



Advanced Test Automation

Advanced Test Automation se concentrează pe construirea unui sistem de automatizare cu drepturi depline, folosind WebdriverIO și Mocha sau Cucumber ca framework de testare și Chai ca librerie de assert-uri.

Toate conceptele teoretice, metodele specifice Webdriver și cele mai bune practici de automatizare sunt combinate cu exerciții practice.

Part I: An introduction to JavaScript (part I)

Concepts:

- What is JavaScript?
- How JavaScript Works?
- JavaScript Fundamentals

Part II: An introduction to JavaScript (part II)

Concepts:

- Objects: the basics
- Data Types
- Advanced working with functions
- Objects, classes, inheritance
- Error handling

Practical: **“I DO, WE DO, YOU DO”** tasks: varied examples

Part III: I’ll call you back! Callbacks, Promises & Async/Await

Concepts:

- Introduction: callbacks
- Promise
- Promise API
- Promises Chaining
- Async/Await

Practical: **“I DO, WE DO, YOU DO”** tasks: asynchronous executions

Part IV: Automation: Yay, or Nay? The Why’s & When’s

Concepts:

- Workshop Intro
- Why manual testing?
- Why automated testing?



- When to automate?
- Automation: Myth vs. Reality

Part V: Selenium - Not just the 34th element

Concepts:

- What is Webdriver? What is Selenium?
- Why & when should you use Selenium/Webdriver?
- Selenium Tool Suite
- Selenium Architecture & Selenium Server

Practical: “I DO, WE DO, YOU DO” task: setting up a Selenium Server

Part VI: Locators - Inside the DOM

Concepts:

- The DOM
- Locator classification & efficiency
- Locator strategies & best-practices
- Choosing the best locator strategy
- Locator optimization & maintaining locator files

Practical: Locators hands-on-approach; Locators pop-quiz

Part VII: Enter WebdriverIO

Concepts:

- Getting started with WebdriverIO
- WebdriverIO Testrunner
- Mocha/Cucumber & Chai
- Services
- Reporters

Practical:

- Installing WebdriverIO and running our first test case
- Using Mocha/Cucumber to write test cases
- Plugging in different WebdriverIO Services:
- Selenium Standalone
- Jenkins / Sauce / Browserstack / Testingbot
 - Firefox Profile, PhantomJS
- Plugging in different Reporters and generating reports:
 - Dot
 - Spec
 - Json & Junit
 - Allure



- The **.debug()** command and testing WebdriverIO commands via CLI:
 - navigation, clicking, scrolling, moving, retrieving info (get/set), sending keys
 - tab switching, iframes, print-screens, cookie handling, etc.
- Headless regressions & the PhantomJS Service

Part VIII: Selenium Grid - Scale beyond imagination

Concepts:

- Selenium Grid

Practical:

- Setting up a Selenium Grid (configuring Nodes & Hubs)
- Running a Webdriver script over multiple machines

Part IX: Take IT (WebdriverIO framework) for a spin

Concepts:

- Understanding the framework structure
- Custom Commands
- Page Objects (the page-object model)

Practical:

- Building & running an automated test suite
- Building & using custom commands
- Extending the automation framework

Part X: BUGs are in the “eyes” of the beholder (Visual Regression)

Concepts:

- What is Visual Regression Testing?
- The WebdriverIO Visual Regression Service
- Advanced Visual Regression Testing
- Other Visual Regression tools
 - Applitools Eyes
 - WebdriverCSS

Practical: Extending the previous WebdriverIO framework to support Visual Regression
Testing: Visual Regression Testing best-practices

Part XI: Final Exam!

Part XII: Wrapping up



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- How to approach an automation project?
- Conclusions
- Final Q & A Session
- Feedback and comments