

**WebdriverIO and Behavior-Driven Testing**

**Course Number:** JAV-422  
**Duration:** 3 days

**Overview**

[WebdriverIO](https://webdriver.io/) is an open-source, cross-browser testing automation framework built on top of WebDriver. It is written in JavaScript or TypeScript and runs on Node.js. WebdriverIO is a popular testing automation tool for many organizations, including Google, Facebook, and Amazon.

This WebdriverIO & Behavior-Driven Testing training teaches attendees how to write user stories and translate acceptance criteria into feature and step files. Attendees learn how to use Visual Studio Code (IDE), WebdriverIO, TypeScript, Cucumber together to test their web applications.

**Prerequisites**

Prior experience with BDD (behavior-driven development), Cucumber, and WebdriverIO is recommended.

**Materials**

All WebdriverIO training attendees receive comprehensive courseware.

**Software Needed on Each Student PC**

* Windows, macOS, or Linux with at least 8 GB RAM
* A recent JDK version installed
* Related software that Accelebrate will specify in a detailed setup sheet following the purchase of this class

**Objectives**

* Write effective Cucumber feature files
* Understand best practices for step-definition files
* Use WebdriverIO with TypeScript

**Outline**

* Introduction
* BDD and Testing Tooling Overview
  + What are Webdriver, Selenium, and WebdriverIO?
  + WebdriverIO (WDIO)
  + TypeScript vs. JavaScript (why we use TypeScript)
* Python Selenium vs. WebdriverIO
  + Pros and Cons of each
* WebdriverIO: Configuration and Setup
  + Intro to Visual Studio Code and Extensions
  + Project: Configuration
  + Package.json – Setup
  + WDIO – Testrunner
  + Extension
* WebdriverIO Overview: Level 1
  + Feature Files: Cucumber and Gherkin Syntax
  + Step-Definition
  + Using CSS Selectors
  + Chrome Inspection Tools
  + Synchronous vs. Asynchronous – Understanding Asynchronous JS
  + Assertions
    - Expect
    - Chai
  + WDIO – Test Runner Demo
  + Debugging WDIO Cucumber Tests
    - Console Logs
  + Our First Test (testing a login screen)
* OpenAI (Optional)
  + How to use OpenAI to write better-automated tests
  + OpenAI as a paired programmer
  + OpenAI for code reviews
* WebdriverIO Overview: Level 2
  + Removing Duplicates
  + Scenario Outlines
  + Advanced Pause, debugs
  + Regex
    - Defined
    - Use Cases
  + Using XPath
  + Error Handling Best Practices
  + Update Lab 1 to use Scenario Outline
* More WebdriverIO
  + Tags and Hooks
  + Running Headless Tests
  + Configuring tests to run in different environments
  + Customizing tags, environments variables, and running headless
* More Typescript
  + Page Object Patterns
  + Variables Introduction
  + Conditional Statements
  + Array Types
* Advanced Element Interactions
  + Buttons
  + Input Boxes
  + Drop-down lists
  + Handling Windows
  + IFrames and Alert Messages
  + Alert Handling
* Allure Reports
  + Updates to Feature Files
  + Configuring and Customizing
  + Log Level – Parameters
  + Attaching Screenshots
  + Autogenerate Reports
  + Customized Reports
* Testing the Contact Us Page
* Conclusion