Device Testing Using Appium - Robot Framework (Linux)

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OS: Ubuntu

Prerequisite:

- ✔ NodeJs
- ✔ Appium Server
- ✔ Appium-Inspector
- ✔ Android Studio, Android Emulator, adb
  - Install using snap: sudo
    - **sudo apt install snapd** (this is install snapd if you don't have one)
    - **snap install android-studio**
  - Create android emulator
  - ADB
- ✔ Python 3.9x or higher
- ✔ PyCharm
- ✔ Robot Framework

Appium Server

Installation: **appium server with npm: npm install -g appium**

Running: **appium --log-level error --port 4750 --command-timeout 120 --session-override**

Ports: you can change port number as you want it

Complete about appium read here: **https://www.npmjs.com/package/appium**

Appium-Inspector (*application inspector*)

Download & Installation:

- ✔ Chek the latest version here : https://github.com/appium/appium-inspector
- ✔ Download single file release: v2023.6.1 here: https://github.com/appium/appium-inspector/releases/download/v2023.6.1/Appium-Inspector-linux-2023.6.1.AppImage

Running: **./Appium-Inspector-linux-2023.6.1**

Android Studio & Emulator

Create Emulator:

- ✔ If you are using “Android Studio Flamingo|2022.2.1”
  - Access “Device Manager”
  - Create device
  - Select hardware
  - Download the operating system if not exist
  - Supplay AVD Name
  - Click finish

Running:

- ✔ Go to Android Studio emulator directory (*~/Android/Sdk/emulator/*):
- ✔ Run from terminal: **./emulator -avd Galaxy_Nexus_API_33 -writable-system -noaudio**

Python

Instalation : https://www.python.org/

PyCharm

Instalation : https://www.jetbrains.com/products/compare/?product=pycharm&product=pycharm-ce

Robot Framework

Instalation:

- ✔ Create python virtualenv: **python3 -m venv ~/venvs/automation**
- ✔ Activate virtualenv: **source ~/venvs/automation/bin/activate**
- ✔ Open the project settings in PyCharm and install the dependencies (File-Settings-Project), click “+” and add python packages below:
  - selenium
  - robotframework-appiumlibrary
  - robotframework-seleniumlibrary

Test Setup:

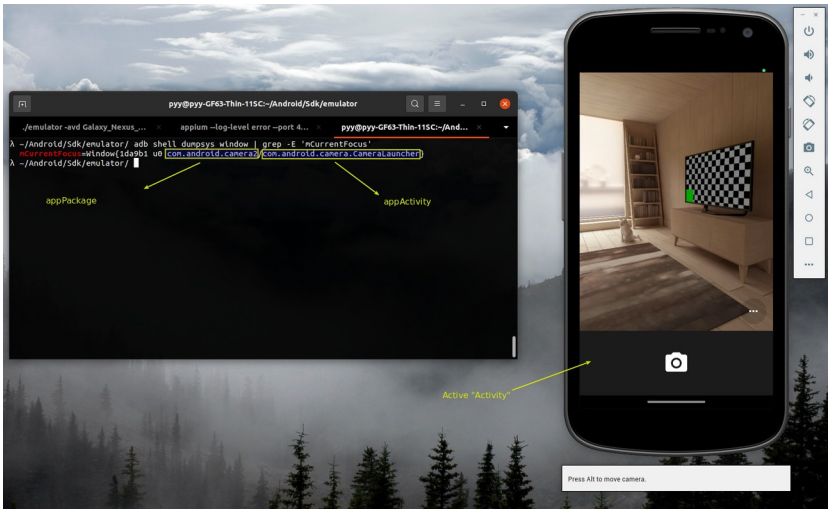
- ✔ Open terminal & run emulator: **./emulator -avd Galaxy_Nexus_API_33 -writable-system -noaudio**
- ✔ Open new tab and select the device / emulator by get the UDID:

~/ **adb devices**

List of devices attached
emulator-5554 device

On this example *“emulator-5554”* is the UDID

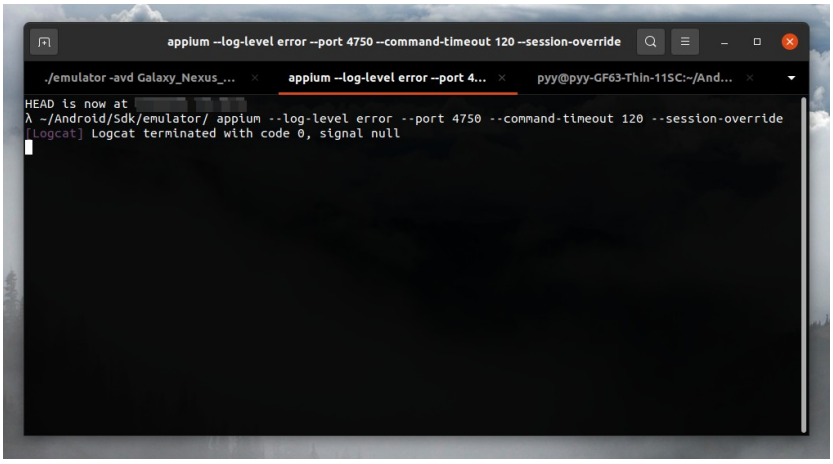
✔ Get the application appPackage & appActivity



To get active activity: **adb shell dumpsys window | grep -E 'mCurrentFocus'**

✔ Run appium-server:

➢ **appium --log-level error --port 4750 --command-timeout 120 –session-override**



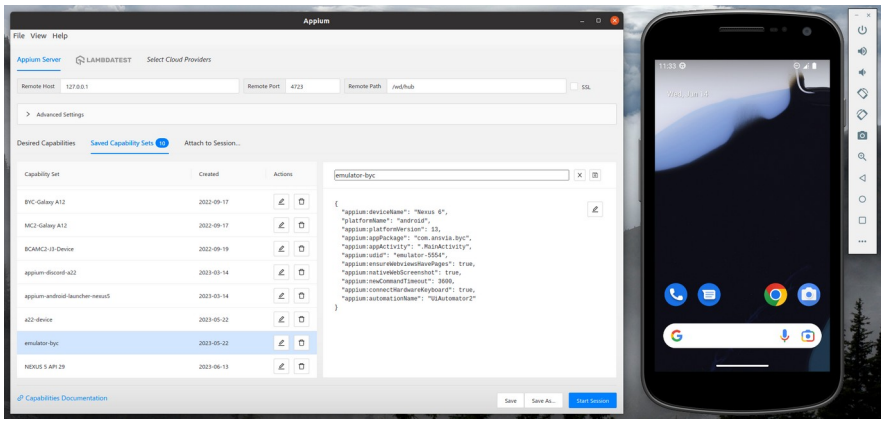
✔ Run appium-inspector:

➢ Create device capabilities:

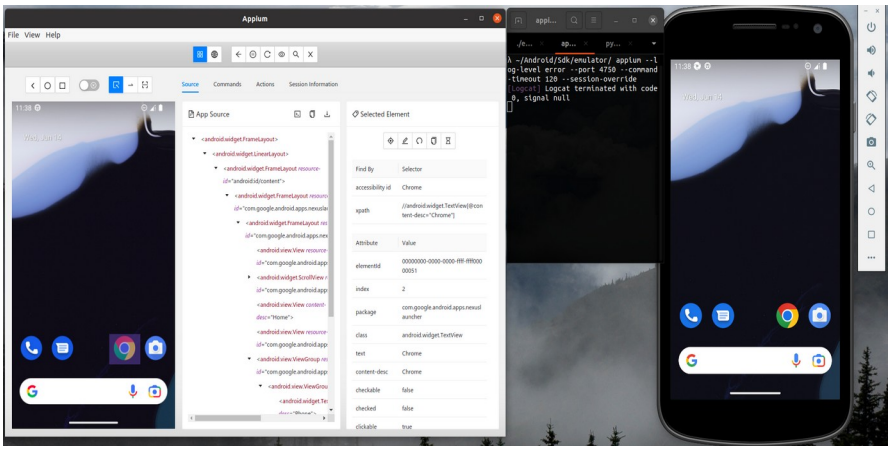
```
{
 "appium:deviceName": "Nexus 6",
 "platformName": "android",
 "appium:platformVersion": 13,
 "appium:appPackage": "com.android.camera2",
 "appium:appActivity": "com.android.camera.CameraLauncher",
 "appium:udid": "emulator-5554",
 "appium:ensureWebviewsHavePages": true,
 "appium:nativeWebScreenshot": true,
 "appium:newCommandTimeout": 3600,
 "appium:connectHardwareKeyboard": true,
 "appium:automationName": "UiAutomator2"
```

}

Inorder to connect the appium-server, appium-inspector must pass the capabilities



Appium-Inspector: Not Connected

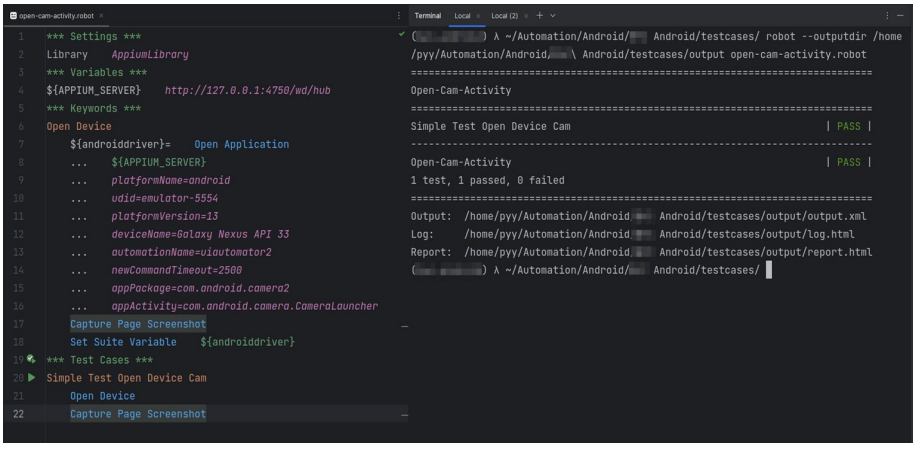


Appium-Inspector: Connected

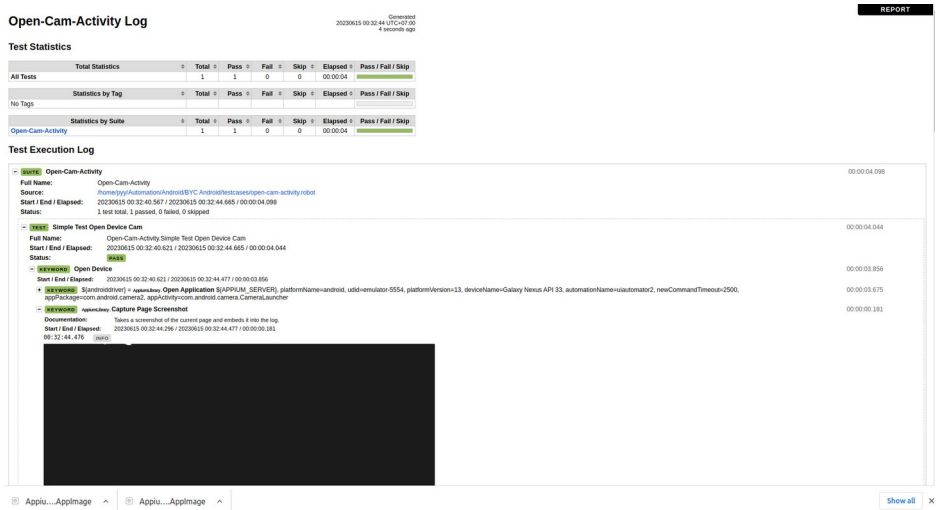
- After “Appium-Inspector” is connected we can do :
  - Inspect app activity elements
  - Do and record actions (click button, input text, etc)

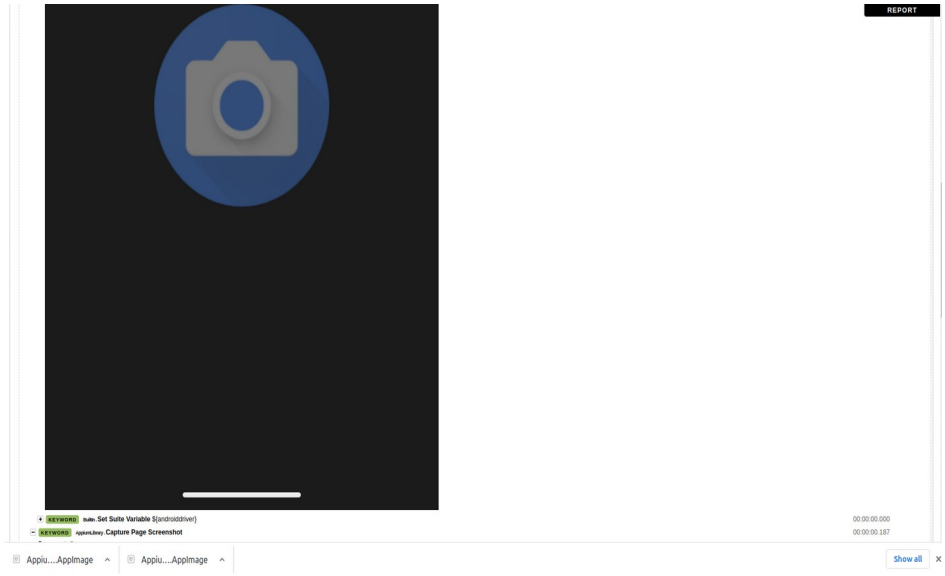
✔ Write Simple Code

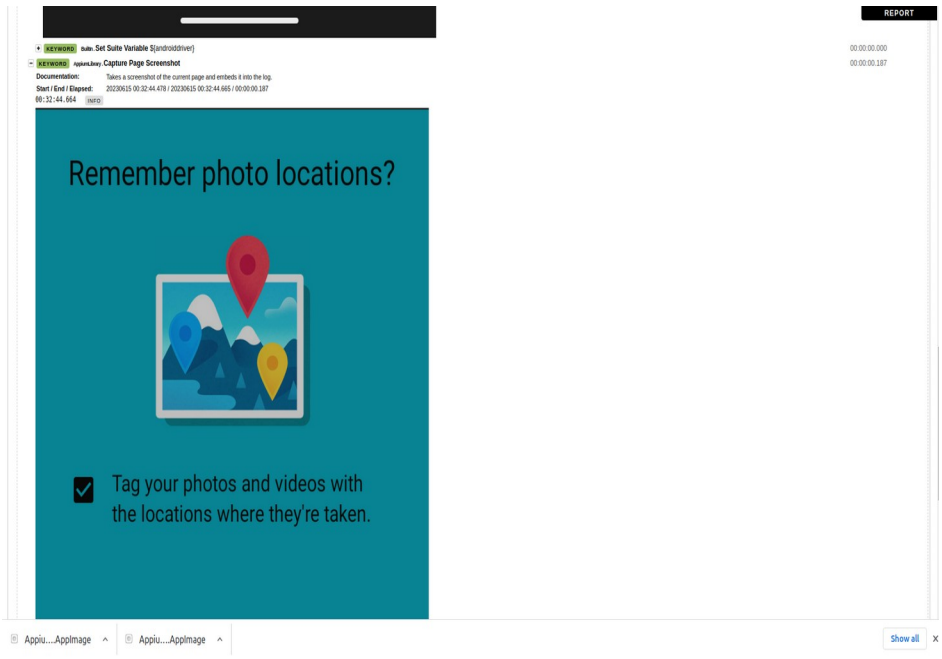
- Code & Running Result



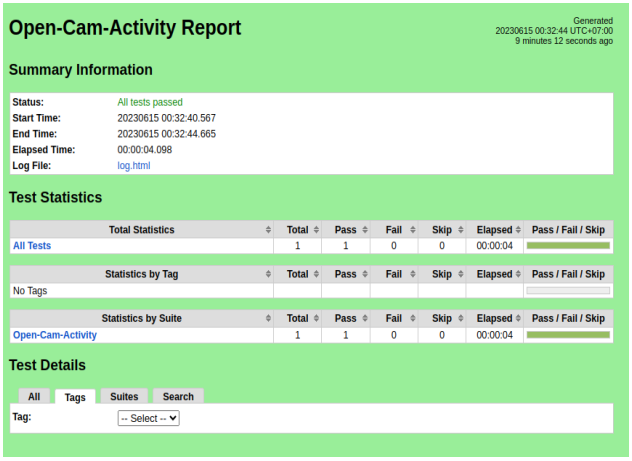
- Robot Framework Test Result Log







- Robot Framework Test Result Report



Open-Cam-Activity Report

Generated
20230615 00:32:44 UTC+07:00
9 minutes 12 seconds ago

Summary Information

Status:	All tests passed
Start Time:	20230615 00:32:40.567
End Time:	20230615 00:32:44.665
Elapsed Time:	00:00:04.098
Log File:	log.html

Test Statistics

Total Statistics	Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
All Tests	1	1	0	0	00:00:04	

Statistics by Tag	Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
No Tags						

Statistics by Suite	Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
Open-Cam-Activity	1	1	0	0	00:00:04	

Test Details

All | Tags | Suites | Search

Tag: -- Select --