Understanding PlayWright

**Intro-What is PlayWright?**

* PlayWright is used for **Javascript programming only** as it is a library created for Node.js and…
* An **OpenSource** **automation** **tool/framework for the Web** created by Microsoft that is versatile and can be used for many things such as:

1. **Similar to Selenium** we can use PlayWright to automate testing a website as PlayWright can also simulate end-user actions such as clicking, going through webPages, form submission, etc…
2. Records visual UI’s states by keeping screenshots or videos of specified events
3. Accepted Browsers = Firefox, Google Chrome, and Webkt
4. **And much more check out Works Cited** for more info on the capabilities of PlayWright

**Quick Understanding What is Node.JS?**

* An Environment that **allows back-end coding/programming in JavaScript**
* **Back-end Programming =** programming to Process data, as in **storing, retrieving, and managing/manipulating data**, in a program.

**How to start using PlayWright?**

1. **Have an understanding of Javascript**/Typescript(another version of JavaScript) **Recommendation:** read a book/ watch YouTube videos on the foundation of JavaScript and also download an IDE to practice what you’ve learned for example: <https://code.visualstudio.com/download>
2. **Install Node.JS** on your personal computer(Google installing Node.JS if still confused): <https://www.youtube.com/watch?v=eauREi0vwB0>
3. In your IDE **create a Node.JS environment/project(as mentioned in the video above/step 2)**.
4. **Install the PlayWright** Package **using** the command: **npm install playwright**
5. Pick a Browser using the command: ***npm install playwright-***BrowserName Where browser name is the name of the browser you wish to use playWright in.

**Simple Example using PlayWright**

1. I want to use Google Chrome so in the terminal I type the code:

npm install playwright-chromium

2. In this example, I will open Google Chrome and Go to Youtube.com

const { chromium } = require('playwright'); //setup PlayWright

3.If you are a complete Beginner Skip this part and go to the Step-by-step guide/heading

const browser = chromium.launch(); // opens browser

const context = browser.newContext(); // creates private browser session

const page = context.newPage(); // creates a new tab

page.goto('https://wwwYoutube.com'); // goes to youtube

// Optional Perform more simulated Playwright User actions…(Optional Additional code)

browser.close(); // exits out browser

**Step By Step Explanation:**

//(async () => { //write playWright executions/code here! })();

* //creates an anonymous function(function to only be used once) and by naming it with the keyword ‘async’ (turns it into an asynchronous anonymous function) it allows the anonymous function to do certain commands at certain times using the keyword 'await'. This is optional but allows a more controlled environment for automating the browser using PlayWright**(In this example we will not be using this code to simplify learning)**

**…………………………………………………………………STARTING POINT:**

const { chromium } = require('playwright');

* //This code accomplishes **two things** **1.** creates a variable to represent the Google Chrome browser **2.** sets the playwright to be used within the file

const browser = chromium.launch();

* **opens**/launches the **Google Chrome(or specified Browser)**

const context = browser.newContext();

* **Creates a private browser session** that has its own cookies, caches, etc…(won’t affect other browser sessions even if that season is another playWright session) In all this code **essentially separates data from the main browser session.**

const page = context.newPage();

* // **Creates a new Tab** within the chromium variable/browser

page.goto('https://www.Youtube.com');

* // **Goes to** specified **website**/string

browser.close();

* // **Closes browser** session

**Extra help/Example:**

**Intro/Basic–**

[**https://www.youtube.com/watch?v=4\_m3HsaNwOE&list=PLhW3qG5bs-L9sJKoT1LC5grGT77sfW0Z8**](https://www.youtube.com/watch?v=4_m3HsaNwOE&list=PLhW3qG5bs-L9sJKoT1LC5grGT77sfW0Z8)

**A little more advanced/more specific with examples–**

[**https://www.youtube.com/watch?v=yOuElUSfAs8&list=PLUDwpEzHYYLsw33jpra65LIvX1nKWpp7-**](https://www.youtube.com/watch?v=yOuElUSfAs8&list=PLUDwpEzHYYLsw33jpra65LIvX1nKWpp7-)

Works Cited

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