

Selenium with Python



Requirements

- Windows/MAC computer
- Browsers (Chrome)
- ***** NO AUTOMATION / CODING EXPERIENCE NEEDED, beginners will be easily able to follow this course
- Python Programming Language concepts are covered in the course, no experience needed
- All the required installation are covered in the lectures and documentation has been uploaded to the course

Course content

- Introduction
- Why Selenium?
- Selenium WebDriver Architecture - How It Works?
- Python Installation
- Configuration Of Python - Windows
- First Project Creation And PyCharm Installation
- Package Management Using PIP
- Installing Python

Python

- Variables Rules
- Numbers Data Type And Math Operations
- Numbers - Exponentiation And Modulo
- Arithmetic Order Of Precedence
- Boolean Data Type
- Working With Strings
- String Methods - Part 1
- String Methods - Part 2
- More String Slicing And Indexing
- Strings Formatting
- List And Accessing The Elements
- List Methods
- Working With Dictionary
- Nested Dictionary
- Dictionary Methods
- Working With Tuple
- Working With Comparators
- Understanding Boolean Operators
- Boolean Operators - Order Of Precedence
- Conditional Logic - If Else Conditions
- While Loop
- Break Continue And While/Else
- For Loop
- Iterating Multiple Lists
- Using Range Function In For Loop
- Understanding Methods
- Working With Return Values
- Working With Positional / Optional Parameters
- Understanding Variable Scope
- More Built-In Functions

Advanced Python

- Understanding Objects / Classes
- Inheritance
- Method Overriding
- Exception Handling Demo
- Finally And Else Block
- How To Write Data To A File
- How To Read A File

Selenium

- Introduction
- How To Inspect Elements
- Find_By_Element Method
- Find_By_Elements Method
- Selenium WebDriver Installation
- How To Install Selenium Plugin To PyCharm
- Running Tests On Firefox
- Running Tests On Google Chrome
- Running Tests On Internet Explorer
- Understanding Elements And DOM
- Find Element By Id And Name
- Understanding Dynamic Ids And Selenium Exception
- Find Element By XPath And CSS Selectors
- Find Element By Link Text
- Find Element By Class Name And Tag Name
- Understanding "By" Class
- How To Find List Of Elements
- Using Ids With CSS Selectors To Find Elements
- How To Use Multiple CSS Classes To Find Elements
- Using Wildcards With CSS Selectors
- How To Find Child Nodes Using CSS Selectors
- CSS Cheat Sheet
- Difference Between Absolute And Relative Xpath
- How to Build An Effective Xpath
- Using Text To Build An Effective Xpath
- Build Xpath Using Contains Keyword
- Build Xpath Using Starts-With Keyword
- How To Find Parent and Sibling Nodes

- Xpath Cheat Sheet
- Browser Interactions Introduction
- Browser Interaction *** Practical Implementation ***
- How To Click And Type On A Web Element
- How To Find The State Of A Web Element (Disabled And Enabled Elements)
- Radio Buttons And Checkboxes
- Working With Elements List
- Understanding Dropdown Elements
- Working With A Dropdown Element *** Practical Example ***
- How To Work With Hidden Elements
- Working With Hidden Elements - Practical Example
- How To Get The Text On Element
- How To Get Value Of Element Attribute
- Generic Method To Find Elements
- How To Check If Element Is Present
- How To Build Dynamic XPath
- Implicit Wait Vs Explicit Wait
- Implicit Wait *** Practical Example ***
- Explicit Wait *** Practical Example ***
- Generic Method To Work With Explicit Wait

Advanced Selenium

- Calendar Selection Introduction
- Calendar Selection *** Practical Example ***
- Calendar Selection *** Real Time Example ***
- AutoComplete Introduction
- AutoComplete *** Practical Example ***
- How To Take Screenshots
- Generic Method To Take Screenshots
- How To Find Size Of The Window
- How To Scroll Element Into View
- How To Switch Window Focus
- Switch To Window *** Practical Example ***
- How To Work With IFrames
- Switch To IFrame *** Practical Example ***
- Handling JavaScript Popup
- Mouse Hover Actions
- How To Drag And Drop Element On A Web Page
- Working With Sliders Actions

- Introduction To Logging Infrastructure
- Changing The Format Of Logs
- Logger - Console Example
- Logger - Configuration File Example

Pytest -> Advanced Testing Framework

- Pytest Installation And First Script
- Pytest Naming Conventions
- How To Work With PyTest Fixtures
- Pytest Fixture Update
- Multiple Ways To Run Test Cases
- Conftest -> Common Fixtures To Multiple Modules
- How To Maintain Run Order Of Tests
- Running Tests Based On Command Line Arguments
- Structure Tests In A Test Class
- How To Return A Value From Fixtures
- Install PyTest HTML Plugin
- How To Generate HTML Test Report
- Automation Framework Introduction
- Understanding Framework Structure
- Test Scenario Without Framework
- Convert Test Case To Page Object Model Framework
- Refactor Your Page Object Class - Part 1
- Build Your Custom Selenium Driver Class
- Refactor Your Page Object Class - Part 2

Data Driven Testing

- Setup And Configuration
- Data Driven Testing *** Practical Implementation ***
- Utility To Read CSV Data
- Multiple Data Sets Test Case *** Practical Example ***

Git And GitHub - Version Control System

- Git And GitHub Introduction
- Git Installation On Windows
- Create Local Git Repository - Staging And Commit
- File Checkin - GitHub Remote Repository
- Advantages And Importance Of Git Branches
- File Checkin and Resolve Merge Conflicts - Real Time Example
- Course Code Files On GitHub
- GitHub Project Check-in And Git Clone

Continuous Integration With Jenkins

- Jenkins Features And Advantages
- Jenkins Setup And Installation - Generic WAR File
- Jenkins Setup And Installation - Windows
- Securing Jenkins
- Jenkins Plugins Management
- Building A Freestyle Project Using Jenkins And GitHub