Selenium with Python

Course Levels [Selenium with Python has 3 Course Levels]

Basic Course - **Course Fees: Rs. 10,000 /-**

The **BASIC COURSE** has the following sections:
Total Hours 24 consisting 24 Sections

1) Python - 13 Sections
2) Selenium Webdriver features - 11 Sections

Intermediate Course- **Course Fees: Rs. 12,000 /-**

The **INTERMEDIATE COURSE** has the following sections:
Total Hours 30 consisting of 27 Sections

1) Python - 13 Sections
2) Selenium Webdriver features - 11 Sections
3) Logging with Python - 1 Section
4) UnitTest - 1 Section
5) Pytest Framework - 1 Section

Advance Course- **Course Fees: Rs. 17,000 /-**

The **ADVANCE COURSE** has the following sections:
Total hours 38 consisting of 33 Sections

1) Python - 13 Section
2) Selenium Webdriver features - 11 Section
3) Logging with Python - 1 Section
4) UnitTest - 1 Section
5) Pytest Framework - 1 Section
6) Framework Development - 6 Sections

Course Content

1. Python:

1) Setup And Configuration

- Python Installation - Windows
- Configuration Of Python - Windows
- Package Management Using PIP
- IDE Options For Python Development
- Installing iPython

2) Understanding Variables And Data Type

- Python Terminal Walkthrough - Preview
- Understanding Objects And References
- 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

3) Advanced Data Types

- List And Accessing The Elements
- List Methods
- Working With Dictionary
- Nested Dictionary
- Dictionary Methods
- Working With Tuple
- Datetime
- Python Debugger - pdb
- Timing your code - timeit
- Regular Expressions -re
- StringIO
- Advanced Python Modules FAQ

4) Advanced Python Objects and Data Structures

- Numbers
- Advanced Strings

- Advanced Sets
- Advanced Dictionaries
- Advanced Lists

5) Comparison And Boolean Operators

- Working With Comparators
- Understanding Boolean Operators
- Boolean Operators - Order Of Precedence

6) Program Control Flow

- Conditional Logic - If Else Conditions
- While Loop Demo
- Break Continue And While/Else
- For Loop Demo
- Iterating Multiple Lists - Using the Zip Function
- Using Range Function In For Loop

7) Methods - Working With Reusable Code

- Understanding Methods
- Working With Return Values
- Working With Positional / Optional Parameters
- Understanding Variable Scope
- More Built-In Functions

8) Classes - Object Oriented Programming

- Understanding Objects / Classes
- Create Your Own Object
- Create Your Own Methods
- Inheritance
- Method Overriding
- Special (Magic/Dunder) Methods

9) Exception Handling

- Exception Handling Demo
- Finally And Else Block
- Pylint Overview
- Running tests with the Unittest Library

10) Modules

- Builtin Modules
- Create Your Own Modules

11) Python Decorators

- Decorators with Python overview

12) Python Gererators

- Generators with Python

13) Working With Files -

- How To Write Data To A File
- How To Read A File
- File Handling Using "With" And "As" Keywords
- File Handling - Excel using Pyxl module

2. Selenium WebDriver with Python

14) Selenium WebDriver -> Setup And Installation

- Selenium WebDriver Installation - Windows
- Selenium 3.x Update

15) Selenium WebDriver -> Running Tests On Various Browsers

- Selenium WebDriver 3.x Gecko Driver Setup - Windows
- Running Tests On Firefox
- Running Tests On Google Chrome - Windows
- Requirements To Run Tests On IE
- Running Tests On Internet Explorer

16) Selenium WebDriver -> Finding Elements

- 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

17) CSS Selectors - Advanced Locators

- 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

18) Xpath - Advanced Locators

- 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
- Practice Exercise With Solution + *** Interview Question ***
- Xpath Cheat Sheet

19) Selenium WebDriver -> Working With Web Elements

- 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

20) Selenium WebDriver -> Useful Methods And Properties

- 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

21) Selenium WebDriver -> Wait Types

- Implicit Wait Vs Explicit Wait
- Implicit Wait *** Practical Example ***
- Explicit Wait *** Practical Example ***
- Generic Method To Work With Explicit Wait

22) Selenium WebDriver -> Advanced

- 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
- Executing JavaScript Commands

- How To Find Size Of The Window
- How To Scroll Element Into View

23) Selenium WebDriver -> Switch Window And IFrames

- How To Switch Window Focus
- Switch To Window *** Practical Example ***
- How To Work With IFrames
- Switch To IFrame *** Practical Example ***
- Handling JavaScript Popup

24) Selenium WebDriver -> Working With Actions Class

- Mouse Hover Actions
- How To Drag And Drop Element On A Web Page
- Working With Sliders Actions

3. Logging with Python

25) Logging Infrastructure

- Introduction To Logging Infrastructure
- Changing The Format Of Logs
- Logger - Console Example
- Logger - Configuration File Example
- How To Write A Generic Custom Logger Utility

4. UnitTest Framework

26) Unittest Infrastructure

- Unittest Introduction
- Writing First Test Case
- How To Implement Class Level SetUp And TearDown Methods
- How To Assert A Test Method
- How To Run Code From Terminal
- How To Create A Test Suite

5. Pytest Framework

27) Pytest -> Advanced Testing Framework

- Pytest Installation And First Script
- How To Work With PyTest Fixtures
- Multiple Ways To Run Test Cases

- Important Note For Next Lecture
- 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

6. Automation Framework – Page Object Model

28) Automation Framework - Part 1

- Automation Framework Introduction
- Understanding Framework Structure
- Test Scenario Without Framework
- Important Note For Next Lectures - Windows
- 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

29) Automation Framework - Part 2

- Add Logging To Automation Framework
- How To Verify Test Case Result
- Complete Login Page Test Cases
- Create Conftest To Implement Common Setup Methods
- Refactor Conftest *** Make Framework More Readable ***

30) Automation Framework - Part 3

- How To Assert Without Stopping Test Execution
- How To Assert Without Stopping Test Execution *** Practical Example *** Part - 1
- How To Assert Without Stopping Test Execution *** Practical Example *** Part - 2
- Implement Screenshots In A Framework
- Taking Screenshots On Test Failure
- BasePage And Util Concept Introduction
- Inheriting BasePage Class

31) Automation Framework -> Practice Exercise

- CustomDriver -> Additional Methods Before Exercise

- Practice Exercise Question
- Find Element Locators -> Solution Part 1
- Create Register Courses Page Class -> Solution Part 2
- Create Register Courses Test Class -> Solution Part 3

32) Data Driven Testing

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

33) Running Complete Test Suite

- How To Manage Navigation In Framework
- Refactor Login Tests
- How To Run A Test Suite
- Running Test Suite On Chrome