Inspection session)
- 2) Using adb.exe
- 3) Using program

Install APK(Mobile App) on Real Device using adb.exe

Open the command prompt

Start server using adb.exe start-server

C:\Users\admin>adb kill-server

C:\Users\admin>adb start-server

Verify total devices using adb devices

C:\Users\admin>adb devices

Goto apk file directory, Run the below command to Install app.

F:\Google Drive\Training Materials\Appium\APk Files>adb install ApiDemos.apk

```
Command Prompt - adb.exe start-server
Microsoft Windows [Version 10.0.17134.523]
(c) 2018 Microsoft Corporation. All rights reserved.

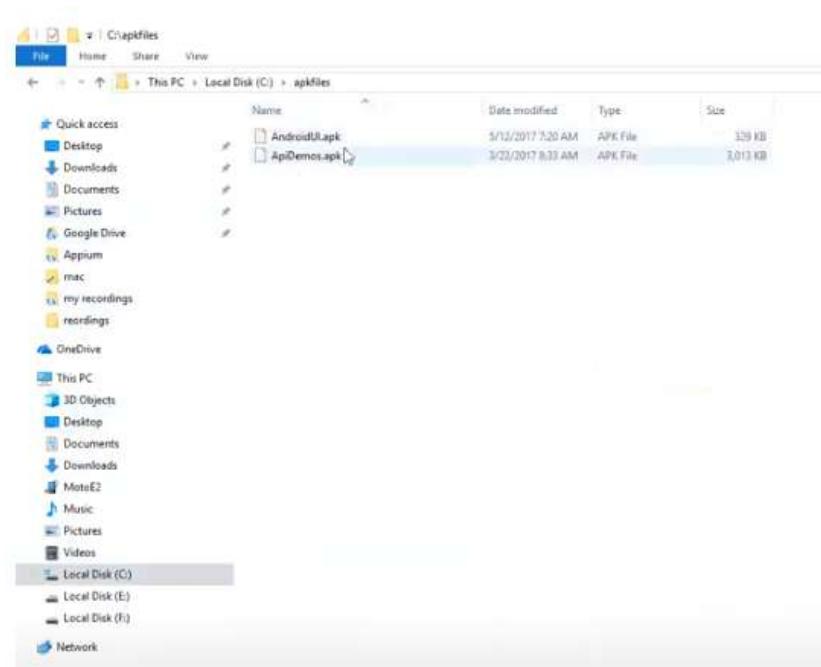
C:\Users\admin>adb devices
List of devices attached
TA094033D4    device

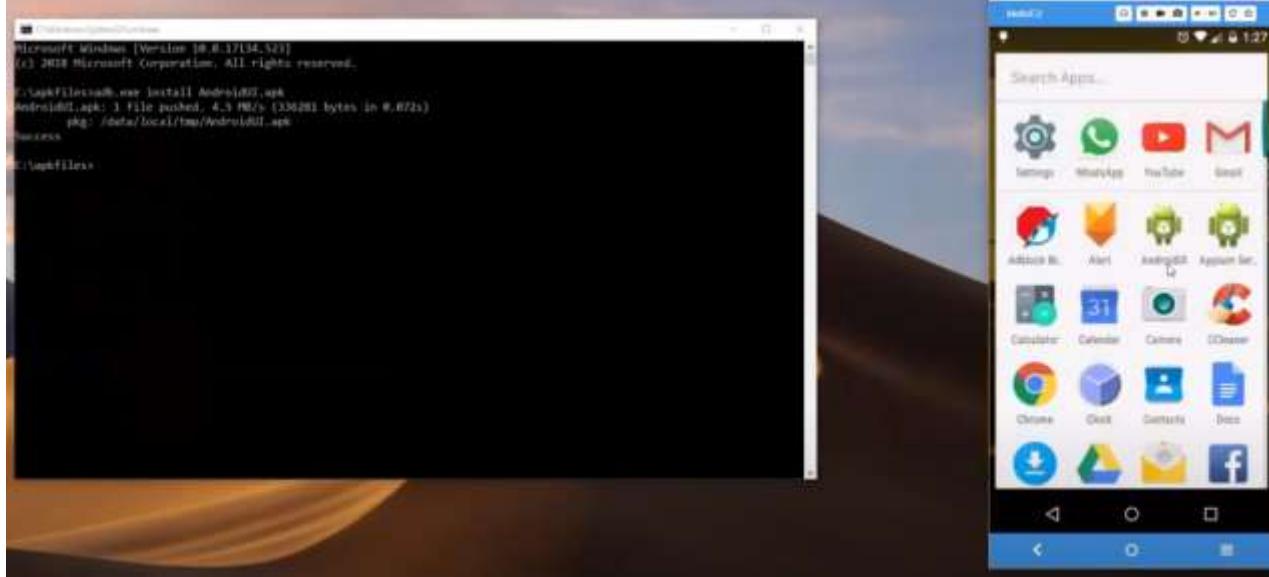
C:\Users\admin>adb devices
List of devices attached
TA094033D4    device

C:\Users\admin>adb devices
List of devices attached
TA094033D4    device

C:\Users\admin>adb kill-server

C:\Users\admin>adb start-server
```





File Edit Format View Help

## Agenda

---

Identify Elements using Appium inspector  
Identify Elements using uiautomator

The Appium Desktop interface includes:

- Automatic Server**: Will use currently-running Appium Desktop server at <http://localhost:4723>.
- Custom Server**
- SAUCELABS**
- TestObject**
- Headspin**
- BrowserStack**
- Advanced Settings**
- Desired Capabilities**: A table for defining capabilities with columns for Name, Type, Value, and JSON Representation.
- Save As...** and **Start Session** buttons.
- Defined Capabilities Documentation**

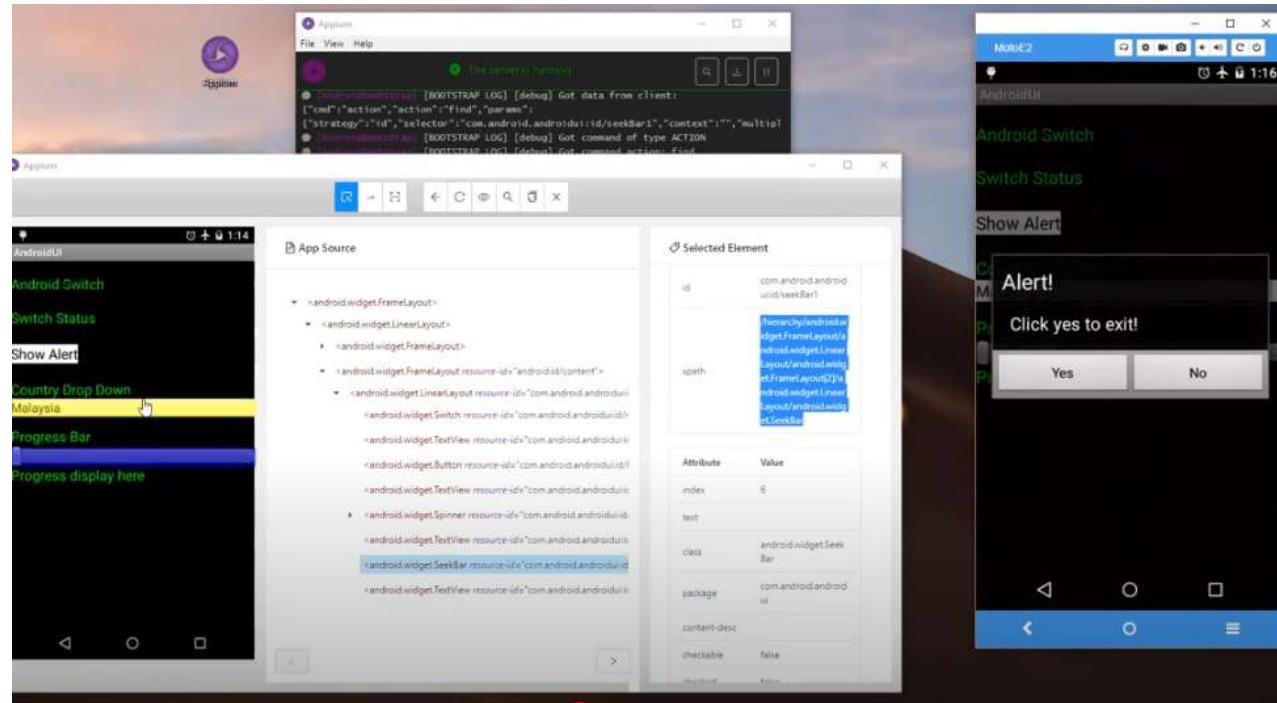
The Appium Inspector interface shows:

- MotoE2** - **AndroidUI**
- Android Switch**
- Switch Status**
- Show Alert**
- Country Drop Down**: New Zealand
- Progress Bar**: The value is: 10

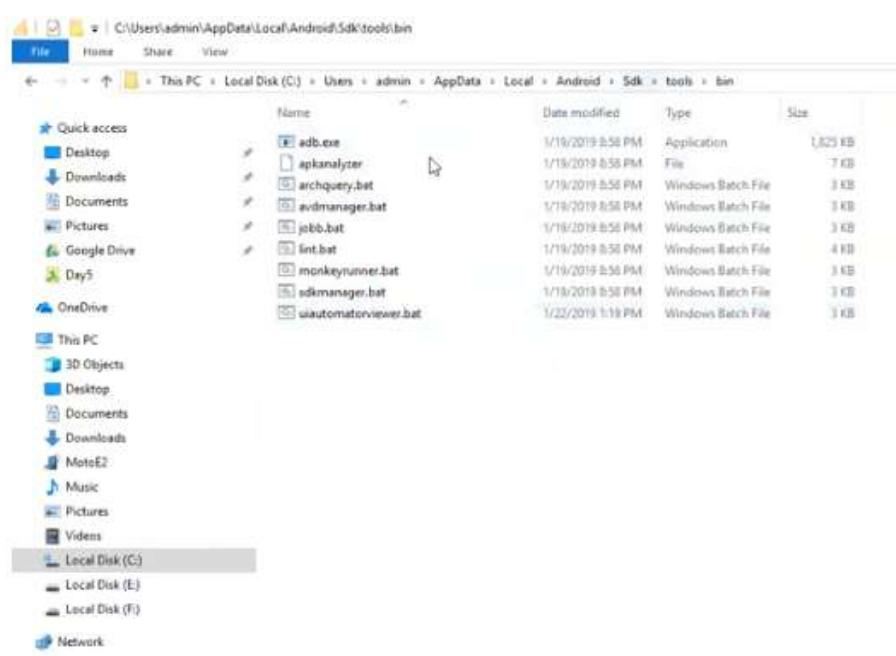
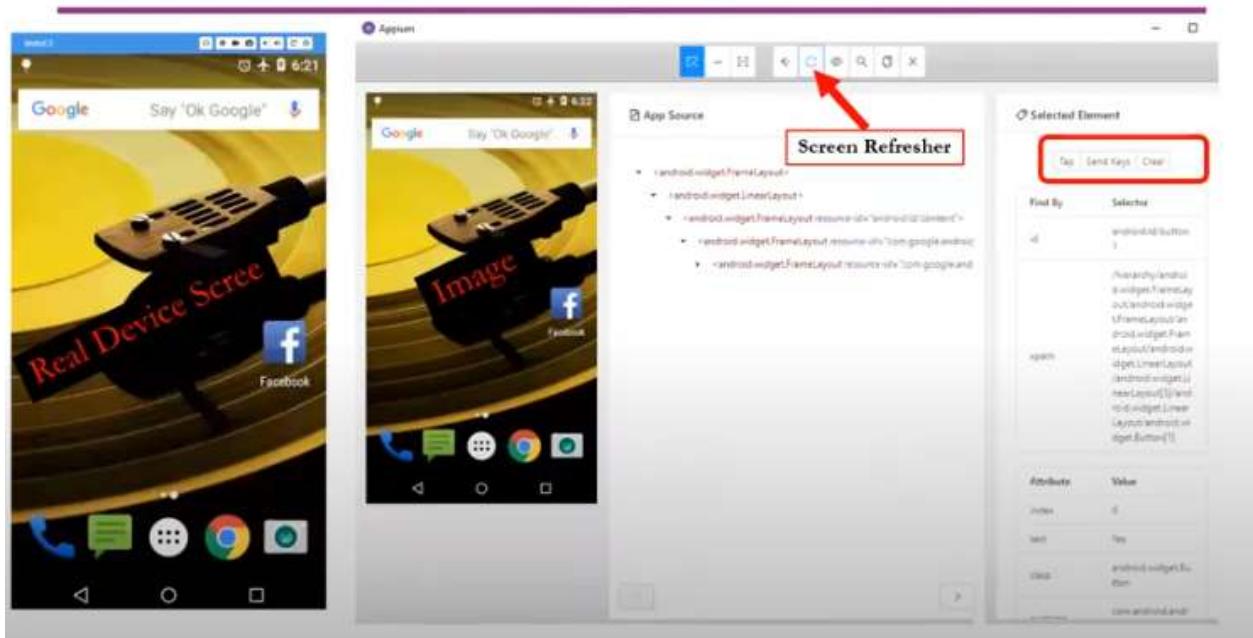
The bottom part of the interface shows the selected element in the tree view:

- Selected Element**: `new android.widget.RelativeLayout`
- Available Elements**: `new android.widget.RelativeLayout`
- Selected Element**: `new android.widget.RelativeLayout`
- Select element in the source code**

The bottom screenshot also displays the same UI elements as the top one, with "Malaysia" selected in the Country Drop Down.



## Identify Elements using Appium inspector



# Identify Elements using uiautomator

This PC > Local Disk (C:) > Users > admin > AppData > Local > Android > Sdk > tools > bin

Name	Date modified	Type	Name	Date modified	Type	Size
apk analyzer	1/19/2019 8:58 PM	File	api	1/19/2019 8:58 PM	File folder	
archquery.bat	1/19/2019 8:58 PM	Windows Batch File	libd	1/19/2019 8:58 PM	File folder	
avdmanager.bat	1/19/2019 8:58 PM	Windows Batch File	systrace	5/18/2019 8:58 PM	File folder	
jobb.bat	1/19/2019 8:58 PM	Windows Batch File	adb.exe	1/19/2019 8:58 PM	Application	1,825 KB
lint.bat	1/19/2019 8:58 PM	Windows Batch File	AdbWinApi.dll	1/19/2019 8:58 PM	Application extens...	56 KB
monkeyrunner.bat	1/19/2019 8:58 PM	Windows Batch File	AdbWinUsbApi.dll	1/19/2019 8:58 PM	Application extens...	62 KB
sdkmanager.bat	1/19/2019 8:58 PM	Windows Batch File	dracedump.exe	1/19/2019 8:58 PM	Application	149 KB
uiautomatorviewer.bat	1/19/2019 8:58 PM	Windows Batch File	etctool.exe	1/19/2019 8:58 PM	Application	318 KB
			fastboot.exe	1/19/2019 8:58 PM	Application	821 KB
			hprof-conv.exe	1/19/2019 8:58 PM	Application	47 KB
			hwinfothread-1.dll	1/19/2019 8:58 PM	Application extens...	204 KB
			make_ota.exe	1/19/2019 8:58 PM	Application	112 KB
			mkcerts.conf	1/19/2019 8:58 PM	CONF File	2 KB
			mkcerts.exe	1/19/2019 8:58 PM	Application	961 KB

This PC > Local Disk (C:) > Users > admin > AppData > Local > Android > Sdk > tools > bin

Name	Date modified	Type	Name	Date modified	Type	Size
adb.exe	1/19/2019 8:58 PM	Windows Batch File	source.properties	1/19/2019 8:58 PM	PROPERTYFILE	1 KB
apk analyzer	1/19/2019 8:58 PM	Windows Batch File	sqlite3.exe	1/19/2019 8:58 PM	Application	1,223 KB
archquery.bat	1/19/2019 8:58 PM	Windows Batch File				
avdmanager.bat	1/19/2019 8:58 PM	Windows Batch File				
jobb.bat	1/19/2019 8:58 PM	Windows Batch File				
lint.bat	1/19/2019 8:58 PM	Windows Batch File				
monkeyrunner.bat	1/19/2019 8:58 PM	Windows Batch File				
sdkmanager.bat	1/19/2019 8:58 PM	Windows Batch File				
uiautomatorviewer.bat	1/19/2019 8:58 PM	Windows Batch File				

**Copy adb.exe file in bin folder to work with uiautomator**

This PC > Local Disk (C:) > Users > admin > AppData > Local > Android > Sdk > tools > bin

Name	Date modified	Type	Size
adb.exe	1/19/2019 8:58 PM	Application	1,825 KB
apk analyzer	1/19/2019 8:58 PM	File	7 KB
archquery.bat	1/19/2019 8:58 PM	Windows Batch File	3 KB
avdmanager.bat	1/19/2019 8:58 PM	Windows Batch File	3 KB
jobb.bat	1/19/2019 8:58 PM	Windows Batch File	3 KB
lint.bat	1/19/2019 8:58 PM	Windows Batch File	4 KB
monkeyrunner.bat	1/19/2019 8:58 PM	Windows Batch File	3 KB
sdkmanager.bat	1/19/2019 8:58 PM	Windows Batch File	3 KB
uiautomatorviewer.bat	1/22/2019 1:19 PM	Windows Batch File	3 KB

C:\Windows\system32\cmd.exe - uiautomatorviewer.bat

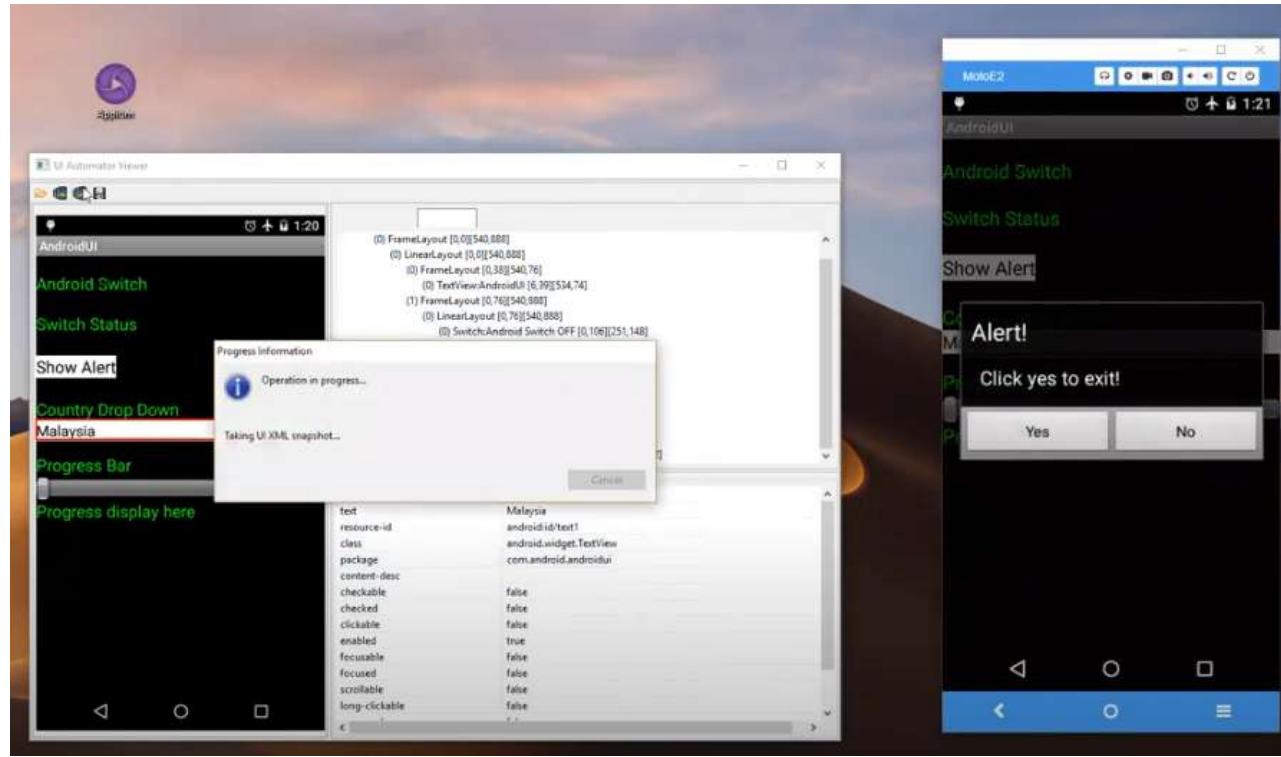
Microsoft Windows [Version 10.0.17134.523]

(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\admin\AppData\Local\Android\Sdk\tools\bin>uiautomatorviewer.bat

**UI Automator Viewer**

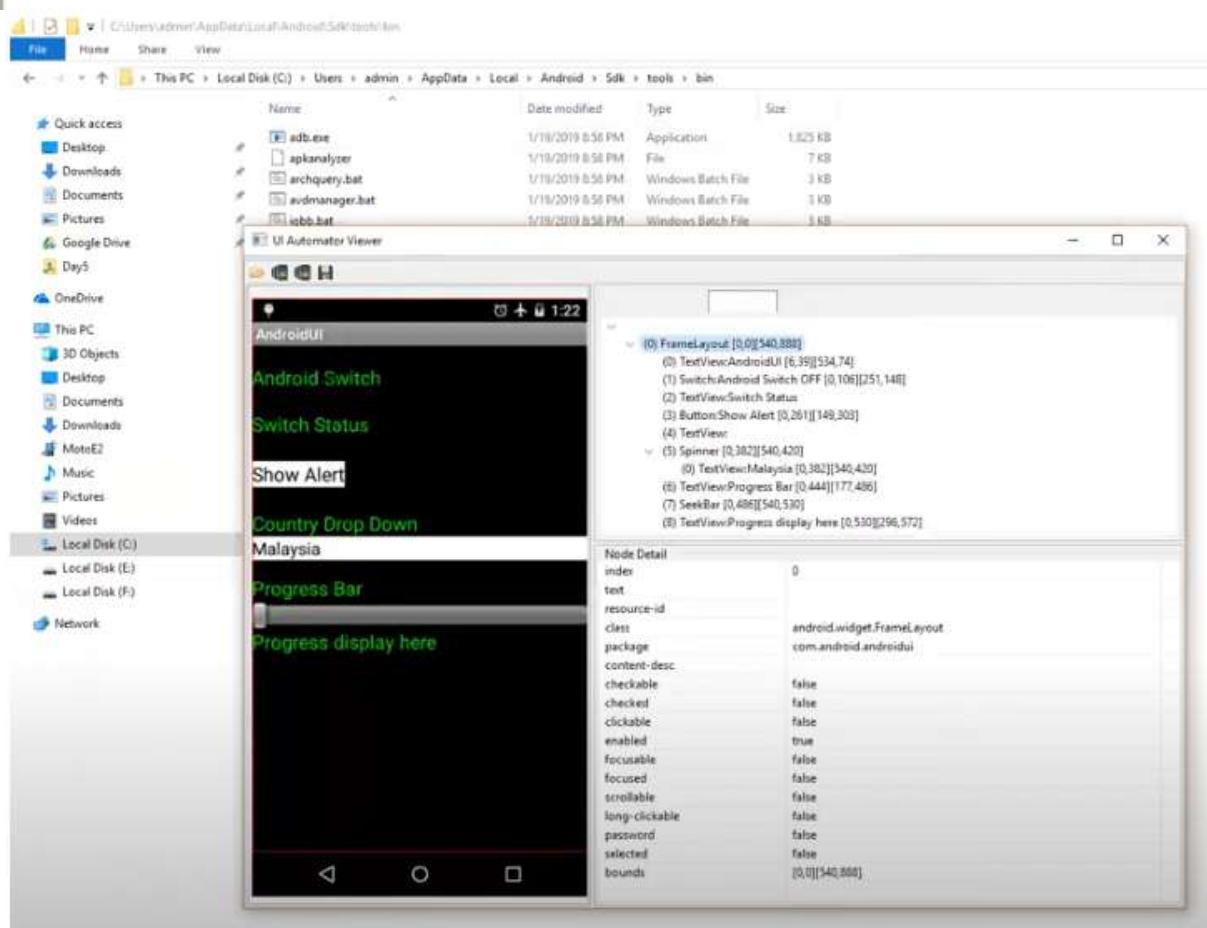
The UI Automator Viewer application window is displayed, showing a blank interface with a toolbar at the top and a main canvas area below.



## Agenda

## Identify Elements using Appium inspector

## Identify Elements using uiautomator



## Eclipse configuration for Appium

\*\*\*\*\*

Android studio

Appium desktop server

----

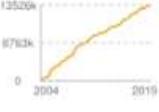
Appium Client Library (java-client-7.0.0.jar)

Selenium stand-alone server( Selenium Java jars)

Commons lang3 (commons-lang3-3.8.1.jar)

Maven Repository: Search/Browse X + https://mvnrepository.com

### What's New in Maven

Indexed Artifacts (13.5M) 

Search for groups, artifacts, categories  Search

**JMES Path Query Library** com.amazonaws:jmespath-java:1.11.489 182 usages Apache  
Implementation of the JMES Path JSON Query language for Java.  
Last Release on Jan 25, 2019

**AWS Java SDK For The AWS Simple Systems Management (SSM) Service** com.amazonaws:aws-java-sdk-ssm:1.11.489 40 usages Apache  
The AWS Java SDK for AWS Simple Systems Management Service holds the client classes that are used for communicating with the AWS Simple Systems Management Service.  
Last Release on Jan 25, 2019

**AWS SDK For Java Test Utils** com.amazonaws:aws-java-sdk-test-utils:1.11.489 163 usages Apache  
The AWS SDK for Java - Test Utils module holds all the utilities that are used by the tests.  
Last Release on Jan 25, 2019

**AWS Java SDK For Amazon SQS** com.amazonaws:aws-java-sdk-sqs:1.11.489 152 usages Apache  
The AWS Java SDK for Amazon SQS module holds the client classes that are used for communicating with Amazon Simple Queue Service.  
Last Release on Jan 25, 2019

Popular Categories

- Aspect Oriented
- Actor Frameworks
- Application Metrics
- Build Tools
- Bytecode Libraries
- Command Line Parsers
- Cache Implementations
- Cloud Computing
- Code Analyzers
- Collections
- Configuration Libraries
- Core Utilities
- Date and Time Utilities
- Dependency Injection
- Embedded SQL Databases
- HTML Parsers

Maven Repository: APPUIUM JAVA X + https://mvnrepository.com/search?q=APPUIUM+JAVA+CLIENT

### APPUIUM JAVA CLIENT

Found 36578 results

Sort: relevance | popular | newest

**1. Java Client** io.appium:java-client: 111 usages Apache  
Java client for Appium Mobile Webdriver.  
Last Release on Dec 27, 2018

**2. MySQL Connector/J** mysql:mysql-connector-java: 3,354 usages GPL  
JDBC Type 4 driver for MySQL.  
Last Release on Jan 21, 2019

**3. Jersey Core Client** org.glassfish.jersey.core:jersey-client: 892 usages EDL BSD Apache  
Jersey core client implementation.  
Last Release on Jan 21, 2019

Repository

- Central 29.2k
- Sonatype 16.4k
- Spring Plugins 8.0k
- Spring Lib M 7.4k
- iCenter 1.4k
- Spring Lib Release 1.4k
- IBiblio 1.4k
- Clouars 1.0k

Group

- com.github 2.9k
- org.apache 1.3k
- com.google 513
- org.eclipse 467
- org.jboss 467
- io.github 429
- net.java 394
- net.sf 381

Maven Repository - io.appium > Java Client » 7.0.0

Indexed Artifacts (13.5M)

Java Client » 7.0.0

Java client for Appium Mobile Webdriver

Popular Categories

- Aspect Oriented
- Actor Frameworks
- Application Metrics
- Build Tools
- Bytecode Libraries
- Command Line Parsers
- Cache Implementations
- Cloud Computing
- Code Analyzers
- Collections
- Configuration Libraries
- Core Utilities
- Date and Time Utilities
- Dependency Injection
- Embedded SQL Databases
- HTML Parsers
- HTTP Clients
- I/O Utilities
- JDBC Extensions
- JDBC Pools
- IPA Implementations
- ...

Java Client » 7.0.0

Apache 2.0

HomePage: http://appium.io

Date: (Dec 27, 2018)

Files: jar (359 KB) View All

Repositories: Central

Used By: 113 artifacts

Maven Gradle SBT Ivy Grape Leiningen Builder

```
<!-- https://mvnrepository.com/artifact/io.appium/java-client -->
<dependency>
    <groupId>io.appium</groupId>
    <artifactId>java-client</artifactId>
    <version>7.0.0</version>
</dependency>
```

# Include comment with link to declaration

Copied to clipboard!

Compile Dependencies (12)

Category / License	Group / Artifact	Version	Updates
By vendor	com.libphonenumber:libphonenumber:3.2.8	3.2.8	3.2.10

Selenium - Web Browser Automation

<https://www.seleniumhq.org>

[Standard] Tickets for [SeleniumConf Tokyo] are on sale NOW Go [HERE!](#)

edit this page search selenium:  Go

Browser Automation Projects Download Documentation Support About

### What is Selenium?

Selenium automates browsers. That's it! What you do with that power is entirely up to you. Primarily, it is for automating web applications for testing purposes, but is certainly not limited to just that. Boring web-based administration tasks can (and should!) be automated as well.

Selenium has the support of some of the largest browser vendors who have taken (or are taking) steps to make Selenium a native part of their browser. It is also the core technology in countless other browser automation tools, APIs and frameworks.



**Which part of Selenium is appropriate for me?**

**Selenium WebDriver**



If you want to

- create robust, browser-based regression automation suites and tests
- scale and distribute scripts across many environments

Then you want to use [Selenium WebDriver](#): a collection of language specific bindings to drive a browser -- the way it is meant to be driven.

**Selenium IDE**



If you want to

- create quick bug reproduction scripts
- create scripts to aid in automation-aided exploratory testing

Then you want to use [Selenium IDE](#): a Chrome or Firefox add-on that will do simple record-

**Selenium is a suite of tools** to automate web browsers across many platforms.

**Selenium...**

- runs in [many browsers](#) and [operating systems](#)
- can be controlled by many programming languages and testing frameworks

[Download Selenium](#)

**Donate to Selenium** with PayPal

<https://www.seleniumhq.org/downloads/>

[Standard] Tickets for [SeleniumConf Tokyo] are on sale NOW Go [HERE!](#)

edit this page search selenium:  Go

Projects Downloads Documentation Support About

### Downloads

Below is where you can find the latest releases of all the Selenium components. You can also find a list of [available releases](#), [source code](#), and additional information for [Selenese API](#) (Maven is a popular Java build tool).

**Selenium Standalone Server**

The Selenium Server is needed in order to run Remote Selenium WebDriver. Selenium 3.X is no longer capable of running Selenium RC directly, rather it does it through emulation and the WebDriverBackedSelenium interface.

[Download version 3.14.0](#)

To run Selenium tests exported from the legacy IDE, use the [Selenese IDE](#).

**The Internet Explorer Driver Server**

This is required if you want to make use of the latest and greatest features of the IEDriver InternetExplorerDriver. Please make sure that this is available on your PATH (or %PATH% on Windows) in order for the IE Driver to work at all.

[Download version 3.14.0 for \(recommended\) 32-bit Windows 10 or 64-bit Windows 10](#)

**CHROMELOG**

**Selenium Client & WebDriver Language Bindings**

In order to create clients that interact with the Selenium Server (Selenium RC, Selenium Remote WebDriver) or create local Selenium WebDriver scripts, you need to make use of language-specific client drivers. These languages include both 1.x and 2.x style clients:

While language bindings for [other languages exist](#), these are the ones that are supported by the main project hosted on GitHub.

Language	Client Version	Release Date	Download	Changelog	Issues
Java	3.14.0	2018-11-14	<a href="#">Download</a>	<a href="#">Changelog</a>	<a href="#">Issues</a>
C#	3.14.0	2018-08-02	<a href="#">Download</a>	<a href="#">Changelog</a>	<a href="#">Issues</a>
Ruby	3.14.0	2018-08-02	<a href="#">Download</a>	<a href="#">Changelog</a>	<a href="#">Issues</a>
Python	3.14.0	2018-08-02	<a href="#">Download</a>	<a href="#">Changelog</a>	<a href="#">Issues</a>
JavaScript (Node.js)	4.10.0-alpha.1	2018-01-17	<a href="#">Download</a>	<a href="#">Changelog</a>	<a href="#">Issues</a>
Go	1.10.0	2018-08-02	<a href="#">Download</a>	<a href="#">Changelog</a>	<a href="#">Issues</a>

**CI Status**

Selenium latest release is 3.14.0, released on 2018-08-02.

Maven Repository: Commons lang3

Commons lang3

Repository

- Central 3.9k
- Sonatype 1.6k
- Spring Plugins 1.0k
- Spring Lib M 1.0k
- IBiblio 219
- JCenter 198
- Spring Lib Release 173
- Apache Releases 143

Group

- org.apache 470
- org.wso2 367
- com.github 253
- com.cedarsoft 147
- org.xerial 116
- org.eclipse 91
- org.jvnet 89
- org.research 61

Category

- Android Package 322
- Eclipse Plugins 32
- Maven Plugins 33
- Web App 29
- NetBeans Module 7
- Collections 6

Found 5408 results

Sort: relevance | popular | newest

- Apache Commons Lang**  
org.apache.commons > commons-lang3  
Apache Commons Lang, a package of Java utility classes for the classes that are in java.lang's hierarchy, or are considered to be so standard as to justify existence in java.lang.  
Last Release on Sep 19, 2018
- Apache Commons IO**  
commons-io > commons-io  
The Apache Commons IO library contains utility classes, stream implementations, file filters, file comparators, endian transformation classes, and much more.  
Last Release on Oct 15, 2017
- Apache Commons Logging**  
commons-logging > commons-logging  
Apache Commons Logging is a thin adapter allowing configurable bridging to other, well known logging systems.  
Last Release on Jul 5, 2014
- Commons Lang**  
commons-lang > commons-lang  
Commons Lang, a package of Java utility classes for the classes that are in java.lang's hierarchy, or are considered to be so standard as to justify existence in java.lang.  
Last Release on Jan 16, 2011
- Apache Commons Codec**  
commons-codec > commons-codec

Maven Repository: org.apache:commons-lang3:3.8.1

Indexed Artifacts (13.5M)

Apache Commons Lang > 3.8.1

Apache Commons Lang, a package of Java utility classes for the classes that are in java.lang's hierarchy, or are considered to be so standard as to justify existence in java.lang.

License	Apache 2.0
Categories	Core Utilities
HomePage	<a href="http://commons.apache.org/proper/commons-lang/">http://commons.apache.org/proper/commons-lang/</a>
Date	(Sep 19, 2018)
Files	[jar / 600 KB] View All
Repositories	Central JCenter
Used By	12,180 artifacts

```

<dependency>
    <groupId>org.apache.commons</groupId>
    <artifactId>commons-lang3</artifactId>
    <version>3.8.1</version>
</dependency>

```

Include comment with link to declaration

opentext | HIGHTAIL More creative, less process. Keep your ideas moving with Hightail. Try it free >

Compile Dependencies (0)

Category/License	Group / Artifact	Version	Updates
------------------	------------------	---------	---------

myworkspace - Eclipse IDE

File Edit Source Refactor Navigate Search Project Git Run Window Help

Package Explorer

- AppiumProject
- CucumberProject
- ExtentReporting4
- inetBankingV1
- inetBankingV3\_MorningBatch
- JavaDemos
- nopCommerce
- PHPTravels
- RentAssuredAPITesting
- SelectRestAssured
- SeleniumEveningBatch
- SeleniumwithJavaDemos

Create a Java Project

Create a Java Project

New Java Project

Project name: Appium\_Mobile\_Test\_Project

Use default location: C:\Users\admin\myworkspace\Appium\_Mobile\_Test\_Project

JRE

Use an execution environment JRE: JavaSE-10

Use a project specific JRE: jdk-11.0.2

Use default JRE (currently jdk-11.0.2)

Project layout

Use project folder as root for sources and class files

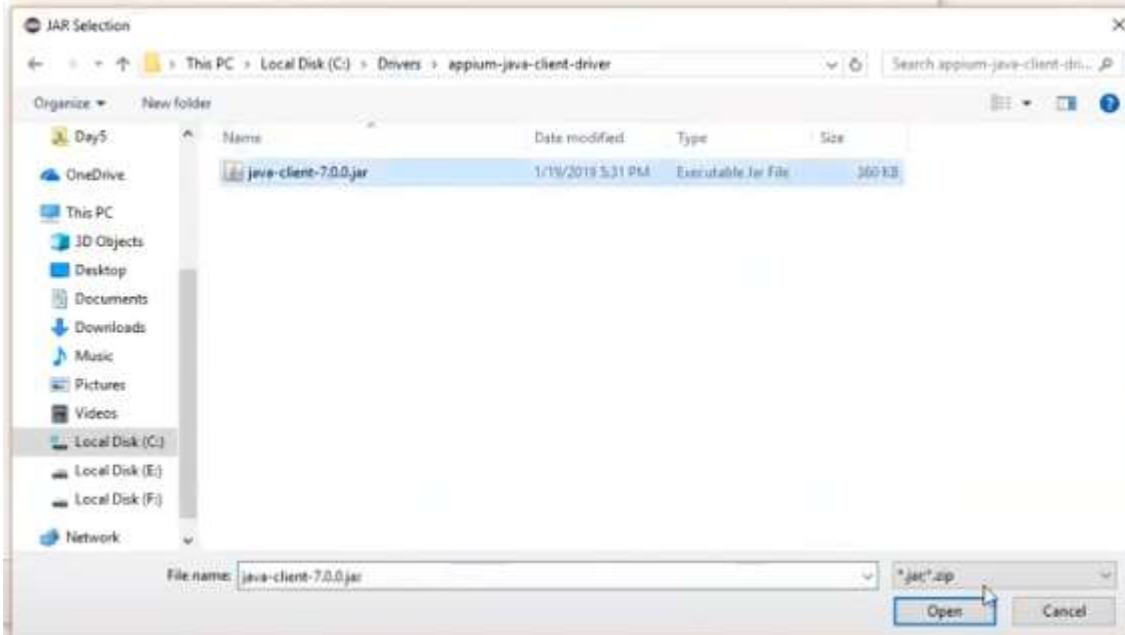
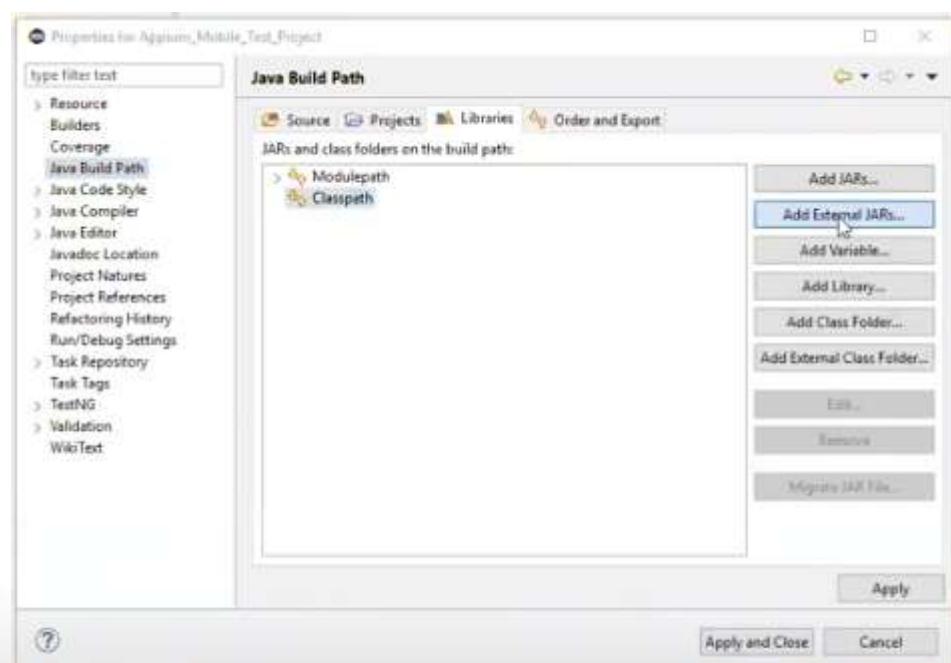
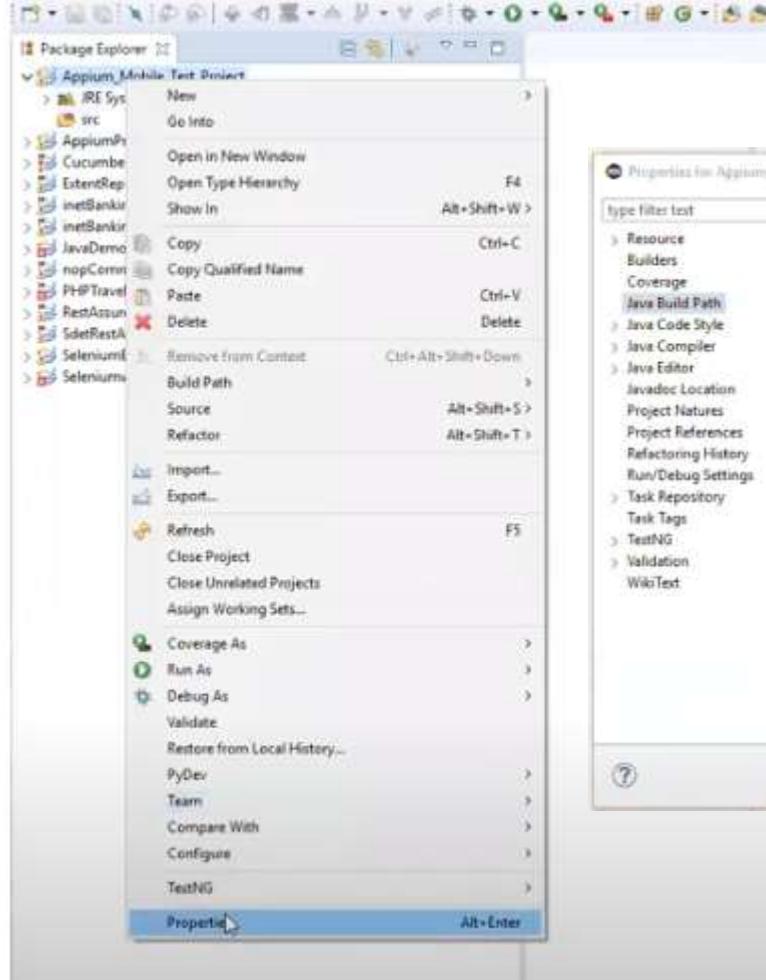
Create separate folders for sources and class files

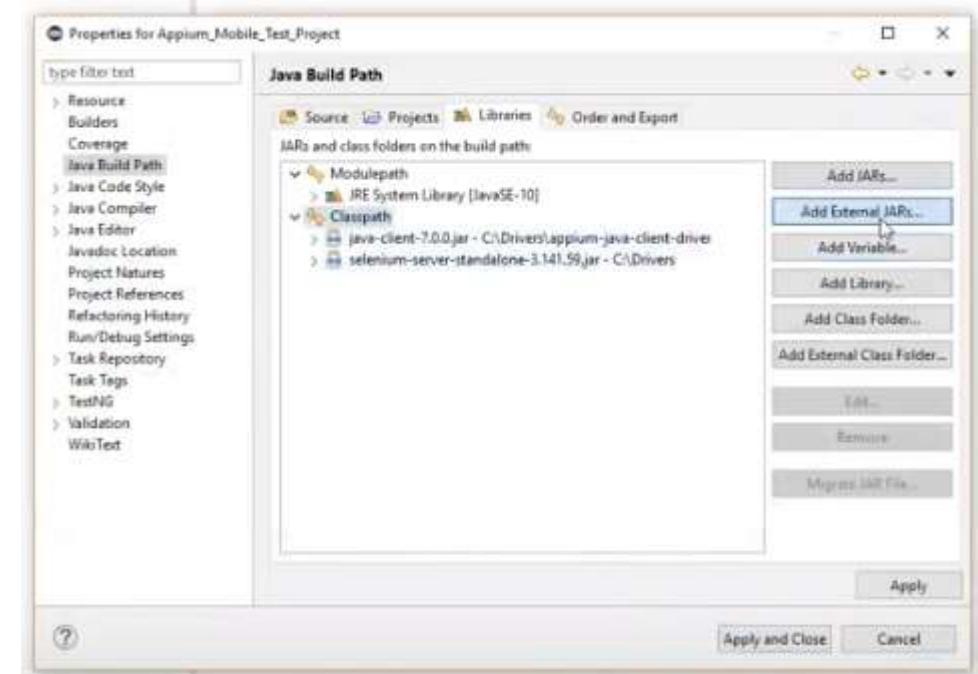
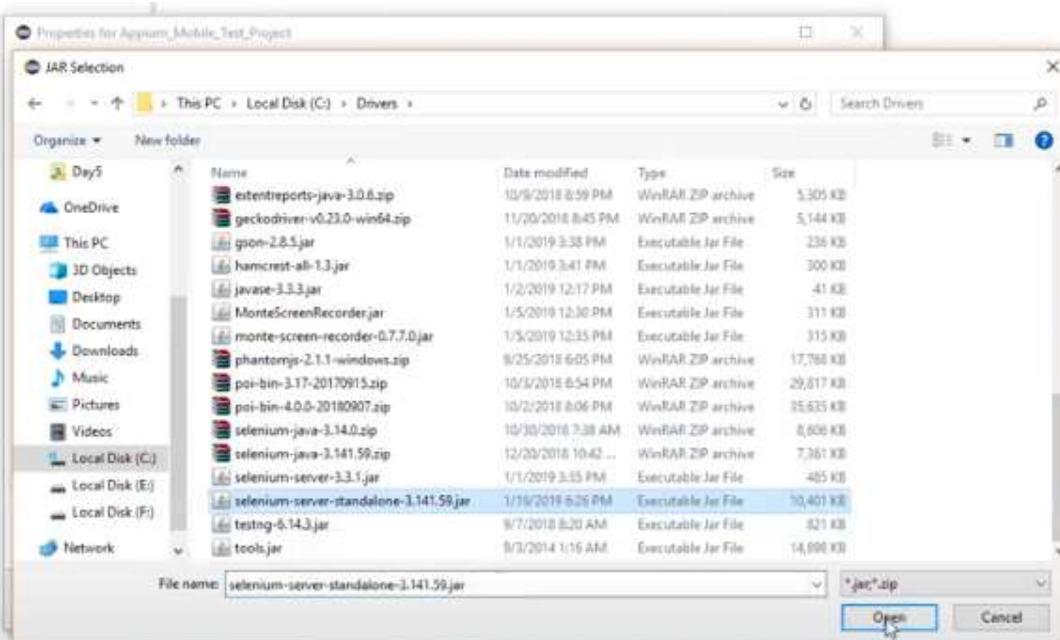
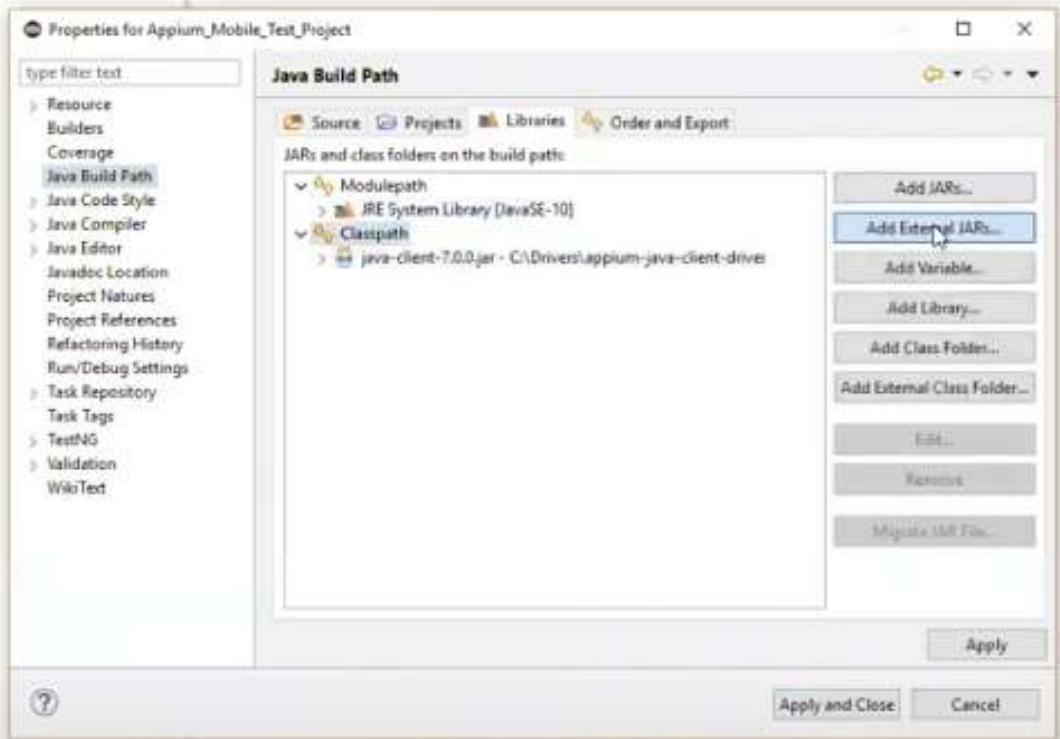
Working sets

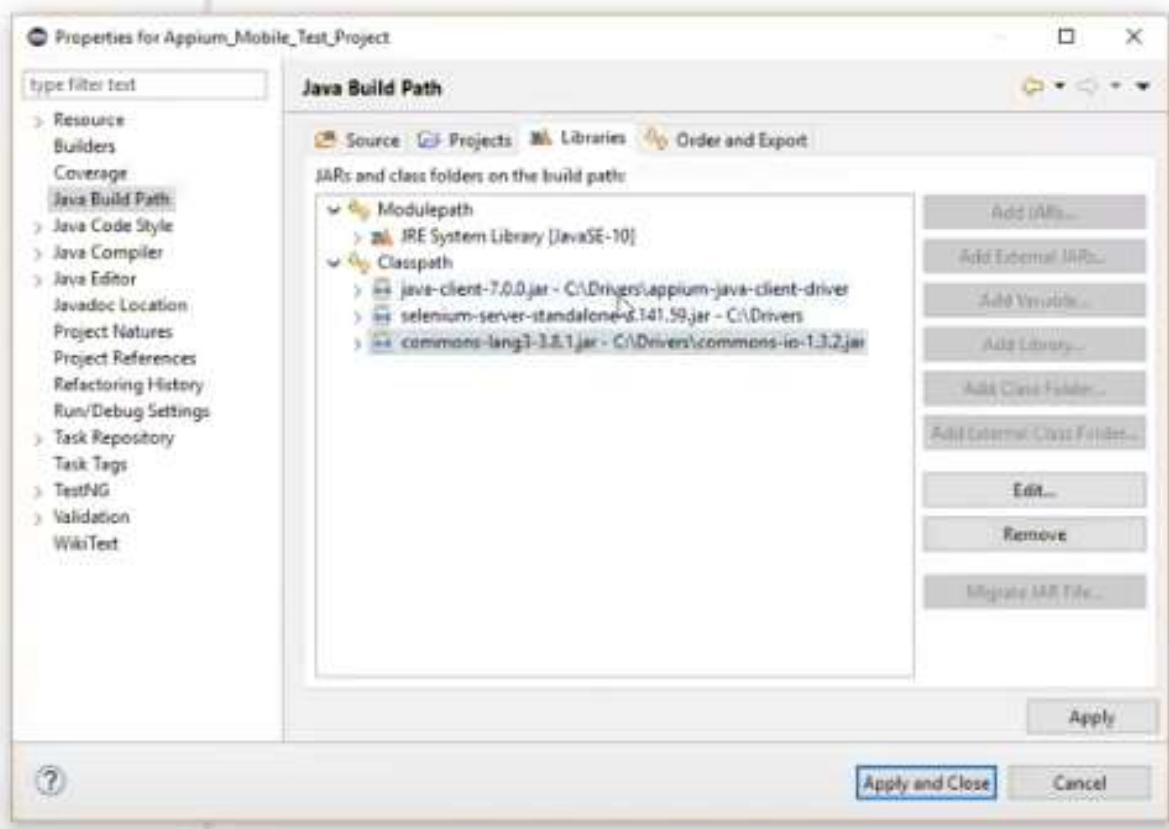
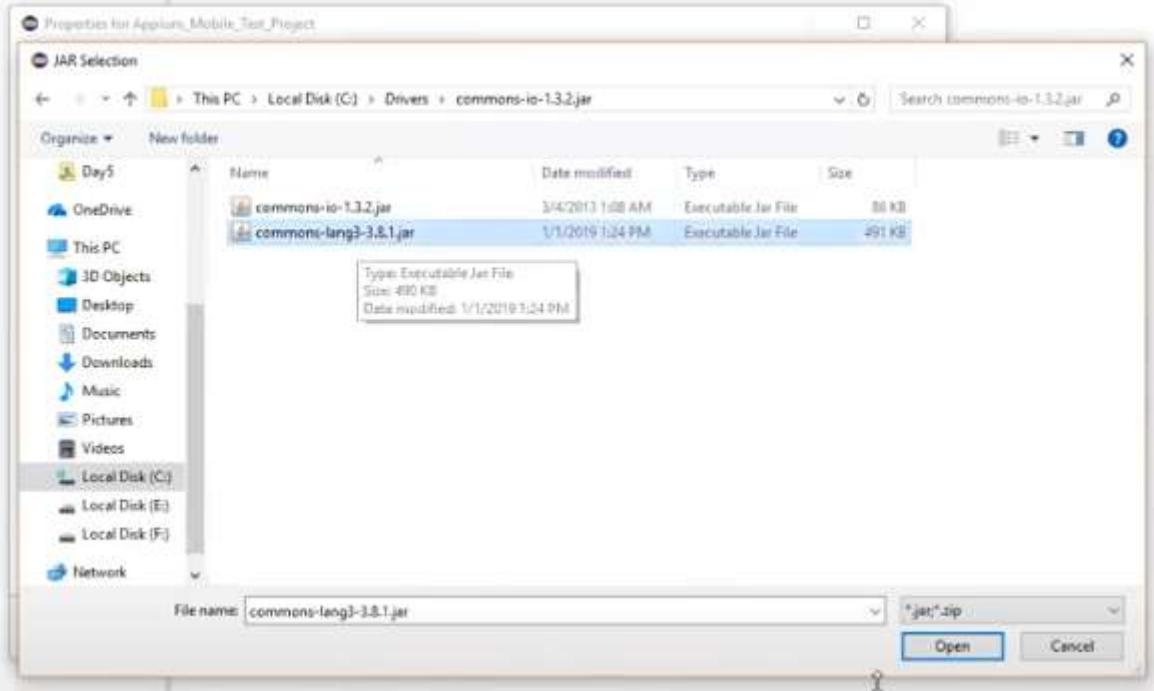
Add project to working sets

Working sets: Select...

Finish Cancel







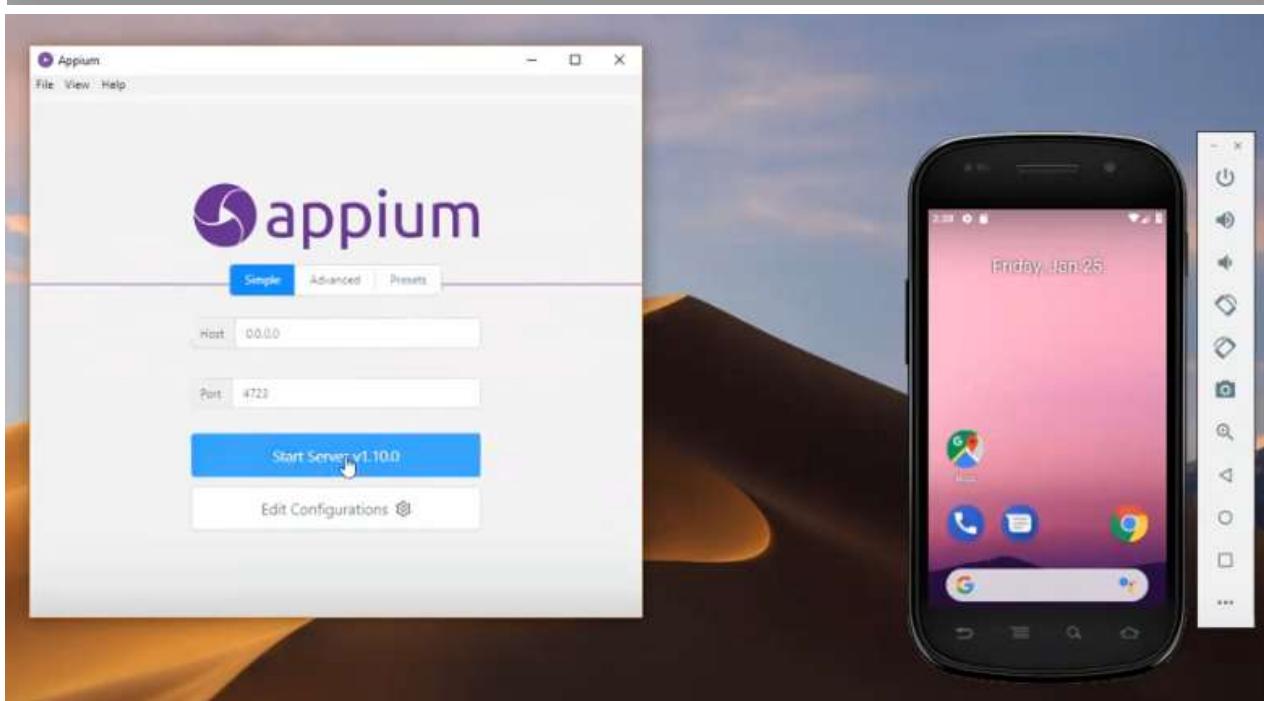
How to write program to Install Apk file(App) on...

- Virtual Device
- Real Device

Your Virtual Devices

Type	Name	Play Store	Resolution	API	Target	CPU/ABI	Size on Disk	Actions
	Nexus 5X API 28-Emu		1080 x 1920: 420dpi	28	Android 9.0 (Google Play)	x86	10 GB	
	Nexus 5 API 28_mydevice2		480 x 800: hdpi	28	Android 9.0 (Google APIs)	x86	3.1 GB	

+ Create Virtual Device...



## Script for Install Apk file(App) on Emulator(Virtual Device)

```

import java.net.URL;
import org.openqa.selenium.remote.DesiredCapabilities;
import io.appium.java_client.android.AndroidDriver;
import io.appium.java_client.remote.MobileCapabilityType;

public class Example2InstallAppAndroidEmulator {
    public static void main(String[] args) throws Exception {
        DesiredCapabilities dc= new DesiredCapabilities();
        dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
        dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
        dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "9.0");
        dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android Emulator");
        dc.setCapability(MobileCapabilityType.APP, "F:\\Google Drive\\Training Materials\\Appium\\Apk Files\\IndiaMART.apk");
        URL url =new URL("http://127.0.0.1:4723/wd/hub");
        AndroidDriver driver= new AndroidDriver(url,dc);
    }
}

```

# Required Desired Capabilities

- DesiredCapabilities dc= new DesiredCapabilities();
- dc.setCapability(MobileCapabilityType.AUTOMATION\_NAME, "Appium");
- dc.setCapability(MobileCapabilityType.PLATFORM\_NAME, "Android");
- dc.setCapability(MobileCapabilityType.PLATFORM\_VERSION, "5.1");
- dc.setCapability(MobileCapabilityType.DEVICE\_NAME, "Android");
- dc.setCapability(MobileCapabilityType.APP, "F:\Google Drive\Training Materials\Apium\Apk Files\IndiaMART.apk");

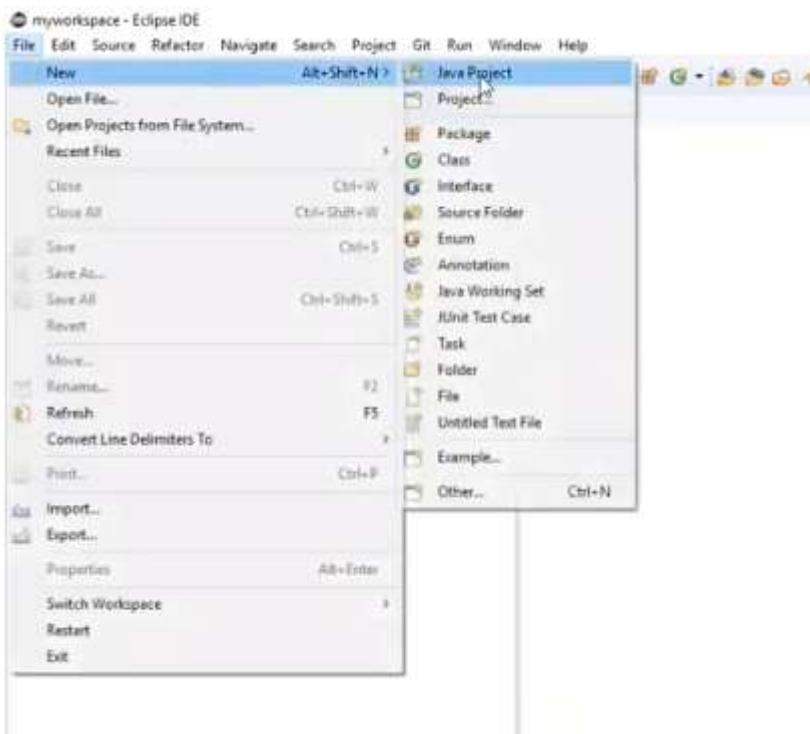
## Script for Install Apk file(App) on Emulator(Virtual Device)

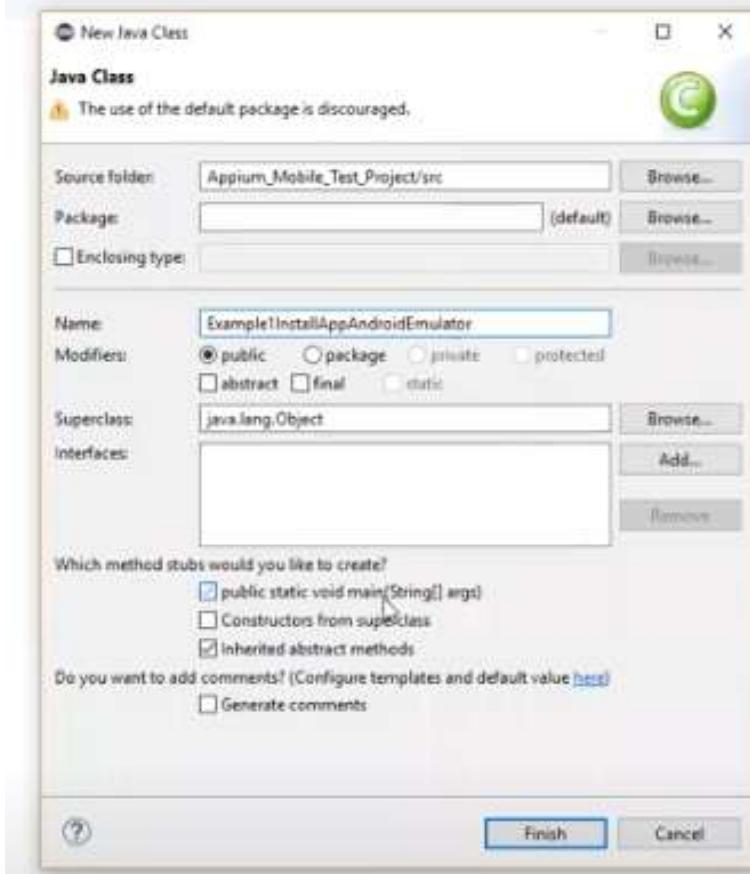
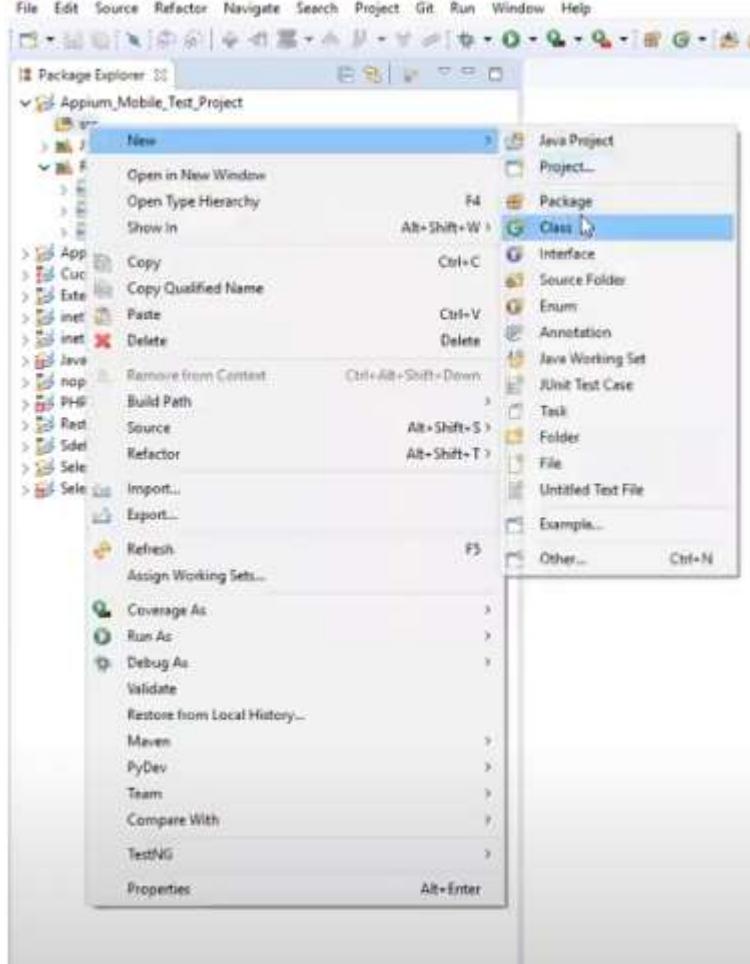
```
import java.net.URL;

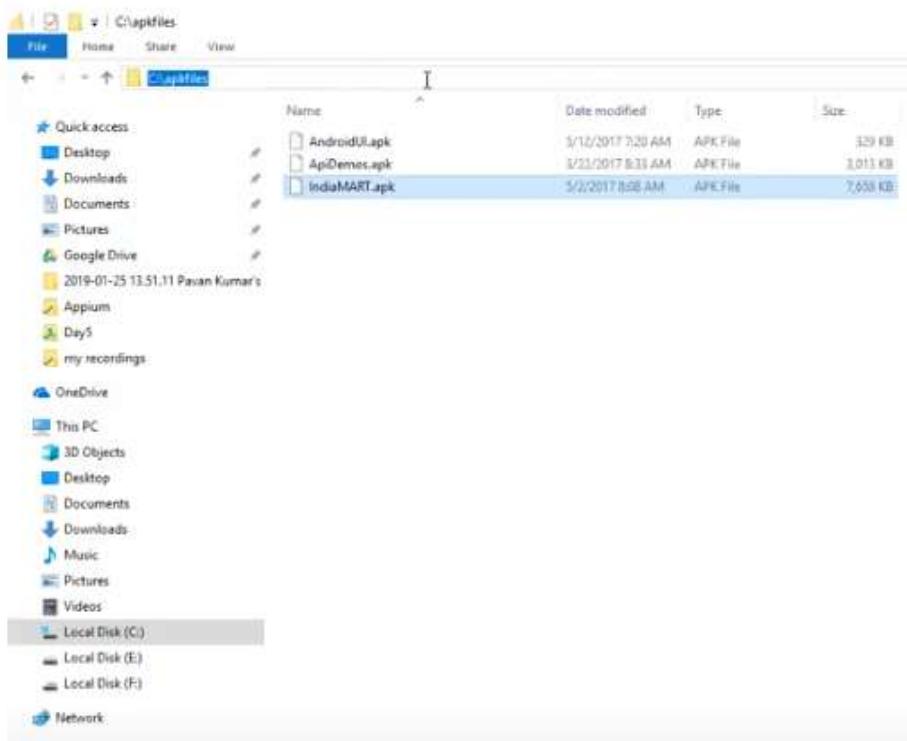
import org.openqa.selenium.remote.DesiredCapabilities;
import io.appium.java_client.android.AndroidDriver;
import io.appium.java_client.remote.MobileCapabilityType;

public class Example2InstallAppAndroidEmulator {

    public static void main(String[] args) throws Exception {
        DesiredCapabilities dc= new DesiredCapabilities();
        dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
        dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
        dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, 9.0);
        dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android Emulator");
        dc.setCapability(MobileCapabilityType.APP, "F:\Google Drive\Training Materials\Apium\Apk Files\IndiaMART.apk");
        URL url =new URL("http://127.0.0.1:4723/wd/hub");
        AndroidDriver driver= new AndroidDriver(url,dc);
    }
}
```







File Explorer - Appium\_Mobile\_Tut\_Project\src\main\java\com\example\installapp\ExampleInstallAppAndroidEmulator.java - Eclipse IDE

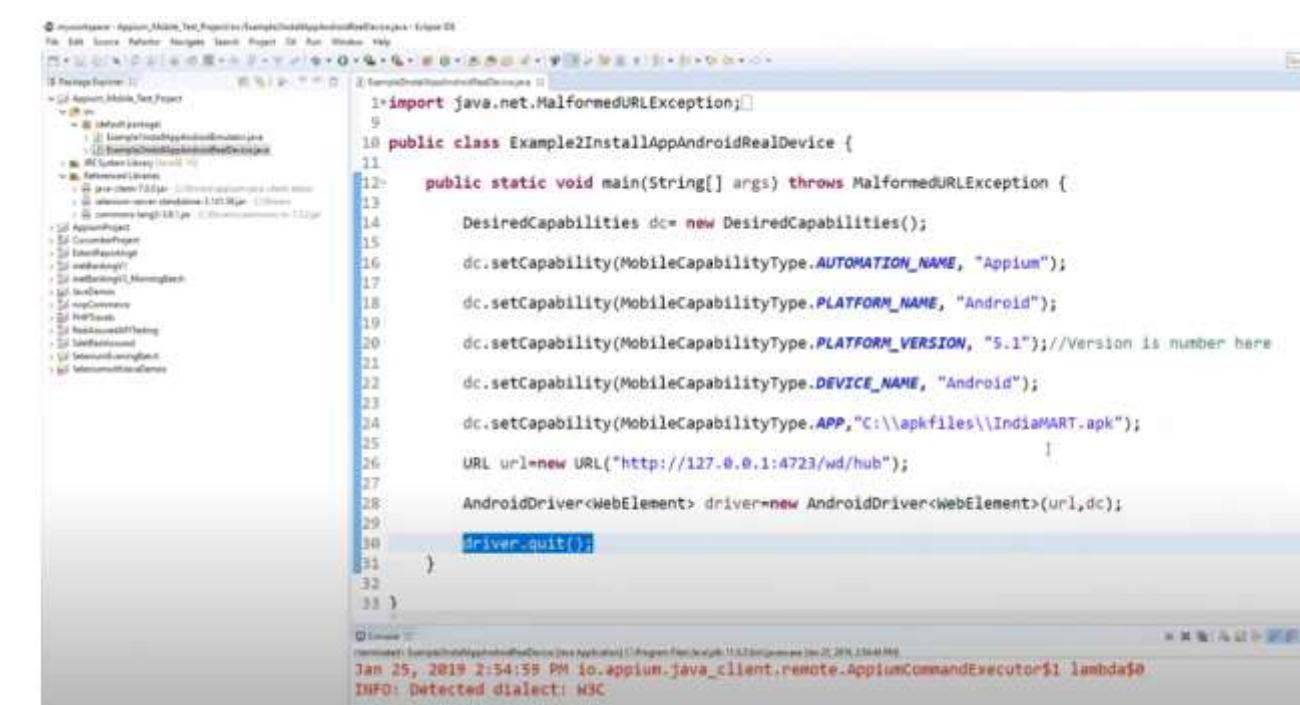
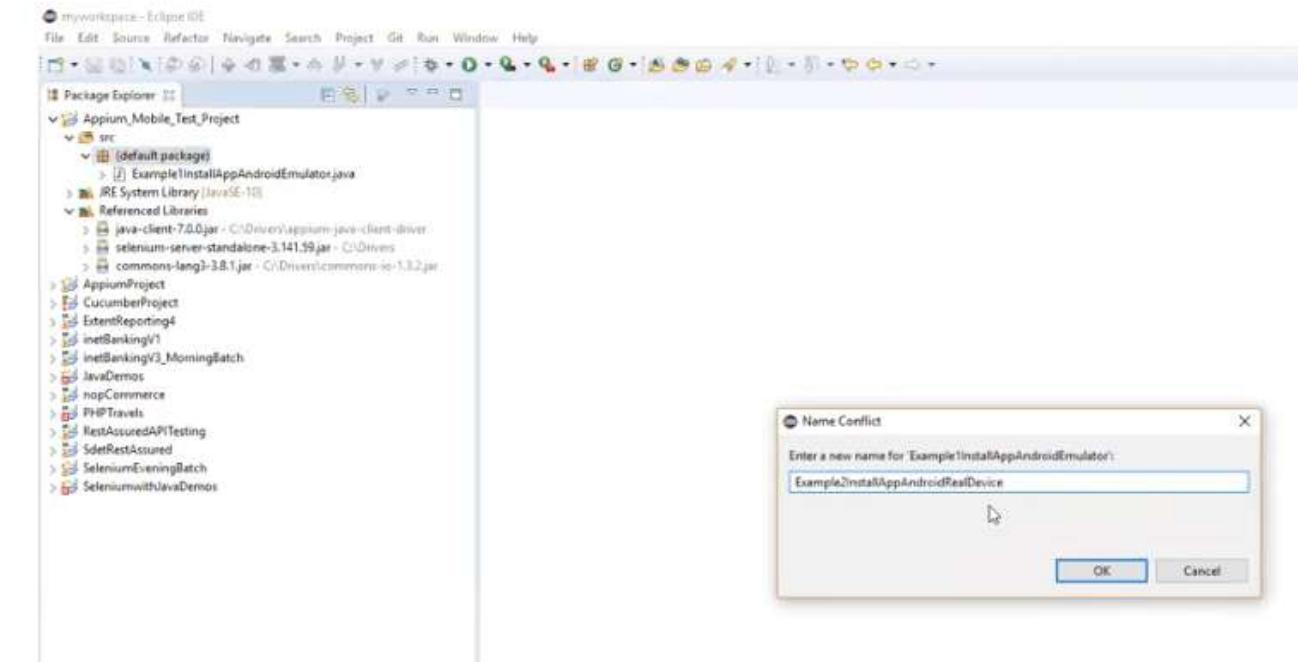
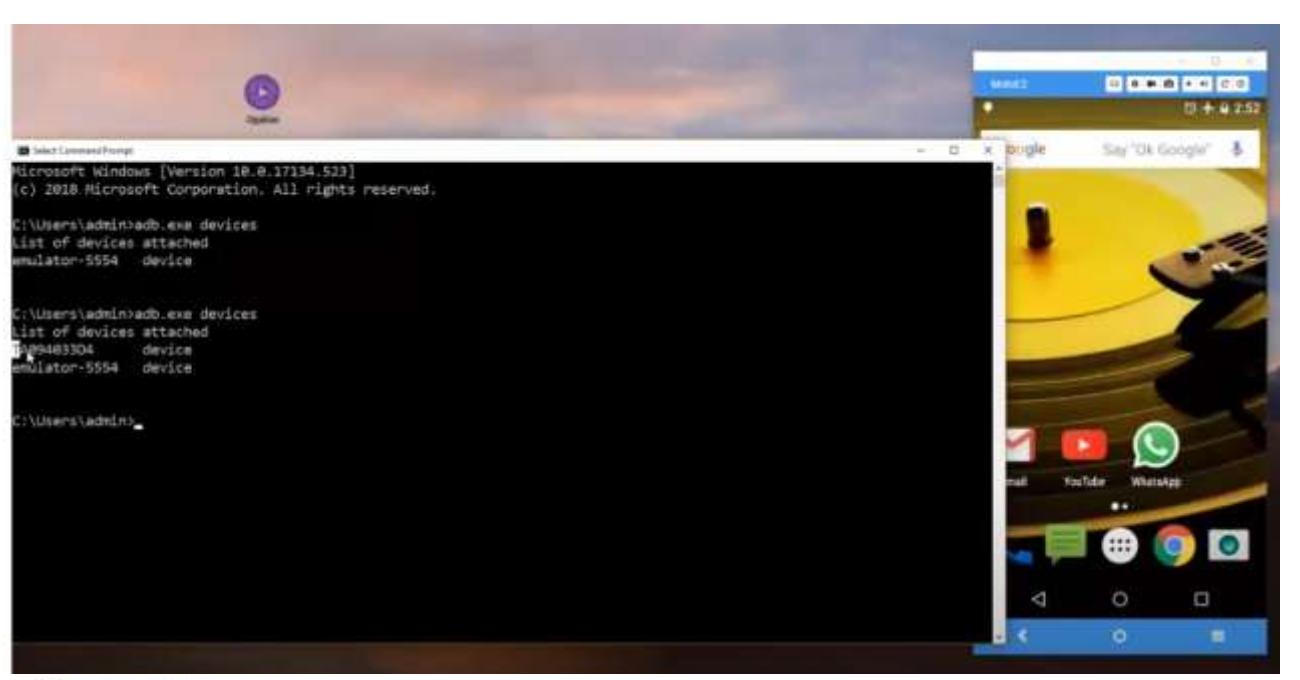
```
3
4 import org.openqa.selenium.WebElement;
5 import org.openqa.selenium.remote.DesiredCapabilities;
6
7 import io.appium.java_client.android.AndroidDriver;
8 import io.appium.java_client.remote.MobileCapabilityType;
9
10 public class ExampleInstallAppAndroidEmulator {
11
12     public static void main(String[] args) throws MalformedURLException {
13
14         DesiredCapabilities dc= new DesiredCapabilities();
15
16         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
17
18         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
19
20         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, 9.0); //Version is number here
21
22         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android Emulator");
23
24         dc.setCapability(MobileCapabilityType.APP,"C:\\apkfiles\\IndiaMART.apk");
25
26         URL url=new URL("http://127.0.0.1:4723/wd/hub");
27
28         AndroidDriver<WebElement> driver=new AndroidDriver<WebElement>(url,dc);
29
30
31     }
32
33 }
34 }
```

File Explorer - Appium\_Mobile\_Tut\_Project\src\main\java\com\example\installapp\ExampleInstallAppAndroidEmulator.java - Eclipse IDE

```
3
4 import org.openqa.selenium.WebElement;
5 import org.openqa.selenium.remote.DesiredCapabilities;
6
7 import io.appium.java_client.android.AndroidDriver;
8 import io.appium.java_client.remote.MobileCapabilityType;
9
10 public class ExampleInstallAppAndroidEmulator {
11
12     public static void main(String[] args) throws MalformedURLException {
13
14         DesiredCapabilities dc= new DesiredCapabilities();
15
16         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
17
18         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
19
20         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, 9.0); //Version is number here
21
22         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android Emulator");
23
24         dc.setCapability(MobileCapabilityType.APP,"C:\\apkfiles\\IndiaMART.apk");
25
26         URL url=new URL("http://127.0.0.1:4723/wd/hub");
27
28         AndroidDriver<WebElement> driver=new AndroidDriver<WebElement>(url,dc);
29
30         driver.quit();
31     }
32
33 }
34 }
```

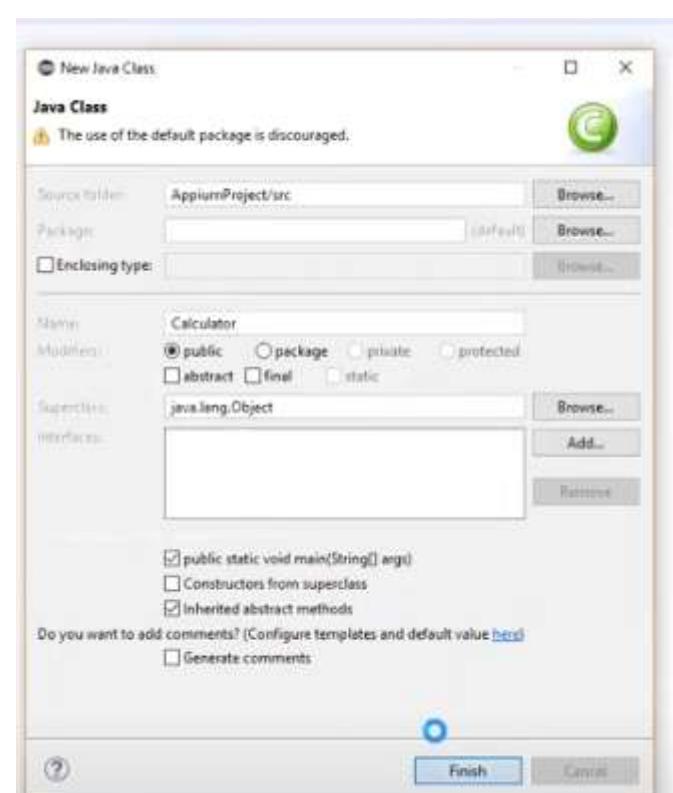
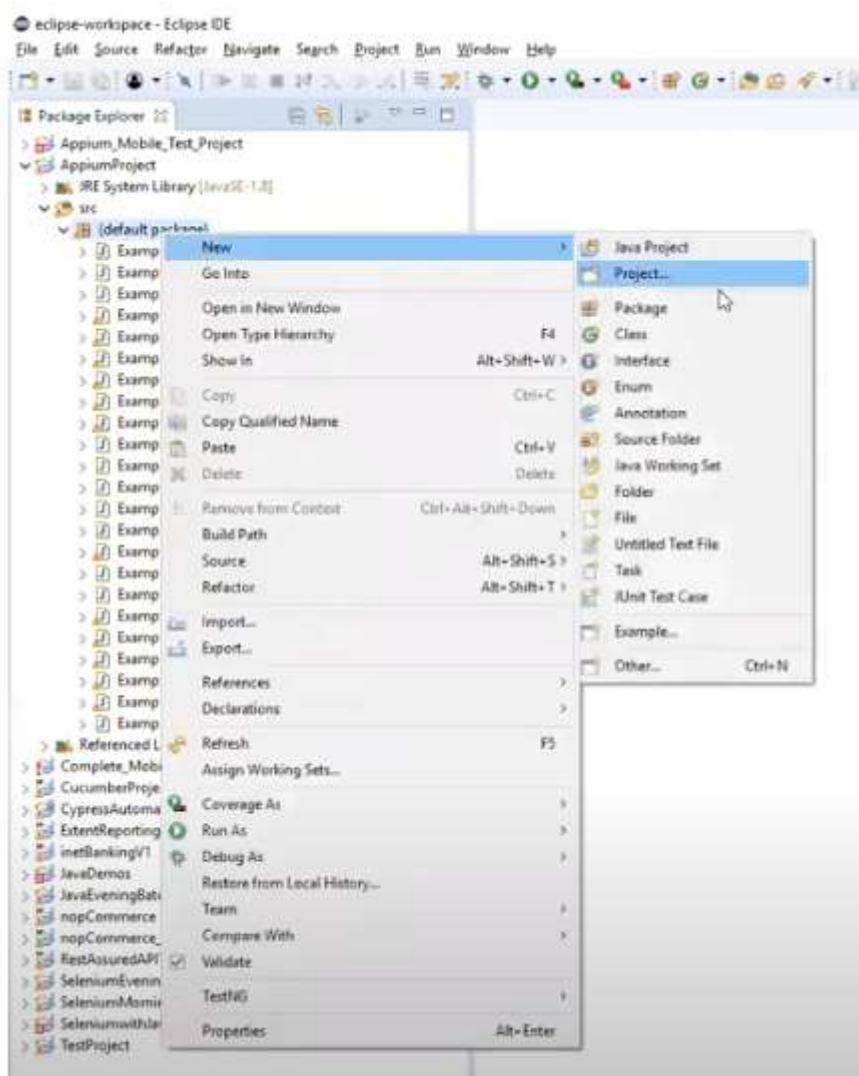
Console Output:

```
Jan 25, 2019 2:49:36 PM io.appium.java_client.remote.AppiumCommandExecutor$1 lambda$0
INFO: Detected dialect: w3c
```



# Calculator

- **appPackage** : com.android.calculator2
- **appActivity** : com.android.calculator2.Calculator



eclipse-workspace - AppiumProject/src/Calculator.java - Eclipse IDE

```
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer Calculator.java
Appium_Mobile_Test_Project
  JRE System Library [JavaSE-1.8]
    src
      (default package)
        Calculator.java
        Example10ExpandableList.java
        Example11DatePicker.java
        Example12SpinnerAPIDemo.java
        Example13SeekBar.java
        Example14RatingStar.java
        Example15SwipeTouchAction.java
        Example16InstallAppRealDevice.java
        Example17InstallAndroidEmulator.java
        Example18HandleSwitchOnRealDevice.java
        Example19HandleSwitchUsingPathFromInspector.java
        Example20HandleDropDownsByClassName.java
        Example21HandleDropDownsByIndex.java
        Example22HandleAPIDemo.java
        Example23HandleAlerts.java
        Example24PopUpAPIDemo.java
        Example25DragAndDropAction.java
        Example26HorizontalScrolling.java
        Example27VerticalScrolling.java
        Example28SwitchesInAPIDemosAPP.java
        Example29CheckboxesRadioButtonTextField.java
      Referenced Libraries
        Complete_MobileAutomation_28Dec_730AM
        CucumberProject
        CypressAutomation
        ExtentReporting4
        inettRankingV1
        JavaDemos
        JavaEveningBatch
        nopCommerce
        nopCommerce_V001
        RestAssuredAPITesting
        SeleniumEveningBatch
        SeleniumMorningBatch
        SeleniumWithJavaDemos
        TestProject
```

Calculator.java

```
1 import org.openqa.selenium.DesiredCapabilities;
2
3 import io.appium.java_client.remote.MobileCapabilityType;
4
5 public class Calculator {
6
7     public static void main(String[] args) {
8
9         DesiredCapabilities dc = new DesiredCapabilities();
10
11         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
12
13         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android"); // Android Emulator
14
15         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
16
17         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");
18
19         dc.setCapability("appPackage", "com.android.calculator2");
20         dc.setCapability("appActivity", "com.android.calculator2.Calculator");
21
22     }
23
24 }
```

eclipse-workspace - AppiumProject/src/Calculator.java - Eclipse IDE

```
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer Calculator.java
Appium_Mobile_Test_Project
  JRE System Library [JavaSE-1.8]
    src
      (default package)
        Calculator.java
        Example10ExpandableList.java
        Example11DatePicker.java
        Example12SpinnerAPIDemo.java
        Example13SeekBar.java
        Example14RatingStar.java
        Example15SwipeTouchAction.java
        Example16InstallAppRealDevice.java
        Example17InstallAndroidEmulator.java
        Example18HandleSwitchOnRealDevice.java
        Example19HandleSwitchUsingPathFromInspector.java
        Example20HandleDropDownsByClassName.java
        Example21HandleDropDownsByIndex.java
        Example22HandleAPIDemo.java
        Example23HandleAlerts.java
        Example24PopUpAPIDemo.java
        Example25DragAndDropAction.java
        Example26HorizontalScrolling.java
        Example27VerticalScrolling.java
        Example28SwitchesInAPIDemosAPP.java
        Example29CheckboxesRadioButtonTextField.java
      Referenced Libraries
        Complete_MobileAutomation_28Dec_730AM
        CucumberProject
        CypressAutomation
        ExtentReporting4
        inettRankingV1
        JavaDemos
        JavaEveningBatch
        nopCommerce
        nopCommerce_V001
        RestAssuredAPITesting
        SeleniumEveningBatch
        SeleniumMorningBatch
        SeleniumWithJavaDemos
        TestProject
```

Calculator.java

```
1 import java.net.MalformedURLException;
2 import java.net.URL;
3
4 import org.openqa.selenium.WebElement;
5 import org.openqa.selenium.remote.DesiredCapabilities;
6
7 import io.appium.java_client.android.AndroidDriver;
8 import io.appium.java_client.remote.MobileCapabilityType;
9
10 public class Calculator {
11
12     public static void main(String[] args) throws MalformedURLException, InterruptedException {
13
14         DesiredCapabilities dc = new DesiredCapabilities();
15
16         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
17
18         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android"); // Android Emulator
19
20         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
21
22         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");
23
24         dc.setCapability("appPackage", "com.android.calculator2");
25         dc.setCapability("appActivity", "com.android.calculator2.Calculator");
26
27         URL url = new URL("http://127.0.0.1:4723/wd/hub");
28
29         AndroidDriver<WebElement> driver = new AndroidDriver<WebElement>(url, dc);
30         Thread.sleep(5000);
31
32     }
33
34 }
```

Calculator.java

```

11
12  public static void main(String[] args) throws MalformedURLException, Int
13
14      DesiredCapabilities dc = new DesiredCapabilities();
15
16      dc.setCapability(Mobil
17
18      dc.setCapability(Mobil
19
20      dc.setCapability(Mobil
21
22      dc.setCapability(Mobil
23
24      dc.setCapability("appP
25      dc.setCapability("appA
26
27      URL url = new URL("htt
28
29      AndroidDriver<WebEleme
30      Thread.sleep(5000);
31
32
33

```

Calculator2

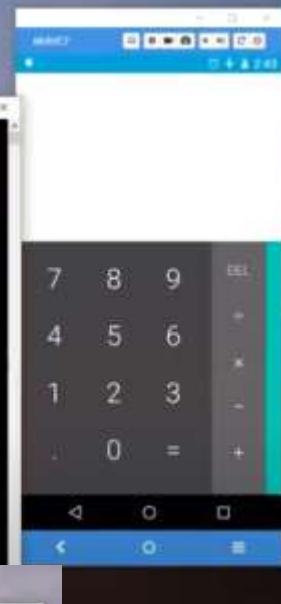
calculator2");  
river<WebElement>(ur");  
NAME, "Appium");  
ME, "Android"); // Ar  
NAME, "Android");  
VERSION, "5.1");  
calculator2");  
lculator2.Calculator'

Run As Java Application Alt+Shift+X, I

Microsoft Windows [Version 10.0.17134.590]  
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\admin>adb.exe kill-server  
C:\Users\admin>adb.exe start-server  
\* daemon not running; starting now at tcp:5037  
\* daemon started successfully

C:\Users\admin>



Appium

File View Help

Start Server v1.10.0

Edit Configurations

Node Detail

Node ID	0
Node Type	View
Node Class	android.widget.EditText
Resource ID	com.android.calculator2:id/edit
Content Description	0.000
Checkable	false
Checked	false
Clickable	true
Enabled	true
Focused	true

eclipse-workspace - AppiumProject/src/Calculator.java - Eclipse IDE

```
20 dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
21 dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");
22 dc.setCapability("appPackage", "com.android.calculator2");
23 dc.setCapability("appActivity", "com.android.calculator2.Calculator");
24 URL url = new URL("http://127.0.0.1:4723/wd/hub");
25
26 AndroidDriver<WebElement> driver = new AndroidDriver<WebElement>(url, dc);
27 Thread.sleep(5000);
28
29 WebElement seven=driver.findElement("com.android.calculator2:id/digit_7"); //7
30 seven.click();
31
32 }
33 }
34 }
35 }
36 }
37 }
38 }
39 }
40 }
41 }
42 }
```

Console

```
<terminated> Calculator (1) [Java Application] C:\Program Files\Java\jre1.8.0_202\bin\java.exe (Mar 7, 2019, 2:42:09 PM)
Mar 07, 2019 2:42:23 PM io.appium.java_client.remote.AppiumCommandExecutor$1 lambda$0
INFO: Detected dialect: W3C
```

eclipse-workspace - AppiumProject/src/Calculator.java - Eclipse IDE

```
23 dc.setCapability("appPackage", "com.android.calculator2");
24 dc.setCapability("appActivity", "com.android.calculator2.Calculator");
25
26 URL url = new URL("http://127.0.0.1:4723/wd/hub");
27
28 AndroidDriver<WebElement> driver = new AndroidDriver<WebElement>(url, dc);
29 Thread.sleep(5000);
30
31 WebElement seven=driver.findElement("com.android.calculator2:id/digit_7"); //7
32 seven.click();
33
34 driver.findElement("com.android.calculator2:id/op_add").click(); //+ BUTTON
35
36 WebElement three=driver.findElement("com.android.calculator2:id/digit_3");
37 three.click();
38
39 driver.findElement("com.android.calculator2:id/eq").click(); // = Button
40
41 driver.findElement("com.android.calculator2:id/result").getText();
42
43
44
45 }
```

eclipse-workspace - AppiumProject/src/Calculator.java - Eclipse IDE

```
32 WebElement seven=driver.findElement("com.android.calculator2:id/digit_7"); //7
33 seven.click();
34
35 driver.findElement("com.android.calculator2:id/op_add").click(); //+ BUTTON
36
37 WebElement three=driver.findElement("com.android.calculator2:id/digit_3");
38 three.click();
39
40 driver.findElement("com.android.calculator2:id/eq").click(); // = Button
41
42 String results=driver.findElement("com.android.calculator2:id/result").getText();
43
44 if(results.equals("10"))
45 {
46     System.out.println("Test Passed...");
47 }
48 else
49 {
50     System.out.println("Test Failed...");
51 }
52
53
54 }
```

Console

```
<terminated> Calculator (1) [Java Application] C:\Program Files\Java\jre1.8.0_202\bin\java.exe (Mar 7, 2019, 2:42:09 PM)
Mar 07, 2019 2:42:32 PM io.appium.java_client.remote.AppiumCommandExecutor$1 lambda$0
INFO: Detected dialect: W3C
```

eclipse-workspace - AppiumProject/src/Calculator.java - Eclipse IDE

```
File Edit Source Refactor Navigate Search Project Run Window Help
```

Package Explorer

- Appium\_Mobile\_Test\_Project
- JRE System Library [JavaSE-1.8]
- src
  - (default package)
    - Calculator.java
    - Example1ExpandableList.java
    - Example11DatePicker.java
    - Example12SpinnersAPIDemo.java
    - Example13SeekBar.java
    - Example14RatingStar.java
    - Example15SwipeTouchAction.java
    - Example1InstallAppRealDevice.java
    - Example2InstallAppAndroidEmulator.java
    - Example3HandleSwitchInSimulator.java
    - Example4HandleSwitchOnRealDevice.java
    - Example4HandleUsingPathFromInspector.java
    - Example4HandleDropDownByClassName.java
    - Example4HandleDropDownByValue.java
    - Example5AlertsAPIDemo.java
    - Example5HandleClientSideFindElementsClassName.java
    - Example5HandleClientSide.java
    - Example5PopupsAPIDemo.java
    - Example6DragAndDropAction.java
    - Example9HorizontalScrolling.java
    - Example7VerticalScrolling.java
    - Example8SwitchesInAPIDemosAPP.java
    - Example9CheckboxesRadioButtonsTextfield.java
Referenced LibrariesComplete\_MobileAutomation\_20Dec\_730AM

```
35     driver.findElementById("com.android.calculator2:id/op_add").click(); //+ BUTTON
36
37     WebElement three=driver.findElement("com.android.calculator2:id/digit_3");
38     three.click();
39
40     driver.findElementById("com.android.calculator2:id/eq").click(); // = Button
41
42     Thread.sleep(3000);
43
44     String results=driver.findElement("com.android.calculator2:id/result").getText();
45
46     if(results.equals("10"))
47     {
48         System.out.println("Test Passed...");
49     }
50     else
51     {
52         System.out.println("Test Failed...");
53     }
54
55     Thread.sleep(5000);
56
57 
```

eclipse-workspace - AppiumProject/src/Calculator.java - Eclipse IDE

```
Edit Source Refactor Navigate Search Project Run Window Help
```

Package Explorer

- Appium\_Mobile\_Test\_Project
- AppiumProject
- JRE System Library [JavaSE-1.8]
- src
  - (default package)
    - Calculator.java
    - Example1ExpandableList.java
    - Example11DatePicker.java
    - Example12SpinnersAPIDemo.java
    - Example13SeekBar.java
    - Example14RatingStar.java
    - Example15SwipeTouchAction.java
    - Example1InstallAppRealDevice.java
    - Example2InstallAppAndroidEmulator.java
    - Example3HandleSwitchInSimulator.java
    - Example4HandleSwitchOnRealDevice.java
    - Example4HandleUsingPathFromInspector.java
    - Example4HandleDropDownByClassName.java
    - Example4HandleDropDownByValue.java
    - Example5AlertsAPIDemo.java
    - Example5HandleClientSideFindElementsClassName.java
    - Example5HandleClientSide.java
    - Example5PopupsAPIDemo.java
    - Example6DragAndDropAction.java
    - Example9HorizontalScrolling.java
    - Example7VerticalScrolling.java
    - Example8SwitchesInAPIDemosAPP.java
    - Example9CheckboxesRadioButtonsTextfield.java
Referenced LibrariesComplete\_MobileAutomation\_20Dec\_730AM

```
26
27     URL url = new URL("http://127.0.0.1:4723/wd/hub");
28
29     AndroidDriver<WebElement> driver = new AndroidDriver<WebElement>(ur
30     Thread.sleep(5000);
31
32     WebElement seven=dri
33     seven.click();
34
35     driver.findElementBy
36
37     WebElement three=dri
38     three.click();
39
40     driver.findElementBy
41
42     Thread.sleep(3000);
43
44     String results=drive
45 
```

Calculator.java

Context menu for line 33: seven.click();

- Undo Typing
- Ctrl+Z
- Save
- Ctrl+S
- Open Declaration
- F3
- Open Type Hierarchy
- F4
- Open Call Hierarchy
- Ctrl+Alt+H
- Show inBreadcrumb
- Alt+Shift+B
- Quick Outline
- Ctrl+O
- Quick Type Hierarchy
- Ctrl+T
- Open With
- Alt+Shift+W
- Show In
- Cut
- Ctrl+E
- Copy
- Ctrl+C
- Copy Qualified Name
- Paste
- Ctrl+V
- Quick Fix
- Ctrl+1
- Source
- Alt+Shift+S
- Refactor
- Alt+Shift+R
- Local History
- References
- Declarations
- Add to Snippets...
- Coverage As
- Run As
- 1 Java Application
- Alt+Shift+X, J
- Debug As
- Team
- Compare With
- Replace With
- Validate
- Run Configurations...
- Preferences...

Console

```
<terminated> Calculator [1] Java Application C:\Program Files\Java\Java SE Development Kit 11.0.2\bin\java Mar 07, 2019 2:42:23 PM io.appium.automation.CommandExecutor$1 lambda$0$0 run CommandExecutor$1 lambda$0$0
```

16:57 / 20:11

rkspace - AppiumProject/src/Calculator.java - Eclipse IDE

File Refactor Navigate Search Project Run Window Help

Calculator.java

```

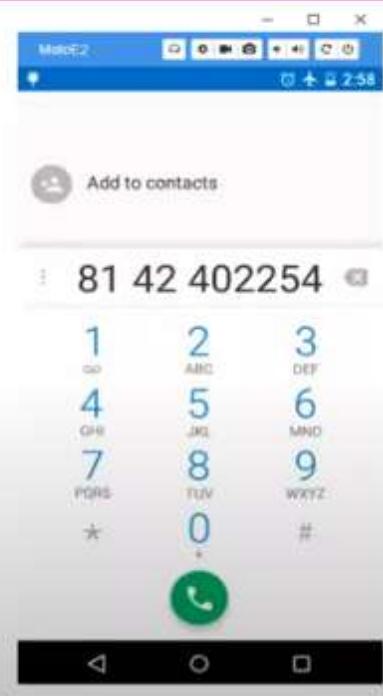
35     driver.findElement("com.android.calculator2:id/op_add").click();
36
37     WebElement three=driver.findElement("com.android.calculator2:id/three");
38     three.click();
39
40     driver.findElement("com.android.calculator2:id/op_equal").click();
41
42     Thread.sleep(3000);
43
44     String results=driver.findElement("com.android.calculator2:id/result").getText();
45
46     if(results.equals("10"))
47     {
48         System.out.println("Test Passed");
49     }
50     else
51     {
52         System.out.println("Test Failed");
53     }
54 
```

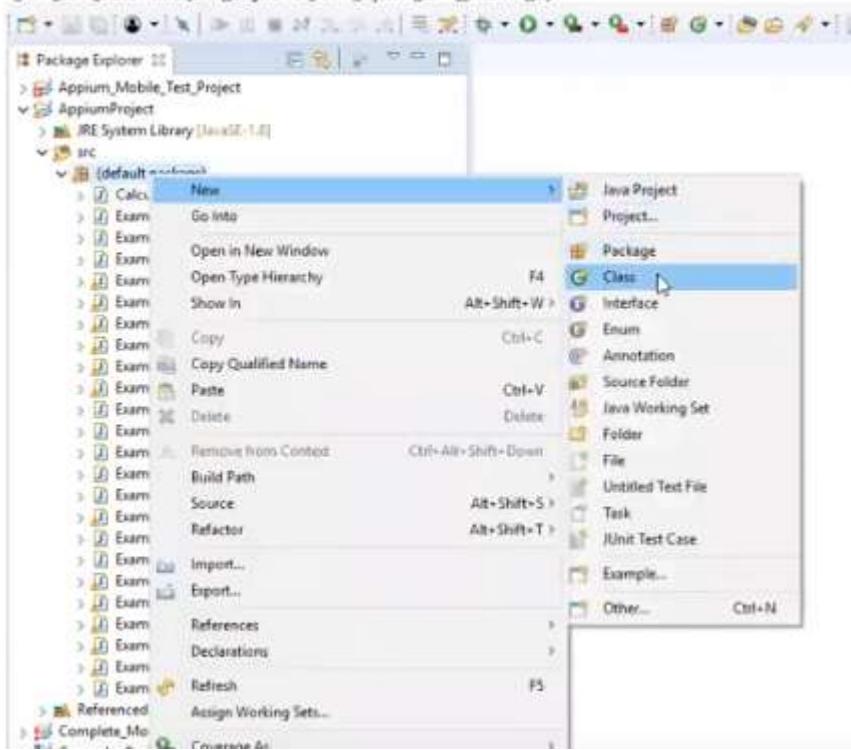
Console [terminated] [Java Application] C:\Program Files\Java\jre1.8.0\_202\bin\javaw.exe [Mar 07, 2019 2:54:09 PM io.appium.java\_client]
INFO: Detected dialect: W3C
Test Failed...

18:30 / 20:11

## Dial A Number

- appPackage:** com.android.dialer
- appActivity:** com.android.dialer.DialtactsActivity





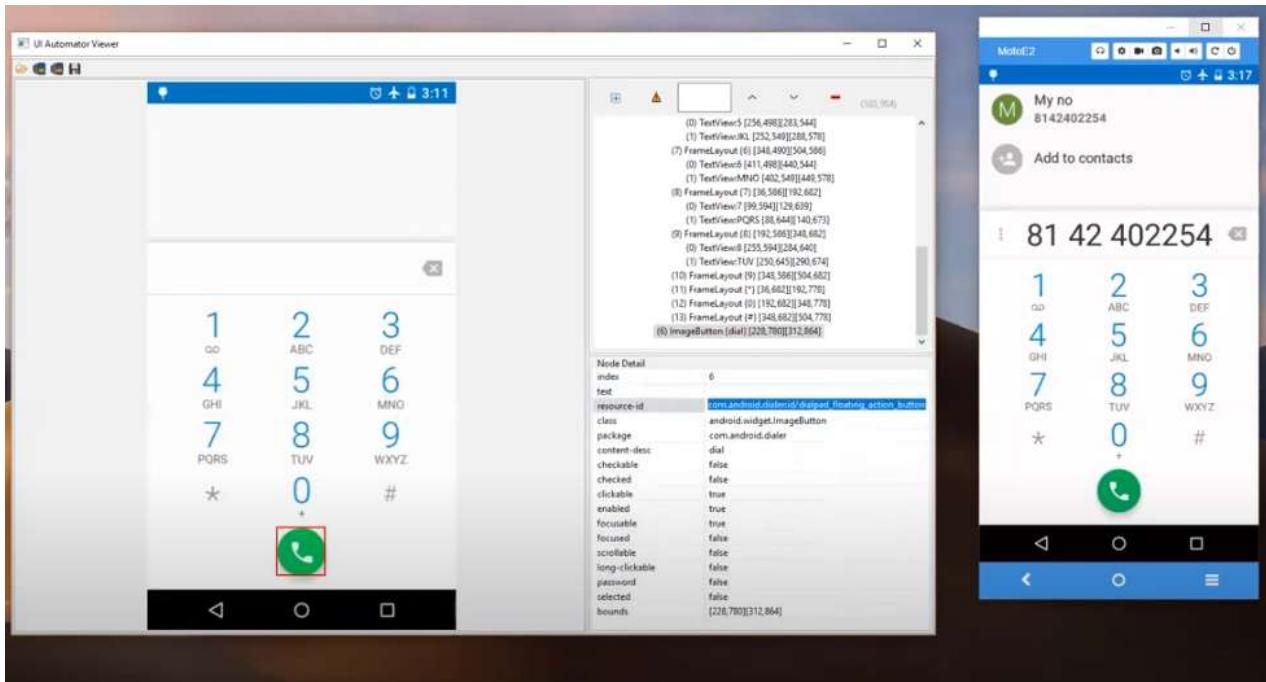
```
File -> Open Resource -> AppiumProject -> DialANumber.java -> Line 11
11 public class DialANumber {
12     public static void main(String[] args) throws MalformedURLException, InterruptedException {
13         DesiredCapabilities dc = new DesiredCapabilities();
14         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
15         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android"); // Android Emulator
16         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
17         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");
18         dc.setCapability("appPackage", "com.android.dialer");
19         dc.setCapability("appActivity", ".ui.DialerDialerActivity");
20         URL url = new URL("http://127.0.0.1:4723/wd/hub");
21         AndroidDriver<WebElement> driver = new AndroidDriver<WebElement>(url, dc);
22         Thread.sleep(5000);
23     }
24 }
```

```
C:\Users\admin>adb kill-server
C:\Users\admin>adb start-server
* daemon not running; starting now at tcp:5037
* daemon started successfully

C:\Users\admin>adb kill-server
C:\Users\admin>adb start-server
* daemon not running; starting now at tcp:5037
* daemon started successfully

C:\Users\admin>
```





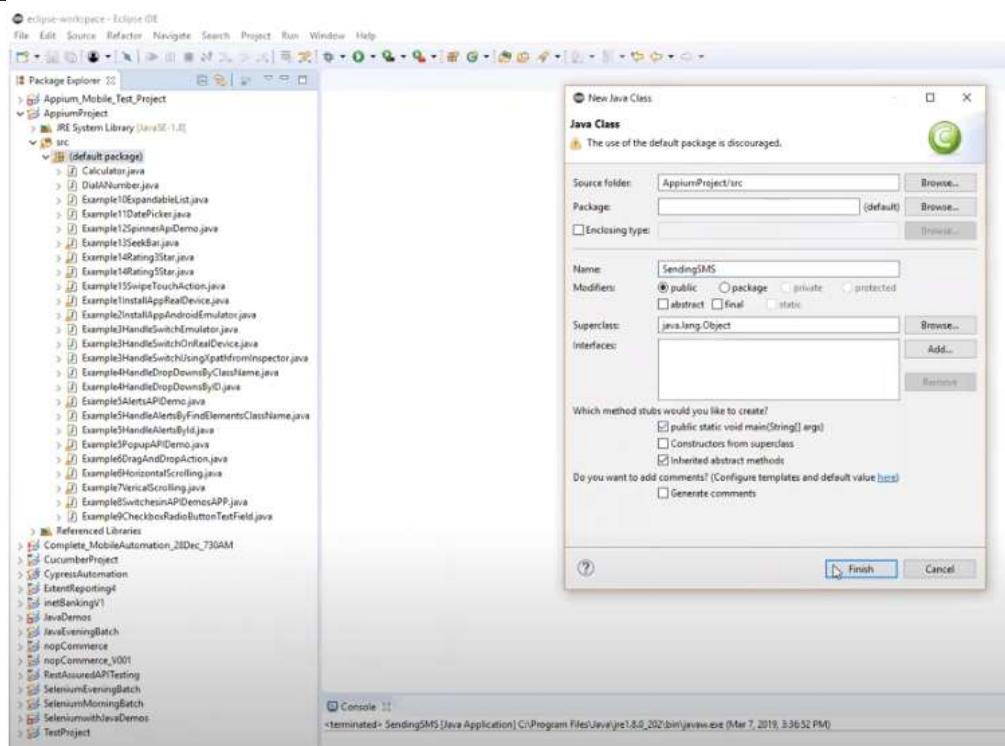
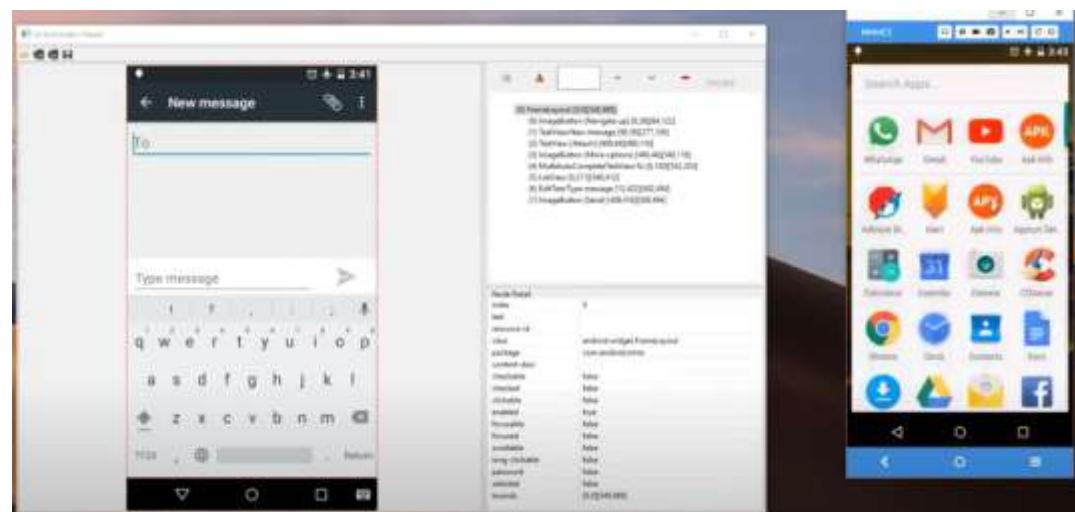
The screenshot shows the Android Studio interface with the following details:

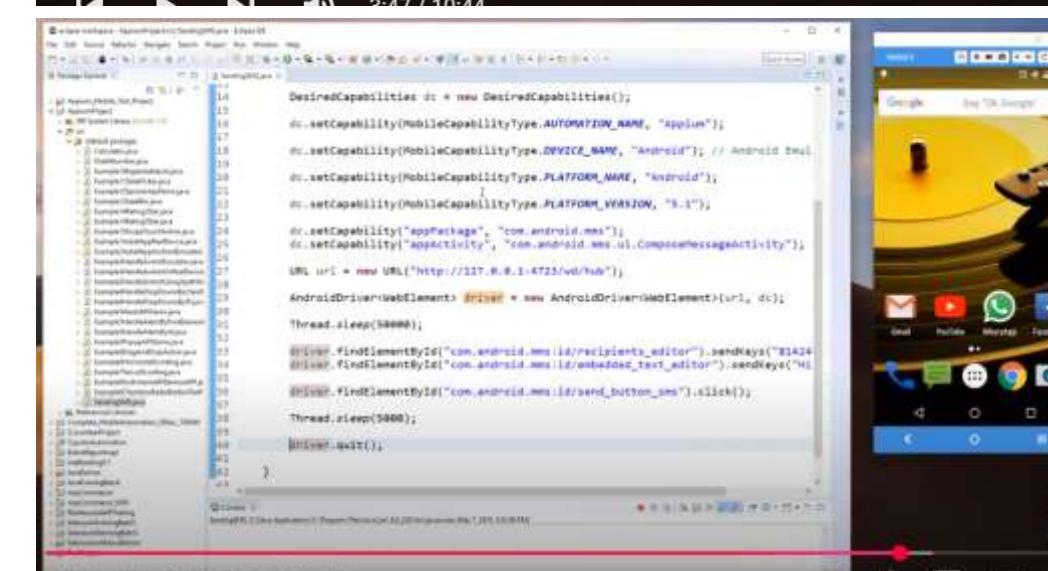
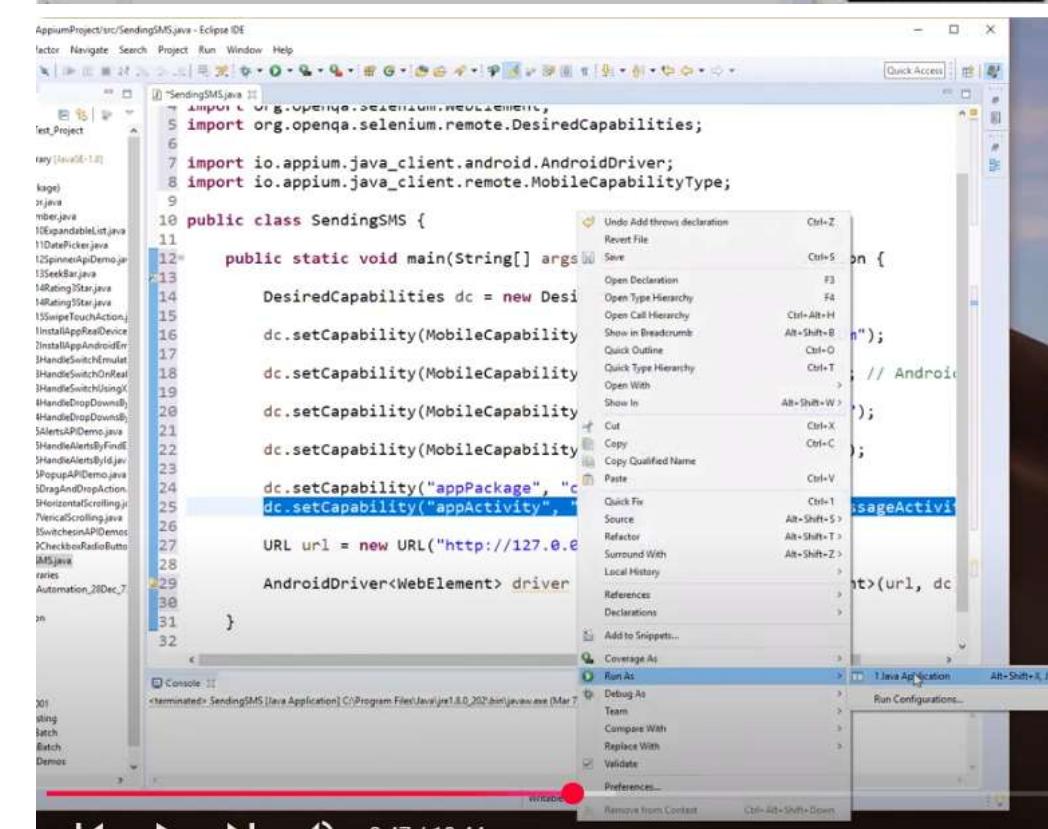
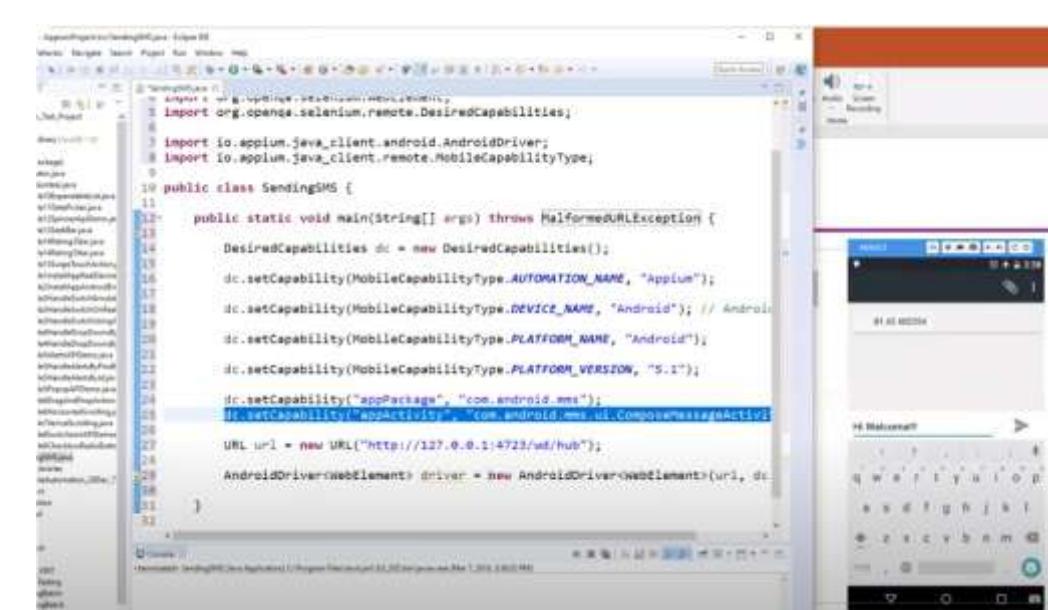
- Project Structure:** Shows the project tree with packages like `com.example`, `com.example.dialer`, and `com.example.dialer.test`.
- Code Editor:** Displays the `DialAutomation.java` file containing Java code for automating a dialer. The code uses the Appium library to interact with the Android dialer.
- Toolbars and Menus:** Standard Android Studio toolbars and menus are visible at the top.
- Bottom Bar:** Shows the current file (`DialAutomation.java`), recent files, and other system status indicators.

```
driver.findElementById("com.android.dialer:id/floating_action_button").click();
//Dial 8142402254
driver.findElementById("com.android.dialer:id/eight").click(); //8
driver.findElementById("com.android.dialer:id/one").click(); // 1
driver.findElementById("com.android.dialer:id/four").click(); //4
driver.findElementById("com.android.dialer:id/two").click(); //2
driver.findElementById("com.android.dialer:id/four").click(); //4
driver.findElementById("com.android.dialer:id/zero").click(); //0
driver.findElementById("com.android.dialer:id/two").click(); //2
driver.findElementById("com.android.dialer:id/two").click(); //2
driver.findElementById("com.android.dialer:id/five").click(); //5
driver.findElementById("com.android.dialer:id/four").click(); //4
Thread.sleep(5000);
driver.findElementById("com.android.dialer:id/dialpad_floating_action_button").click(); //Click on Dial ICon
Thread.sleep(5000);
driver.quit();
```

# Send SMS

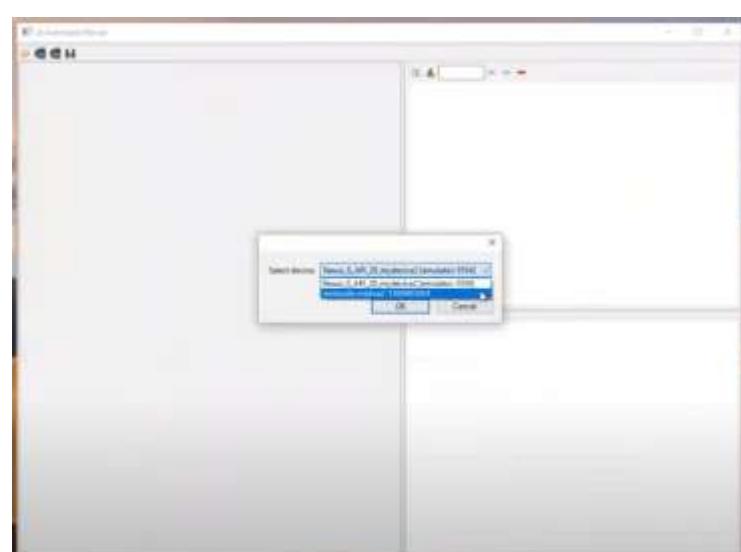
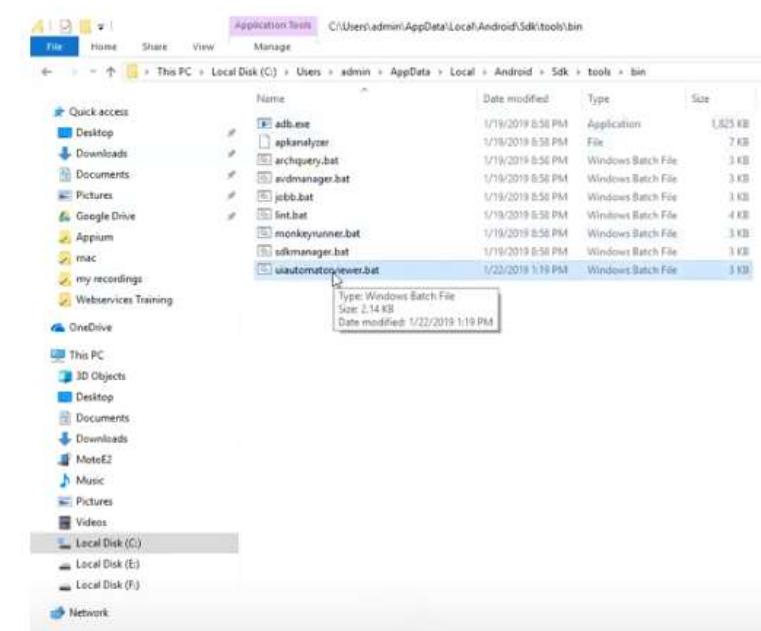
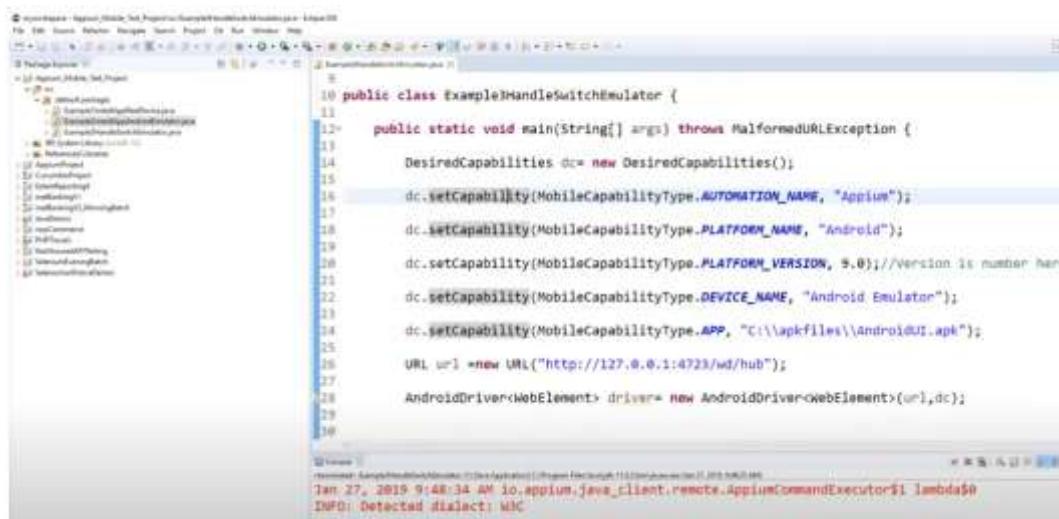
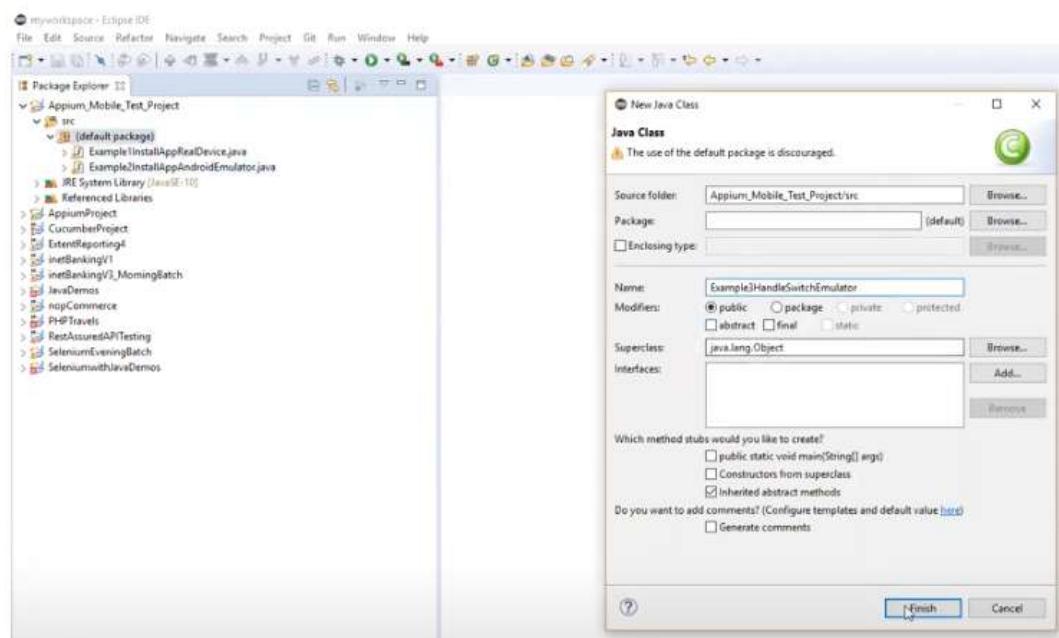
- appPackage : com.android.mms
- appActivity : com.android.mms.ui.ComposeMessageActivity

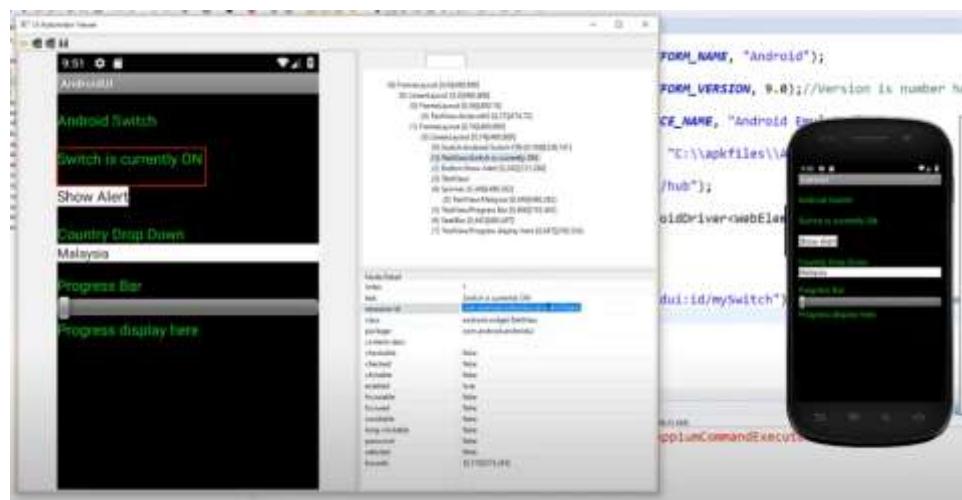
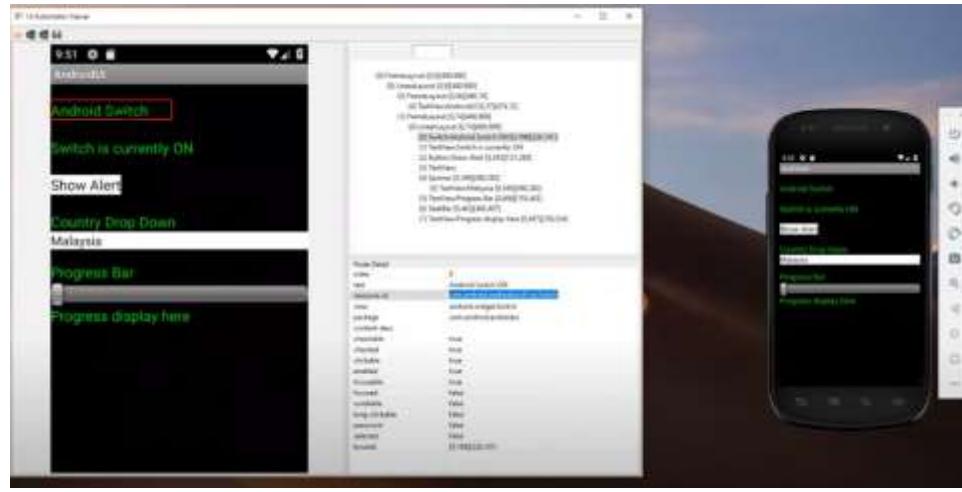




# Working with Elements

- Automate Switch Element





```

//1 round
driver.findElementById("com.android.androidui:id/mySwitch").click(); //click on the switch

String val=driver.findElementById("com.android.androidui:id/switchStatus").getText();

System.out.println(val);

//2nd round

driver.findElementById("com.android.androidui:id/mySwitch").click();/
val=driver.findElementById("com.android.androidui:id/switchStatus").getText();

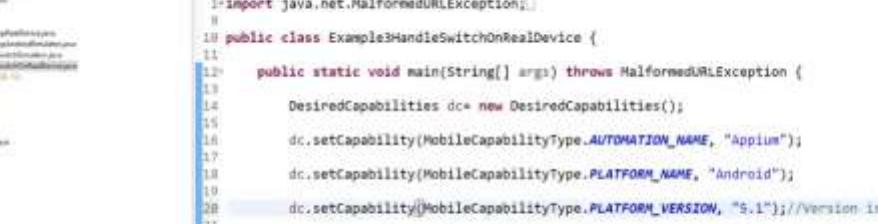
System.out.println(val);
}

```

```

19
20     dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, 9.0); //Version is number here
21
22     dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android Emulator");
23
24     dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\AndroidUI.apk");
25
26     URL url =new URL("http://127.0.0.1:4723/wd/hub");
27
28     AndroidDriver<webElement> driver= new AndroidDriver<webElement>(url,dc);
29
30
31     //Handling switch element
32
33     //1 round
34     driver.findElementById("com.android.androidui:id/mySwitch").click(); //click on the switch
35
36     String val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
37
38     System.out.println(val);
39
40     //2nd round

```



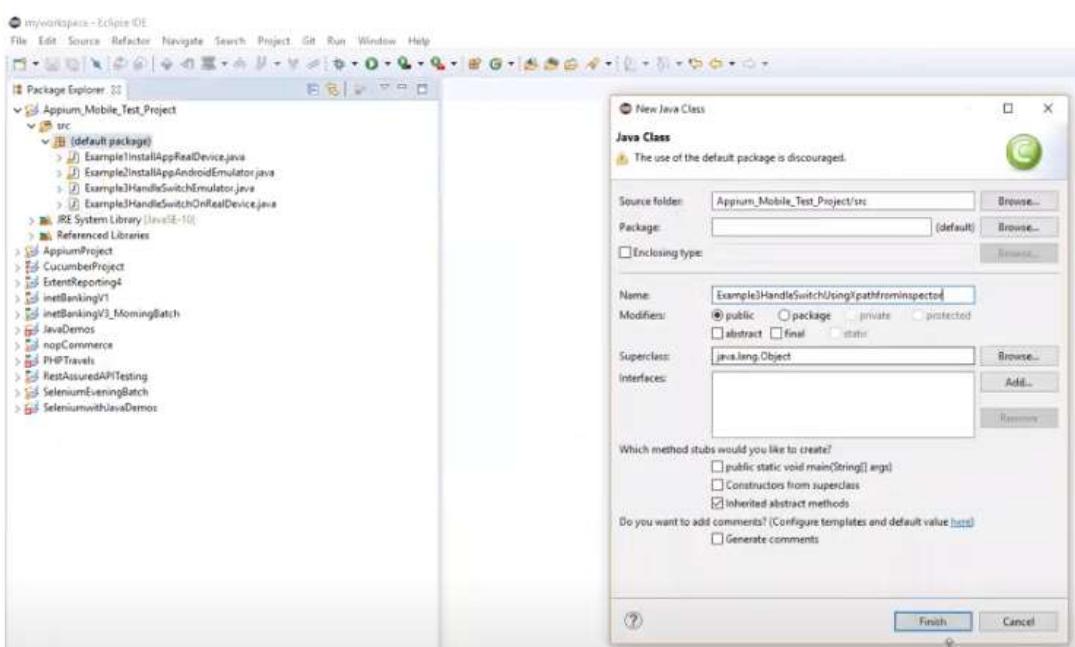
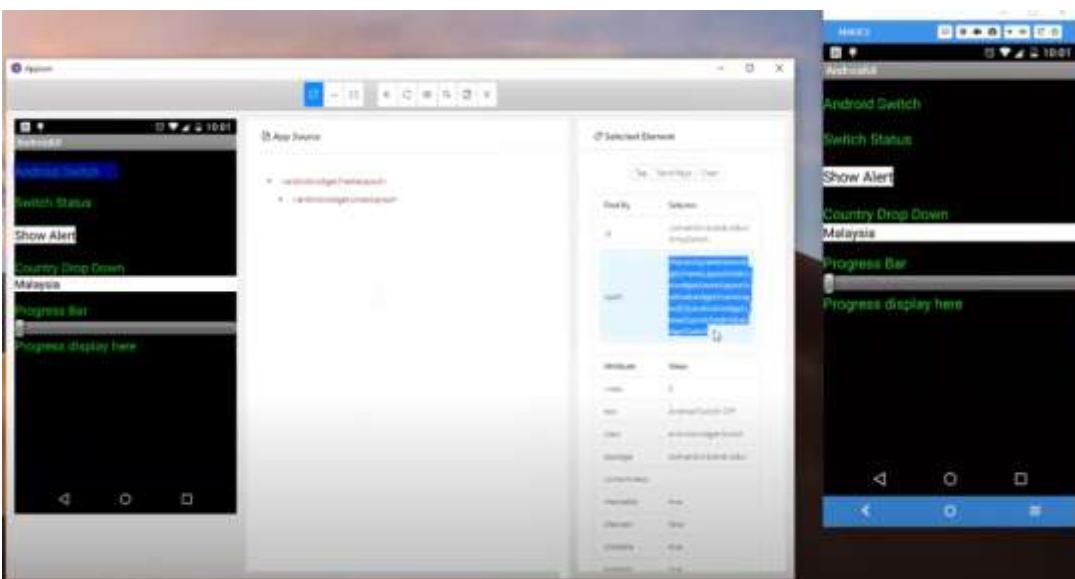
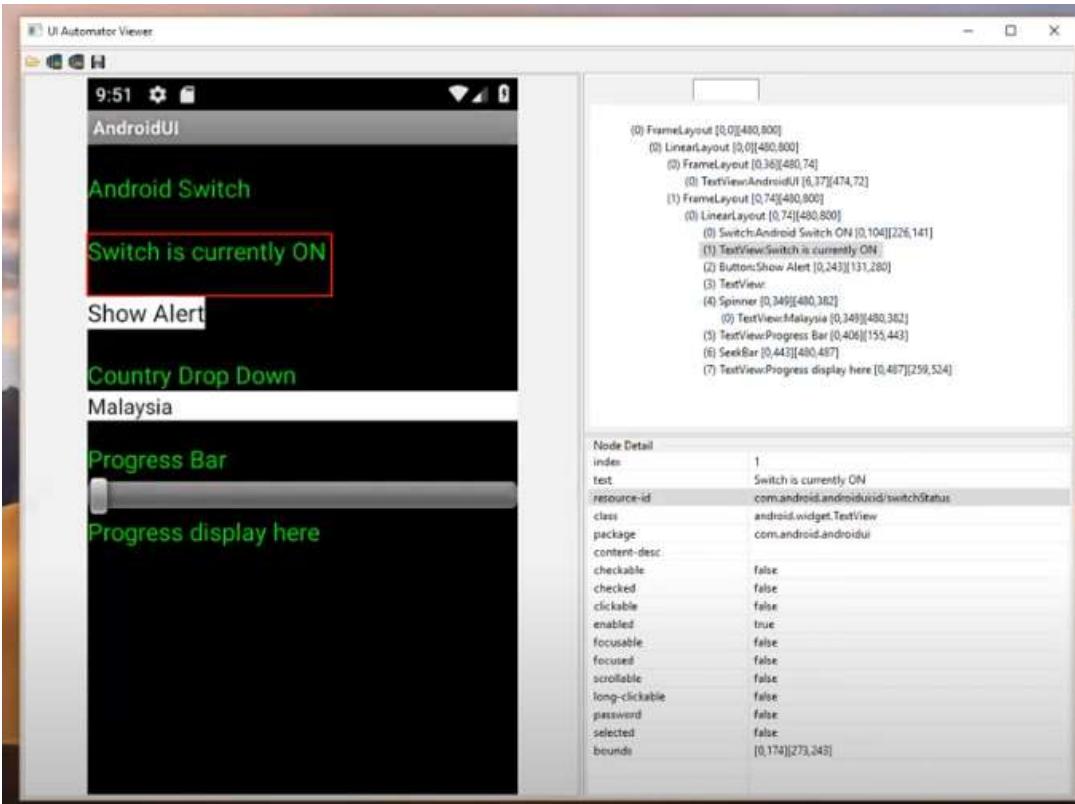
```
1-import java.net.MalformedURLException;
2-
3-public class Example3HandleSwitchOnRealDevice {
4-
5    public static void main(String[] args) throws MalformedURLException {
6-
7        DesiredCapabilities dc= new DesiredCapabilities();
8-
9        dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
10-
11        dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
12-
13        dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "9.1");//Version is number here
14-
15        dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android Emulator");
16-
17        dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\AndroidUI.apk");
18-
19        URL url =new URL("http://127.0.0.1:4723/wd/hub");
20-
21        AndroidDriver<WebElement> driver= new AndroidDriver<WebElement>(url,dc);
22-
23-
24        //Handling switch element
25-
26        //1 round
27        driver.findElementById("com.android.androidui:id/mySwitch").click();//click on the switch
28-
29        String val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
30-
31        System.out.println(val);
32-
33}
```

```
1 package com;
2 import java.net.URL;
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.WebDriver;
5 import org.openqa.selenium.WebElement;
6 import org.openqa.selenium.android.AndroidDriver;
7 import org.openqa.selenium.remote.DesiredCapabilities;
8
9 public class TestAndroidSwitch {
10     public static void main(String[] args) throws Exception {
11         //Desired Capabilities
12         DesiredCapabilities dc = new DesiredCapabilities();
13         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "emulator-5554");
14         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
15         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "7.1.1");
16         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "UiAutomator2");
17         dc.setCapability(MobileCapabilityType.UDID, "emulator-5554");
18
19         //URL
20         URL url = new URL("http://127.0.0.1:4723/wd/hub");
21
22         //Android Driver
23         AndroidDriver<WebElement> driver= new AndroidDriver<WebElement>(url,dc);
24
25         //Handling switch element
26
27         //1 round
28         driver.findElementById("com.android.androidui:id/mySwitch").click(); //click on the switch
29
30         String val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
31
32         System.out.println(val);
33
34         //2nd round
35
36         driver.findElementById("com.android.androidui:id/mySwitch").click();
37
38         val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
39
40         System.out.println(val);
41
42         driver.quit();
43
44     }
45
46 }
47
48 }
```

The screenshot shows the Eclipse IDE interface with the following details:

- Title Bar:** 'test\_Project/src/Example3HandleSwitchOnRealDevice.java - Eclipse IDE'
- Toolbar:** Standard Eclipse tools like Open, Save, Run, etc.
- Left Sidebar:** Project Explorer showing files: 'aDevice.java', 'idroSimulator.java', 'hEmulator.java', and 'ONRealDevice.java'.
- Code Editor:** The main window displays Java code for handling a switch on a real device. The code uses DesiredCapabilities to set various mobile capabilities and creates an AndroidDriver to handle a switch element.
- Context Menu:** A context menu is open over the word 'Exception' in the code editor, listing options like Undo Typing, Revert File, Save, and Run As.
- Right Side:** A preview window titled 'MotoE2' showing a mobile application interface with a Gmail icon.

```
test_Project/src/Example3HandleSwitchOnRealDevice.java - Eclipse IDE
gate Search Project Go Run Window Help
File Edit View Insert Run Tools Window Help
[Example3HandleSwitchOnRealDevice.java]
1 import java.net.MalformedURLException;
2
3 public class Example3HandleSwitchOnRealDevice {
4
5     public static void main(String[] args) throws MalformedURLException {
6
7         DesiredCapabilities dc= new DesiredCapabilities();
8
9         dc.setCapability(MobileCapabilityType.AUTO);
10        dc.setCapability(MobileCapabilityType.PLATFORM_NAME);
11        dc.setCapability(MobileCapabilityType.PLATFORM_VERSION);
12        dc.setCapability(MobileCapabilityType.DEVICE_NAME);
13        dc.setCapability(MobileCapabilityType.APP);
14
15        URL url =new URL("http://127.0.0.1:4723/w");
16
17        AndroidDriver<WebElement> driver= new And
18
19        //Handling switch element
20
21        //1 round
22        driver.findElementById("com.android.andro
23
24
25
26
27
28
29
30
31
32
33
34
```



```
1 import java.net.URL;
2
3 import org.openqa.selenium.WebElement;
4 import org.openqa.selenium.remote.DesiredCapabilities;
5
6 import io.appium.java_client.android.AndroidDriver;
7 import io.appium.java_client.remote.MobileCapabilityType;
8
9 public class Example3HandleSwitchUsingXPathFromInspector {
10     DesiredCapabilities dc= new DesiredCapabilities();
11
12     dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
13
14     dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
15
16     dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");//Version is number here
17
18     dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android");
19
20     dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\AndroidUI.apk");
21
22     URL url =new URL("http://127.0.0.1:4723/wd/hub");
23
24     AndroidDriver<WebElement> driver= new AndroidDriver<WebElement>(url,dc);
25
26
27     //Handling switch element
28
29     //1 round
30     driver.findElementById("com.android.androidui:id/mySwitch").click(); //click on the switch
31
32     String val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
33
34 }
```

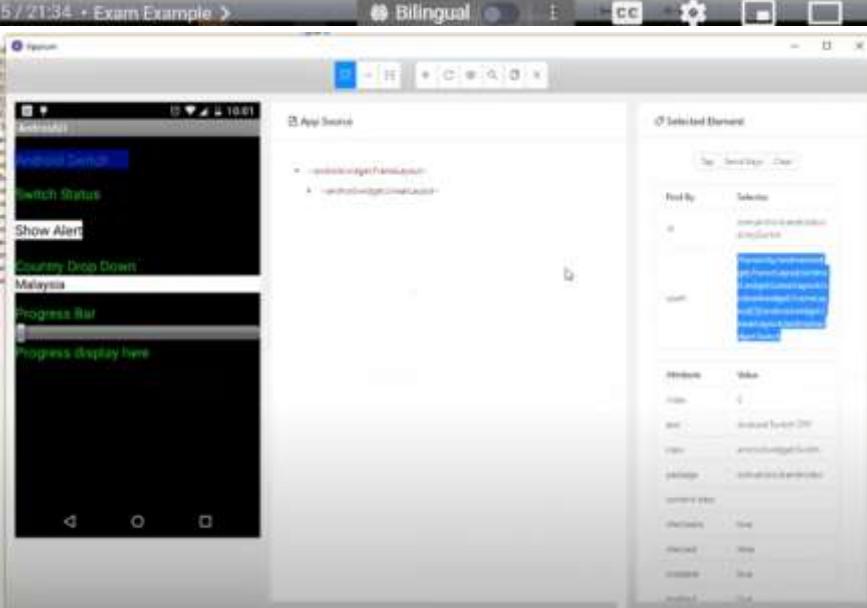
```
16 dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");//Version is number here
17
18 dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android");
19
20 dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\AndroidUI.apk");
21
22 URL url =new URL("http://127.0.0.1:4723/wd/hub");
23
24 AndroidDriver<WebElement> driver= new AndroidDriver<WebElement>(url,dc);
25
26
27 //Handling switch element
28
29 //1 round
30 driver.findElementById("com.android.androidui:id/mySwitch").click(); //click on the switch
31
32 String val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
33
34 System.out.println(val);
35
36 //2nd round
37
38 driver.findElementById("com.android.androidui:id/mySwitch").click();
39
40 val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
41
42 System.out.println(val);
43
44 driver.quit();
45 }
```

```
16 dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
17
18 dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");//Version is number here
19
20 dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android");
21
22 dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\AndroidUI.apk");
23
24 URL url =new URL("http://127.0.0.1:4723/wd/hub");
25
26 AndroidDriver<WebElement> driver= new AndroidDriver<WebElement>(url,dc);
27
28
29 //Handling switch element
30
31 //1 round : clicked on switch using xpath
32 driver.findElementByXPath("//hierarchy/android.widget.FrameLayout/android.widget.LinearLayout/android.widget.Switch").click();
33
34 String val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
35
36 System.out.println(val);
37
38 //2nd round
39
40 driver.findElementById("com.android.androidui:id/mySwitch").click();
41
42 val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
43
44 System.out.println(val);
45
46 driver.quit();
47 }
```

2016 / 21 34 > Exam Example >

Bilingual

```
1 //src/main/java/com/example/android/uiautomator/ExampleActivity.java
2
3 package com.example.android.uiautomator;
4
5 import android.app.Activity;
6 import android.os.Bundle;
7 import android.view.View;
8 import android.widget.Switch;
9
10 import org.openqa.selenium.By;
11 import org.openqa.selenium.WebDriver;
12 import org.openqa.selenium.WebElement;
13 import org.openqa.selenium.android.AndroidDriver;
14
15 public class ExampleActivity extends Activity {
16     private WebDriver driver;
17
18     @Override
19     protected void onCreate(Bundle savedInstanceState) {
20         super.onCreate(savedInstanceState);
21         setContentView(R.layout.activity_main);
22
23         // Set up the driver
24         MobileCapabilityType dc = new MobileCapabilityType();
25
26         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
27         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");//Version is number here
28         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android");
29
30         dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\AndroidUI.apk");
31
32         URL url =new URL("http://127.0.0.1:4723/wd/hub");
33
34         AndroidDriver<WebElement> driver= new AndroidDriver<WebElement>(url,dc);
35
36
37         //Handling switch element
38
39         //1 round
40         driver.findElementByXPath("//android.widget.Switch");
41
42         String val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
43
44         System.out.println(val);
45
46         //2nd round
47
48         driver.findElementById("com.android.androidui:id/mySwitch").click();
49
50         val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
51
52         System.out.println(val);
53
54         driver.quit();
55     }
56 }
```



```
16
17
18
19 r here
20
21
22
23
24
25
26
27
28
29
30
31
32
33 linearLayout/android.widget.FrameLayout[2]/android.widget.LinearLayout/android.widget.Switch).click();
34
35 t();
36
37
38
39
40
41
42
43
44
45
46
47
```

```

22
23     dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\AndroidUI.apk");
24
25     URL url =new URL("http://127.0.0.1:4723/wd/hub");
26
27     AndroidDriver<WebElement> driver= new AndroidDriver<WebElement>(url,dc);
28
29
30     //Handling switch element
31
32     //1 round : clicked on switch using xpath
33     driver.findElementByXPath("//hierarchy/android.widget.FrameLayout/android.widget.LinearLayout/a
34
35     String val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
36
37     System.out.println(val);
38
39     //2nd round
40
41     driver.findElementByXPath("//hierarchy/android.widget.FrameLayout/android.widget.LinearLayout/a
42
43     val=driver.findElementById("com.android.androidui:id/switchStatus").getText();
44
45     System.out.println(val);
46
47     driver.quit();
48
49
50 }
51
52 }

```

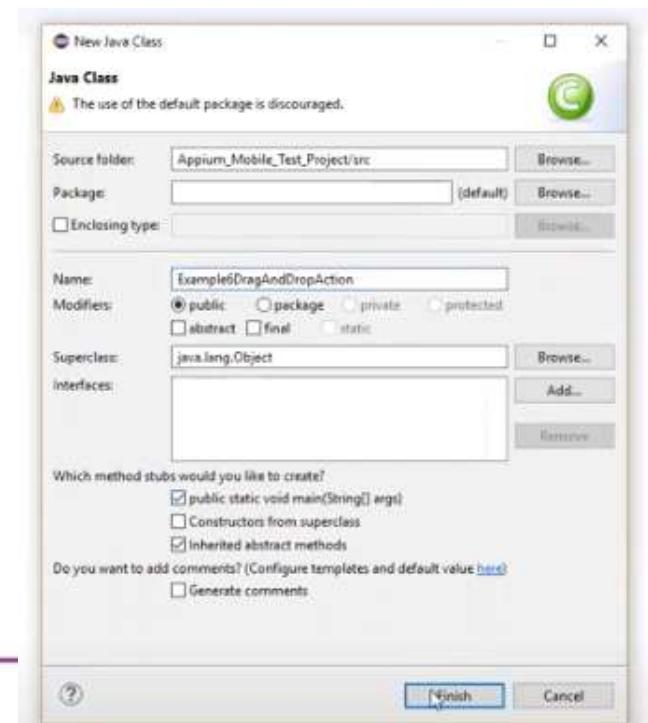


## Working with Elements

## adb commands

- Switch Element
- Drop-down
- Alerts
- Drag & Drop
- Horizontal scroll
- Vertical Scrolling
- Text box, Check boxes & Radio buttons
- Expandable list
- Date Picker

- adb.exe start-server
- adb.exe kill-server



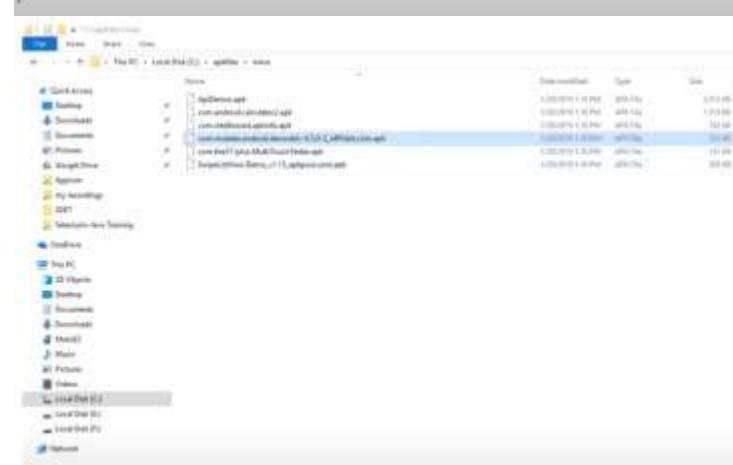
## Script for Install Apk file(App) on Emulator(Virtual Device)

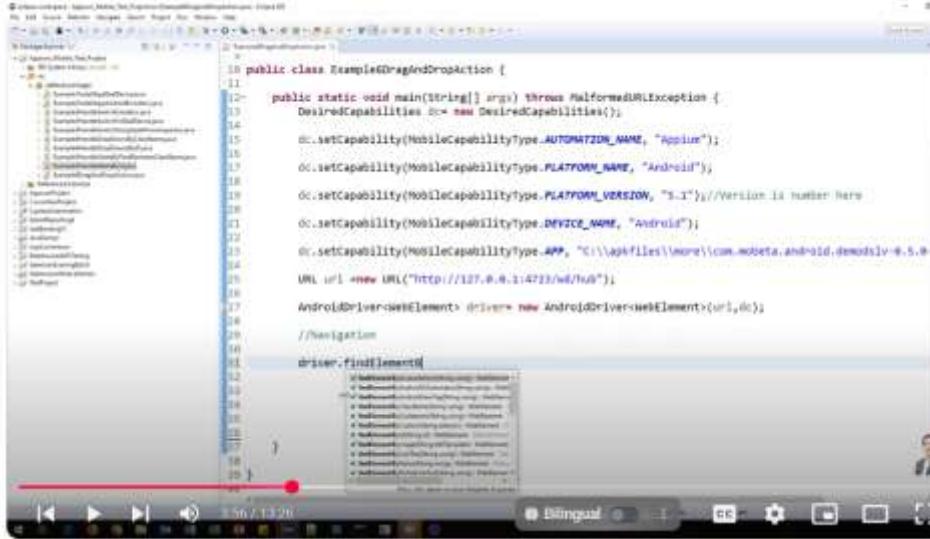
```

import java.net.URL;
import org.openqa.selenium.remote.DesiredCapabilities;
import io.appium.java_client.android.AndroidDriver;
import io.appium.java_client.MobileCapabilityType;

public class Example2InstallAppAndroidEmulator {
    public static void main(String[] args) throws Exception {
        DesiredCapabilities dc= new DesiredCapabilities();
        dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
        dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
        dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "4.4");
        dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android Emulator");
        dc.setCapability(MobileCapabilityType.APP, "C:\\Google\\Emulator\\Training\\Materials\\Appium\\Android\\Files\\EmulatorAPK.apk");
        URL url =new URL("http://127.0.0.1:4723/wd/hub");
        AndroidDriver driver= new AndroidDriver(url,dc);
    }
}

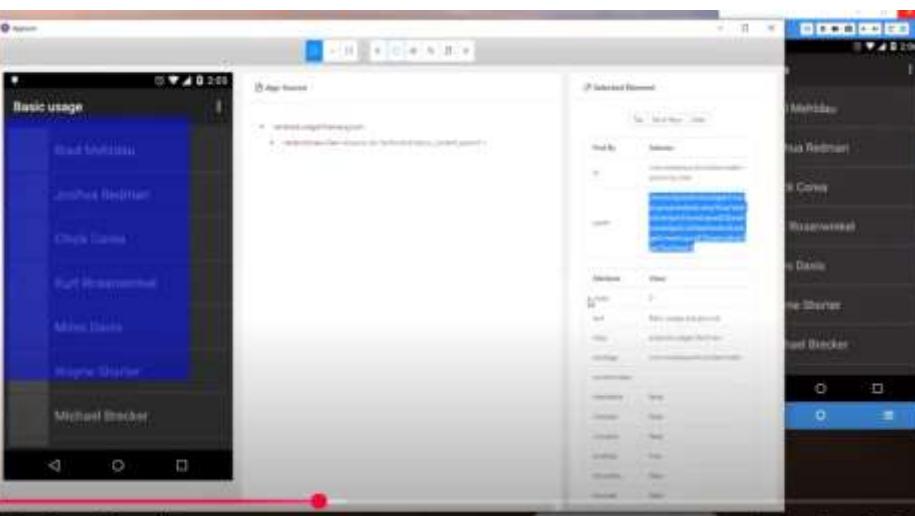
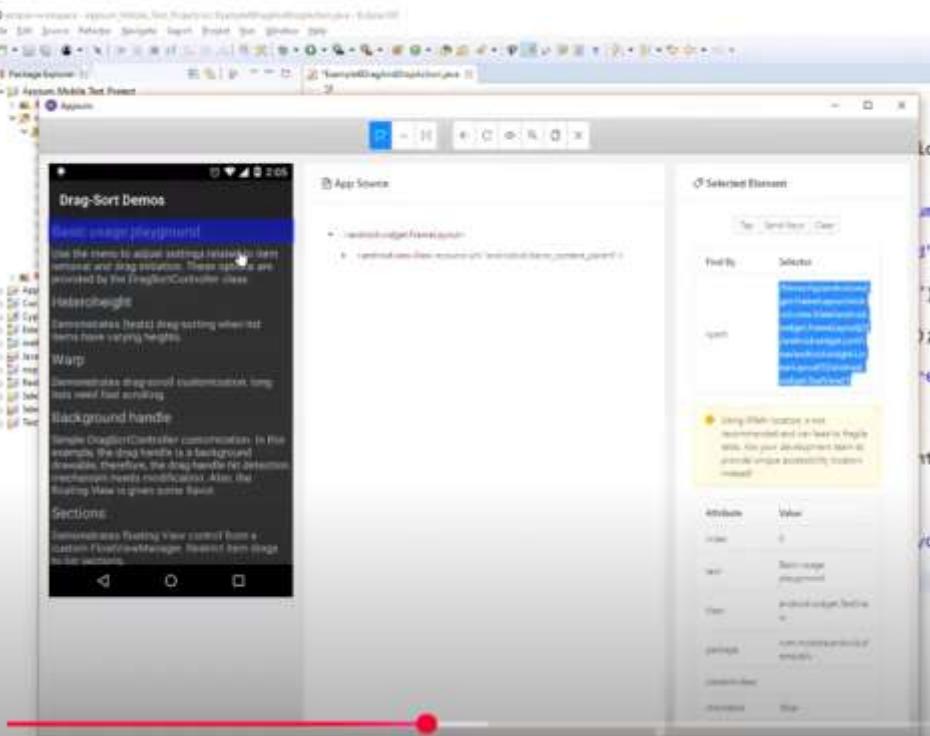
```

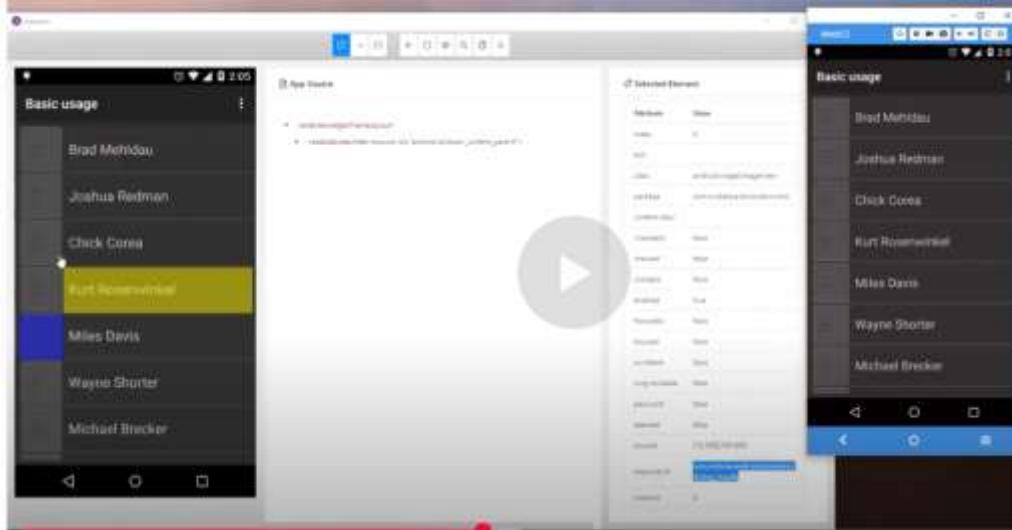




A screenshot of an Android application interface. At the top, there is a navigation bar with icons for back, forward, and search. Below the navigation bar is a toolbar with a magnifying glass icon and other buttons. The main content area displays a list of items, each with a checkbox and some text. A red circle highlights a specific item in the list.

```
public class Example6DragAndDropAction {
    public static void main(String[] args) throws MalformedURLException {
        DesiredCapabilities dc = new DesiredCapabilities();
        dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
        dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
        dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "3.2");//version is matter here
        dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android");
        dc.setCapability(MobileCapabilityType.APP, "C:\apkfiles\more\com.mobeta.android.demos\apk\apk\apk.apk");
        URL url = new URL("http://127.0.0.1:4723/wd/hub");
        AndroidDriver< WebElement> driver = new AndroidDriver< WebElement>(url,dc);
    }
}
```



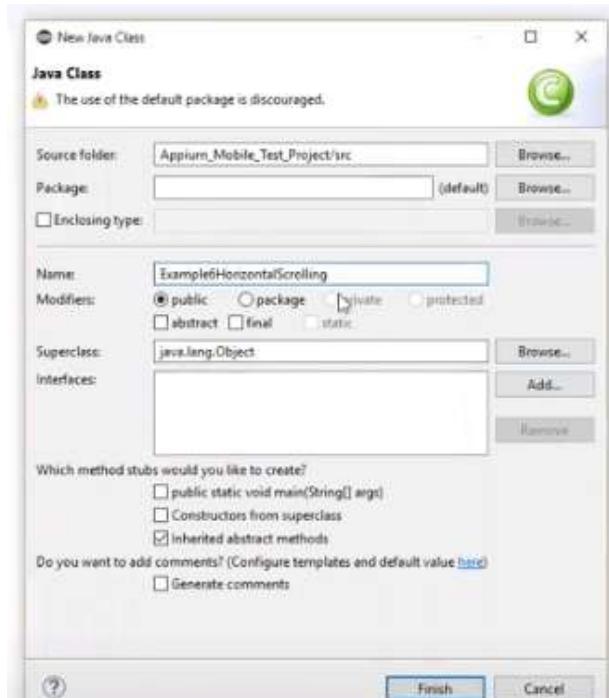


```
1 // Import statements
2 import io.appium.java_client.MobileDriver;
3 import io.appium.java_client.MobileElement;
4 import io.appium.java_client.android.AndroidDriver;
5 import org.openqa.selenium.By;
6 import org.openqa.selenium.WebElement;
7 import org.openqa.selenium.support.ui.ExpectedConditions;
8 import org.openqa.selenium.support.ui.WebDriverWait;
9
10 public class MainActivity {
11     MobileDriver dc;
12
13     @Test
14     public void test() throws InterruptedException {
15         dc = new MobileDriver("http://127.0.0.1:4723/wd/hub");
16
17         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1"); //Version 15 Number here
18         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android");
19
20         dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\more\\com.mobeta.android.demo\\src\\main\\apk\\com.mobeta.android.demo\\v0.5.8.apk");
21
22         URL url = new URL("http://127.0.0.1:4723/wd/hub");
23
24         AndroidDriver<WebElement> driver = new AndroidDriver<WebElement>(url,dc);
25
26         //Navigation
27
28         driver.findElementByXPath("//hierarchy/android.widget.FrameLayout/android.view.View/android.widget.ListView").click();
29
30         //Click Corra
31
32         WebElement source=driver.findElementsById("com.mobeta.android.demo:id/drag_handle").get(2);
33
34         WebElement target=driver.findElementsById("com.mobeta.android.demo:id/drag_handle").get(5);
35
36         TouchAction action=new TouchAction((MobileDriver)driver);
37
38         //drag and drop
39
40         action.longPress(ElementOption.element(source)).moveTo(ElementOption.element(target)).release().perform();
41
42         System.out.println("Element has been dropped at destination successfully.");
43
44     }
45 }
```

```
1 // Import statements
2 import io.appium.java_client.MobileDriver;
3 import io.appium.java_client.MobileElement;
4 import io.appium.java_client.android.AndroidDriver;
5 import org.openqa.selenium.By;
6 import org.openqa.selenium.WebElement;
7 import org.openqa.selenium.support.ui.ExpectedConditions;
8 import org.openqa.selenium.support.ui.WebDriverWait;
9
10 public class MainActivity {
11     MobileDriver dc;
12
13     @Test
14     public void test() throws InterruptedException {
15         dc = new MobileDriver("http://127.0.0.1:4723/wd/hub");
16
17         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1"); //Version 15 Number here
18         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android");
19
20         dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\more\\com.mobeta.android.demo\\src\\main\\apk\\com.mobeta.android.demo\\v0.5.8.apk");
21
22         URL url = new URL("http://127.0.0.1:4723/wd/hub");
23
24         AndroidDriver<WebElement> driver = new AndroidDriver<WebElement>(url,dc);
25
26         //Navigation
27
28         driver.findElementByXPath("//hierarchy/android.widget.FrameLayout/android.view.View/android.widget.ListView").click();
29
30         //Click Corra
31
32         WebElement source=driver.findElementsById("com.mobeta.android.demo:id/drag_handle").get(2);
33
34         WebElement target=driver.findElementsById("com.mobeta.android.demo:id/drag_handle").get(5);
35
36         TouchAction action=new TouchAction((MobileDriver)driver);
37
38         //drag and drop
39
40         action.longPress(ElementOption.element(source)).moveTo(ElementOption.element(target)).release().perform();
41
42         System.out.println("Element has been dropped at destination successfully.");
43
44     }
45 }
```

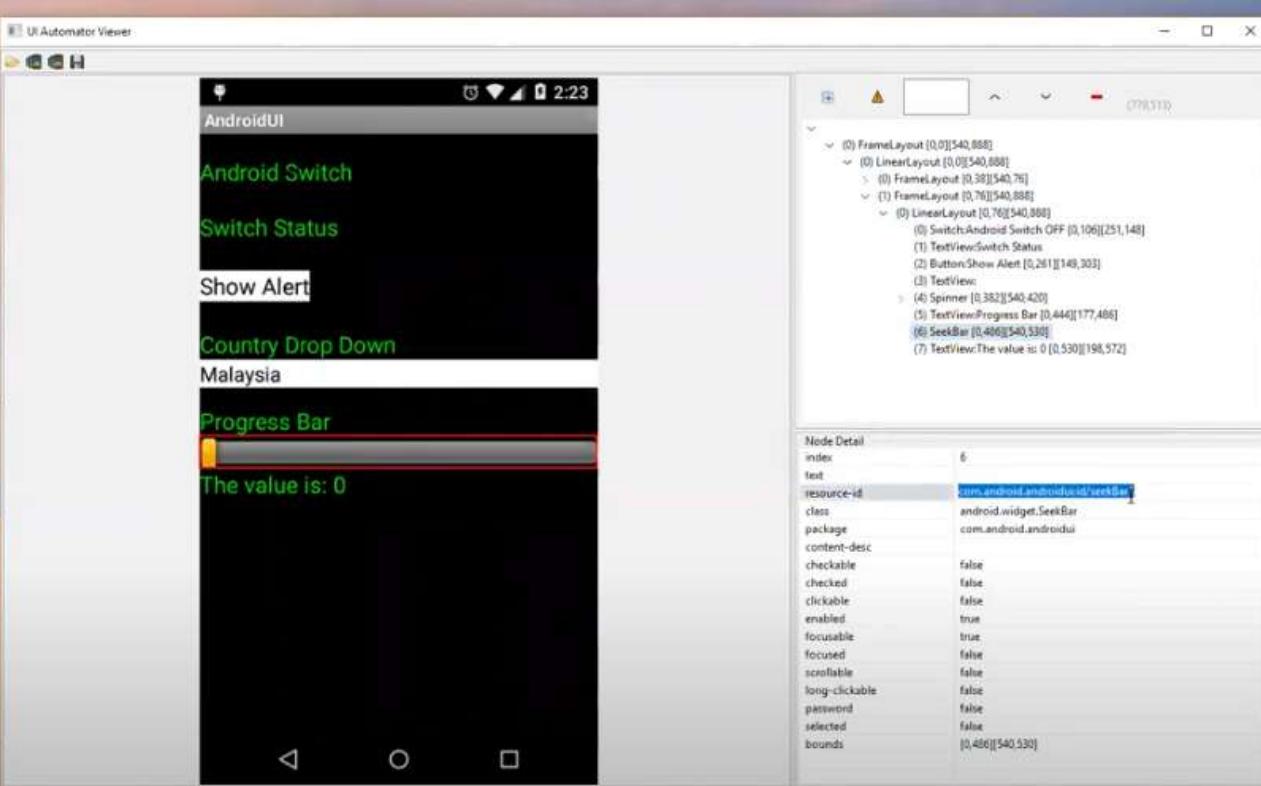
The screenshot shows the Eclipse IDE interface with the following details:

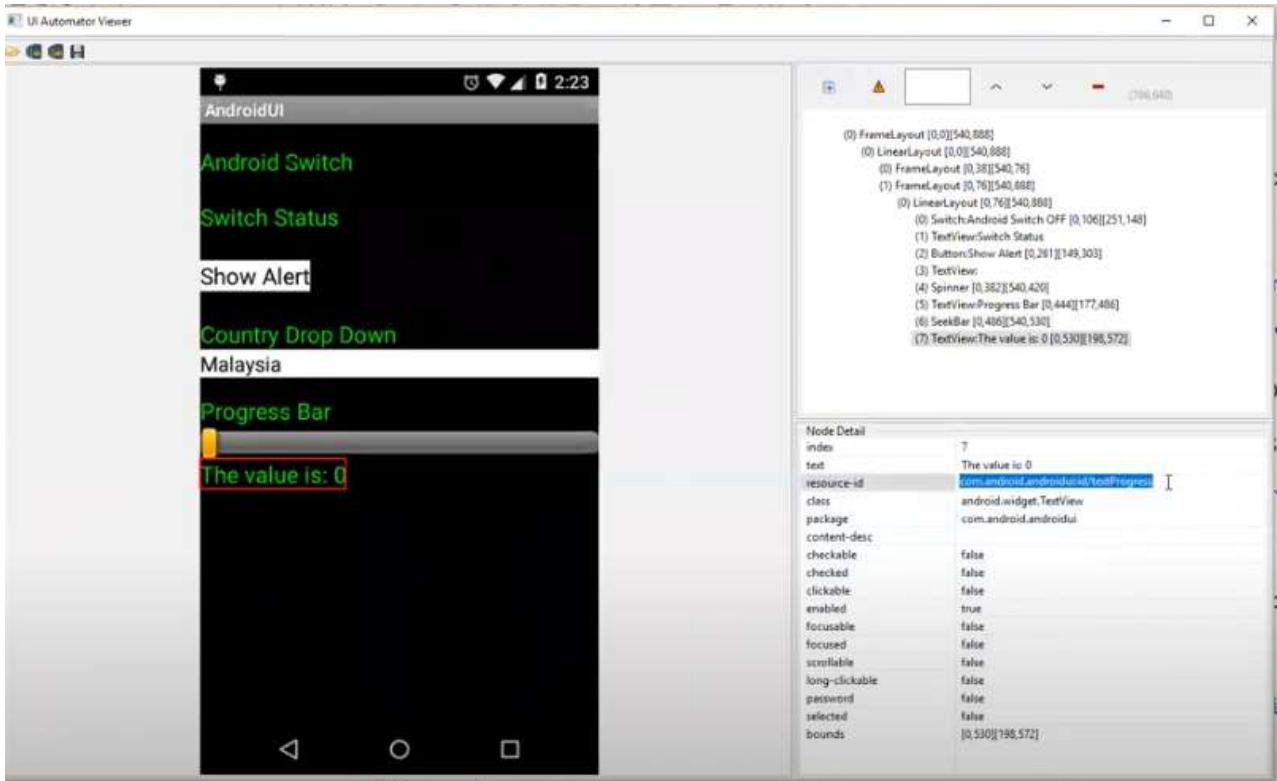
- Title Bar:** Eclipse IDE - Appium\_Mobile\_Test\_Project - Java - ExamplesHorizontalScrolling.java
- Project Explorer:** Shows the project structure with several Java files under the package com.appium.examples.
- Code Editor:** Displays the Java code for `Example6HorizontalScrolling`. The code sets up Desired Capabilities for an Android driver, specifies the URL as "http://127.0.0.1:4723/wd/hub", and creates an `AndroidDriver<WebElement>` object.
- Toolbars and Status Bar:** Standard Eclipse toolbars and a status bar showing the date and time (12/27 / 13:26).
- Bottom Buttons:** Includes Back, Forward, Stop, Refresh, and Home buttons.



The screenshot shows the Eclipse IDE interface with the following details:

- Title Bar:** Eclipse IDE - Appium\_Mobile\_Test\_Project - ExamplesHorizontalScrolling.java - Eclipse IDE
- Project Explorer:** Shows the project structure with several Java files under the package com.appium.examples.
- Code Editor:** Displays the Java code for `Example6HorizontalScrolling`. The code sets up Desired Capabilities for an Android driver, specifies the URL as "http://127.0.0.1:4723/wd/hub", and creates an `AndroidDriver<WebElement>` object.
- Toolbars and Status Bar:** Standard Eclipse toolbars and a status bar showing the date and time (12/27 / 13:26).
- Bottom Buttons:** Includes Back, Forward, Stop, Refresh, and Home buttons.





```

eclipse-workspace - Appium_Mobile_Tst_Project\ExampleHorizontalScrolingProject - Itens 01
File Edit Source Refactor Navigate Search Project Run Window Help
File Edit Source Refactor Navigate Search Project Run Window Help
src/main/java/com/example/HorizontalScrolingProject.java
1 package com.example.HorizontalScrolingProject;
2
3 import io.appium.java_client.MobileElement;
4 import io.appium.java_client.android.AndroidDriver;
5
6 import java.net.URL;
7
8 import org.openqa.selenium.remote.DesiredCapabilities;
9
10 public class HorizontalScrolingProject {
11     public static void main(String[] args) throws Exception {
12         DesiredCapabilities dc = new DesiredCapabilities();
13
14         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
15
16         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
17
18         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");//Version is number here
19
20         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android");
21
22         dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\\\AndroidUI.apk");
23
24         URL url =new URL("http://127.0.0.1:4723/wd/hub");
25
26         AndroidDriver<WebElement> driver= new AndroidDriver<WebElement>(url,dc);
27
28         //ProgressBar/Horizontal scrolling
29
30         WebElement obj=driver.findElementById("com.android.androidui:id/seekBar1");
31
32         String vali=driver.findElementById("com.android.androidui:id/textProgress").getText();
33
34         TouchAction action=new TouchAction((MobileDriver) driver);
35
36         action.longPress(ElementOption.element(obj)).moveTo(ElementOption.element(obj),250,250).release();
37
38         // Note: This element neither has attached source nor client-side action and hence its handle could be found.
39
40     }
41
42 }
43
44 }
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
79
80
81
82
83
84
85
86
87
88
89
89
90
91
92
93
94
95
96
97
98
99
99
100
101
102
103
104
105
106
107
108
109
109
110
111
112
113
114
115
116
117
118
119
119
120
121
122
123
124
125
126
127
128
129
129
130
131
132
133
134
135
136
137
138
139
139
140
141
142
143
144
145
146
147
148
149
149
150
151
152
153
154
155
156
157
158
159
159
160
161
162
163
164
165
166
167
168
169
169
170
171
172
173
174
175
176
177
178
179
179
180
181
182
183
184
185
186
187
188
189
189
190
191
192
193
194
195
196
197
198
199
199
200
201
202
203
204
205
206
207
208
209
209
210
211
212
213
214
215
216
217
218
219
219
220
221
222
223
224
225
226
227
228
229
229
230
231
232
233
234
235
236
237
238
239
239
240
241
242
243
244
245
246
247
248
249
249
250
251
252
253
254
255
256
257
258
259
259
260
261
262
263
264
265
266
267
268
269
269
270
271
272
273
274
275
276
277
278
279
279
280
281
282
283
284
285
286
287
288
289
289
290
291
292
293
294
295
296
297
298
299
299
300
301
302
303
304
305
306
307
308
309
309
310
311
312
313
314
315
316
317
318
319
319
320
321
322
323
324
325
326
327
328
329
329
330
331
332
333
334
335
336
337
338
339
339
340
341
342
343
344
345
346
347
348
349
349
350
351
352
353
354
355
356
357
357
358
359
360
361
362
363
364
365
366
367
368
369
369
370
371
372
373
374
375
376
377
378
379
379
380
381
382
383
384
385
386
387
388
389
389
390
391
392
393
394
395
396
397
398
399
399
400
401
402
403
404
405
406
407
408
409
409
410
411
412
413
414
415
416
417
418
419
419
420
421
422
423
424
425
426
427
428
429
429
430
431
432
433
434
435
436
437
438
439
439
440
441
442
443
444
445
446
447
448
449
449
450
451
452
453
454
455
456
457
458
459
459
460
461
462
463
464
465
466
467
468
469
469
470
471
472
473
474
475
476
477
478
479
479
480
481
482
483
484
485
486
487
488
489
489
490
491
492
493
494
495
496
497
498
499
499
500
501
502
503
504
505
506
507
508
509
509
510
511
512
513
514
515
516
517
518
519
519
520
521
522
523
524
525
526
527
528
529
529
530
531
532
533
534
535
536
537
538
539
539
540
541
542
543
544
545
546
547
548
549
549
550
551
552
553
554
555
556
557
558
559
559
560
561
562
563
564
565
566
567
568
569
569
570
571
572
573
574
575
576
577
578
579
579
580
581
582
583
584
585
586
587
588
589
589
590
591
592
593
594
595
596
597
598
599
599
600
601
602
603
604
605
606
607
608
609
609
610
611
612
613
614
615
616
617
618
619
619
620
621
622
623
624
625
626
627
628
629
629
630
631
632
633
634
635
636
637
638
639
639
640
641
642
643
644
645
646
647
648
649
649
650
651
652
653
654
655
656
657
658
659
659
660
661
662
663
664
665
666
667
668
669
669
670
671
672
673
674
675
676
677
678
679
679
680
681
682
683
684
685
686
687
688
689
689
690
691
692
693
694
695
696
697
698
699
699
700
701
702
703
704
705
706
707
707 / 9.32

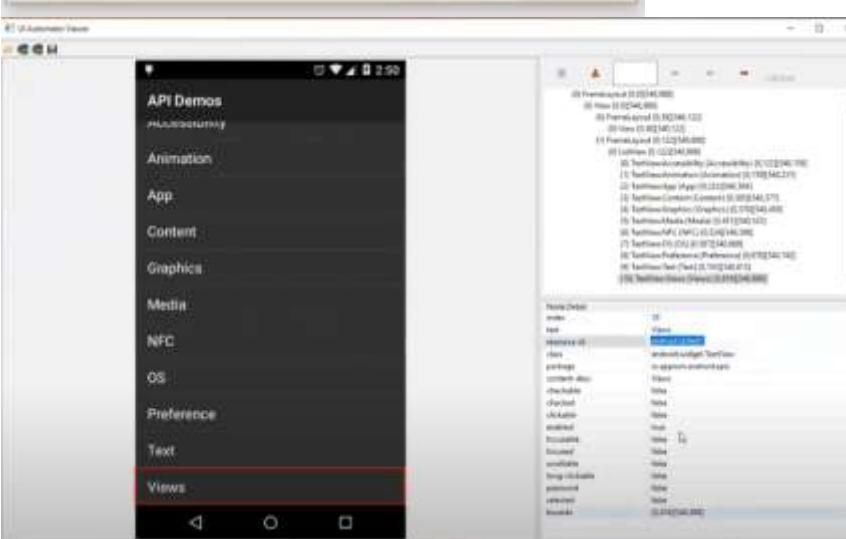
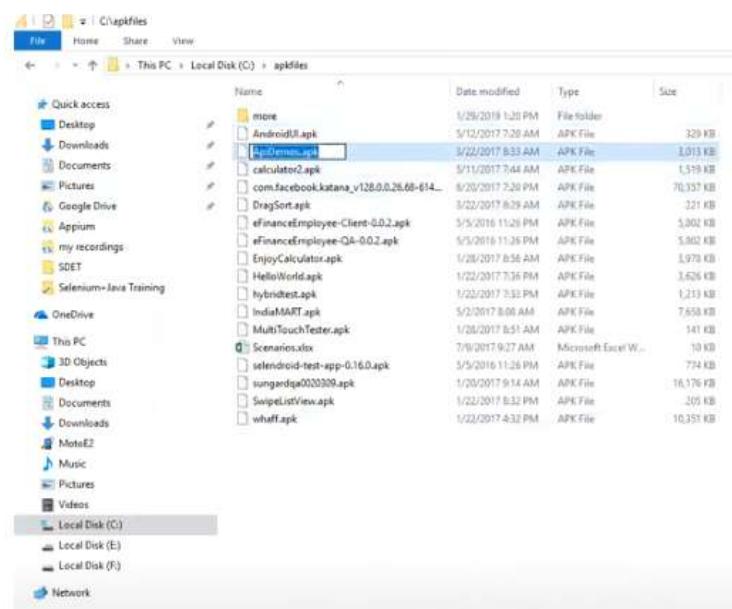
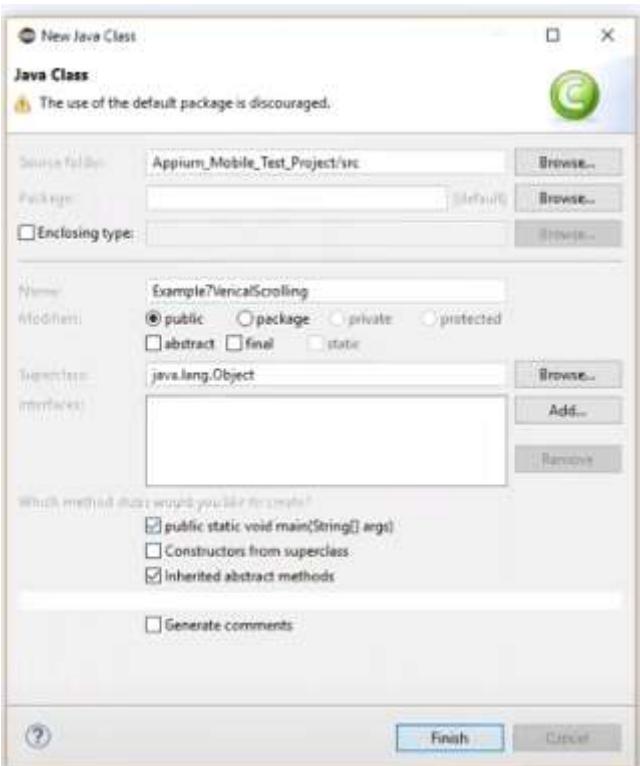
```

```

eclipse-workspace - Appium_Mobile_Tst_Project\ExampleHorizontalScrolingProject - Itens 01
File Edit Source Refactor Navigate Search Project Run Window Help
File Edit Source Refactor Navigate Search Project Run Window Help
src/main/java/com/example/HorizontalScrolingProject.java
1 package com.example.HorizontalScrolingProject;
2
3 import io.appium.java_client.MobileElement;
4 import io.appium.java_client.android.AndroidDriver;
5
6 import java.net.URL;
7
8 import org.openqa.selenium.remote.DesiredCapabilities;
9
10 public class HorizontalScrolingProject {
11     public static void main(String[] args) throws Exception {
12         DesiredCapabilities dc = new DesiredCapabilities();
13
14         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
15
16         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
17
18         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");//Version is number here
19
20         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android");
21
22         dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\\\AndroidUI.apk");
23
24         URL url =new URL("http://127.0.0.1:4723/wd/hub");
25
26         AndroidDriver<WebElement> driver= new AndroidDriver<WebElement>(url,dc);
27
28         //ProgressBar/Horizontal scrolling
29
30         WebElement obj=driver.findElementById("com.android.androidui:id/seekBar1");
31
32         String vali=driver.findElementById("com.android.androidui:id/textProgress").getText();
33
34         TouchAction action=new TouchAction((MobileDriver) driver);
35
36         action.longPress(ElementOption.element(obj)).moveTo(ElementOption.element(obj),250,250).release();
37
38         // Note: This element neither has attached source nor client-side action and hence its handle could be found.
39
40     }
41
42 }
43
44 }
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
59
60
61
62
63
64
65
66
67
68
69
69
70
71
72
73
74
75
76
77
78
79
79
80
81
82
83
84
85
86
87
88
89
89
90
91
92
93
94
95
96
97
98
99
99
100
101
102
103
104
105
106
107
108
109
109
110
111
112
113
114
115
116
117
118
119
119
120
121
122
123
124
125
126
127
128
129
129
130
131
132
133
134
135
136
137
138
139
139
140
141
142
143
144
145
146
147
148
149
149
150
151
152
153
154
155
156
157
158
159
159
160
161
162
163
164
165
166
167
168
169
169
170
171
172
173
174
175
176
177
178
179
179
180
181
182
183
184
185
186
187
188
189
189
190
191
192
193
194
195
196
197
198
199
199
200
201
202
203
204
205
206
207
208
209
209
210
211
212
213
214
215
216
217
218
219
219
220
221
222
223
224
225
226
227
228
229
229
230
231
232
233
234
235
236
237
238
239
239
240
241
242
243
244
245
246
247
248
249
249
250
251
252
253
254
255
256
257
258
259
259
260
261
262
263
264
265
266
267
268
269
269
270
271
272
273
274
275
276
277
278
279
279
280
281
282
283
284
285
286
287
288
289
289
290
291
292
293
294
295
296
297
298
299
299
300
301
302
303
304
305
306
307
308
309
309
310
311
312
313
314
315
316
317
318
319
319
320
321
322
323
324
325
326
327
328
329
329
330
331
332
333
334
335
336
337
338
339
339
340
341
342
343
344
345
346
347
348
349
349
350
351
352
353
354
355
356
357
358
359
359
360
361
362
363
364
365
366
367
368
369
369
370
371
372
373
374
375
376
377
378
379
379
380
381
382
383
384
385
386
387
388
389
389
390
391
392
393
394
395
396
397
398
399
399
400
401
402
403
404
405
406
407
408
409
409
410
411
412
413
414
415
416
417
418
419
419
420
421
422
423
424
425
426
427
428
429
429
430
431
432
433
434
435
436
437
438
439
439
440
441
442
443
444
445
446
447
448
449
449
450
451
452
453
454
455
456
457
458
459
459
460
461
462
463
464
465
466
467
468
469
469
470
471
472
473
474
475
476
477
478
479
479
480
481
482
483
484
485
486
487
488
489
489
490
491
492
493
494
495
496
497
498
499
499
500
501
502
503
504
505
506
507
508
509
509
510
511
512
513
514
515
516
517
518
519
519
520
521
522
523
524
525
526
527
528
529
529
530
531
532
533
534
535
536
537
538
539
539
540
541
542
543
544
545
546
547
548
549
549
550
551
552
553
554
555
556
557
558
559
559
560
561
562
563
564
565
566
567
568
569
569
570
571
572
573
574
575
576
577
578
579
579
580
581
582
583
584
585
586
587
588
589
589
590
591
592
593
594
595
596
597
598
599
599
600
601
602
603
604
605
606
607
608
609
609
610
611
612
613
614
615
616
617
618
619
619
620
621
622
623
624
625
626
627
628
629
629
630
631
632
633
634
635
636
637
638
639
639
640
641
642
643
644
645
646
647
648
649
649
650
651
652
653
654
655
656
657
658
659
659
660
661
662
663
664
665
666
667
668
669
669
670
671
672
673
674
675
676
677
678
679
679
680
681
682
683
684
685
686
687
688
689
689
690
691
692
693
694
695
696
697
698
699
699
700
701
702
703
704
705
706
707
707 / 9.32

```

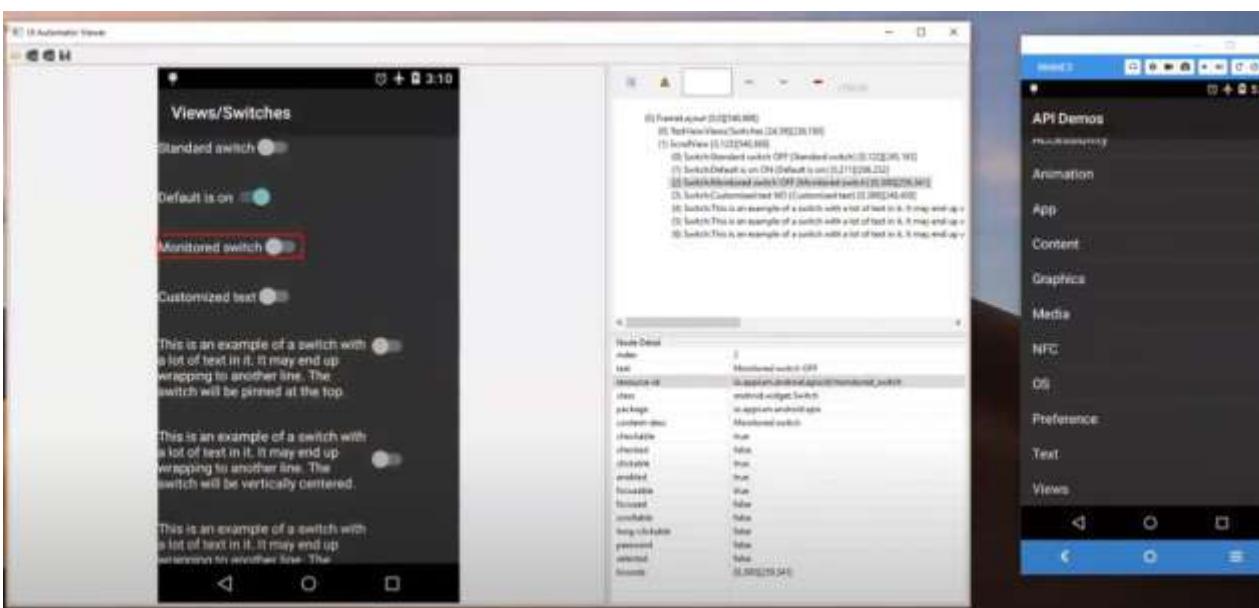
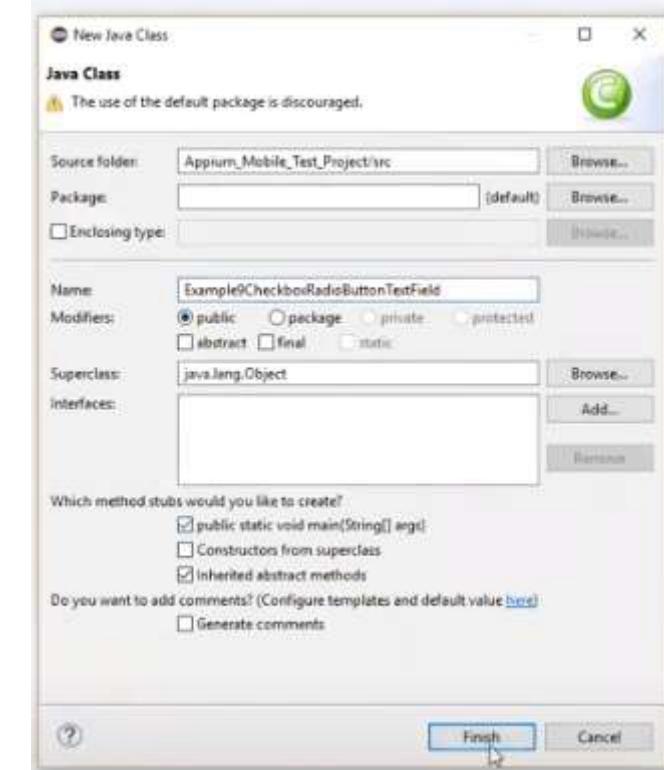
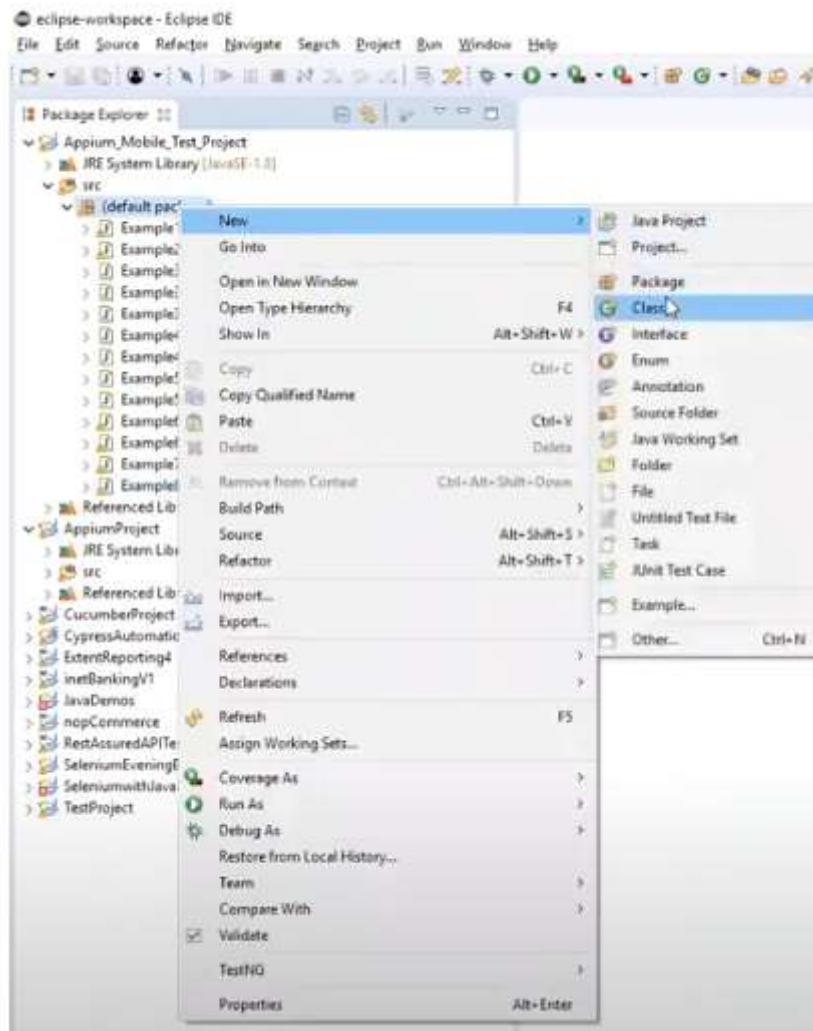
```
17    DesiredCapabilities dc= new DesiredCapabilities();
18
19    dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "Appium");
20
21    dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "Android");
22
23    dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");//Version is number here
24
25    dc.setCapability(MobileCapabilityType.DEVICE_NAME, "Android");
26
27    dc.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\AndroidUI.apk");
28
29    URL url =new URL("http://127.0.0.1:4723/wd/hub");
30
31    AndroidDriver<WebElement> driver= new AndroidDriver<WebElement>(url,dc);
32
33    //ProgressBar/Horizontal scrolling
34
35    WebElement obj=driver.findElementById("com.android.androidui:id/seekBar1");
36
37    String val1=driver.findElementById("com.android.androidui:id/textProgress").getText();
38    System.out.println(val1);
39
40    TouchAction action=new TouchAction((MobileDriver) driver);
41
42    I action.longPress(ElementOption.element(obj)).moveTo(ElementOption.element(obj),250,250).release();
43
44    String val2=driver.findElementById("com.android.androidui:id/textProgress").getText();
45    System.out.println(val2);
46
47  }
48
49 }
```

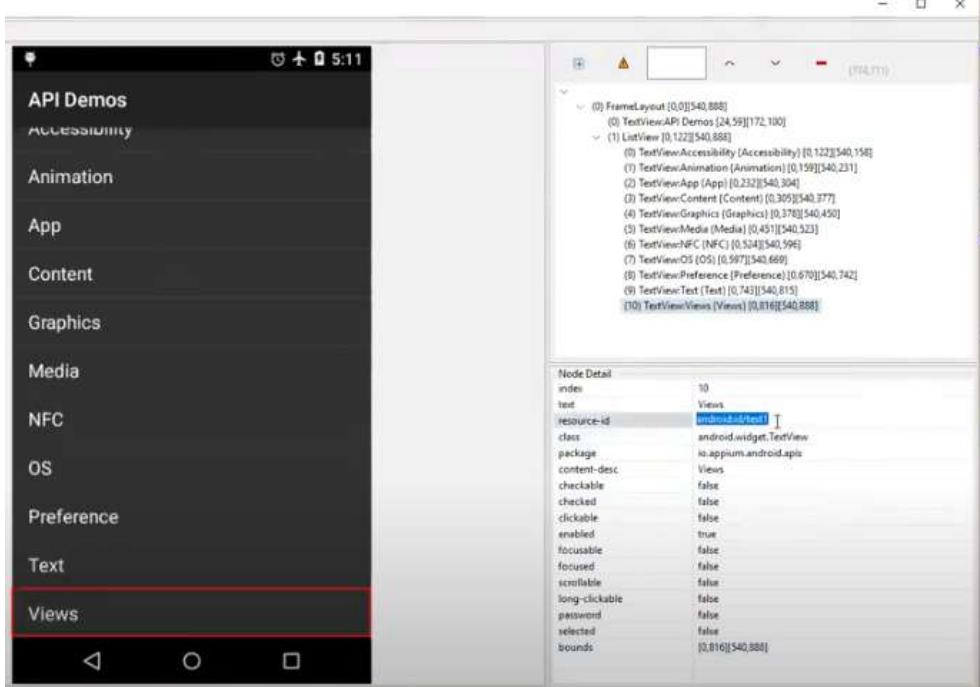


```

11 //set capability
12 driver.setCapability(MobileCapabilityType.PLATFORM_VERSION, "5.1");//version is number here
13 driver.setCapability(MobileCapabilityType.DEVICE_NAME, "Android");
14 driver.setCapability(MobileCapabilityType.APP, "C:\\apkfiles\\ApIDemos.apk");
15 URL url = new URL("http://127.0.0.1:4723/wd/hub");
16
17 AndroidDriver<WebElement> driver = new AndroidDriver<WebElement>(url, d);
18
19 //vertical scrolling
20 driver.findElementsById("android:id/text1").get(10).click(); //identify views and click on it
21
22 //capturing all text list items
23 AndroidList<WebElement> list = (AndroidList<WebElement>) driver.findElementsById("android:id/text1");
24
25 //scrolling down till we get the element
26 MobileElement listitem = (MobileElement) driver.findElement(
27         MobileBy.AndroidUIAutomator(
28             "new UiScrollable(new UiSelector()).scrollIntoView()";
29             + "new UiSelector().description(\"Switches\")"));
30
31
32 System.out.println(listitem.getAttribute());
33 listitem.click();
34
35 }
36
37 }

```





```
import io.appium.java_client.android.AndroidDriver;
import org.openqa.selenium.By;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.remote.DesiredCapabilities;
import java.net.URL;
import java.util.List;
import java.util.concurrent.TimeUnit;

public class Test {
    public static void main(String[] args) throws Exception {
        //Desired Capabilities
        DesiredCapabilities caps = new DesiredCapabilities();
        caps.setCapability("deviceName", "Android Device");
        caps.setCapability("platformName", "Android");
        caps.setCapability("appPackage", "io.appium.android.apis");
        caps.setCapability("appActivity", ".TextActivity");
        caps.setCapability("noReset", true);
        caps.setCapability("autoGrantPermissions", true);

        //Driver
        URL url = new URL("http://127.0.0.1:4723/wd/hub");
        AndroidDriver<WebElement> driver = new AndroidDriver<WebElement>(url, caps);
        driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

        //Views
        driver.findElementsById("android:id/text1").get(18).click(); //views options

        //Controls
        driver.findElementsById("android:id/text1").get(4).click(); //controls

        //Dark theme
        //driver.findElementsById("android:id/text1").get(1).click(); //dark theme OR
        driver.findElementByAccessibilityId("2. Dark Theme").click(); //dark theme

        //text box
        driver.findElementById("io.appium.android.apis:id/edit").sendKeys("Pavan");

        //checkbox
        driver.findElementById("io.appium.android.apis:id/check1").click();

        //Radio button 1
        driver.findElementById("io.appium.android.apis:id/radio1").click();

        driver.quit();
    }
}
```

```
1 Mobile App Testing(IOS)
2
3 Configuration Required on Mac X OS
4 -----
5
6
7 Pre-Requisites
8 *****
9
10 1) Java/JDK
11     Watch Video: https://www.youtube.com/watch?v=UXreD6NCC3g
12
13 2) Eclipse IDE
14     Watch Video: https://www.youtube.com/watch?v=T26Qa6k4zZ8&t=188s
15
16 3) Appium Desktop (Download dmg file and install)
17     https://github.com/appium/appium-desktop/releases/download/v1.12.1/Appium-mac-1.12.1.dmg
18
19 4) Appium Java client jars
20     http://appium.io/downloads.html
21
22 6) Selenium Java client
23     https://bit.ly/2TlkRyu
24
25 7) Xcode -- used to create Virtual device(Simulator)
26     Download link: https://developer.apple.com/download/more/
27
28 8) UI catalog App
29     https://github.com/appium/ios-uicatalog
30
```

Google search results for "download appium desktop for macos":

Showing results for **download appium desktop for mac os**

Downloads - Appium: Mobile App Automation Made Awesome.  
appium.io/downloads.html

Downloads. Appium Libraries & Apps ... Appium's desktop app supports OS X, Windows and Linux.  
Appium Desktop for OSX, Windows and Linux. We're open for ...

You've visited this page 2 times. Last visit: 31/1/19

Appium Desktop App - Download and Install - AutomationTestingHub  
www.automationtestinghub.com/appium-desktop/

May 29, 2019 · Follow this detailed guide to download & install Appium Desktop App ... will learn about the download and install process of Appium Desktop on a ... latest release, you will find different packages for Windows, Mac, Linux etc.

GitHub - appium/appium-desktop: Appium Server and Inspector in ...  
https://github.com/appium/appium-desktop

If you're on macOS, you will need to install Appium Desktop by copying the app from the downloaded DMG file to your own file system (the best place is the ...

Releases · appium/appium-desktop · GitHub  
https://github.com/appium/appium-desktop/releases

A JS Foundation Project

Appium Home Introduction Get started History Get Involved Documentation Books & Resources

# appium

## Automation for Apps

Appium is an open source test automation framework for use with native, hybrid and mobile web apps. It drives iOS, Android, and Windows apps using the WebDriver protocol.

[Download Appium](#)

Join us for the official Appium Conference • 13-15 June 2019 • Bengaluru, India

**1.12.1**

v1.12.1 · dgraham · 4 commits to master since this release

Assets 12

File	Size
Appium-1.12.1-mac.zip	146 MB
appium-desktop-1.12.1-x64.nsis.7z	116 MB
Appium-linux-1.12.1.AppImage	125 MB
Appium-mac-1.12.1.dmg.blockmap	151 KB
Appium-windows-1.12.1.exe	729 KB
Appium-windows-1.12.1.exe.blockmap	117 KB
latest-linux.yml	379 Bytes
latest-mac.yml	517 Bytes
latest.yml	579 Bytes
Source code (zip)	
Source code (tar.gz)	

The screenshot shows the SeleniumHQ website's 'Downloads' page. At the top, there's a banner for 'SeleniumConf Tel Aviv' with a 'NOW GO BUY!' button. Below the banner, the 'Downloads' section is visible, featuring links for 'Selenium Downloads', 'Previous Releases', 'Source Code', and 'Release Information'. A 'Donate to Selenium' button with a 'PayPal' icon is present. The 'Selenium Standalone Server' section includes a note about its use for running Selenium RC drivers, download links for 'Download version 3.14.0-RC' and 'Download version 3.14.0', and instructions for using it in a Grid configuration. The 'The Internet Explorer Driver Server' section notes its use for IE10+ and provides download links for 'Download version 3.14.0 (Recommended)' and 'Download 3.14.0'. The 'Selenium Client & WebDriver Language Bindings' section lists bindings for Java, C#, Python, Ruby, and JavaScript, along with their release dates. A 'CK Model' section is also shown.

A Notepad window titled 'C:\Users\admin\Desktop\Notes.txt - Notepad++' displays a list of pre-requisites:

```
6
7 Pre-Requisites
8 *****
9
10 1) Java/JDK
11     Watch Video: https://www.youtube.com/watch?v=UXreD6NCC3g
12
13 2) Eclipse IDE
14     Watch Video: https://www.youtube.com/watch?v=T26Qa6k4zZ8&t=188s
15
16 3) Appium Desktop (Download dmg file and install)
17     https://github.com/appium/appium-desktop/releases/download/v1.12.1/Appium-mac-1.12.1.dmg
18
19 4) Appium Java client jars
20     http://appium.io/downloads.html
21
22 6) Selenium Java client
23     https://bit.ly/2TlkRyu
24
25 7) Xcode -- used to create Virtual device(Simulator)
26     Download link: https://developer.apple.com/download/more/
27
28 8) UI catalog App
29     https://github.com/appium/ios-uicatalog
30
31
32
33
34
35
```

A web browser window showing the 'Sign in to Apple Developer' page at [idmsa.apple.com](https://idmsa.apple.com). The page has a 'Sign in' button, an email input field containing 'pavanoltraining@gmail.com', a password input field with masked text, a 'Remember me' checkbox, and links for 'Forgot Apple ID or password?' and 'Don't have an Apple ID? Create yours now.'

developer.apple.com

Apple Developer Discover Design Develop Distribute Support Account

## More Downloads for Apple Developers

Search Downloads

CATEGORIES

- Developer Tools
- macOS
- macOS Server
- Applications
- iOS
- Safari

Description	Release Date
Apple Developer Enterprise Program License Agreement	Apr 4, 2019
iOS Developer University Program Student Agreement	Apr 4, 2019
Kernel Debug Kit 10.13.6 build 17G7004	Mar 27, 2019
Kernel Debug Kit 10.12.6 build 16G2002	Mar 27, 2019
Kernel Debug Kit 10.14.5 build 18F96h	Mar 27, 2019
HTTP Live Streaming Tools	Mar 27, 2019
<b>Xcode 10.2</b>	Mar 26, 2019
Kernel Debug Kit 10.13.6 build 17G6028	Mar 25, 2019
Kernel Debug Kit 10.12.6 build 16G1917	Mar 25, 2019
Kernel Debug Kit 10.13.6 build 17G6029	Mar 25, 2019
Kernel Debug Kit 10.14.4 build 18E220a	Mar 25, 2019
Kernel Debug Kit 10.14.4 build 18E226	Mar 25, 2019
Swift \$ Runtime Support for Command Line Tools	Mar 25, 2019
Command Line Tools (macOS 10.14) for Xcode 10.2	Mar 25, 2019

developer.apple.com

Apple Developer Discover Design Develop Distribute Support Account

## More Downloads for Apple Developers

Search Downloads

CATEGORIES

- Developer Tools
- macOS
- macOS Server
- Applications
- iOS
- Safari

Description	Release Date
Apple Developer Enterprise Program License Agreement	Apr 4, 2019
iOS Developer University Program Student Agreement	Apr 4, 2019
Kernel Debug Kit 10.13.6 build 17G7004	Mar 27, 2019
Kernel Debug Kit 10.12.6 build 16G2002	Mar 27, 2019
Kernel Debug Kit 10.14.5 build 18F96h	Mar 27, 2019
HTTP Live Streaming Tools	Mar 27, 2019
<b>Xcode 10.2</b>	Mar 26, 2019
This is the complete Xcode developer toolkit for Apple Watch, Apple TV, iPhone, iPad, and Mac. It includes the Xcode IDE, iOS Simulator, and all required tools and frameworks for building iOS, watchOS, tvOS and macOS apps.	
Kernel Debug Kit 10.13.6 build 17G6028	Mar 25, 2019

Downloads

Favorites

- Recents
- iCloud Drive
- Applications
- Desktop
- Documents
- Downloads
- pavan

Devices

- Pavan's Mac
- Remote Disc

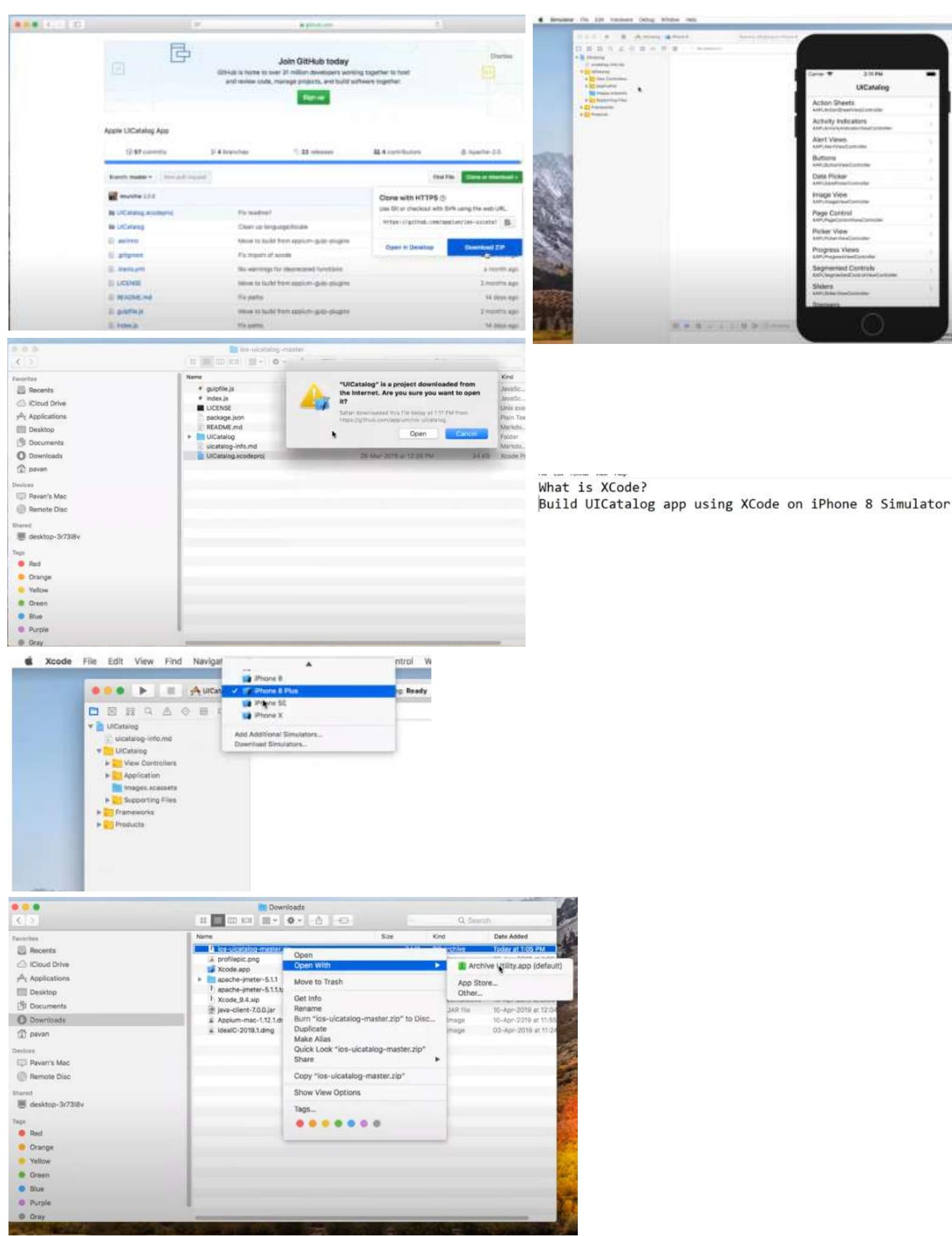
Shared

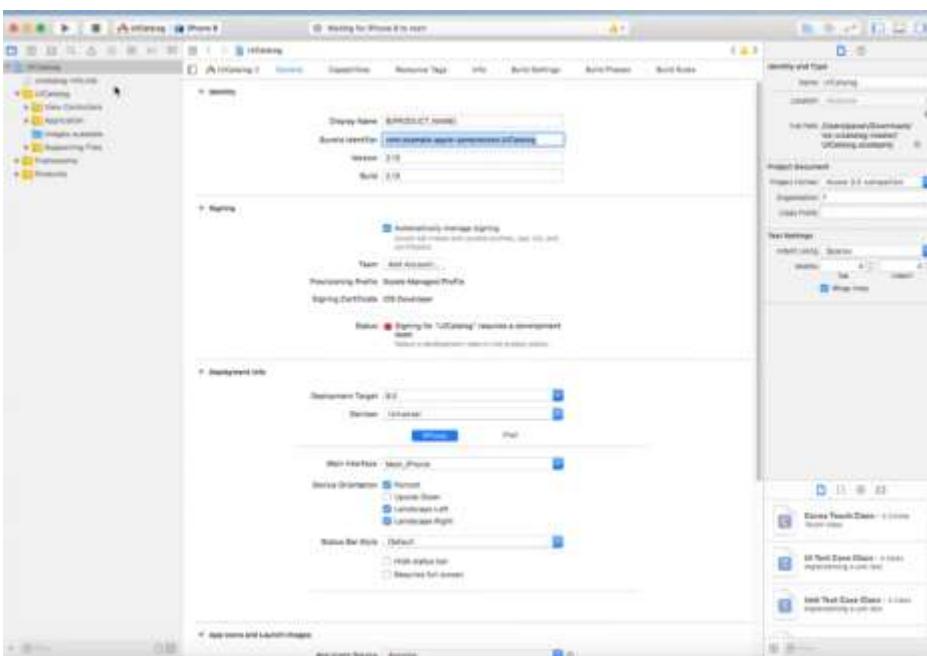
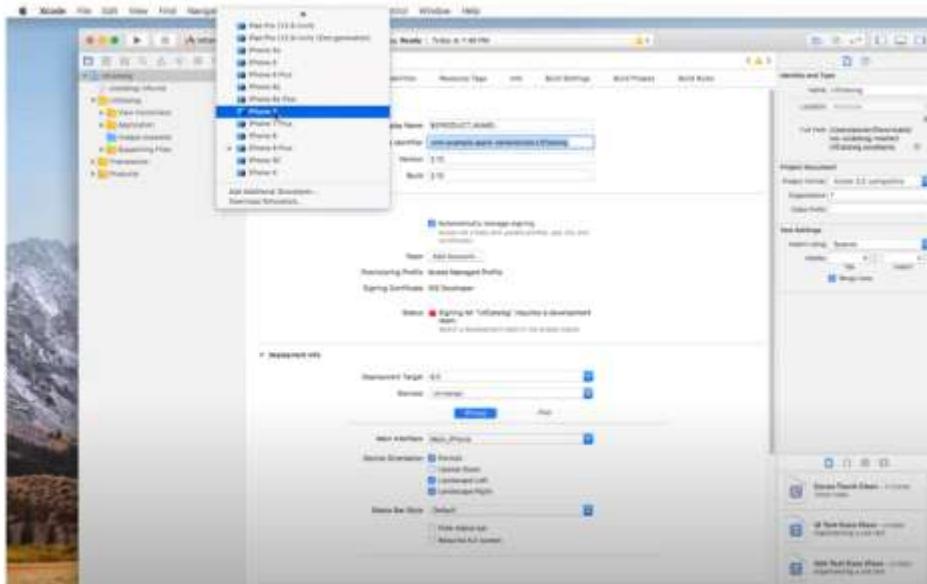
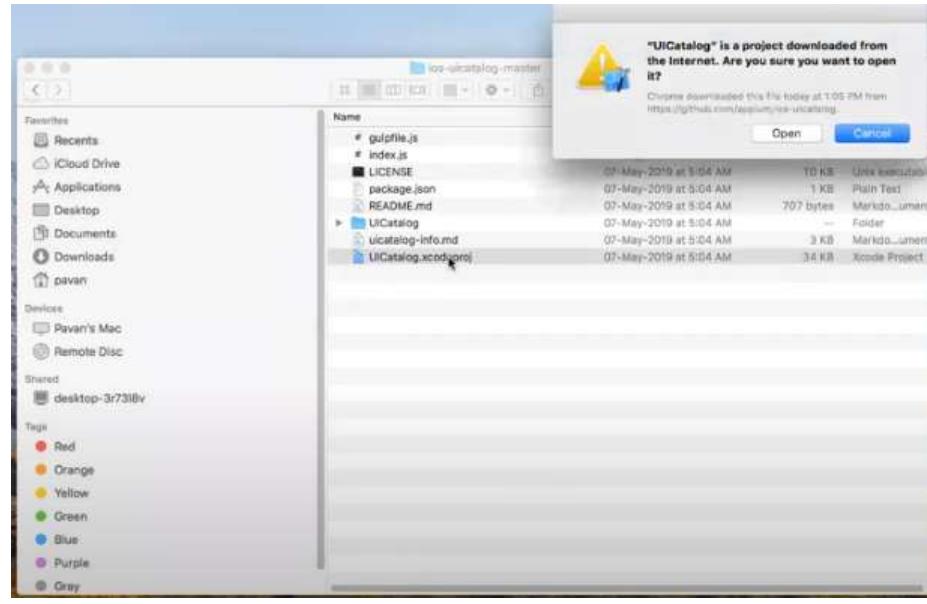
- desktop-3r73IBv

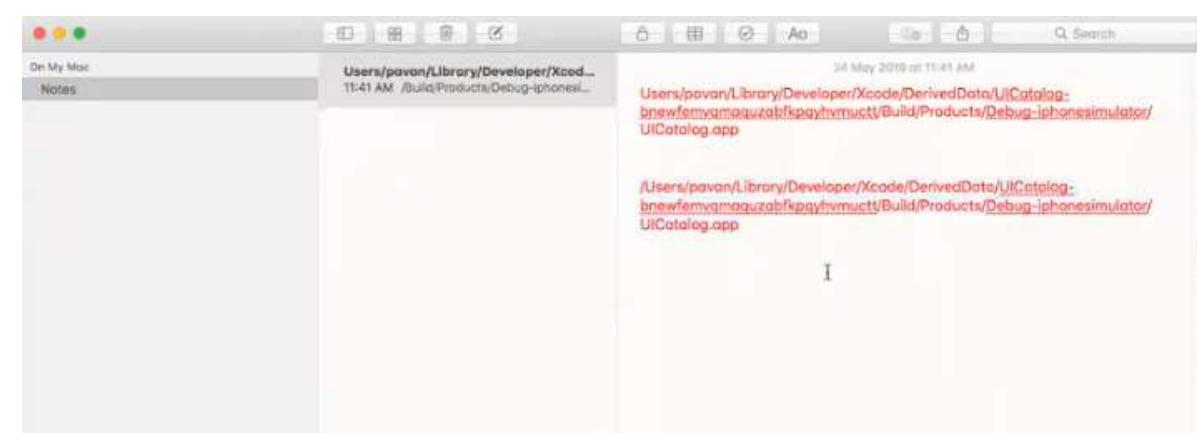
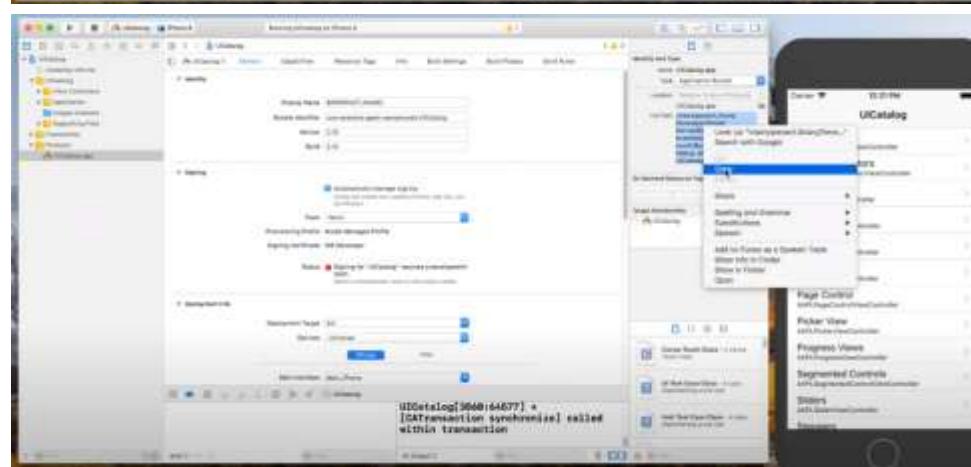
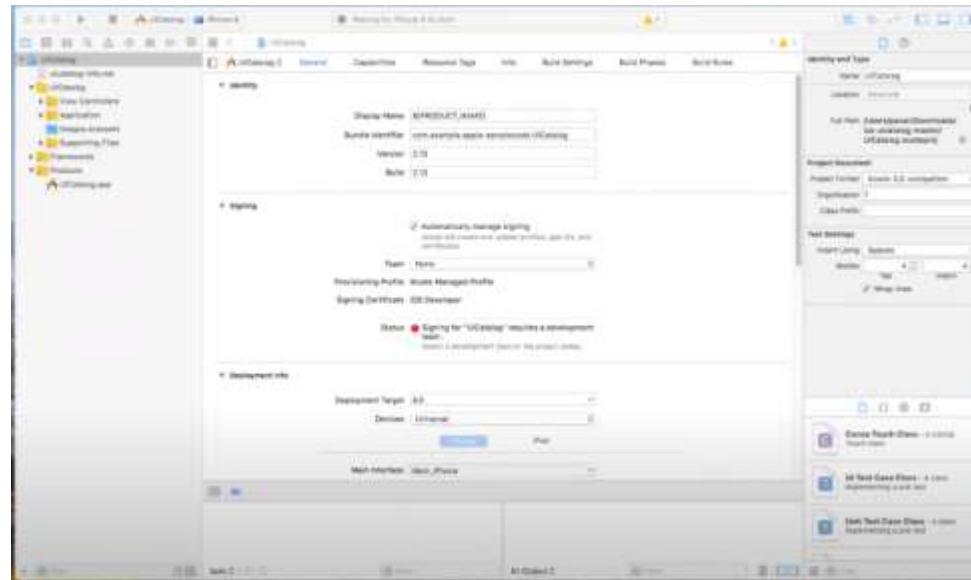
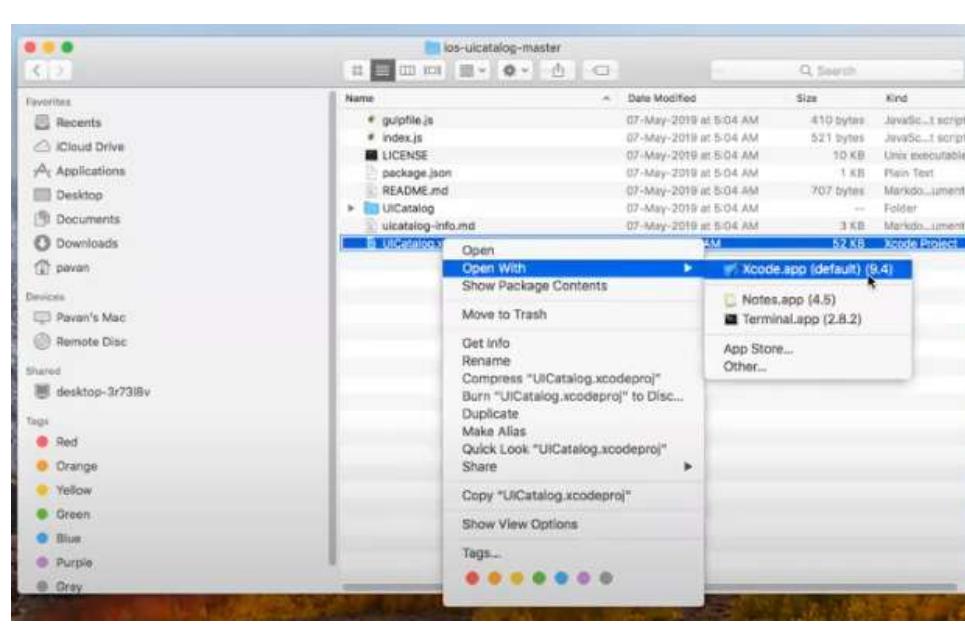
Tags

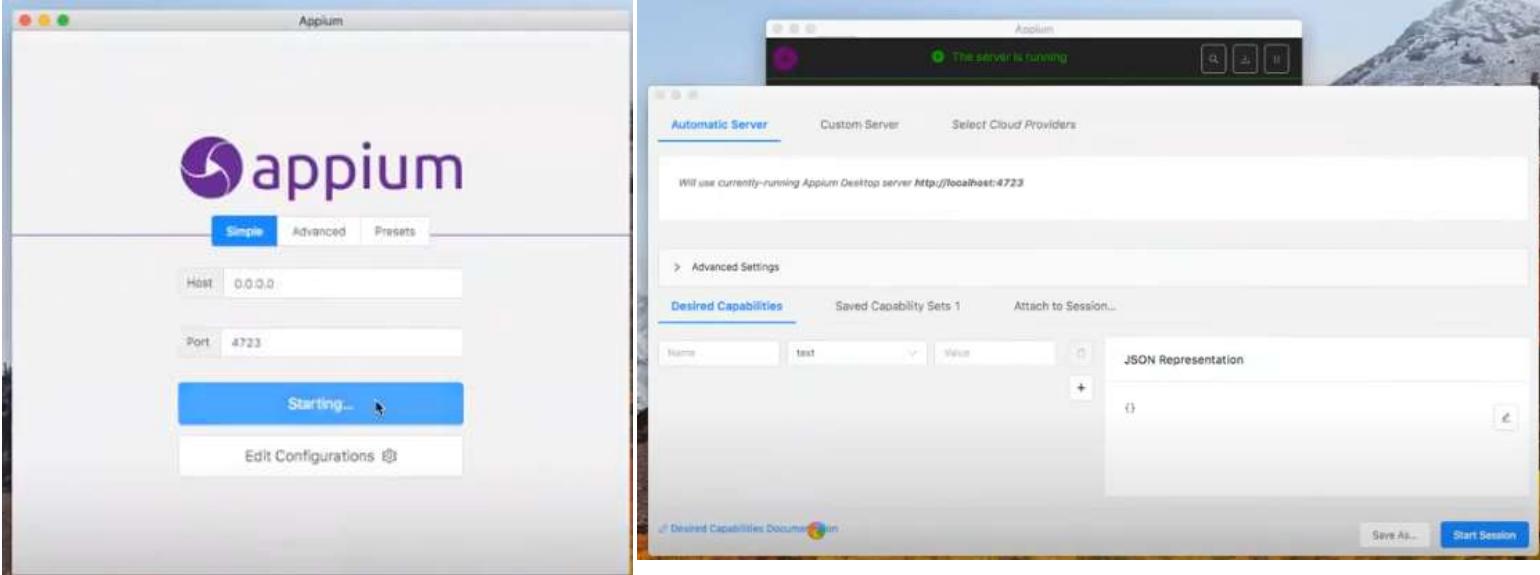
- Red
- Orange
- Yellow
- Green
- Blue
- Purple
- Gray

Name	Size	Kind	Date Added
ios-udidatalog-master	—	Folder	Today at 1:11 PM
Xcode.app	10.54 GB	Application	Today at 12:32 PM
apache-jmeter-5.1.1	—	Folder	Yesterday at 3:55 PM
apache-jmeter-5.1.1.tar	98.5 MB	tar archive	Yesterday at 3:50 PM
<b>Xcode_9.4.xip</b>	<b>5.27 GB</b>	XIP archive	Yesterday at 3:03 PM
java-client-7.0.0.jar	388 KB	Java JAR file	Yesterday at 12:04 PM
Appium-mac-1.12.1.dmg	148 MB	Disk Image	Yesterday at 11:55 AM
idealC-2019.1.dmg	575.1 MB	Disk Image	03-Apr-2019 at 11:24









Appium Desired Capabilities

Desired Capabilities are keys and values encoded in a JSON object, sent by Appium clients to the server when a new automation session is requested. They tell the Appium drivers all kinds of important things about how you want your test to work. Each Appium client builds capabilities in a way specific to the client's language, but at the end of the day, they are sent over to Appium as JSON objects.

Some important capabilities are demonstrated in the following example:

```
{"platformName": "iOS", "platformVersion": "11.4", "deviceName": "iPhone 8", "automationName": "XCUITest", "app": "/path/to/my.app"}
```

This set of Desired Capabilities expresses the desire for Appium to begin an automation session on an iPhone 8 simulator with iOS 11, using the XCUITest Driver, with /path/to/my.app as the app under test.

There are many, many Capabilities that Appium supports. Capabilities also differ by driver, though there are a standard set that most drivers pay attention to. What follows are a series of tables outlining the various Desired Capabilities available in general and for specific drivers.

Automatic Server    Custom Server    Select Cloud Providers

Will use currently-running Appium Desktop server <http://localhost:4723>

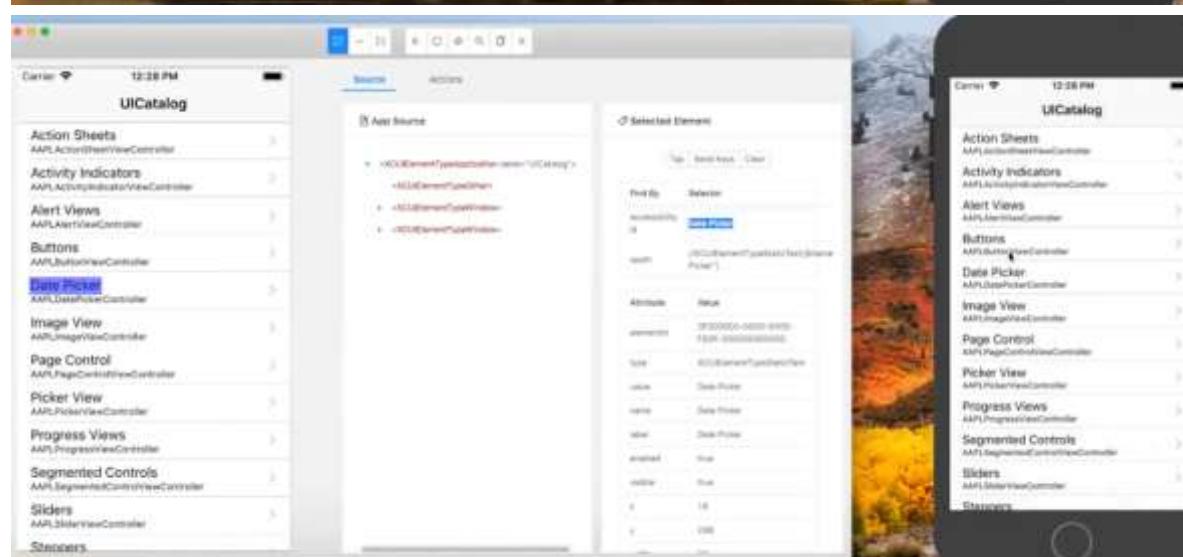
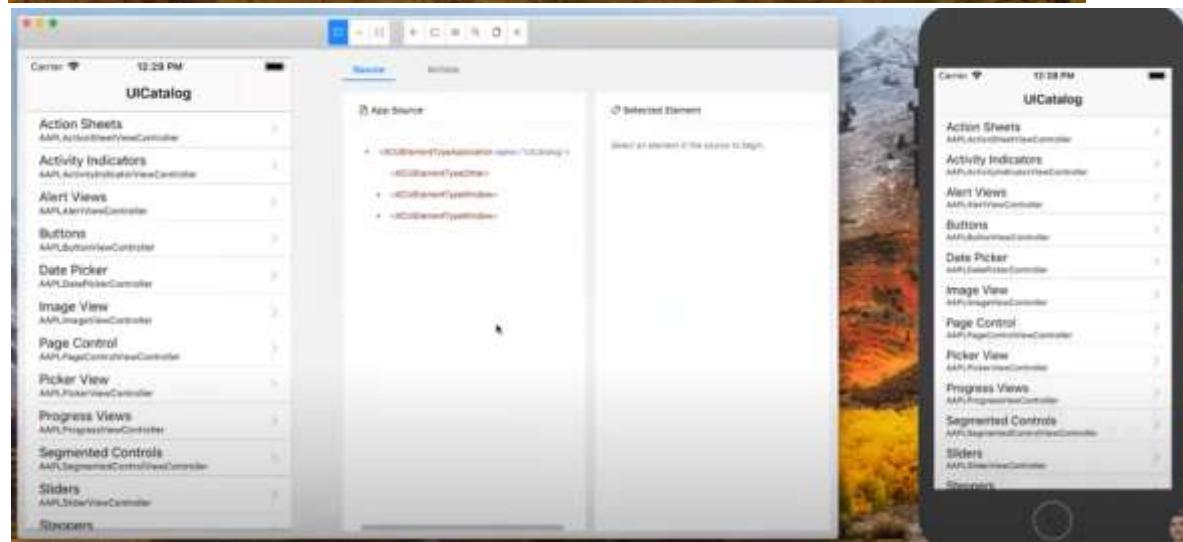
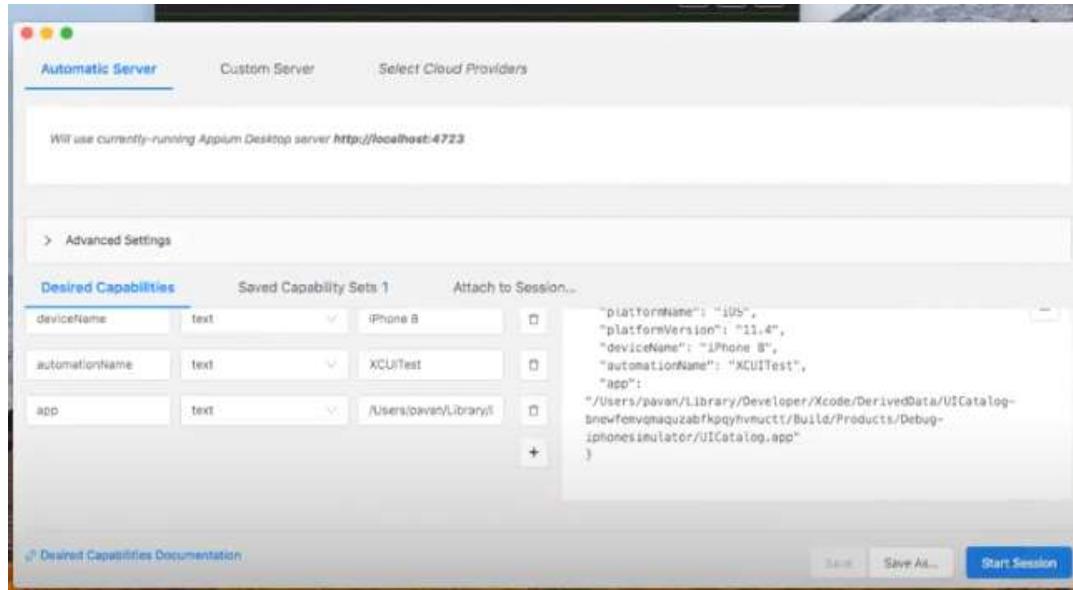
> Advanced Settings

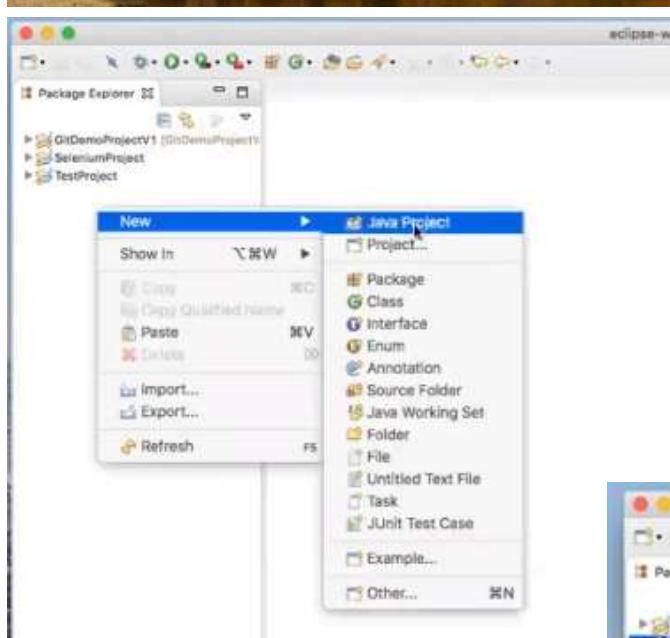
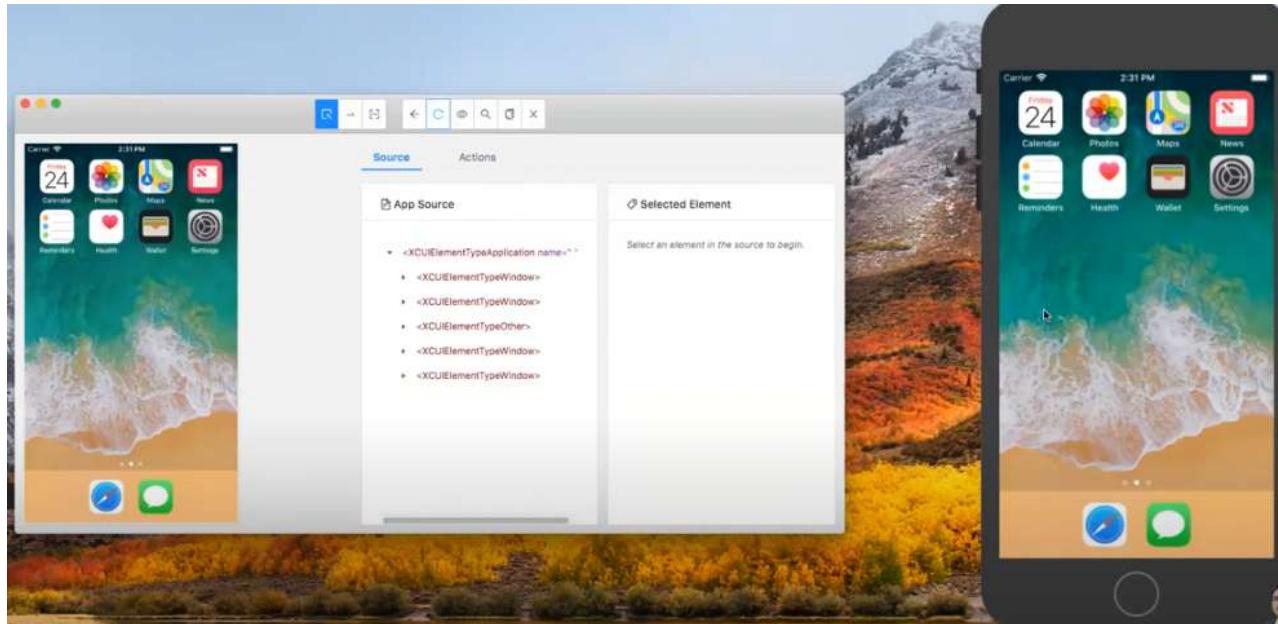
Desired Capabilities    Saved Capability Sets 1    Attach to Session...

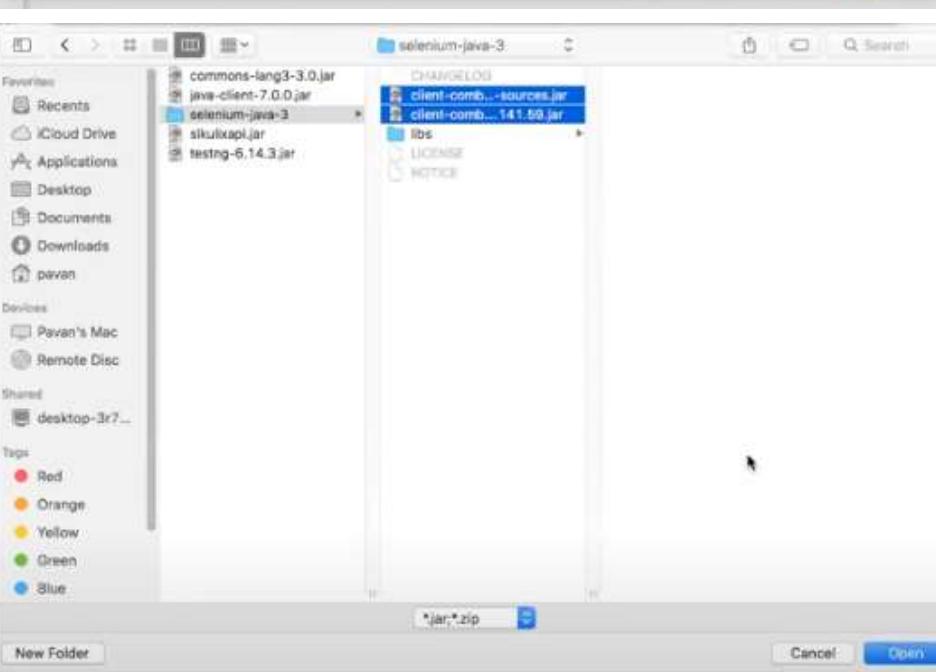
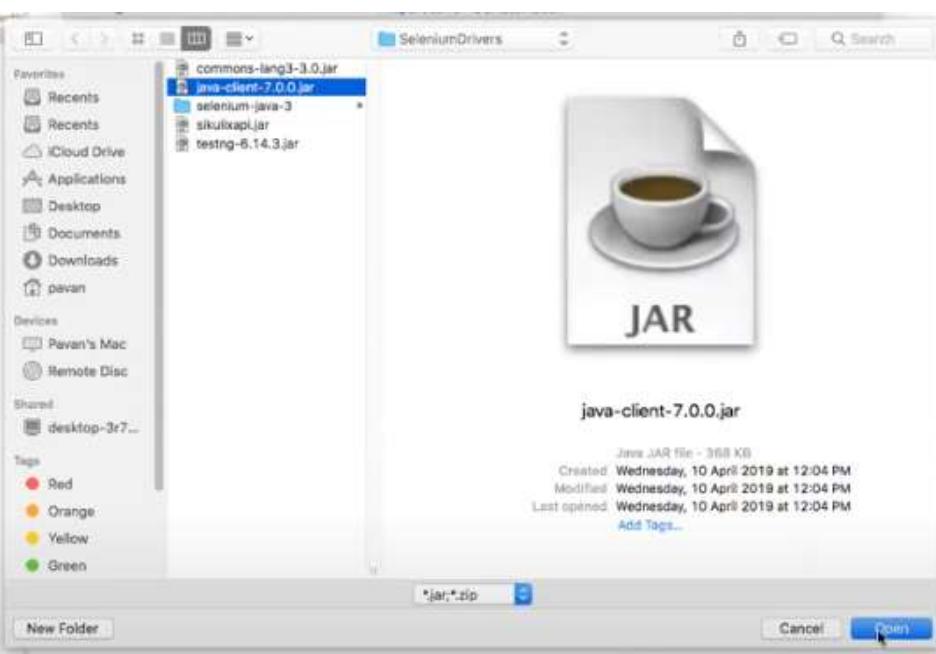
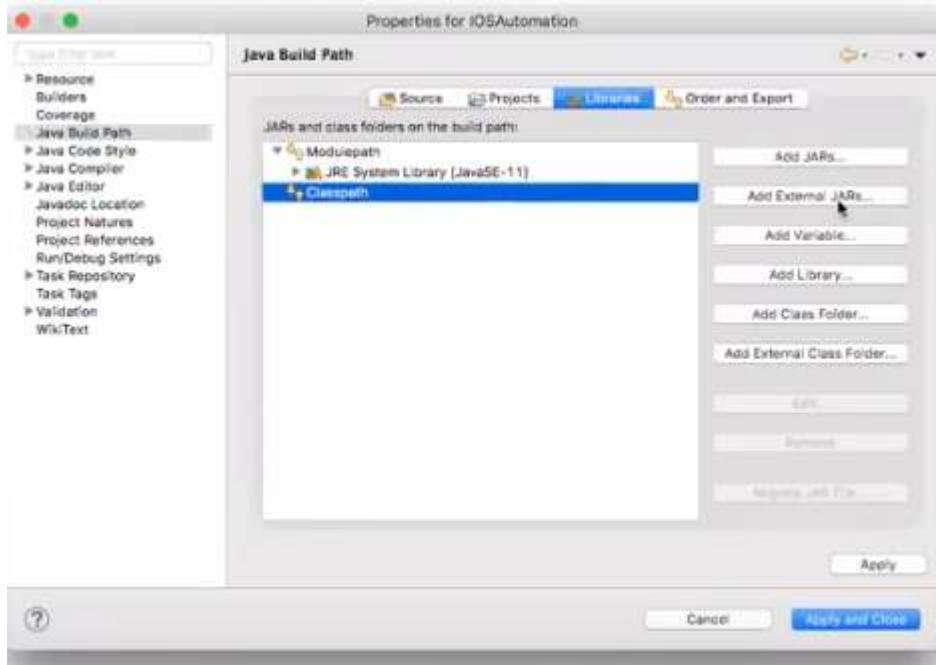
UICatalog\_iOS11.0\_iphone8    2019-05-22

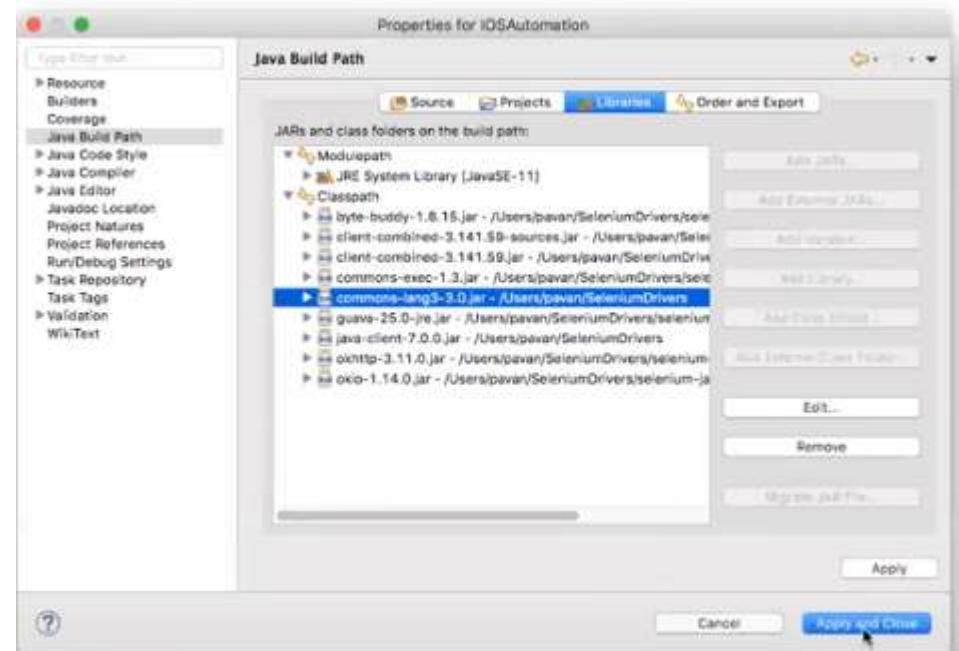
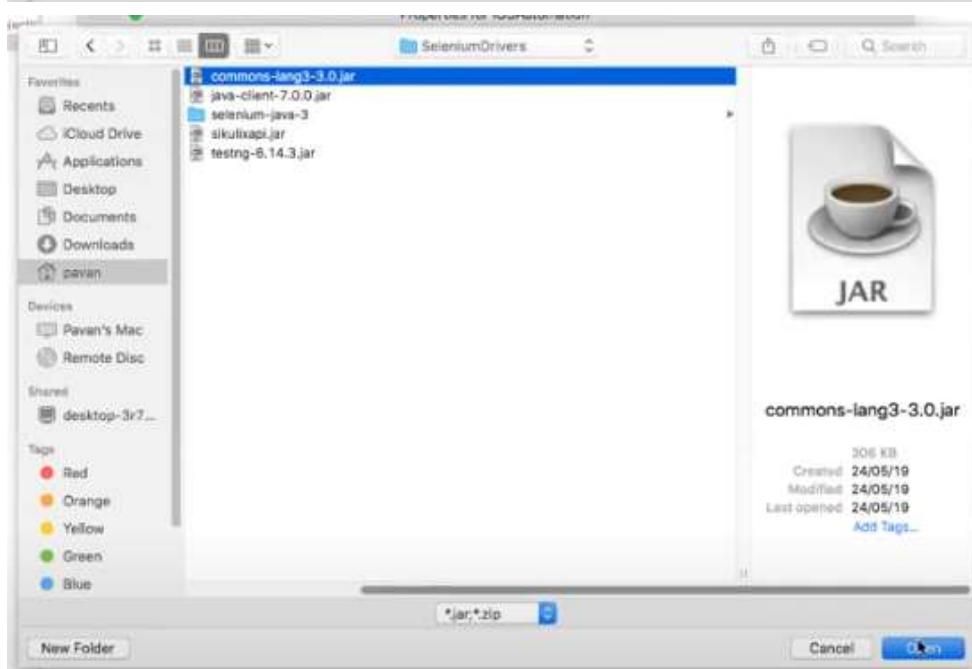
```
{"platformName": "iOS", "platformVersion": "11.4", "deviceName": "iPhone 8", "automationName": "XCUITest", "app": "/Users/pavan/Library/Developer/Xcode/DerivedData/UICatalog-bniewfemvignaquaobfkqyfhmucti/Build/Products/Debug-iphonesimulator/UICatalog.app"}
```

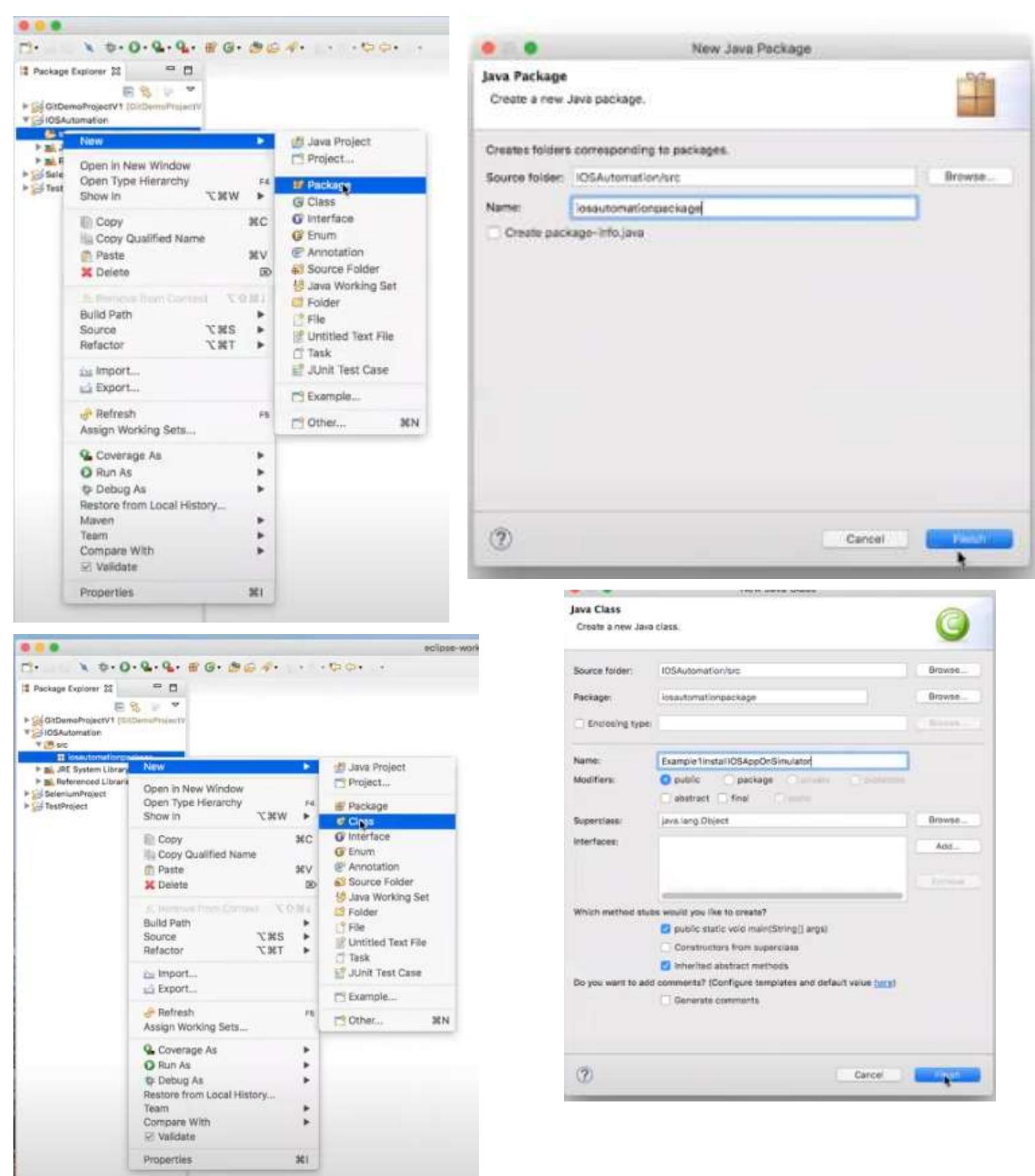
Desired Capabilities Documentation    Save As...    Start Session











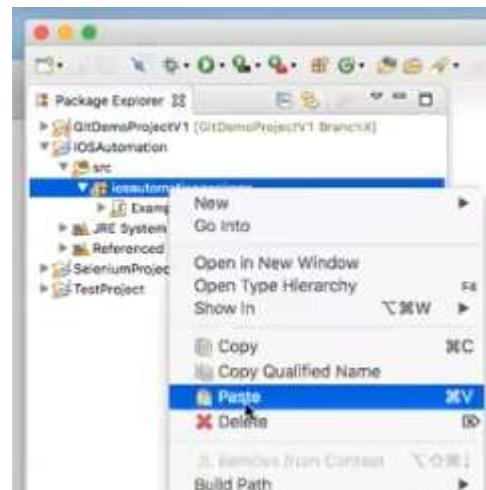
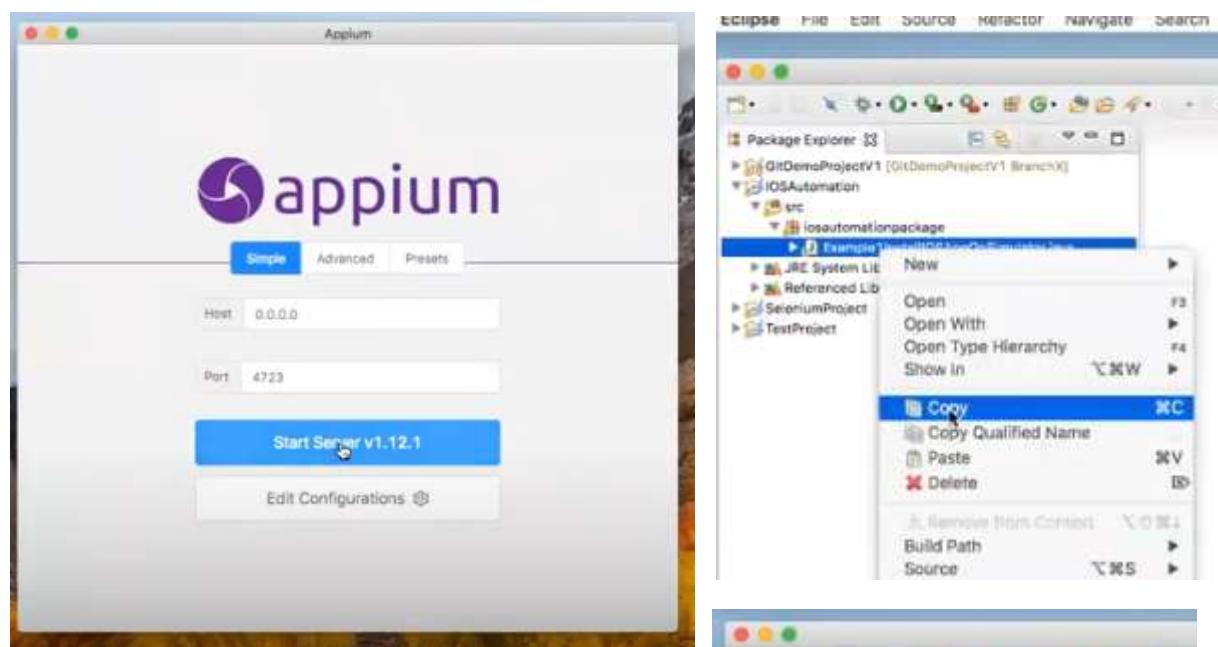
The screenshot shows the Eclipse IDE interface with the 'Package Explorer' view on the left and a code editor window on the right. The code editor displays Java code for automating an iOS application using Appium. The code includes imports for java.net, org.openqa.selenium, io.appium.java\_client.ios, and io.appium.java\_client.remote. It defines a class 'Example1InstallIOSAppOnSimulator' with a main method that sets capabilities for an iPhone 8 running iOS 11.4, connects to a local Appium server at port 4723, and creates an IOSDriver instance.

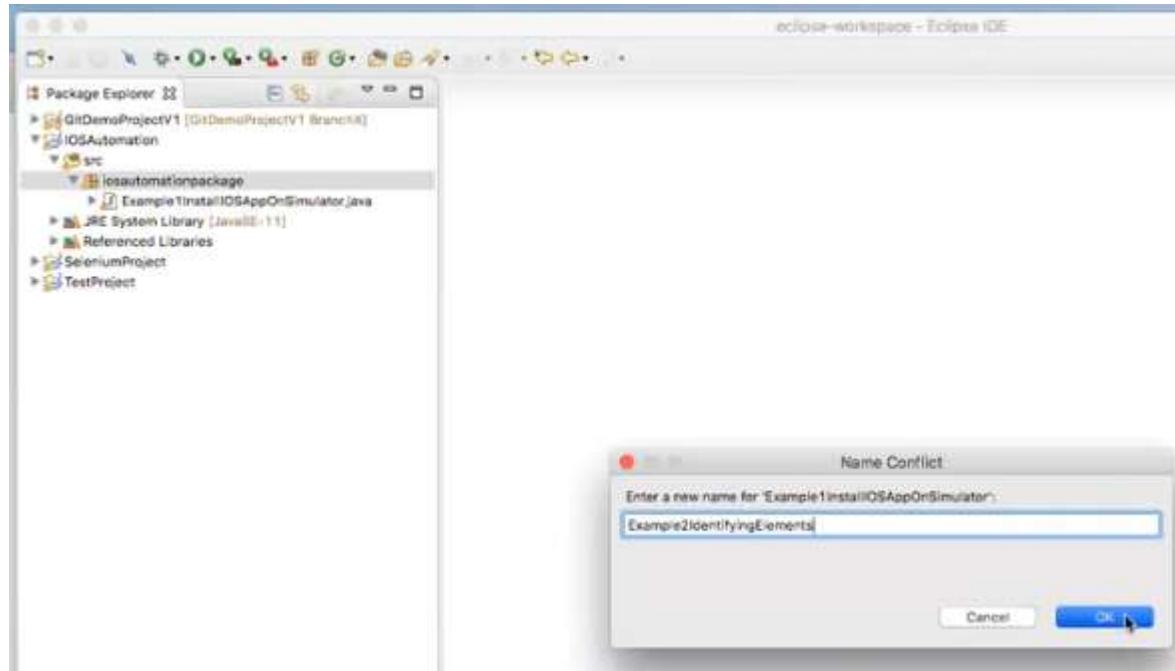
```
1 package iosautomationpackage;
2
3 import java.net.MalformedURLException;
4 import java.net.URL;
5
6 import org.openqa.selenium.remote.DesiredCapabilities;
7
8 import io.appium.java_client.ios.IOSDriver;
9 import io.appium.java_client.remote.MobileCapabilityType;
10
11 public class Example1InstallIOSAppOnSimulator {
12
13     public static void main(String[] args) throws MalformedURLException {
14
15         DesiredCapabilities dc=new DesiredCapabilities();
16
17         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "XCUITest");
18         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "iOS");
19         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "11.4");
20         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "iPhone 8");
21         dc.setCapability(MobileCapabilityType.APP, "Users/pavan/Library/Developer/Xcode/.../HelloWorld.app");
22
23         URL url=new URL("http://127.0.0.1:4723/wd/hub");
24
25         IOSDriver driver=new IOSDriver(url,dc);
26
27     }
28
29
30 }
31
```

#### Locating Elements

\*\*\*\*\*

- Build IOS App using XCode
- Launch Simulator using **Appium Inspector**(Specify capabilities)
- Identify elements using locators
- Write test script





6:19

UICatalog

Action Sheets  
AAPLActionSheetViewController

Activity Indicators  
AAPLActivityIndicatorViewController

**Alert Views**  
AAPLAlertViewController

Buttons  
AAPLButtonViewController

Date Picker  
AAPLDatePickerController

Image View  
AAPLImageViewController

Page Control  
AAPLPageControlViewController

Picker View  
AAPLPickerViewController

Progress Views  
AAPLProgressViewController

Segmented Controls  
AAPLSegmentedControlViewController

Sliders  
AAPLSliderViewController

Source Actions

App Source Selected Element

Find By Selector

accessibility id Alert Views

xpath //XCUIElementTypeStaticText[.name='Alert Views']

Attribute Value

elementId 3A000000-0000-0000-FA13-000000000000

type XCUIElementTypeStaticText

value Alert Views

name Alert Views

label Alert Views

enabled true

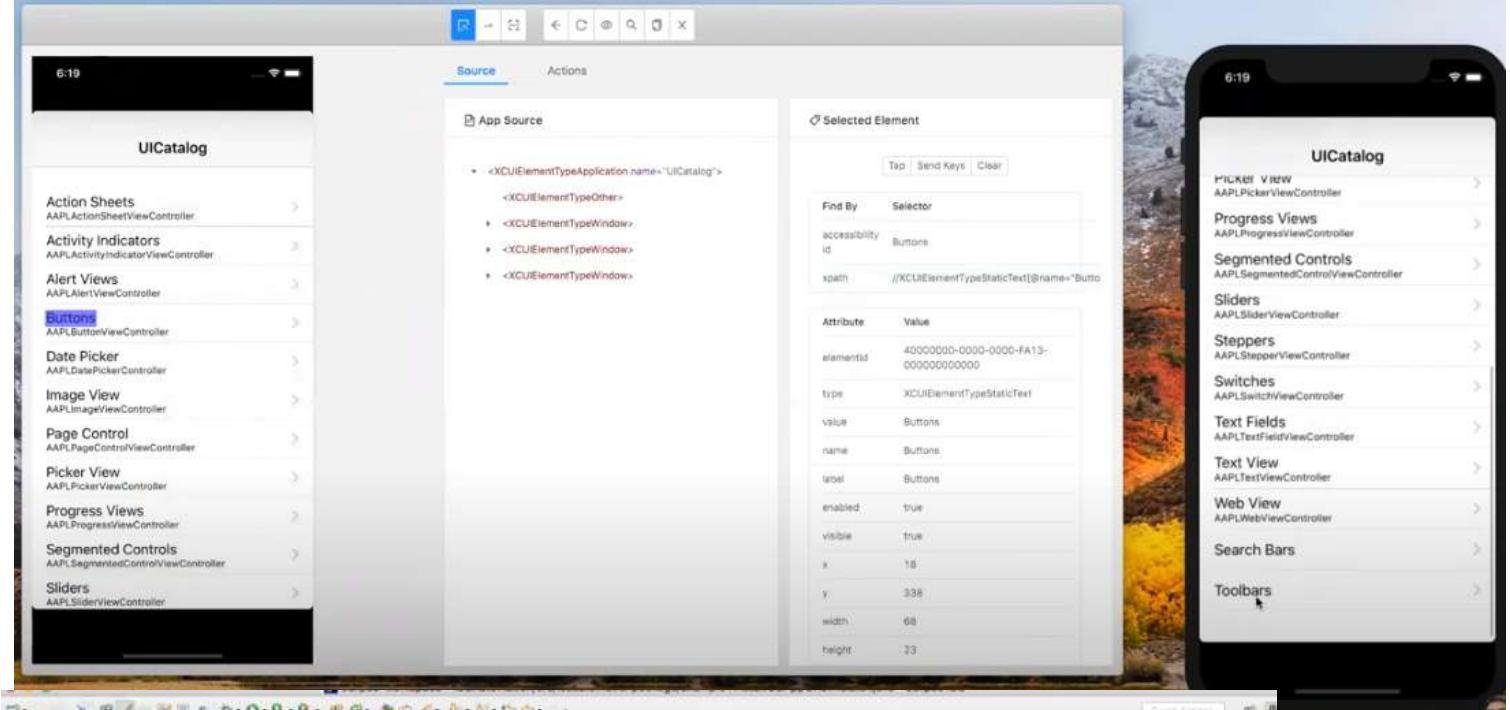
visible true

x 18

y 286

width 97

height 24



Package Explorer [3]

```

1 package iosautomationpackage;
2
3 import java.net.MalformedURLException;
4
5 public class Example1InstallIOSAppOnSimulator {
6
7     public static void main(String[] args) throws MalformedURLException {
8
9         DesiredCapabilities dc=new DesiredCapabilities();
10
11         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "XCUITest");
12         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "iOS");
13         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "11.4");
14         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "iPhone 8");
15         dc.setCapability(MobileCapabilityType.APP, "Users/pavan/Library/Developer/Xcode/Products/Applications/Calculator.app");
16
17         URL url=new URL("http://127.0.0.1:4723/wd/hub");
18
19         IOSDriver driver=new IOSDriver(url,dc);
20
21     }
22
23 }
24
25 }
```

File [1] eclipse-workspace - iOSAutomation/src/iosautomationpackage/Example2IdentifyingElements.java - Eclipse IDE

```

1 package iosautomationpackage;
2
3 import java.net.MalformedURLException;
4
5 public class Example2IdentifyingElements {
6
7     public static void main(String[] args) throws MalformedURLException, InterruptedException {
8
9         DesiredCapabilities dc=new DesiredCapabilities();
10
11         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "XCUITest");
12         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "iOS");
13         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "11.4");
14         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "iPhone X");
15         dc.setCapability(MobileCapabilityType.APP, "Users/pavan/Library/Developer/Xcode/Products/Applications/Calculator.app");
16
17         URL url=new URL("http://127.0.0.1:4723/wd/hub");
18
19         IOSDriver driver=new IOSDriver(url,dc);
20
21         //Count how many list options are displayed
22
23         List <WebElement> listitems=driver.findElementsByXPath("//XCUIElementTypeStaticText");
24
25         Thread.sleep(5000);
26
27         System.out.println(listitems.size());
28
29     }
30
31 }
```

The screenshot shows an IDE interface with an open Java file named `ExampleIdentifyViews.java`. The code uses Appium's `IOSDriver` to interact with an iOS application. A `System.out.println` statement is used to log the number of list items found. The output window shows the log message: `INFO: Detected dialect: W3C`. To the right, an iPhone X simulator displays the `UICatalog` application, which lists various UI element types such as Action Sheets, Activity Indicators, Alert Views, Buttons, Date Picker, Image View, Page Control, Picker View, Progress Views, Segmented Controls, and Sliders.

```
24     URL url=new URL("http://127.0.0.1:4723/wd/hub");
25
26     IOSDriver driver=new IOSDriver(url,dc);
27
28     //Count how many list options are displayed
29
30     List <WebElement> listitems=driver.findElementsByXPath("//XCUIElementTypeStaticText");
31
32     Thread.sleep(5000);
33
34     System.out.println(listitems.size());
35
36     for(WebElement li:listitems)
37     {
38         System.out.println(li.getText());
39     }
40
41
42 }
43
```

```
May 25, 2019 6:31:14 PM io.appium.java_client.remote.AppiumCommandExecutor$1 lambda$0
INFO: Detected dialect: W3C
```

This screenshot shows the `UICatalog` application running on an iPhone X. The "Alert Views" section is currently selected. On the left, a sidebar menu lists various UI components like Action Sheets, Activity Indicators, Alert Views, Buttons, Date Picker, etc. On the right, the "Selected Element" panel shows details for the selected "Alert Views" element, including its accessibility ID, path, attributes, and values. The path is listed as `/XCUIElementTypeStaticText[1][name="Alert Views"]`.

Find By	Selector
accessibility id	Alert Views
path	/XCUIElementTypeStaticText[1][name="Alert Views"]

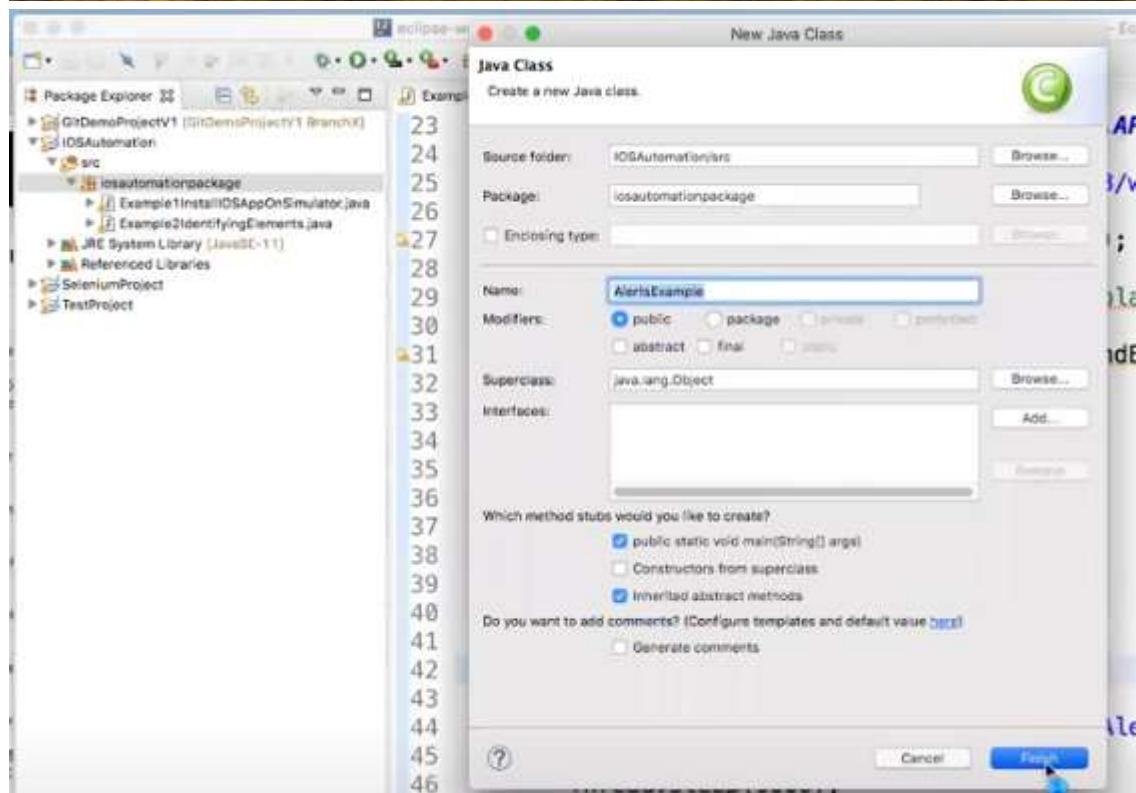
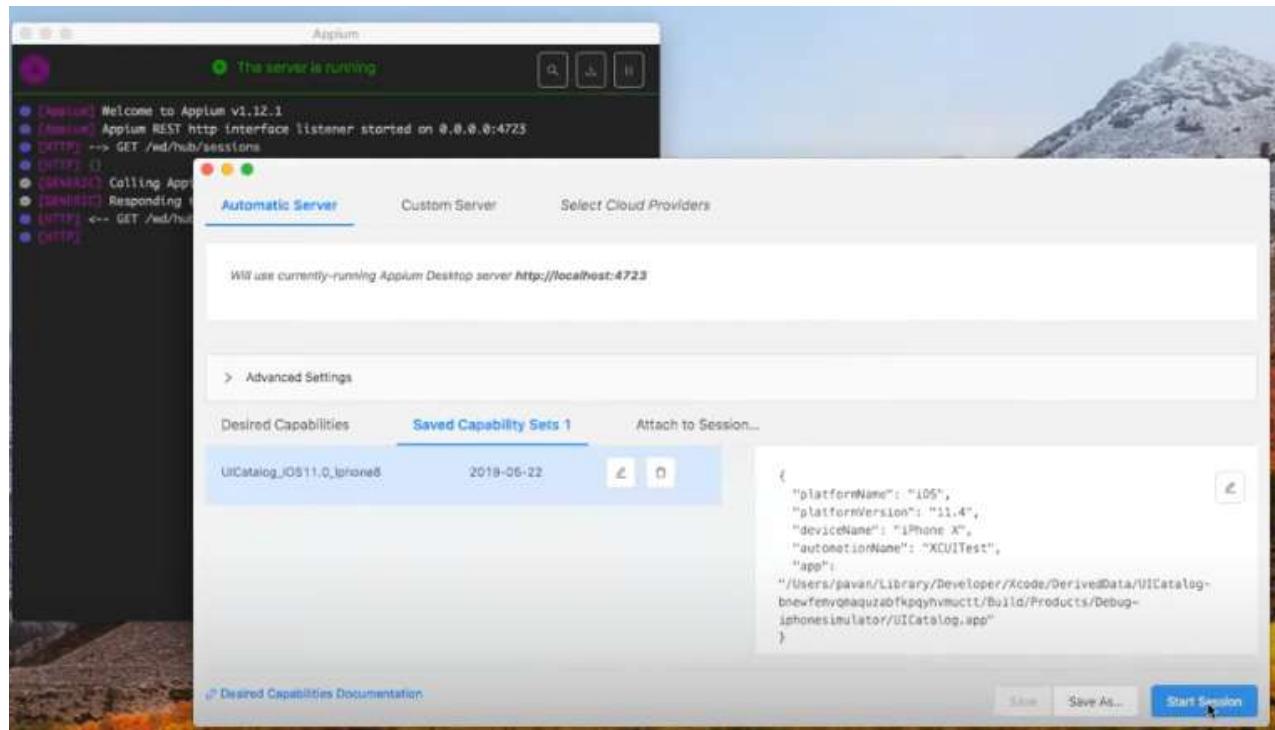
Attribute	Value
elementId	3A000000-0000-0000-FA13-000000000000
type	XCUIElementTypeStaticText
value	Alert Views
name	Alert Views
label	Alert Views
enabled	true
visible	true
x	18
y	286
width	97
height	24

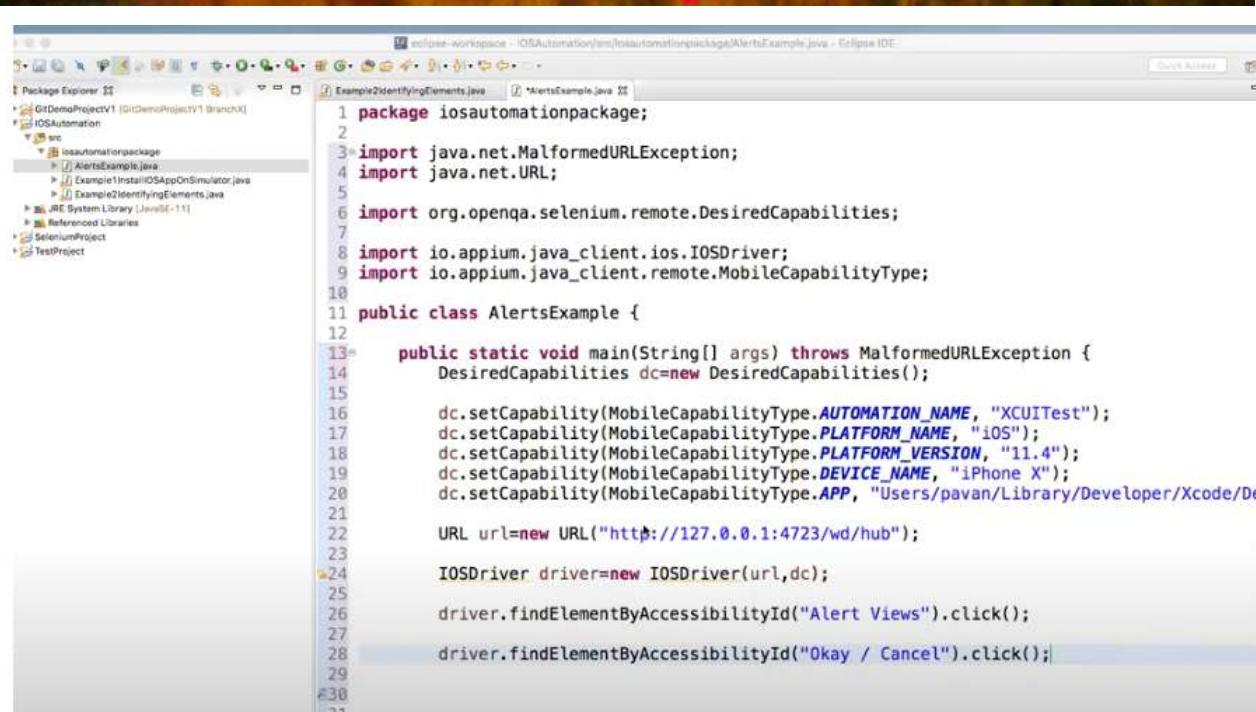
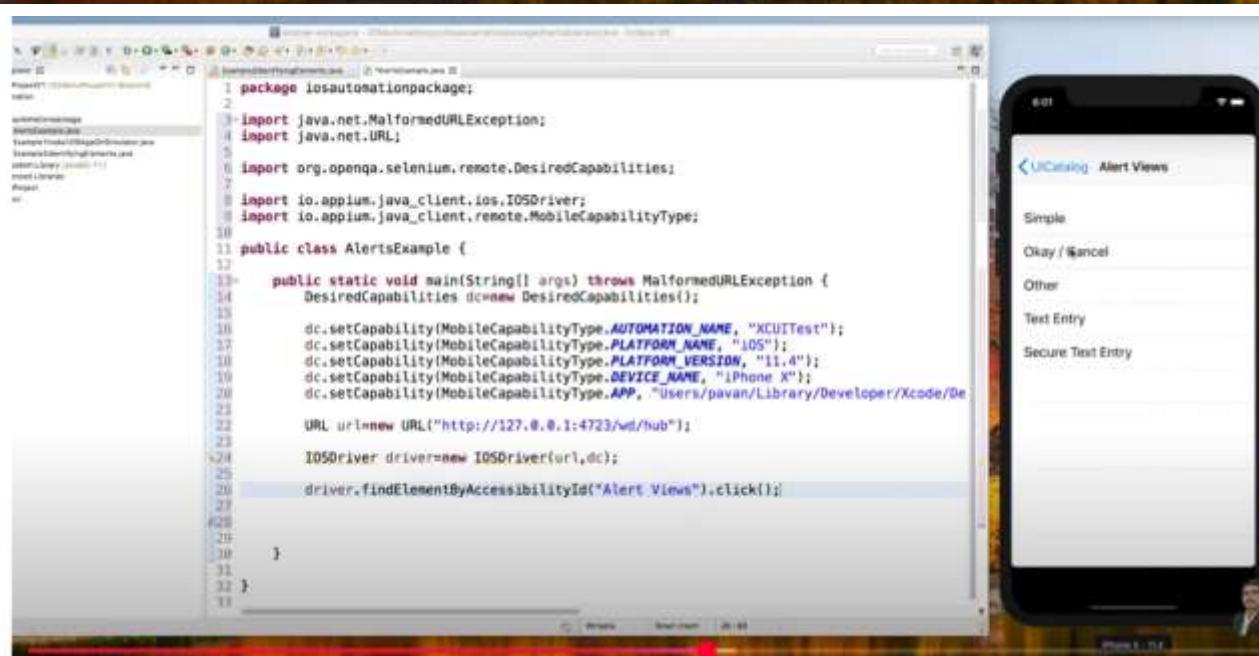
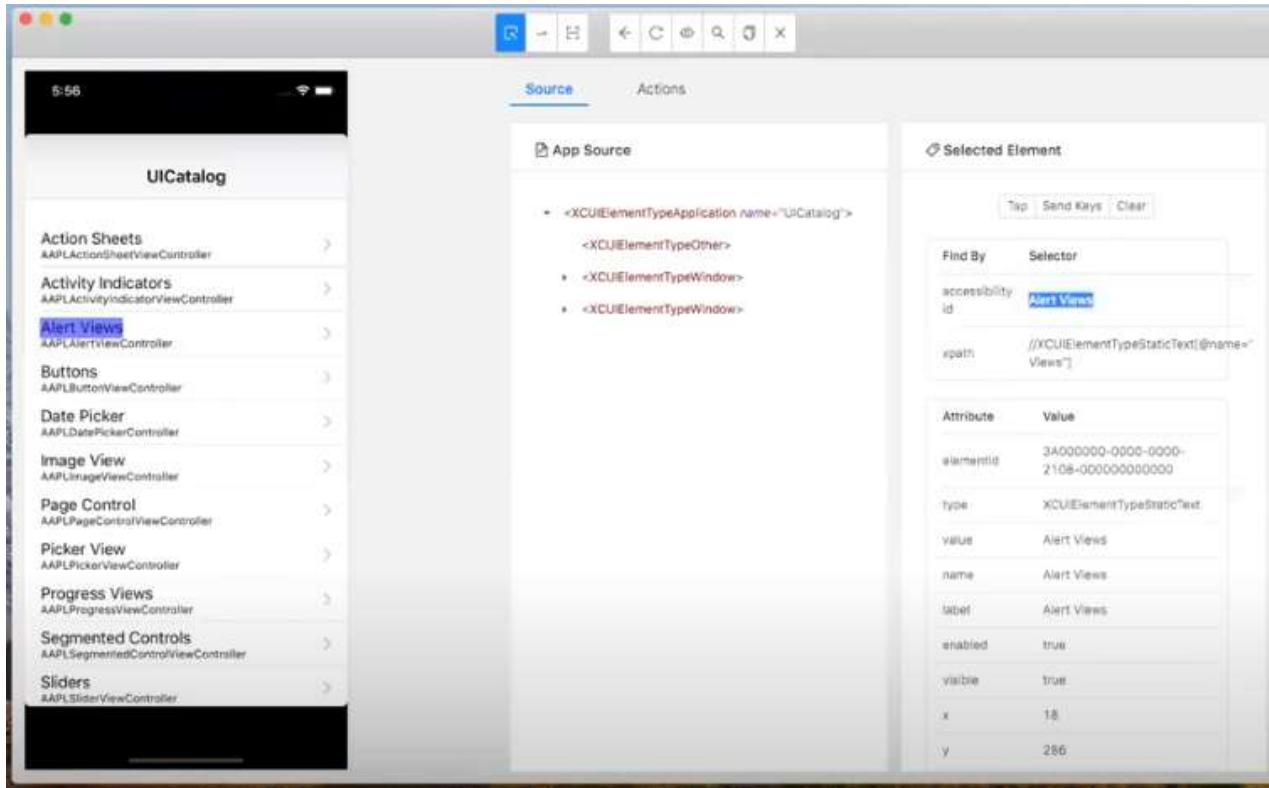
This screenshot shows the same Java code as the first one, but it includes additional logic to click on the "Alert Views" element and quit the driver. The iPhone X simulator shows the "Alert Views" screen of the `UICatalog` application, listing options such as Simple, Okay / Cancel, Other, Text Entry, and Secure Text Entry.

```
29     //COUNT how many list options are displayed
30
31     List <WebElement> listitems=driver.findElementsByXPath("//XCUIElementTypeStaticText");
32
33     Thread.sleep(5000);
34
35     System.out.println(listitems.size());
36
37     for(WebElement li:listitems)
38     {
39         System.out.println(li.getText());
40     }
41
42     //click on Alert views
43
44     driver.findElementByAccessibilityId("Alert Views").click();
45
46     Thread.sleep(9000);
47
48     driver.quit();
49 }
```

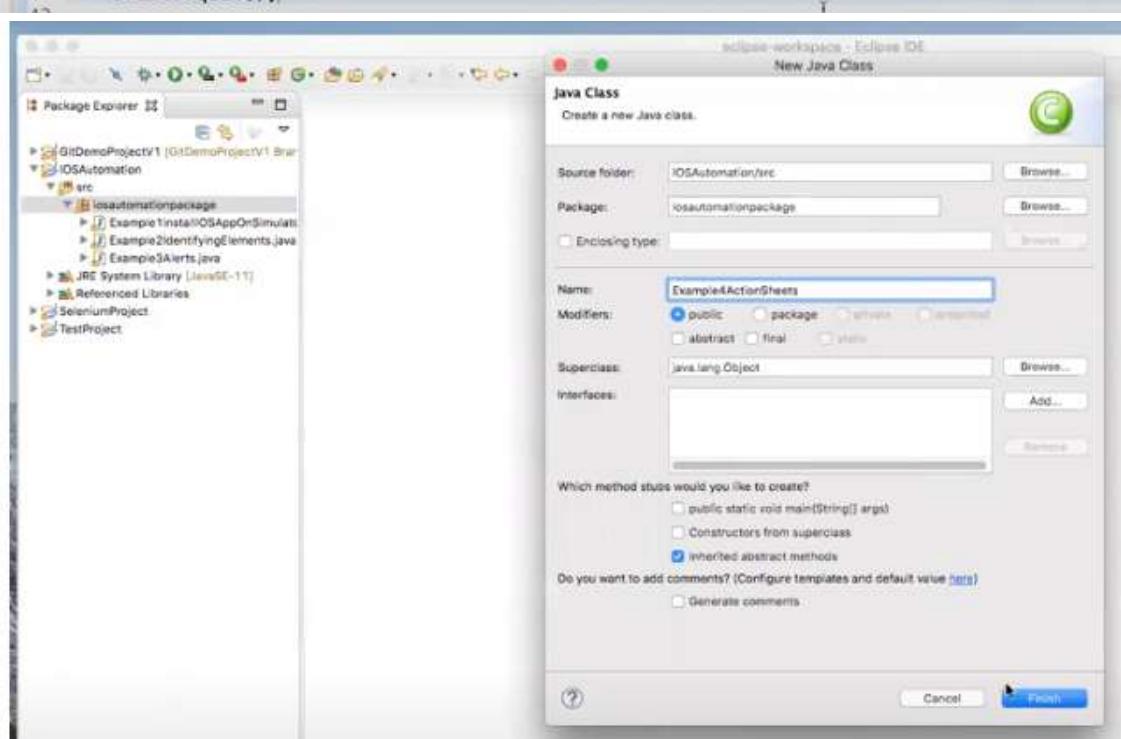
## Handle Alerts in IOS App

- 1) Launch Appium Desktop client
- 2) Launch Simulator using Appium server
- 3) Implement code in Eclipse





```
14 DesiredCapabilities dc=new DesiredCapabilities();
15
16 dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "XCUITest");
17 dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "iOS");
18 dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "11.4");
19 dc.setCapability(MobileCapabilityType.DEVICE_NAME, "iPhone X");
20 dc.setCapability(MobileCapabilityType.APP, "Users/pavan/Library/Developer/Xcode/Derive
21
22 URL url=new URL("http://127.0.0.1:4723/wd/hub");
23
24 IOSDriver driver=new IOSDriver(url,dc);
25
26 driver.findElementByAccessibilityId("Alert Views").click();
27
28 Thread.sleep(3000);
29
30
31 //Round1
32 driver.findElementByAccessibilityId("Okay / Cancel").click();
33 driver.findElementByAccessibilityId("OK").click(); // OK button
34
35 Thread.sleep(5000);
36 //Round2
37 driver.findElementByAccessibilityId("Okay / Cancel").click();
38 driver.findElementByAccessibilityId("Cancel").click(); // OK button
39
40 Thread.sleep(5000);
41
42 driver.quit();
```



The screenshot shows the Eclipse IDE interface with the following details:

- Title Bar:** eclipse-workspace - iOSAutomation/src/iosautomationpackage/Example4ActionSheets.java - Eclipse IDE
- Toolbar:** Standard Eclipse toolbar with icons for file operations.
- Left Sidebar (Project Explorer):**
  - Project: 3rdDemoProject1 (Build Path: OSAutomation)
  - src folder contains:
    - iosautomationpackage
      - Example1InstallOSAppOnSimulator
      - Example2IdentifyingElements.java
      - Example3Alerts.java
      - Example4ActionSheets.java
    - JRE System Library [JavaSE-11]
    - Referenced Libraries
    - SeleniumProject
    - TestProject
- Central Area (Code Editor):** The code for Example4ActionSheets.java is displayed, demonstrating how to handle action sheets using Appium. The code uses Accessibility IDs to identify the different buttons in the sheet.
- Bottom Status Bar:** Shows the console output and the date/timestamp of the log entry.

```
21     dc.setCapability(MobileCapabilityType.DEVICE_NAME, "iPhone 8");
22     dc.setCapability(MobileCapabilityType.APP, "Users/pavan/Library/Developer/Xcode/DerivedData/UI
23
24     URL url=new URL("http://127.0.0.1:4723/wd/hub");
25
26     IOSDriver driver=new IOSDriver(url,dc);
27
28     driver.findElementByAccessibilityId("Action Sheets").click();
29
30     driver.findElementByAccessibilityId("Other").click();
31     Thread.sleep(3000);
32     driver.findElementByAccessibilityId("Safe Choice").click();
33
34     driver.findElementByAccessibilityId("Other").click();
35     Thread.sleep(3000);
36     driver.findElementByAccessibilityId("Destructive Choice").click();
37
38     Thread.sleep(5000);
39
40     driver.quit();
41
42 }
```

Console Output:

```
<terminated> Example4ActionSheets [Java Application] /Library/java/JavaVirtualMachines/jdk-12.jdk/Contents/Home/bin/java (29-May-2019, 1:52:57 pm)
May 29, 2019 1:53:14 PM io.appium.java_client.remote.AppiumCommandExecutor$1 lambda$0
INFO: Detected dialect: W3C
```

eclipse-workspace - iOSAutomation/src/iosautomationpackage/Example4ActionSheets.java - Eclipse IDE

```
4 import java.net.URL;
5
6 import org.openqa.selenium.remote.DesiredCapabilities;
7
8 import io.appium.java_client.ios.IOSDriver;
9 import io.appium.java_client.remote.MobileCapabilityType;
10
11 public class Example4ActionSheets {
12
13     public static void main(String args[]) throws MalformedURLException, InterruptedException
14     {
15
16         DesiredCapabilities dc=new DesiredCapabilities();
17
18         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "XCUITest");
19         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "iOS");
20         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "11.4");
21         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "iPhone 8");
22         dc.setCapability(MobileCapabilityType.APP, "Users/pavan/Library/Developer/Xcode/DerivedData/UIC
23
24         URL url=new URL("http://127.0.0.1:4723/wd/hub");
25
26         IOSDriver driver=new IOSDriver(url,dc);
27
28         driver.findElementByAccessibilityId("Alert Views").click();
29
30         Thread.sleep(3000);
31     }
32
33
34 }
35
```

Updates Available

Updates are available for your software.  
Click to review and install updates.  
Set up Remind me later

eclipse-workspace - iOSAutomation/src/iosautomationpackage/Example4ActionSheets.java - Eclipse IDE

```
1 package iosautomationpackage;
2
3 import java.net.URL;
4
5 import org.openqa.selenium.remote.DesiredCapabilities;
6
7 import io.appium.java_client.ios.IOSDriver;
8 import io.appium.java_client.remote.MobileCapabilityType;
9
10 public class Example4ActionSheets {
11
12     public static void main(String args[])
13     {
14
15         DesiredCapabilities dc=new DesiredCapabilities();
16
17         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "XCUITest");
18         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "iOS");
19         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "11.4");
20         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "iPhone X");
21         dc.setCapability(MobileCapabilityType.APP, "Users/pavan/Library/Developer/Xcode/DerivedData/UIC
22
23         URL url=new URL("http://127.0.0.1:4723/wd/hub");
24
25         IOSDriver driver=new IOSDriver(url,dc);
26
27         driver.findElementByAccessibilityId("Alert Views").click();
28
29         Thread.sleep(3000);
30     }
31
```

Updates Available

Updates are available for your software.  
Click to review and install updates.  
Set up Remind me later

eclipse-workspace - iOSAutomation/src/iosautomationpackage/Example4ActionSheets.java - Eclipse IDE

```
10
11 public class Example4ActionSheets {
12
13     public static void main(String args[]) throws MalformedURLException, InterruptedException
14     {
15
16         DesiredCapabilities dc=new DesiredCapabilities();
17
18         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "XCUITest");
19         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "iOS");
20         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "11.4");
21         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "iPhone 8");
22         dc.setCapability(MobileCapabilityType.APP, "Users/pavan/Library/Developer/Xcode/DerivedData/UIC
23
24         URL url=new URL("http://127.0.0.1:4723/wd/hub");
25
26         IOSDriver driver=new IOSDriver(url,dc);
27
28         driver.findElementByAccessibilityId("Action Sheets").click();
29
30         driver.findElementByAccessibilityId("Other").click();
31         Thread.sleep(3000);
32         driver.findElementByAccessibilityId("Safe Choice").click();
33
34         driver.findElementByAccessibilityId("Other").click();
35         Thread.sleep(3000);
36         driver.findElementByAccessibilityId("Destructive Choice").click();
37
38         Thread.sleep(3000);
39     }
40
41 }
```

Updates Available

Updates are available for your software.  
Click to review and install updates.  
Set up Remind me later

## Picker View (UI Catalog App on iOS)

The screenshot shows the Appium Desktop application window. At the top, there are tabs for 'Simple', 'Advanced', and 'Presets', with 'Simple' selected. Below these are input fields for 'Host' (0.0.0.0) and 'Port' (4723). A large blue button labeled 'Starting...' is prominently displayed. Below the button is a link 'Edit Configurations'.

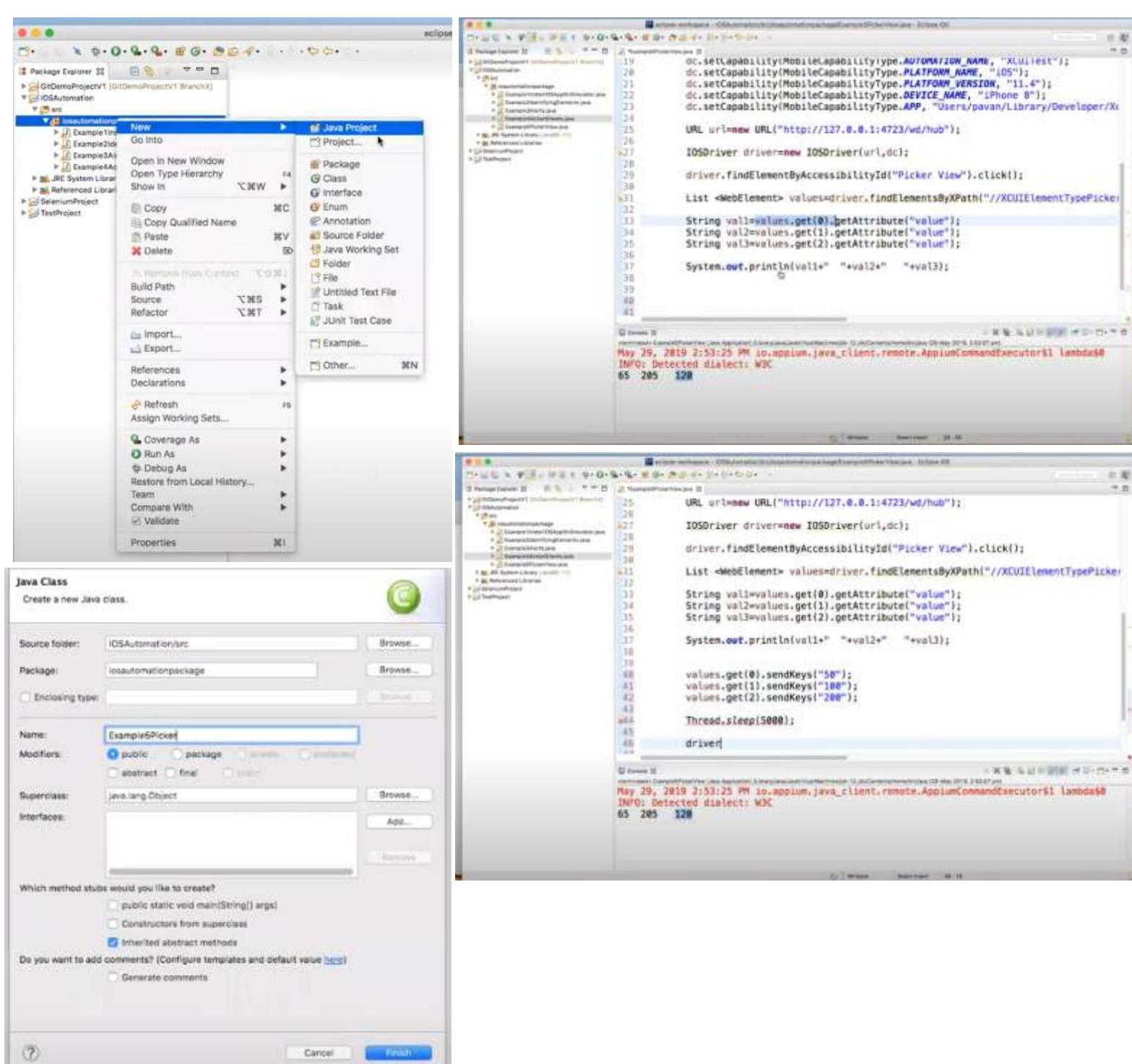
This screenshot shows the 'Session' tab of the Appium Desktop configuration. It displays a table of desired capabilities for a session named 'UICatalog\_iOS11.0\_iphone8'. The table includes columns for 'Desired Capabilities', 'Saved Capability Sets 1', and 'Actions'. The session was created on 2019-05-22. The JSON configuration shown is:

```
{
  "platformName": "iOS",
  "platformVersion": "11.4",
  "deviceName": "iPhone X",
  "automationName": "XCUITest",
  "app": "/Users/pavan/Library/Developer/Xcode/DerivedData/UICatalog-btwwfwmvqnaquzabfkpqyhmvtct/Build/Products/Debug-iphonesimulator/UICatalog.app"
}
```

At the bottom right of the configuration window, there are 'Save', 'Save All...', and 'Start Session' buttons.

This screenshot shows the 'UICatalog' application running on an iPhone X. The app's interface lists various UI components such as Action Sheets, Activity Indicators, Alert Views, Buttons, Date Picker, Image View, Page Control, Picker View, Progress Views, Segmented Controls, Sliders, and Sliders. The background of the phone screen shows a scenic mountain landscape.



```

eclipse-workspace - iOSAutomation/src/iosautomationpackage/Example5PickerView.java - Eclipse IDE

1 package iosautomationpackage;
2
3 import java.net.URL;
4
5 import org.openqa.selenium.remote.DesiredCapabilities;
6
7 import io.appium.java_client.ios.IOSDriver;
8 import io.appium.java_client.remote.MobileCapabilityType;
9
10 public class Example5PickerView {
11
12     public static void main(String[] args) {
13
14         DesiredCapabilities dc=new DesiredCapabilities();
15
16         dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "XCUITest");
17         dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "iOS");
18         dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "11.4");
19         dc.setCapability(MobileCapabilityType.DEVICE_NAME, "iPhone 8");
20         dc.setCapability(MobileCapabilityType.APP, "Users/pavan/Library/Developer/Xc
21
22         URL url=new URL("http://127.0.0.1:4723/wd/hub");
23
24         IOSDriver driver=new IOSDriver(url,dc);
25
26         driver.findElementByAccessibilityId("Action Sheets").click();
27
28     }
29
30 }
31

```

eclipse-workspace - iOSAutomation/src/iosautomationpackage/ExampleSPickerView.java - Eclipse IDE

```

29     driver.findElementByAccessibilityId("Picker View").click();
30
31     List <WebElement> values=driver.findElementsByXPath("//XCUIElementTypePickerView");
32
33     String val1=values.get(0).getAttribute("value");
34     String val2=values.get(1).getAttribute("value");
35     String val3=values.get(2).getAttribute("value");
36
37     System.out.println(val1+ " "+val2+ " "+val3);
38
39     Thread.sleep(3000);
40
41     values.get(0).sendKeys("50");
42     Thread.sleep(3000);
43     values.get(1).sendKeys("100");
44     Thread.sleep(3000);
45     values.get(2).sendKeys("200");
46     Thread.sleep(3000);
47
48     Thread.sleep(5000);
49
50     driver.quit();

```

Automatic Server    Custom Server    Select Cloud Providers

Will use currently-running Appium Desktop server <http://localhost:4723>

> Advanced Settings

Desired Capabilities    Saved Capability Sets 1    Attach to Session...

Capability Set	Created	Actions
UICatalog_IOS11.0_iPhone8	2019-05-22	<a href="#">Edit</a> <a href="#">Delete</a>

```

{
  "platformName": "ios",
  "platformVersion": "11.4",
  "deviceName": "iPhone 8",
  "automationName": "XCUITest",
  "app": "/Users/gavan/Library/Developer/Xcode/DerivedData/UICatalog-
  bnewfemvngnqzrnfpgvhvuctt/Build/Products/Debug-iphonesimulator/UICatalog.app"
}

```

Desired Capabilities Documentation    [New](#)    [Save As...](#)    [Start Session](#)

Carrier 3:04 PM

### UICatalog

- Action Sheets AAPLActionSheetViewController
- Activity Indicators AAPLActivityIndicatorViewController
- Alert Views AAPLAlertViewController
- Buttons AAPLButtonViewController
- Date Picker AAPLDatePickerController
- Image View AAPLImageViewController
- Page Control AAPLPageControlViewController
- Picker View AAPLPickerViewController
- Progress Views AAPLProgressViewController
- Segmented Controls AAPLSegmentedControlViewController
- Sliders AAPLSliderViewController
- Steppers AAPLStepperViewController

Source Actions

App Source Selected Element

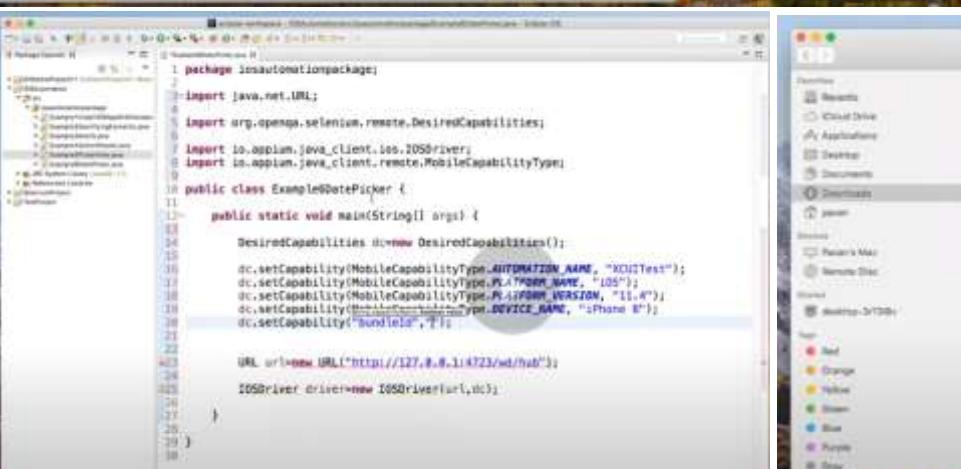
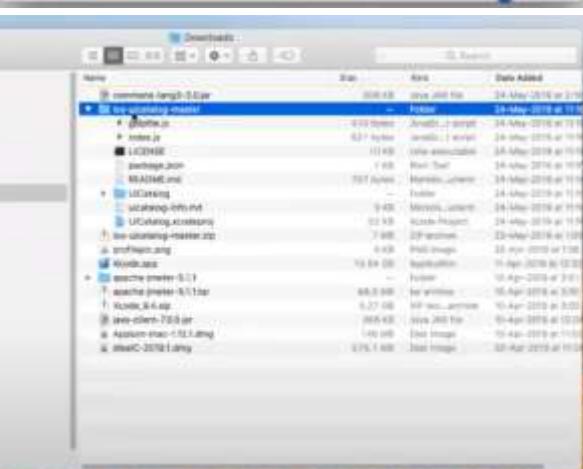
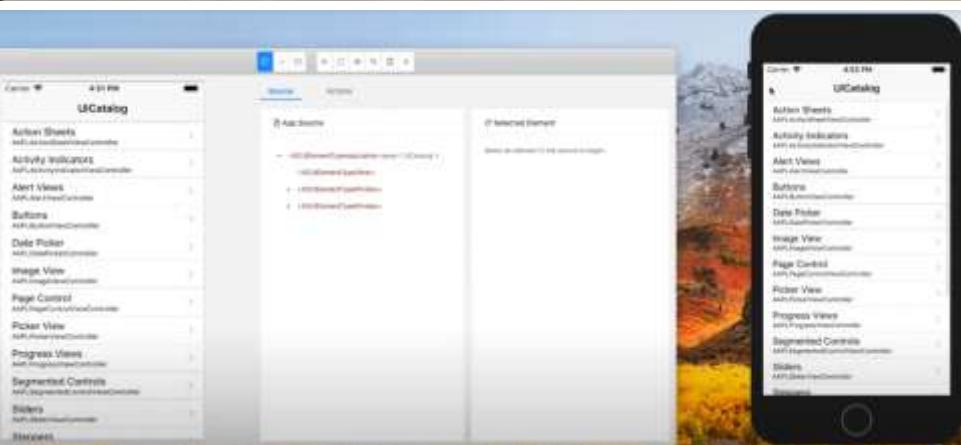
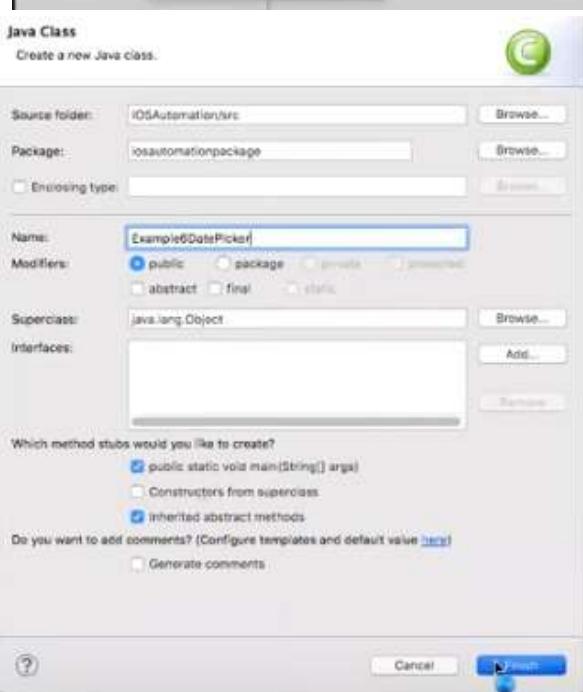
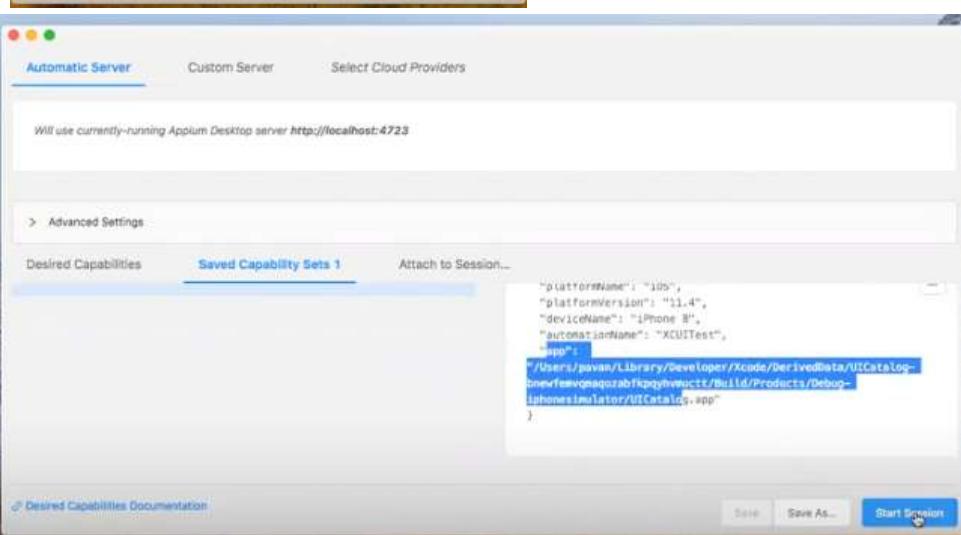
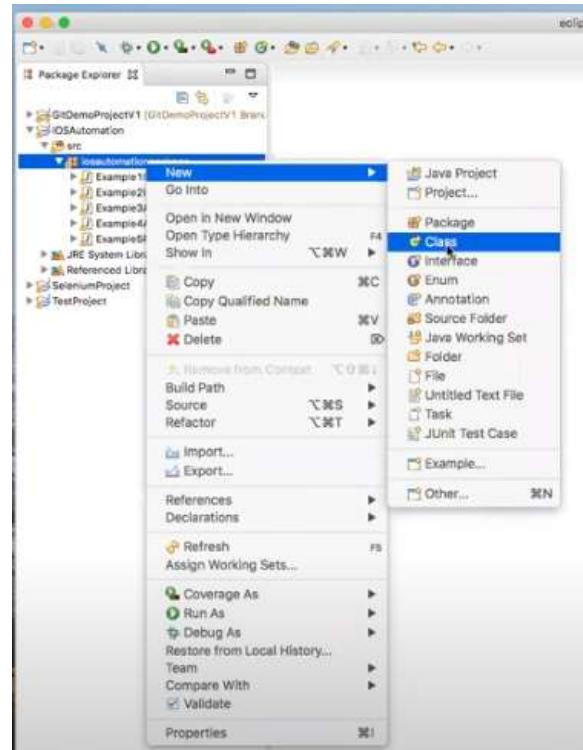
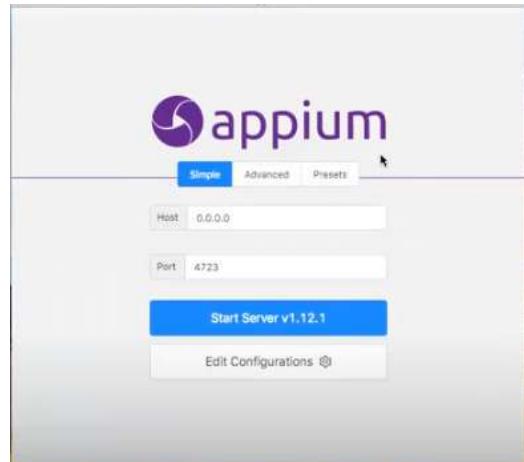
Select an element in the source to begin.

```

<XCUIElementTypeApplication name="UICatalog">
  <XCUIElementTypeOther>
    <XCUIElementTypeWindow>
      <XCUIElementTypeOther>
        <XCUIElementTypeNavigationBar name="UICatalog">
          <XCUIElementTypeOther>
            <XCUIElementTypeOther>
              <XCUIElementTypeTable>
                <XCUIElementTypeCell>
                  <XCUIElementTypeStaticText name="UICatalog">
                    <XCUIElementTypeText>
                      <XCUIElementTypeOther>
                        <XCUIElementTypeOther>
                          <XCUIElementTypeOther>
                            <XCUIElementTypeButton name="V">
                              <XCUIElementTypeCell>
                                <XCUIElementTypeCell>
                                  <XCUIElementTypeCell>
                                    <XCUIElementTypeCell>

```

## Date Picker on iOS App



ios-ucatalog-master

Name	Date Modified	Size	Kind
gulpfile.js	07-May-2019 at 5:04 AM	410 bytes	JavaScript
index.js	07-May-2019 at 5:04 AM	521 bytes	JavaScript
LICENSE	07-May-2019 at 5:04 AM	10 KB	Universal Executable
package.json	07-May-2019 at 5:04 AM	1 KB	Plain Text
README.md	07-May-2019 at 5:04 AM	707 bytes	Markdown Document
UCatalog	07-May-2019 at 5:04 AM	--	Folder
ucatalog-info.md	07-May-2019 at 5:04 AM	3 KB	Markdown Document
UCatalog.xcodeproj	24-May-2019 at 11:18 AM	52 KB	Xcode Project

```
import java.util.concurrent.TimeUnit;
import io.appium.java_client.remote.MobileCapabilityType;
public class Example6DatePicker {
    public static void main(String[] args) throws MalformedURLException {
        DesiredCapabilities dc=new DesiredCapabilities();
        dc.setCapability(MobileCapabilityType.AUTOMATION_NAME, "XCUITest");
        dc.setCapability(MobileCapabilityType.PLATFORM_NAME, "iOS");
        dc.setCapability(MobileCapabilityType.PLATFORM_VERSION, "11.4");
        dc.setCapability(MobileCapabilityType.DEVICE_NAME, "iPhone 8");
        dc.setCapability("bundleId","com.example.apple-samplecode.UICatalog");
        URL url=new URL("http://127.0.0.1:4723/wd/hub");
        IOSDriver driver=new IOSDriver(url,dc);
        driver.findElementByAccessibilityId("Date Picker").click();
        List <WebElement> values=driver.findElementsByXPath("//XCUIElementTypePicker");
        for(int i=0;i<values.size();i++)
        {
            System.out.println(values.get(i).getText());
        }
    }
}

```

```
import java.util.concurrent.TimeUnit;
for(int i=0;i<values.size();i++)
{
    System.out.println(values.get(i).getText());
}
values.get(0).sendKeys("Jun 3");
values.get(0).sendKeys(Keys.TAB);
values.get(1).sendKeys("8");
values.get(1).sendKeys(Keys.TAB);
values.get(2).sendKeys("09");
values.get(2).sendKeys(Keys.TAB);
values.get(2).sendKeys("PM");
Thread.sleep(9000);
driver.quit();

```

INFO: Detected dialect: W3C

Today  
5 o'clock  
04 minutes