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Getting started with Playwright/automated UI testing

- Installing Node
 - Go to <https://nodejs.org/en/download/> and download and install the recommended version of Node for your operating system
- Installing Visual Studio Code(Different than Visual Studios)
 - Go to <https://code.visualstudio.com/Download> and download the version of VS code for your system.
 - Once you have VSCode installed you want to navigate to extensions (The tab with four squares)
 - **Optional:** install Prettier-Code Formatter
 - How to configure prettier
 - User Settings
 - Windows: Ctrl-Shift-P
 - Mac: Cmd-Shift-P
 - Preferences: Open Settings (JSON)

```
{  
  "editor.formatOnSave": true,  
  "editor.wordWrapColumn": 120,  
  "prettier.printWidth": 120,  
  "files.autoSave": "afterDelay",  
  "window.zoomLevel": 1,  
  "prettier.tabWidth": 4,  
  "javascript.updateImportsOnFileMove.enabled": "always",  
  "editor.defaultFormatter": "esbenp.prettier-vscode",  
  "prettier.trailingComma": "none"  
}
```

- Paste in above JSON config:

Creating your project

- Create a folder/directory in an easy to locate place called playwright
- Once you have the directory created go back to VScode and open the folder
- Create a new file inside of that directory. Name the file InterviewTest.spec.js
- Once you have the file created you want to navigate to your terminal/command prompt and cd to the directory you made.

- Once you are in the directory you will want to type the following commands:
 - `npm init playwright@latest`
 - Choose between TypeScript or JavaScript (default is TypeScript)
 - Name of your Tests folder: "playwright" in this case

Writing your first test

- Navigate to InterviewTest.spec.js in vscode
- You want to start by declaring what modules you want to use for the test
 - Playwright has you generally use two which can be declared by `const { test, expect } = require('@playwright/test');`
- Use the links below to mess around with playwright and see what you can come up with
- How to run the test
 - **Click terminal → new terminal in VScode and type "npx playwright test InterviewTest.spec.js --headed"**
 - You can also remove the headed at the end to run the test headless if desired
 - If you run into issues and want to see your test run step by step you can replace `--headed` with `--debug` to run the test in debug mode

Example "Hello World" UI test

```
const { test, expect } = require('@playwright/test');

test('WikiPedia Page has Hello World Title', async ({ page }) => {
  await page.goto('https://en.wikipedia.org/wiki/%22Hello,_World!%22_program');
  // create a locator
  let header = page.locator('.mw-page-title-main');
  // Expect header to have correct text
  await expect(header).toHaveText('"Hello, World!" program')
});
```

- Where to go from here?
 - Once you have your first test written and passing you will want to start writing your own tests
 - To do this you will want to create a new .spec.js file in the same directory as InterviewTest.spec.js (Name this file something descriptive to what your test actually does)

- Once you have the new file created write your test and run it the same way as you did InterviewTest.spec.js
- **Required**
 - Automate the following tests for the website <https://magento.softwaretestingboard.com/>
 - Take the example below. Make the test verify that it logged in successfully (or made it to the next page)
 - Try some other use cases and automate them (in separate files). These will all require logging in first
 - add an item to the cart. verify it got added
 - view an item and cancel out of it
 - see if you can complete a purchase and verify it
 - verify that the compare feature works on different products
 - come up with your own
 - Some important notes about this:
 - Make sure you have a separate file per use case
 - Try and make your use cases as specific as possible(In other words only test one thing)
 - make sure to use assertions/expect statements in each test. It's not a test if you're not verifying an expected outcome.

Useful Links	
Playwright Documentation	https://playwright.dev/docs/intro
Selectors	https://playwright.dev/docs/selectors

```

"use strict";

// @ts-check
const { test, expect } = require("@playwright/test");

test("Standard User Can Log Into ", async ({ page }) => {
  /**
   * In Chrome, right click on an element to inspect:
   *
   * You will interact with items by the ID, class, or other elements.
   *
   * to find an element by ID, you'll use the character: #
   * to find an element by the class, you use the character: .
   * to find by another attribute, (example, data-test), you'll put the full field name = the value you're
   looking for in brackets
   *   ex: [data-test='some-value']
   *
   * javascript variable declarations:
   * - var - it's "unscoped" meaning that it's not very safe to use
   * - let - it's a "block" scope, meaning that it's safe within the context of your code. Use this when
   you have a variable that you might need to change
   * - const - block scope declaration that you cannot reassign after initial assignment
   *
   */

  await page.goto("https://saucedemo.com");

  //verifying that we found the logo (we're on the right page)
  const loginButton = page.locator("#login-button");

  // Compare the text of selected element to expected text
  await expect(loginButton).toHaveText("Login");

  // verify that the first element you're interacting with is on the screen
  await page.waitForSelector("#user-name");

  // type in user name & password
  await page.locator("#user-name").fill("standard_user");
  await page.locator("#password").fill("secret_sauce");

  //click the login button
  await loginButton.click();

  // verifying new page has been reached

```

```
// todo: enter your code here  
});
```