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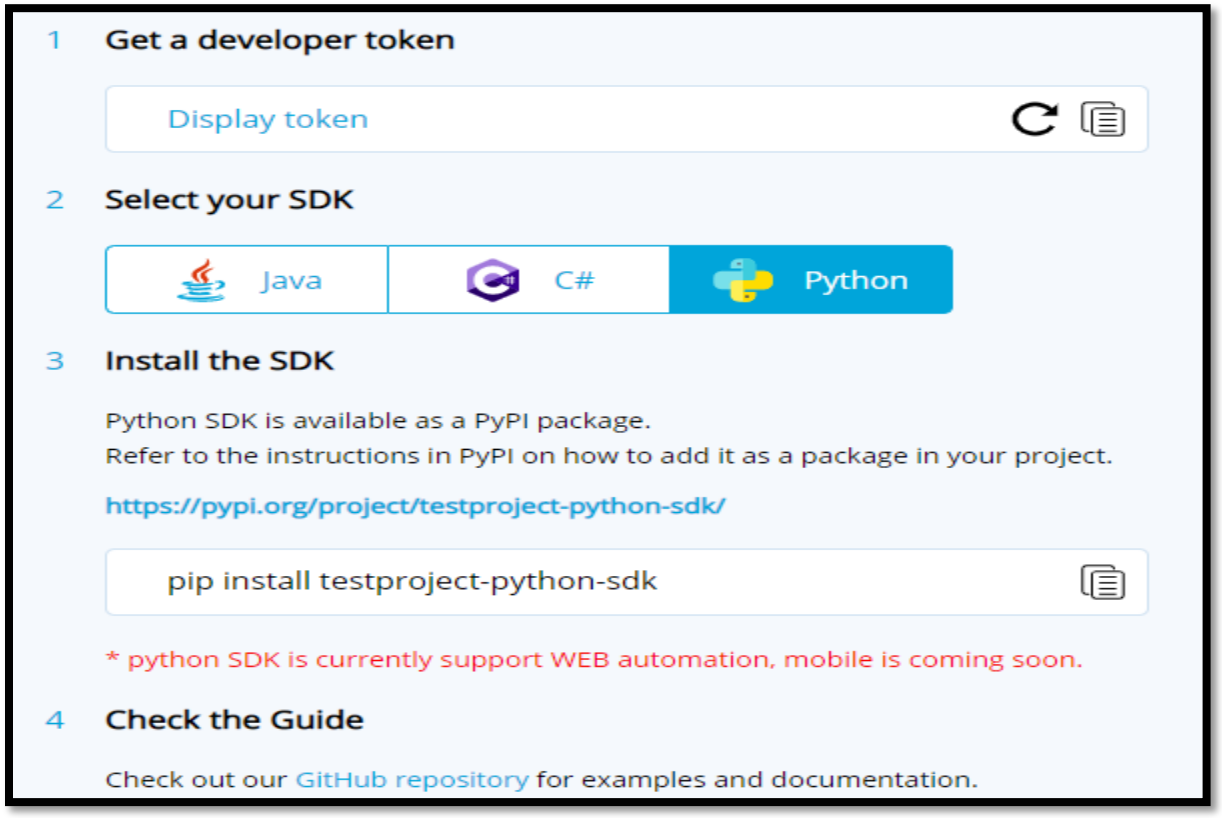
(Transcript) Overview of The New OpenSDK

In this session, I am going to show you TestProject's new OpenSDK. SDK stands for Software Development Kit. Therefore, the SDK is open for our community and provide some new functions to develop a test for Web and Mobile applications. Selenium is for Web and Appium is for Mobile. The SDK is unified across 3 programming languages. This is probably the most exciting feature about the OpenSDK. It's now available in Python. Many people including myself have been waiting for Python. So, let's start with Python.

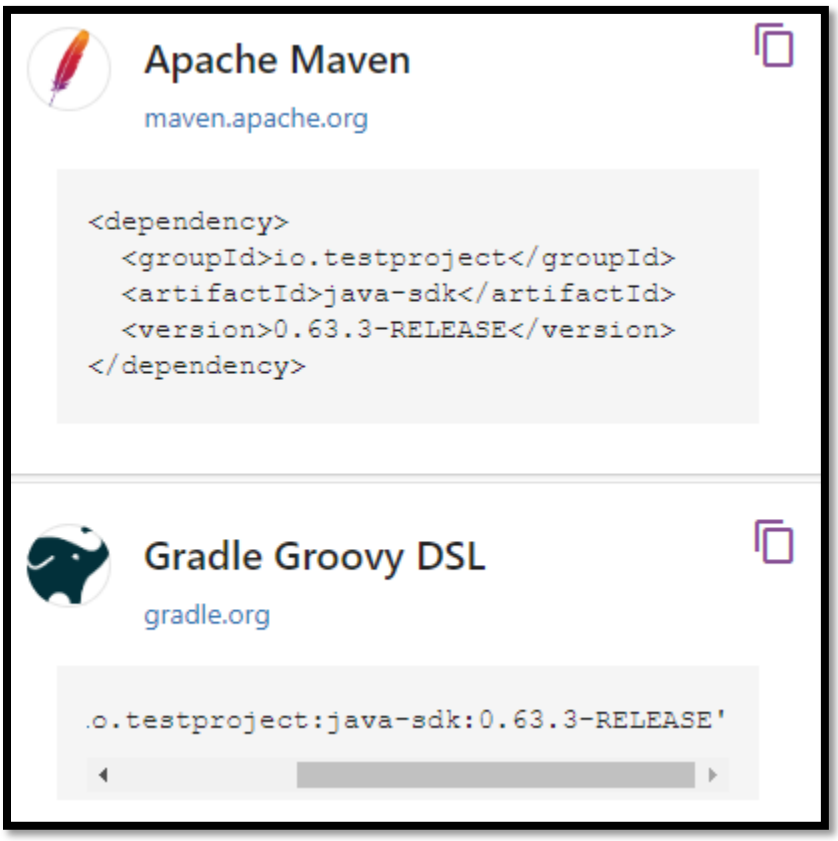
If we go to the Integrations tab, we select Python. Install the SDK which is available as a PyPI package that can be added as a Python module.



Instructions are available when clicking this link to show you how to add the package. Let me back up a moment. To get started with this SDK, first we login to our account. Then download, install, and run the agent. New Version is Available for Windows, Mac, and Linux. It's also available as a container from DockerHub. Next, we get a token from the Integrations tab by clicking Display token or Copying the token to the clipboard. There are examples and documents on GitHub for Python, C#, and Java.

Rex Jones II

I will demo some new features for Java. Refer to this search link and click this version link to download the jar. We see Maven, Gradle, and there's more options to download the jar. I've already downloaded the jar and we will use Gradle. I used Maven in a previous video. We can copy this implementation which shows java-sdk-0.63.3-RELEASE.



Go to my build.gradle file and here's the sdk dependency implementation.

```
plugins {
    id 'java'
}

group 'org.example'
version '1.0-SNAPSHOT'

repositories {
    mavenCentral()
}

dependencies {
    testCompile group: 'junit', name: 'junit', version: '4.12'
    implementation 'io.testproject:java-sdk:0.63.3-RELEASE'
}
```

Okay, let's start our program by creating a new class: right click java under test / New / Java Class. The name is NewOpenSDK.
I will start from the beginning and show you the difference between the previous SDK and the new open SDK. It was a requirement with the previous SDK to implement a WebTest for Selenium by writing implements WebTest. Since WebTest is an interface, we had to implement the methods that were not implemented. Not anymore, I can remove implements and WebTest. The new open SDK allows us to use fundamental native Selenium code. That's a plus because we can skip implementing an interface. TestProject's SDK wraps around Selenium so the syntax for our TestScripts are the same. main method throws Exception.

Next, are the sdk drivers. For web testing, we can use ChromeDriver, EdgeDriver, FirefoxDriver, InternetExplorerDriver, SafariDriver, and RemoteDriver. Android and ios are also available as a driver. Let's use ChromeDriver. You see there are 2 classes for ChromeDriver: TestProject's SDK and Selenium. TestProject's SDK extends the functionality for Selenium and Appium. The good part about the extension is we have Selenium and more functions. Select TestProject: driver = new ChromeDriver () as the constructor, paste the token, new ChromeOptions(), project name is "New Open SDK". This statement will start a new session in the TestProject's Agent using the token. It works the same for all of the supported browsers.

The Application Under Test will be the example page. Inspect the Full Name and we see name as the value for id, inspect the Password and we see password as the value for id, inspect the Login button and we see login as the value for id. Copy the URL.

Load the AUT by writing driver.get("https://example.testproject.io/web/index.html") / driver.report
Here's a new component of the OpenSDK. The driver provides access to the reporting functionality. We can choose to disable report but let's add step that includes a description "Log Into TestProject ", true to

mark the step as Passed, and true again to take a screenshot. The steps are reported when executing a command from the driver.

Enter the name by writing driver.findElement(By.id("name")).sendKeys("Joe Doe");
Enter the password driver.findElement(By.id("password")).sendKeys("12345");
Click the login button driver.findElement(By.id("login")).click();

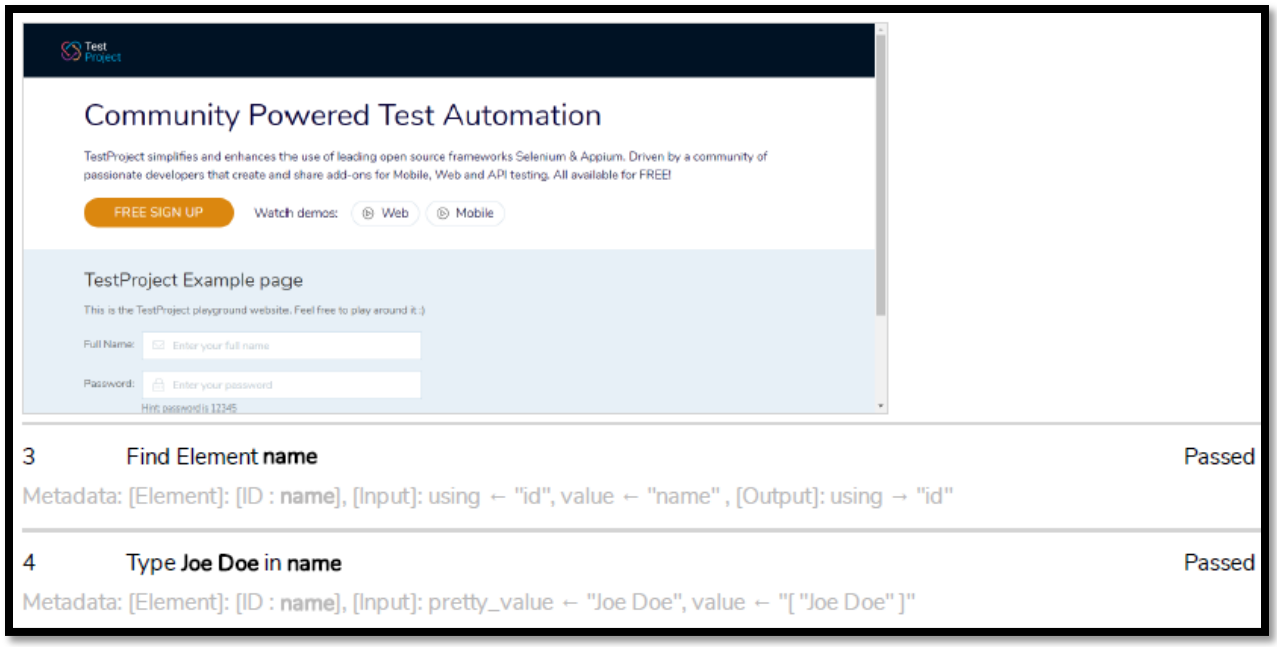
Last is driver.quit(). This line is important because the test are reported automatically when a test end.

There's a difference between driver.quit and driver.close. With Selenium, driver.close will close the window and quit the browser. So, the results will not get sent to TestProject. But driver.quit quits the driver and stop the session with the Agent. That's how results are sent back to TestProject.

```
public class NewOpenSDK {
    public static void main(String[] args) throws Exception {
        ChromeDriver driver = new ChromeDriver
                ( token: "XUdNaCdbDqvyKJNTv8M2TR1UwKLQTuqdH-5B8FWIg7c1",
                new ChromeOptions(),
                 projectName: "New OpenSDK");
        ChromeDriver driver = new ChromeDriver(dk.token, new ChromeOptions(), "OpenSDK" );
        driver.get("https://example.testproject.io/web/index.html");
        driver.report().step( description: "Log Into TestProject",  passed: true,  screenshot: true);
        driver.findElement(By.id("name")).sendKeys( ...keysToSend: "Joe Doe");
        driver.findElement(By.id("password")).sendKeys( ...keysToSend: "12345");
        driver.findElement(By.id("login")).click();
        driver.quit();
    }
}
```

Let's run. We can run the test locally and remote. Go to Reports. All driver commands and results are sent to TestProject's Cloud. We see the Project Name "New Open SDK", steps on the right side, and a lot more information for the report. Automatically the results are available as a Summary or we can view the full report. I'm going to download the full report. Open the report which is a pdf. I like this report because it shows some good info: Summary, Test Results, Detailed Report, Step Numbers, Description, and we also see the screenshot after logging into the application.

Rex Jones II



I believe this new OpenSDK is a game changer because it includes Python and updates the existing languages. Next, I'm going to show you how to perform Data Driven Testing.