



# LiveTech

Since 2004



# SELENIUM WITH C#



## Best Training and Placements Institute



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## About LiveTech

LiveTech was founded in 2004 by IT industry professionals to impart quality training and carve a niche in the IT training industry. LiveTech has successfully skilled 100000+ professionals in Software Testing and Development Domain. LiveTech is involved in training on Software Courses for over 21+ years. LiveTech is a leader in creating not only skilled professionals but also enhance their Employability through real time project implementation Training in Software Testing and Development. The programs are designed by Industry experts and backed by certifications recognized globally in I.T Solutions.

## Selenium With c#

<b>Module 1 :</b>	<b>Introduction to Auto Testing</b>
<b>Module 2 :</b>	<b>Basic of C#</b>
<b>Module 3 :</b>	<b>Object Oriented Programming</b>
<b>Module 4 :</b>	<b>Database Testing</b>
<b>Module 5 :</b>	<b>Frameworks</b>

## Selenium With c#

### Introduction to Automation Testing

- What is Automation Testing?
- Definition and Importance
- Manual vs. Automation Testing
- Benefits of Automation Testing
- Time-saving
- Improved Accuracy
- Reusability of Test Scripts

### Setting up the Environment

- Installing Visual Studio
- Overview of Visual Studio IDE
- Installation Steps

### Basics of C# Programming for Selenium

- 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

- 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
- Concept of Inheritance
- Interface
- Overloading and Overriding Functions
- Example on inheritance
- Object Class

## 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 Exceptions

## Collections

- Types of Collections in C#
- Introduction to Generic Lists
- Adding, Removing, and Accessing Elements
- List Methods and Properties
- Adding, Removing, and Accessing Key-Value Pairs
- Dictionary Methods and Properties
- Adding, Removing, and Checking Elements
- HashSet Methods and Properties

## Element Identification

- Inspecting elements in Firefox, Chrome and Edge
- HTML language tags and attributes
- Various locator strategies
- WebElement Interface
- Identifying Web Elements using id, name, class
- Finding Xpaths to identify
- Absolute and partial Xpaths
- Creating customised Xpaths without fire path
- Css selectors
- Generating own Css selectors

- Performance of Css Selectors as compared to Xpaths
- What is class attribute?
- 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

## Handling Different Web Elements with Selenium WebDriver using C#

### Handling Text Boxes

- Sending Text
- Clearing Text
- Sending Text
- Clearing Text
- Retrieving Text Box Value
- Asserting Text Box Content

### 1. Handling Buttons

- Using ID, Name, XPath, CSS Selectors
- Clicking Buttons
- Validating Button State (Enabled/Disabled)
- Handling JavaScript-Driven Buttons

### 2. Handling Links

- By LinkText and PartialLinkText
- Clicking Links
- Retrieving Link URLs
- Strategies for Dynamic Content

### 3. Handling Radio Buttons

- By Name, XPath, CSS Selectors
- Clicking to Select
- Validating Selection
- Managing Radio Button Groups

### 4. Handling Checkboxes

- Using Various Locators
- Checking and Unchecking
- Validating Checkbox State
- Selecting Multiple Options

### 5. Handling Dropdowns

- By ID, Name, XPath, CSS Selectors
- Using SelectElement Class
- Selecting by Index, Value, Text
- Retrieving Selected Option

### 6. Handling Alerts and Popups

- Accepting and Dismissing Alerts
- Retrieving Alert Text
- Switching to Popup Windows
- Interacting with Popup Elements
- Automating Login Popups

### 7. Handling Frames and iFrames

- Identifying Frames, iFrames and handling frames
- Using webDriver's switch to method
- Locating and interacting with nested elements
- Handling file uploads and downloads
- Automating file uploads
- Using sendkeys method
- Handling OS file dialogs with autolt/sikuli
- Handling tables
- Locating table elements
- Interacting with table data
- Retrieving cell data
- Handling frames
- Using WebDriver's switch to method

- Locating and Interacting with Nested Elements

## 8. Handling File Uploads and Downloads

- Automating File Uploads
- Using SendKeys Method
- Handling OS File Dialogs with AutoIt/Sikuli

## 9. Handling Tables

- Locating Table Elements
- Interacting with Table Data
- Retrieving Cell Data
- Validating Table Content
- Handling Dynamic Tables

## 10. Synchronization with Web Elements

- Implicit Waits
- Setting Up Implicit Waits
- Explicit Waits
- Using WebDriverWait and ExpectedConditions

## Frameworks

### TDD frameworks - NUNIT and MSTest

- Assertions
- Parameterizing tests
- Skipping tests
- Parallel execution using NUNIT
- Running a test in Nunit, MSTest
- Nunit and MSTest annotations
- Installing Nunit, MSTest
- Why Nunit, MSTEST
- Difference between NUNIT and MSTEST

- Creating of Test cases in MSTEST and NUNIT

## BDD Framework – Specflow

- Installation of BDD Specflow
- Assertions
- Creation of scenarios with parameters
- Difference between scenario and Scenario Outline
- Creation of Hooks
- Test Scenario execution

## Introduction to Selenium

- Why WebDriver?
- Downloading WebDriver dlls and configuring in visual studio
- Architecture of selenium webdriver
- WebDriver Interface in Selenium
- Drivers for Firefox, Edge, chrome etc
- Usage of webdriver interface
- First Selenium Code
- Working with chrome, Firefox and Edge

## WebDriver Desired Capabilities Class

### PAGE OBJECT MODEL

- Introduction to POM
- Concept of inheritance
- Concept of encapsulation
- Initialising connection string
- My SQL connection / SQL server connection class
- My SQL command / SQL server command class
- My SQL data reader SQL server reader class



- Firing select, insert, update and delete queries with database
- Looping the SqlDataReader

**Faculty** : .....

**Date** : .....

**Time** : .....

**Duration** : .....













































**Fee** : .....

**Comments** : .....

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## Courses We Offer



### Full Stack **TESTING**

Test Engineer

3-Months



### Full Stack **JAVA**

Java Developer

4-Months



### Full Stack **PYTHON**

Python Developer

3-Months

## Training Methodology

### Class room Training



### Project Training



### Resume Preparation



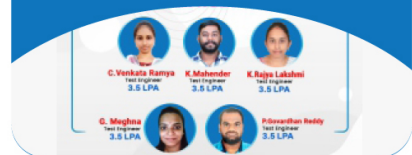
### Certification



### Interview Preparation



### Placement Assistance



## Our Infrastructure

