

Selenium with Python: WebDriver & Page Object Model

Learn to automate web browsers with Selenium and Python, from locators and waits to building a Page Object Model framework.

6

MODULES

30

TOPICS

COURSE OVERVIEW

This course introduces Selenium and basic HTML concepts such as web elements and locators, then covers setting up a Python development environment and writing a first Selenium script with core WebDriver commands. It proceeds through advanced topics including interacting with web elements, handling frames, windows and pop-ups, and applying implicit and explicit waits alongside advanced XPath and CSS locator strategies. The course concludes with test automation frameworks, focusing on building a basic framework using the Page Object Model and organising test scripts and page classes.

WHO THIS COURSE IS FOR

Test Automation Engineers

QA Engineers

Software Testers

Python Developers

SDETs

LEARNING OBJECTIVES

- Explain what Selenium is and its benefits
- Identify different types of web elements and locators
- Configure a Python development environment for Selenium
- Write a basic Selenium script using WebDriver commands
- Interact with text boxes, buttons, checkboxes and dropdowns
- Handle frames, multiple windows and pop-ups
- Apply implicit and explicit waits for dynamic elements
- Build a test automation framework using the Page Object Model

6 Modules, 30 Topics

01

Introduction to Selenium

TOPICS

What is Selenium? · Importance and benefits of Selenium · Brief history and evolution of Selenium · Understanding Web Elements

02

Basic HTML Concepts

TOPICS

- Different types of web elements (e.g., text boxes, buttons, links)
- Introduction to locators (ID, name, class name, XPath, CSS selector)

03

Setting Up Selenium Environment

TOPICS

- Installing Python and pip
- Installing Selenium WebDriver
- Setting up a development environment (e.g., IDEs like PyCharm, VS Code)
- Your First Selenium Script
- Writing a basic Selenium script to open a browser and navigate to a webpage
- Understanding WebDriver commands (e.g., get, find_element, click)

04

Advanced Selenium Concepts

TOPICS

- Handling Different Web Elements
- Interacting with text boxes, buttons, checkboxes, radio buttons
- Handling dropdowns and selecting options
- Uploading files and handling alerts
- Working with Frames and Windows
- Switching between frames and windows
- Handling multiple windows and pop-ups

05

Selenium Waits

TOPICS

- Introduction to implicit and explicit waits
- Handling dynamic elements and page loading
- Advanced Locator Strategies
- Writing effective XPath and CSS selectors
- Using techniques like parent-child relationships, sibling locators

06

Test Automation Frameworks and Best Practices

TOPICS

- Introduction to Test Automation Frameworks
- Overview of test automation frameworks (e.g., Page Object Model, Data-Driven Testing, Keyword-Driven Testing)
- Pros and cons of using frameworks
- Building a Basic Test Automation Framework
- Implementing the Page Object Model (POM)
- Organizing test scripts and page classes

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

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