SOFTWARE TESTING

SELENIUM

JOIN US

It's Time To Take The Right Step

Our Experience
Your Winning Edge.

Testing is not just taught, it is practiced at QEdge

QEdge® TECHNOLOGIES

QEdge Technologies

We Teach SUCCESS

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Skills Covered

"Education is the development of power and ideal."

SELENIUM

About The Course

Selenium is used for automating Web Application Testing. Selenium is open source tool, hence many companies preferring Selenium to cut down project maintenance cost which increased demand for Selenium Testers.In this course you will experience to work with Modularity Framework, Data Driven Framework, Keyword Driven Framework and Hybrid Framework. Cucumber BDD Framework, Selenium WebDriver, Selenium-Grid, AutoIT, TestNG, Apache POI, JDBC, MAVEN, Jenkins and Cucumber are covered during the course. You will learn developing and running automations tests on different real-time applications.

Course Objectives

After successful completion of 'QATesting with Selenium WebDriver' Course, you should be able to

- Learn Selenium WebDriver/ Selenium 3.0
- Learn Selenium Architecture and its components
- Working with different Browsers.
- Identifying elements using different locator's id, name, classname, tagname, linktext, CSS, XPath etc.
- Automating Editbox, DropdownList, Links, Checkboxes, RadioButtons, Tables, Calendars, Keyboard and Mouse Operations.
- Handling window components with AutoIT.
- Handling Alerts, Frames and Multiple windows.
- Validate page content using Selenium WebDriver
- Write Tests using TestNG
- Learn TestNG Annotations, Assertions, Generating Test Reports etc.,
- Learn developing and executing Test Suits using testng.xml
- Creating Reusable automation Tests
- Generating customized test results with extent reports.
- Use WebDriver advanced features e.g. taking screenshots, handling cookies and managing Exceptions
- Create Data driven, Keyword driven and Hybrid test frameworks
- Create BDD Framework with Cucumber
- Conduct Cross browser testing with Mozilla Firefox, Google Chrome, IE, Safari and Opera
- Conduct Cross platform testing with Windows, UNIX and Mac etc.,
- Conduct distributed automated testing using Selenium GRID
- Project dependency management with MAVEN.
- Scheduling Tests with Jenkins

Who can join this course?

Any Fresh Graduates, Students and working professionals who want to learn and become Automation Test Engineer. Selenium is a new and booming Test tool in Software Testing Industry. People with basic knowledge of Object

Oriented Programming can easily take up this course.

Pre-requisites

Basic knowledge of Core Java programming is essential for SELENIUM. We provide a complimentary course "Java Essentials for Testing with Selenium WebDriver" to all the students who enroll for Selenium course.

Project Work

Towards the end of the course you will be working on aLive Project where we will be automating a Web pplication tocover all the possible scenarios with application. Project will be Keyword Driven so that it should work as per userinstructions. Test cases will be executed multiple times sing Data Driven approach. Project will handle Textboxes, Links, Checkbox, Radio button, submit button, reset button, URL, Page Title, synchronization between pages when navigating from one page to another, taking screenshots of pplication for each of the validation of – verbose, textbox value, dynamic links, handling of dialog and alert box, fetching data from application . We will build this Project using Eclipse and Selenium WebDriver.

"Your life is your message to the world make it inspiring."

Curriculum

Java Essentials for SELENIUM

Java Programming Basics

- Why Java for Selenium
- Installing Java
- Installing Eclipse
- Creating Java Project
- First Java program
- Concept of class file
- Datatypes in Java
- String class and functions
  - Practical Examples on Strings handling
- Conditional Statements
  - If...else...
  - switchcase
  - Practical Examples with conditions
- Loops
  - While Loop
  - For Loop
  - Practical Examples with loops
- Arrays
  - Single Dimensional Arrays
  - Two Dimensional arrays
  - Practical usage of arrays in Selenium
- Operators
- What are Functions?
- Function Input Parameters
- Function Return Types

Object Oriented Programming in JAVA

- Local Variables
- Global Variables
- Static and Non-Static Variables
- Static and Non-Static Functions
- Creating Objects in Java
- Meaning of static
- Why main method static?
- Overloading and Overriding Functions
- Access Modifiers - Public/Private/Default/Protected
- Constructors
- Interface
- Usage of Objects in Selenium
- Inheritance
- Usage of Inheritance in Selenium
- Creating Packages
- Accessing Classes across Packages

Exception Handling

- Exception handing with try catch block
- Importance of exception handling
- Exception and Error
- Throwable Class
- Final and Finally
- Throw and Throws
- Different Types of Exceptions
- Need of exception handling in Selenium framework

Automating Excel file Operations using Apache POI

- Creating/Opening XL Files
- Reading data from XL Sheet
- Writing data into XL Sheet
- Counting Rows and Columns in XL Sheet
- Filling BG/Font Colours
- Creating ExcelUtils Class

Automating Text File Operations

- Creating/Opening Text Files
- Reading/Writing Text Files

"You learn something every day.. if you pay attention."

Selenium Introduction

- What is Selenium?
- Who developed Selenium?
- Selenium Components
- Introduction to WebDriver
- Installing Selenium WebDriver
- Architecture of selenium Webdriver
- Creating your First Script in Webdriver

Launching AUT and Inspecting properties of Elements

- Launching AUT in FireFox
- Launching AUT in InternetExplorer
- Launching AUT in Chrome
- Launching AUT in Safari
- Inspecting properties of Elements on different Browsers
- Creating FireFox Profile

Finding elements using Locators

Creating Customize XPath/CSS Selectors

- What is Xpath
- When to Use Xpath
- Absolute XPath/Relative XPath
- Specifying conditions with Xpath
- CSS Selectors

Automating WebElements Operation

- Browser
- TextBox
- ListBox
- Links
- Check Box
- Radio Button
- HTML Tables
- Calendars

Automating Keyboard and Mouse Events

- Action Class
- KeyBoard Events
- Drag & Drop Actions
- Mouse Hover Action
- RightClick, Double Click & Tool Tip

Handling Alerts

- accept()
- dismiss()
- getText()

Handling Frames

- What is iFrame?
- Locating Frames
- Handling Frames

Handling multiple Windows

- getwindowHandle()
- getwindowHandles()
- Switching between windows
- Handling elements present in different

Synchronization

- ImplicitWait
- WebDriverWait
- FluentWait
- PageLoadTimeout

AutoIT

- Installing AutoIT
- Components of AutoIT
- Using FinderTool
- AutoIT commands
- Creating Scripts in AutoIT
- Creating executable files
- Running AutoIT Scripts from Selenium

TestNG

- Advantages of TestNG over Junit
- Why do we need TestNG in Selenium?
- Installing TestNG in Eclipse
- Creating a New TestNG Test File
- TestNG annotation
- TestNG assertions
- Running the TestNG Test
- Checking reports created by TestNG
- Creating multiple Tests
- Prioritizing Tests
- Parameterizing Tests with @dataProvider
- TestNGdataProvider with Excel
- Creating and Running Test Suites with TestNG.xml
- Sequential Test Execution with TestNG
- Parallel Test Execution with TestNG

"Practice hard to conquer your world."

Automation Test Frameworks

- Modularity Framework
- Data Driven Framework
- Hybrid Framework
- Page Object Model (POM)
- BDD Cucumber Framework

Modularity Framework

- Identifying Automation Test Scenarios
- Preparing individual Module Scripts
- Building Test Suite by grouping all Test Scripts
- Executing Tests independently.
- Executing Test Suite
- Analyzing Test Results

Data Driven Framework

- Configure Apache POI jar files & TestNG in Eclipse
- Preparing Test Data.
- Preparing Data Driven Test using @dataProvider
- Executing Data Driven Tests
- Analysing Test Results

Hybrid Framework

- Creating Constant Functions
- Creating Application Function Library
- Preparing Keywords
- Design Test Case Template
- Creating Object Repository For Elements
- Preparing TestData
- Preparing Driver Script
- Executing Driver Script
- Analyzing Test Results

Page Object Model

- Creating TestBase class
- Creating Page Classes
- Defining Elements in Page Class
- Defining Functions
- Creating TestCase Classes
- Executing POM TestCases

Cucumber Framework

- Overview of BDD and Cucumber
- How to install and setup Cucumber with Eclipse
- Overview of Gherkin keywords
- How to create Feature file
- How to generate Step Definition file
- How to integrate Cucumber with Selenium WebDriver
- JUnit Test Runner Class
- Data Driven Testing in Cucumber
- Configure Cucumber with Maven and Jenkins
- How generate Reports in Cucumber

Selenium GRID

- What is Selenium Grid?
- When to Use Selenium Grid?
- What is a Hub and Node?
- How to Install and Use Grid 2.0?
- Designing Test Scripts That Can Run on the Grid
- Using the DesiredCapabilites Object
- Using the RemoteWebDriver Object
- Running a Sample Test Case on the Grid
- Sequential and Parallel Test Execution
- Running Tests on different Operating Systems
- Running Tests on different Browsers

Maven

- What is Maven and Why Maven?
- Installing/Configuring Maven
- Creating Maven Project
- Importing Maven Project into Eclipse
- What is POM.xml?
- Adding Dependencies to POM.xml

GitHub

- Create GitHub Account
- Configure Git & GitHub with Eclipse
- GitHub Commands

Jenkins

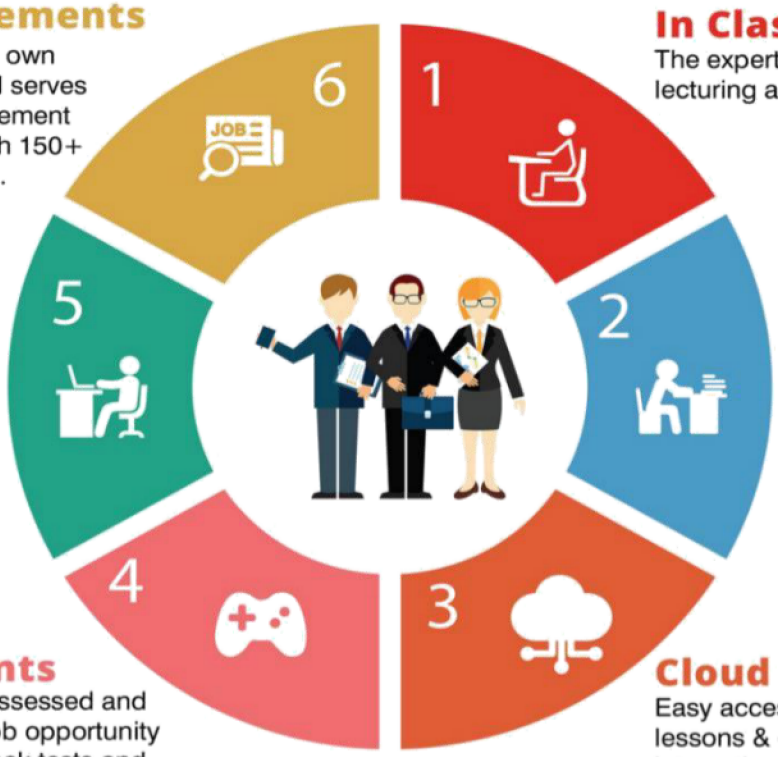
- Installing/Configuring Jenkins
- Scheduling Test Execution in Jenkins
- Auto mail configuration in Jenkins
- What is continues integration?
- Continues integration with JENKINS

Job Placements

QEdge has its own placement cell serves 365 days placement assistance with 150+ partner clients.

In Class

The experts teach by lecturing and demonstrating.



Live Project

Students will be placed in live project teams to experience the real world of development and QA Testing activities they will be required to perform.

After Class

Learning exercises designed for students to apply the theories and develop understanding.

Assessments

Students will be assessed and guided to crack job opportunity by conducting mock tests and mock interviews.

Cloud Platform

Easy access to study lessons & others interactive assignments.

Software Testing
Live Project

Selenium

Data Science
Artificial Intelligence
Machine Learning

python

DevOps

aws

QEdge® TECHNOLOGIES

Ameerpet Hyderabad

2nd Floor, Nagasuri Plaza, Opp. Mythri vihar,
Ameerpet. Hyderabad - 500016
Ph: +91 9154 11 22 33

/ qedgetech

+91 9154 11 22 33

info@qedgetech.com

www.qedgetech.com