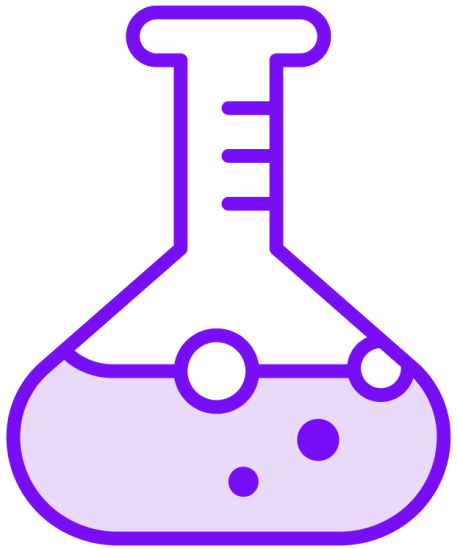
What is Appium

How Do You Test on Each Platform?



Accessibility services

Windows

- MSAA, UIA, Coded UI

OS X

- Mac Automation Scripting

Android

- UI Automation, Espresso

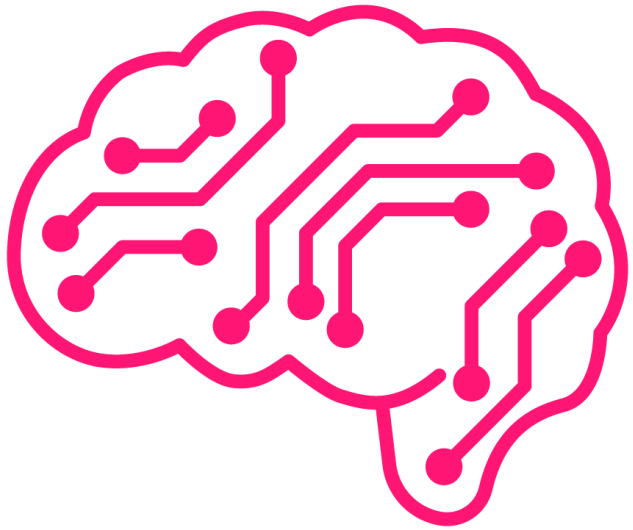
iOS

- XCUITesting

Web

- Selenium

Challenge for the Test Engineer



Learn each framework

Learn various languages

Different configurations and setup

Frameworks are in constant flux

Would It Not Be Nice If...

You can use the programming language of your choice

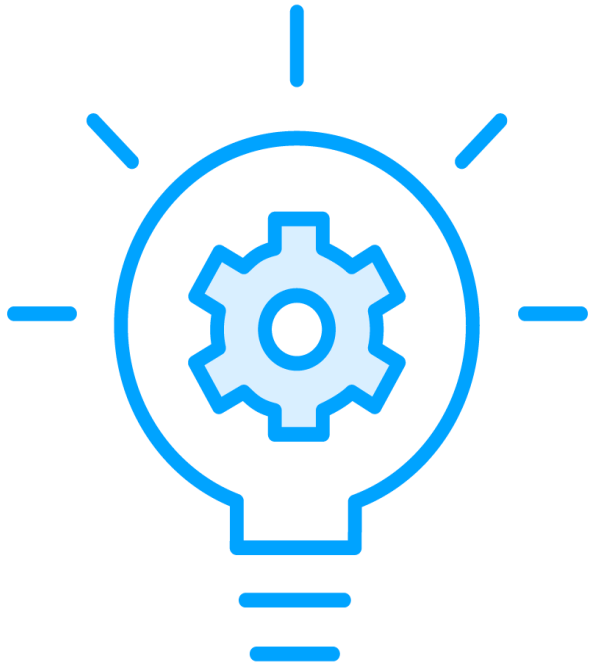
Could target any platform you have

Use the exact same primitives to find and interact with UI elements

Are not impacted by changing native frameworks

Can use it on devices hosted for you

Welcome to Appium



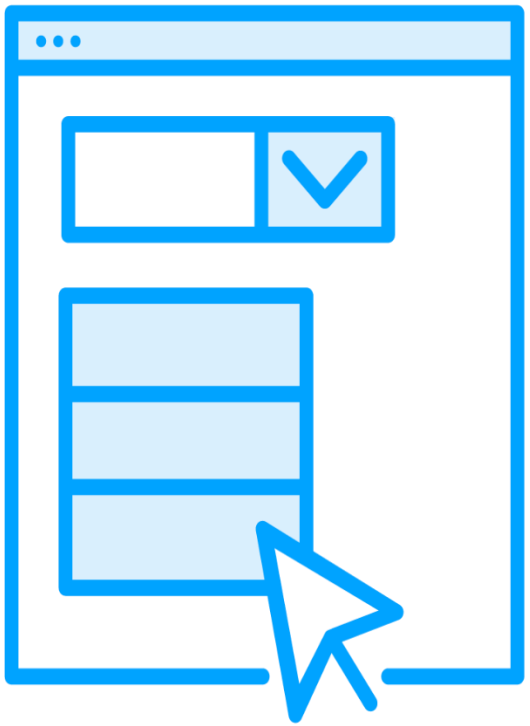
Appium provides:

- One abstraction to test multiple platforms
- Use any programming language you like
- Use any test framework to drive your tests
- Abstraction over all UI automation frameworks

Does not re-invent the wheel

- Leverages standardized W3C WebDriver Protocol

When to Apply UI Automation With Appium?



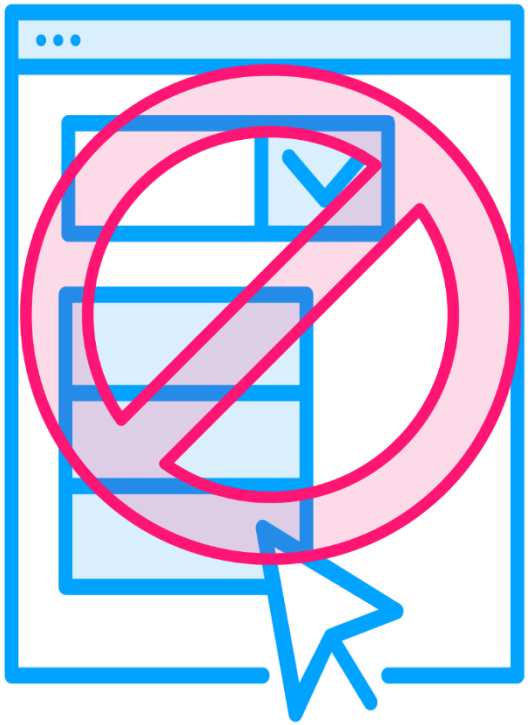
UI Test automation should:

- Only test UI related checks
- Flow and Authorization related checks
- OS Integration checks
- End 2 End checks

UI Test automation is hard to get right so apply it with care

- It is not the hammer you are looking for

When Not to Apply UI Automation With Appium?



UI Test automation should not:

Validate business rules

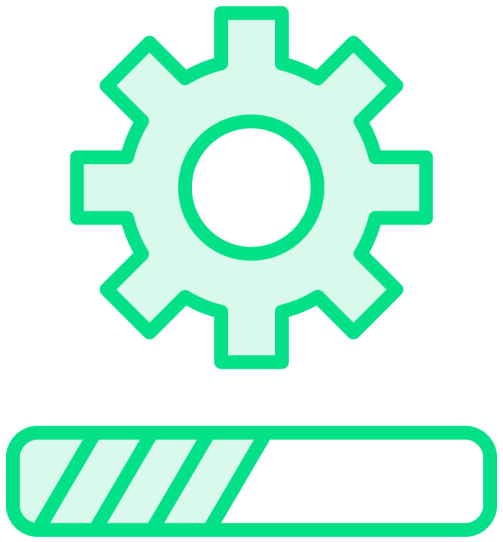
- Test them at the component or unit level

Replace all your manual tests

- You need to rethink your test strategy and only validate crucial use cases that are not automatable in any other way

Install and Configure Appium

Installing Appium



Run on your local machine

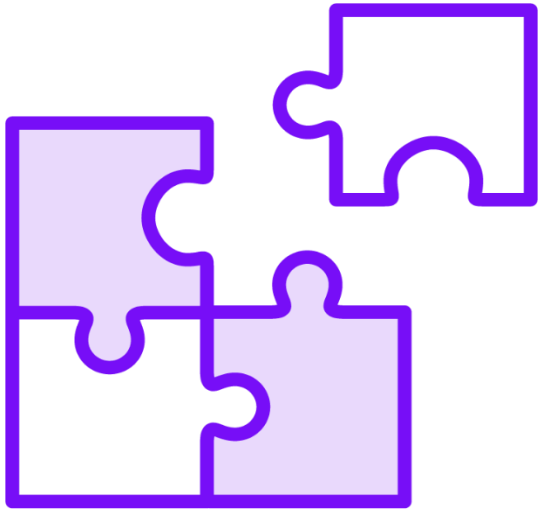
UI Tools

Recorder

NPM install

How Appium Works

How Appium Unifies UI Test Automation



Started with existing WebDriver standard

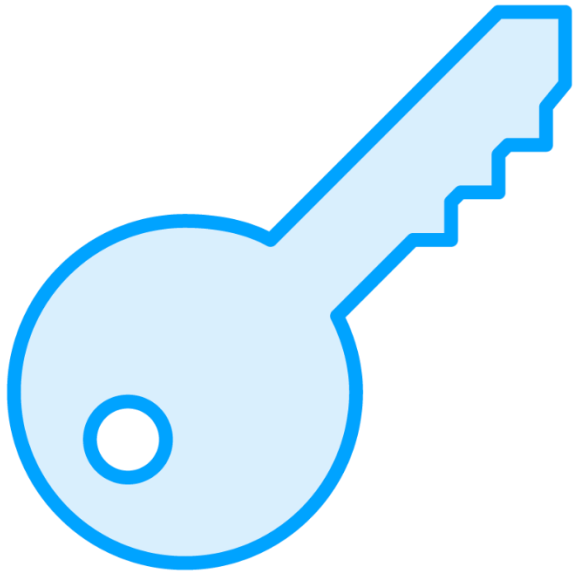
Extend standard to address Applications beyond the web

- Common set of primitives cross-platform

Language bindings for all popular languages

Driver for each platform to translate to native UI automation framework

WebDriver



W3C Standard

Selenium

Locator strategies

- FindBy

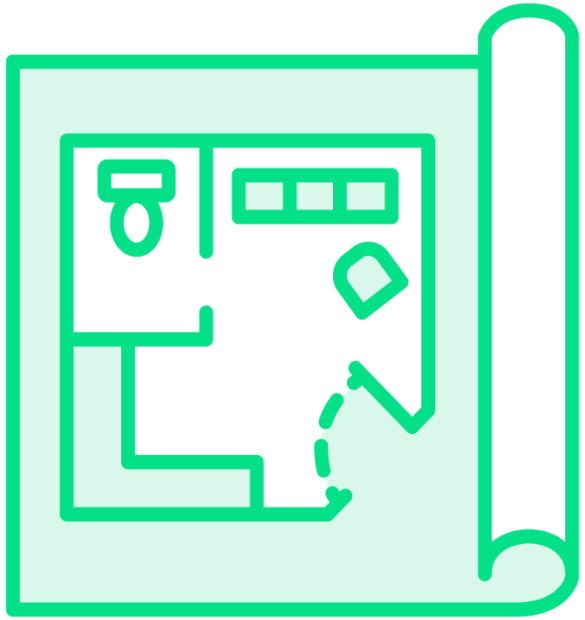
Common set of interactions

- SendKeys, Click

Abstraction for pointer devices

- Mouse, Pen, Touch

Various Components of Appium



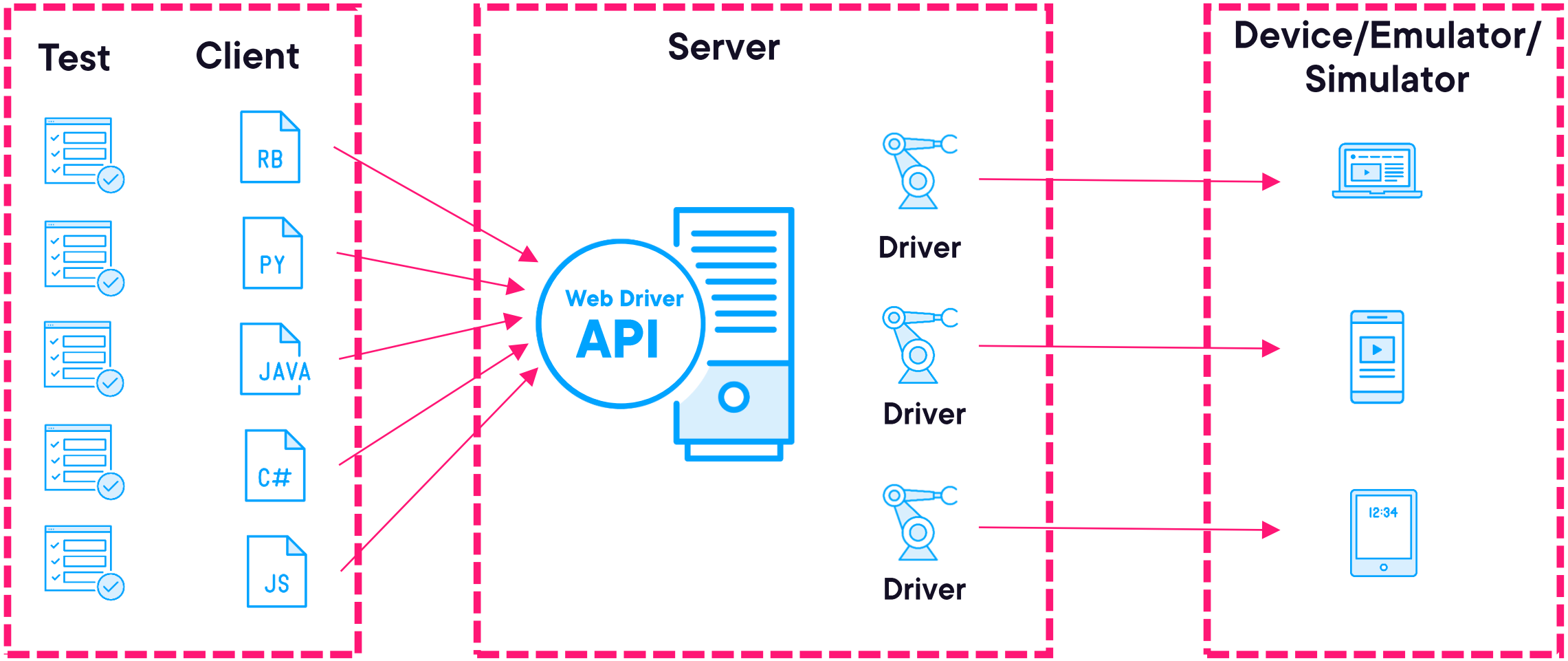
Server that hosts Rest API

- NodeJS

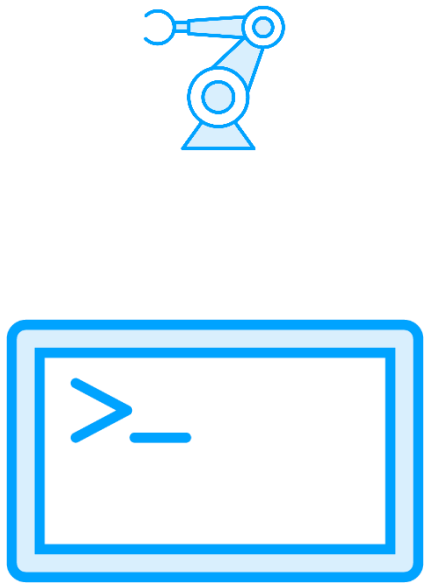
Drivers that translate to native UI automation

Client Library that maps WebDriver protocol to language

How It All Works Together

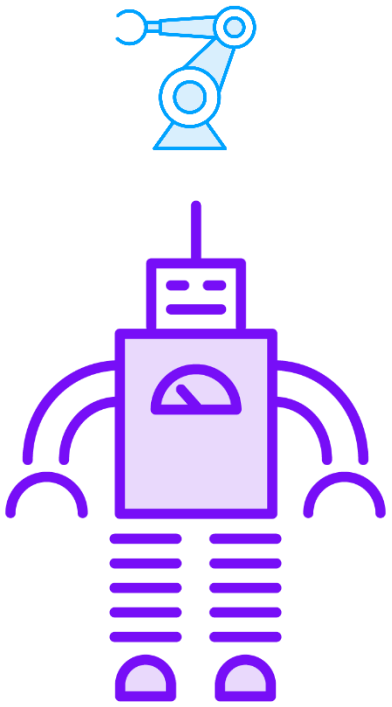


Driver per platform



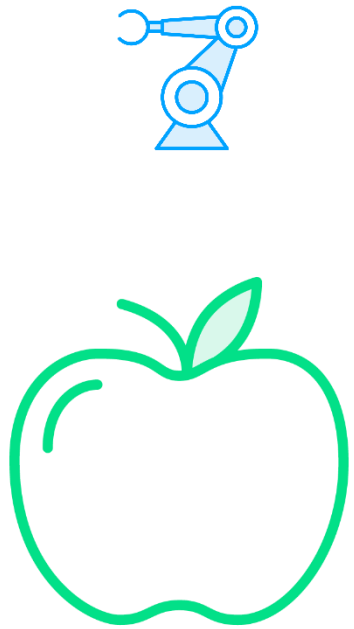
Windows

windows



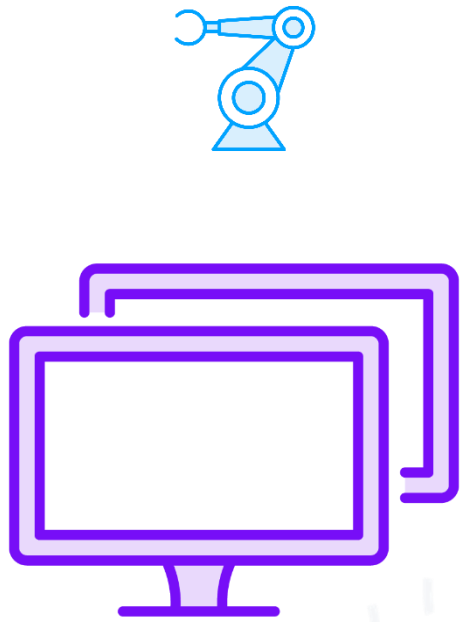
Android

uiautomator2



IOS

xcuitest



MAC

mac2

Install Drivers