



Playwright

(JavaScript + TypeScript) MCP Server + AI Agents INCLUDED ✨

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TypeScript introduction:

- TypeScript Introduction
- **IDE** (integrated development environment): Visual Studio code
- Install Node.js & Visual Studio code for setting up Playwright Environment
- What are the Features of TypeScript
- **Handling typescript inbuilt keywords, variables, methods**
- How to declare/create a Class and how to store data in it
- How to execute the **‘.ts’** classes in both run and debug mode by using predefined tools as well as different commands in terminal
- What is **Let, var** and **const** and how to use it
- How to use the TypeScript Type (Static, Built-in, user-defined)
- How to create Variables and declaration and initialize value to it
- How to use Operators
- How to declare and use Arrays (single and multi-dimensional arrays)
- Strings and String methods
- How to collections like Tuples and Union, Map, Set, Queue
- What is Type Annotation and how to use it
- Decision Making/conditional statements (if, if-else, nested-if, if-else-if, switch)
- Loops (indefinite (while and do-while) and definite (for, for of and for in, for each))
- Access Modifiers (public, private, protected)
- How to use different types of Inheritance
- How to achieve Interface
- What is Overriding with examples

- **JavaScript introduction:**

- JavaScript Introduction
- **IDE** (integrated development environment): Visual Studio code
- Install Node.js & Visual Studio code for setting up Playwright Environment
- What are the Features of JavaScript

- **Handling JavaScript inbuilt keywords, variables, methods**

- How to declare a Class and how to store data in it
- How to execute the **‘.js’** classes in both run and debug mode
- JavaScript comments
- JavaScript Java Script
- JavaScript variable like is Let, var and const and scope of the variables
- Access variables
- Naming Variables rules
- How to create Variables and initialize value to it
- How to use JavaScript Operators
- How to declare and use Arrays
- Strings and String methods
- JavaScript Date
- JavaScript collections like Set and map, weakmap
- What is Type Annotation and how to use it
- Decision Making/conditional statements (if-else, switch, Ternary operators)
- Loops (indefinite (while and do-while) and definite (for, for of and for in, for each))
- Break and continue keyword
- Difference between **‘forEach’** and **‘for loop’** in Javascript
- JavaScript Classes And OOPS
- Getter and setter in JavaScript (imp)
- How to create Config file and to add all the dependencies related to playwright project

- **Playwright Introduction and Installation:**

- Playwright Introduction and Playwright Installation
- Create npm project and install all playwright dependencies for testing
- Importance of playwright and how to execute playwright script in both Run and debug mode
- What is page, browser context and how to execute the playwright code in cross browser testing using chrome and Firefox browsers

- **Handling web elements using playwright:**

- What are all the Locators & Selectors and how to use locators on every web element on the application
- How to extract single and multiple web elements in playwright
- What are all the Methods is available in playwright along with selenium methods
- Wait mechanism by using await and async and different wait methods
- How to click and web element and how to extract the text using playwright
- How to generate report and how to store it
- Handling Click action on Checkbox and Radio button, buttons, elements, links
- How to verify Element State
- How to perform Mouse Events and keyboard handling mechanism
- Playwright trace topic

- **Handling waits using playwright:**

- How to handle both static and dynamic web element using playwright

- **Handling windows and Frames, Alerts, web tables and web calendars using playwright:**

- Handling child and parent windows using playwright
- Handling child and parent frames using playwright
- Handling Web Table and Web calendars.
- screenshots
- Handling Alert popups using playwright
- How to create web elements using **page Object Model**
- **To perform parallel and cross browser testing:**

- Parallel, rerun and Cross Browser Testing
- **Handling Asserts in playwright:**
 - Validations by using both hard and soft Assertions
 - What are hooks in Playwright and what benefit of hooks
 - How to use different Types of hooks in playwright
 - When to use Before/After and BeforeAll/AfterAll
- **Handling Screenshots using playwright:**
 - How to create Full page screen shots using playwright
- **Project Integration with Git**
 - Project source code integration with Git
 - Allure report
- **Playwright with Api concepts:**
 - Manual using postman
 - Automation using playwright
 - Methods like **get, post, put, patch, delete, adding the headers, body** and same in automation
- **MCP servers: AI**
 - **Playwright code generator**
- **Playwright agents:**
 - How to generate the code and how to heal the code if the scenarios are failing
 - Installation of playwright agents
- **Tools :**
 - Git Integration, Allure Reports, Jenkins
- **Interview Questions and Answers**

Resume Preparation

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