

C# Introduction

- ❖ Installing Visual Studio
- ❖ Features of C#
- ❖ Why C# for Selenium
- ❖ First C# Project
- ❖ First C# program
- ❖ Concept of Assembly file
- ❖ Datatypes in C#
- ❖ String class
- ❖ If statements

LOOPS, ARRAYS AND FUNCTIONS

- ❖ Conditional and concatenation operators
- ❖ While Loop
- ❖ For Loops
- ❖ Practical Examples with loops
- ❖ Usage of loops in Selenium
- ❖ Single Dimensional Arrays
- ❖ Two Dimensional arrays
- ❖ Practical usage of arrays in Selenium
- ❖ Drawbacks of arrays
- ❖ What are Functions?
- ❖ Function Input Parameters
- ❖ Function Return Types

OBJECT ORIENTED PROGRAMMING – 1

- ❖ Local Variables
- ❖ Global Variables
- ❖ Static and Non-Static Variables
- ❖ Static and Non-Static Functions
- ❖ Creating Objects in C#
- ❖ Meaning of static
- ❖ Why is main method static?
- ❖ Object and Object References
- ❖ Call by reference and Value
- ❖ Constructors

OBJECT ORIENTED PROGRAMMING - 2

- ❖ Concept of Inheritance
- ❖ Interface
- ❖ Overloading and Overriding Functions
- ❖ Example on inheritance
- ❖ Object Class
- ❖ Usage of Inheritance in Selenium

NAMESPACE, ACCESS MODIFIERS/EXCEPTION HANDLING

- ❖ Relevance of Namespaces
- ❖ Creating Namespace
- ❖ Accessing Classes Across Namespaces
- ❖ Good Features of Visual Studio
- ❖ Accessing modifiers - Public, Private, Default, Protected
- ❖ Exception handling with try catch block
- ❖ Importance of exception handling
- ❖ Application Exception and System Exception
- ❖ Exception Class
- ❖ Final and Finally
- ❖ Throw and Throws
- ❖ Different Types of Exception

COLLECTION API/REFLECTION API

- ❖ Read Only Collection Class
- ❖ List and Dictionary Class
- ❖ Using List and Dictionary of Collection API in Selenium framework
- ❖ Reflection API usage and importance
- ❖ Using Reflection API to make keyword driven Selenium framework

STRING CLASS AND FUNCTIONS

- ❖ Reading/Writing Text Files
- ❖ Reading Configuration File in C#
- ❖ Concept of Assembly file
- ❖ Reading/Writing Microsoft XLS Files
- ❖ Reading data from XML files using C#

NUNIT AND REPORTING

- ❖ Why Nunit
- ❖ Installing Nunit
- ❖ Nunit annotations
- ❖ Running a test in Nunit
- ❖ Parallel execution
- ❖ Skipping tests
- ❖ Parameterizing tests
- ❖ Assertions
- ❖ Extent Reports

SELENIUM WEB DRIVER PART-1

- ❖ Why WebDriver?
- ❖ Downloading WebDriver dlls and configuring in visual studio
- ❖ Architecture of selenium webdriver
- ❖ WebDriver Interface in Selenium 3.0
- ❖ Drivers for Firefox, IE, chrome, Iphone, Android etc
- ❖ Usage of webdriver interface
- ❖ First Selenium Code
- ❖ Working with chrome and IE
- ❖ WebDriver Desired Capabilities Class
- ❖ Proxy settings with webdriver/Working with proxy Servers

SELENIUM WEBDRIVER PART-2

- ❖ Inspecting elements in Mozilla, Chrome and IE
- ❖ Concept of firefox profile
- ❖ What is Firefox profile
- ❖ Why we need firefox Profile
- ❖ HTML language tags and attributes
- ❖ Various locator strategies
- ❖ WebElement Interface
- ❖ Identifying Web Elements using id, name, class
- ❖ Finding Xpaths to identify
- ❖ Implicit Wait
- ❖ Absolute and partial Xpaths
- ❖ Creating customised Xpaths without firepath
- ❖ Css Selectors

- ❖ Generating own Css Selectors
- ❖ Performance of Css Selectors as compared to Xpaths
- ❖ What is class attribute?
- ❖ Handling Dynamic objects/ids on the page
- ❖ Working with different browsers without changing code

SELENIUM WEBDRIVER PART-3

- ❖ Managing Input fields, Buttons
- ❖ Managing/Identifying Links with xpaths/css selectors
- ❖ Get Attribute Function
- ❖ Concept of list
- ❖ Extracting More than one object from a page
- ❖ Extracting all links of a page/Bulk extraction of objects
- ❖ Extracting limited Objects from a web page
- ❖ Extracting Objects from a specific area of a web page
- ❖ Finding response Headers/ response code
- ❖ Finding whether object is present on page or not
- ❖ Hidden components - isDisplayed function
- ❖ Clicking and checking links
- ❖ When you don't have common xpath
- ❖ Method 1-Find the box
- ❖ Method 2-Pattern in xpaths

SELENIUM WEBDRIVER PART-4

- ❖ Handling drop down list
- ❖ Select Class in Selenium API
- ❖ Managing radio buttons and Checkboxes
- ❖ Explicit wait
- ❖ Alert management
- ❖ Taking Screenshots of the web pages

SELENIUM WEBDRIVER PART-5

- ❖ Popup Handling
- ❖ Managing different Windows
- ❖ Close and Quit -Difference
- ❖ Concept of WebTables
- ❖ Dynamic WebTable Handling

- ❖ Extracting Data From WebTable
- ❖ GetRowWithCellData function

SELENIUM WEBDRIVER PART-6

- ❖ Mouse movement with Selenium - Actions class
- ❖ Randomly clicking/selecting Objects - Randomising
- ❖ Dragging dropping by offset
- ❖ Attaching files with Selenium / Usage of AutoIT
- ❖ Changing your Facebook profile picture by attaching new picture
- ❖ Handling Ajax Auto suggests
- ❖ Handling Frames in Web Page
- ❖ Managing JavaScript alerts
- ❖ Calendar Control
- ❖ JavascriptExecutor and its importance

Framework

- ❖ what is framework?
- ❖ different types of frameworks?
- ❖ what is data driven framework?
- ❖ Page Object model with page factory?