Device Automation withAppium

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Few use cases

- Automate UI testing
- Use it for automating end-to-end testing
- Validate traffic
- Test Apps logic
- Automate processes (like game)

Pre-request

- Phone or emulator
- Java
- Python
- Robot Framework

We will use:

- Real Android device
- Windows 10

ADB

USB / Debugging mode

Appium Server using WebDriver

JSON Write Protocol

Python

Appium Library / Appium Client

Robot Framework

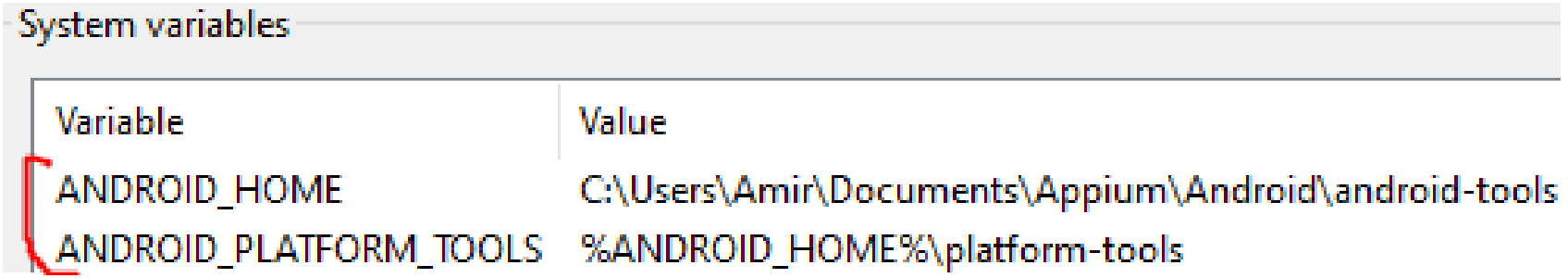
How to setup the environment (for Android)

Install Appium

- Get it via NPM (Node Package Manager)
- Download desktop version (from appium.io)

Download Android SDK (for devices platform tool is enough)

- Download platform-tools (contains adb) and tools
  - Set environment variables



How to setup the environment (for Android)

Enable USB debugging mode

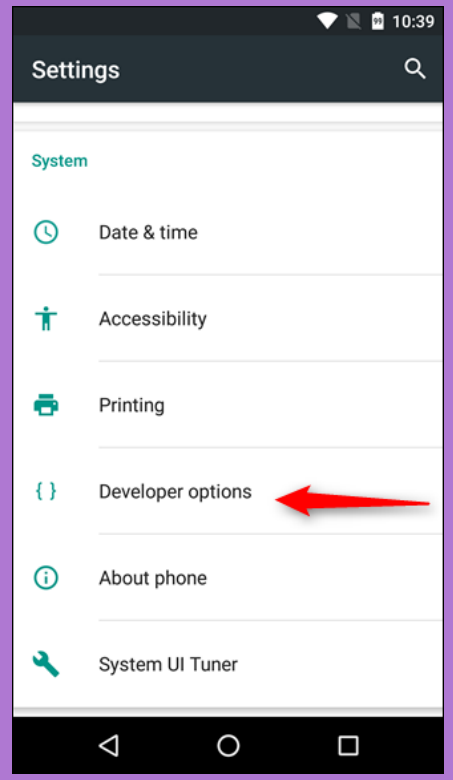
- From phone tap 3 times “Build Number” to unlock deloper mode
- Enable debugging

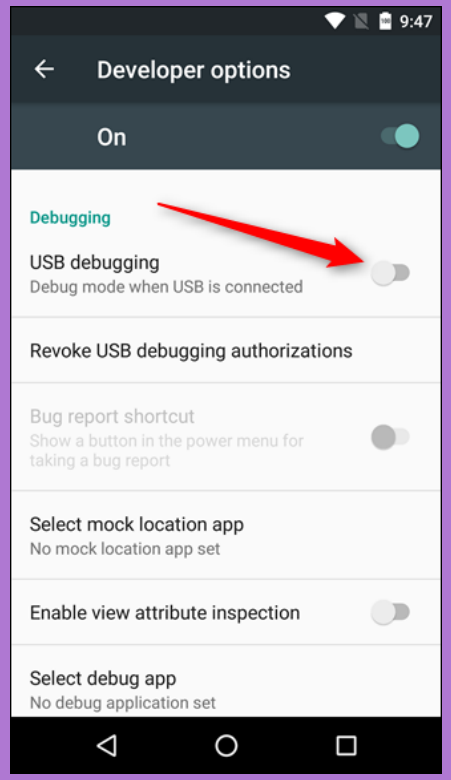
Might need drivers

Load Appium framework

- Use command:

“pip install --upgrade robotframework-appiumlibrary“






```
C:\Users\Amir>adb devices
List of devices attached
ZY322GF55V      device


C:\Users\Amir>
```

```
C:\Users\Amir>adb shell
sanders_n:/ $ dumpsys window windows | grep -E 'mCurrentFocus'
  mCurrentFocus=Window{9e7460c u0 com.android.settings/com.android.settings.SubSettings}
sanders_n:/ $
```

How to work with Appium

I will demonstrate:

- Taking a connection via Appium Desktop and Robot Framework
- How to fetch Android “xpaths”

DEMO TIME

```
*** Settings ***
Library    AppiumLibrary
*** Variables ***
${REMOTE_URL}           http://127.0.0.1:4723/wd/hub
${PLATFORM_NAME}        Android
${PLATFORM_VERSION}     8.1.0
${DEVICE_NAME}          ZY322GF55V
${Activity_NAME}        com.jodelapp.jodelandroidv3.view.MainActivity
${PACKAGE_NAME}         com.tellm.android.app

*** Test Cases ***
First Test cases
    Open app

*** Keywords ***
Open app
    Open Application     ${REMOTE_URL}
    ...      platformName=${PLATFORM_NAME}
    ...      platformVersion=${PLATFORM_VERSION}
    ...      deviceName=${DEVICE_NAME}
    ...      automationName=UiAutomator2
    ...      newCommandTimeout=2500
    ...      appActivity=${Activity_NAME}
    ...      appPackage=${PACKAGE_NAME}
```

Some links where you can start

Linux with emulator:

https://www.linkedin.com/pulse/step-appium-automation-using-robot-framework-amr-khamis?articleId=6649621091016818688

Windows / Mac with emulator (video):

https://www.youtube.com/watch?v=uwRSDH5_uVY&ab_channel=edureka%21

Thank you!