Course Name : Python Selenium Mobile Automation Appium (9 days)

This course covers three parts. The first part includes Essential Python with Hands-on sessions on most of the topics of Python. For instance, it covers high-level data structure, Control flows, functions, modules, Object-Oriented Programming, File Handling, and Exceptional Handling, Regular Expression, Unit testing, Pytest, Testcase, and Test Suit.

The Second Part includes Python Selenium with hands-on sessions on PyUnit Framework, Selenium 1, Selenium 2, Web Driver Installation, Architecture, Driver for Chrome, Exception Handling in Selenium, Working with Page Elements, Controls Listbox, Radio Button, Multiselect box, etc. This course also includes advance Selenium topics like implicit and explicit wait, Java Script Alert, Windows Tabs, and Frames, Working with Static and Dynamic Tables, Action class for mouse and keyboard, File Upload and download.

Third Part include Mobile Application Testing, Different types of Mobile apps, Mobile app testing challenges, Cloud-based mobile testing, Bluestacks, Android Platform, Mac OS Introduction, Appium Installation, Architecture, Appium for Android and IOS .

Day1 : (Practical)
Installation and setting up environment
- Installing Python IDE (PyCharm or Eclipse plug-in or PyScripter)
- Configuring the environment
  Python Basics
- Introduction to data types
- Variables
- Data Structures
- Lists & More

Day2 (Practical)
- Control Flows
- Input and Output
- Functions
- User Define and Built in Functions
- Modules
- Python Standard Libraries

Day3 (Practical)
- Class Exercises & examples
- Classes
- Names and Objects
- Inheritance
- Errors and Exceptions

- File Handling

Day4 : Advance Python   (Practical)

- Regular Expression
- Manual Vs Automation Testing
- Introduction to Automation Testing
- unittest with examples (Practical)
- Test Cases
  PyTest Framework
- Introduction to PyTest framework
- Installing PyTest
- PyTest Fixtures
- Running multiple tests using PyTest
- Generating Test report

Day 5, 6 and 7

PyUnit Framework. (Practical)

- Introduction to PyUnit framework
- Installing PyUnit
- PyUnit Annotations
- Test case creations/running
- Assertions/ Reporting Errors
- Reports in PyUnit
- Class Exercises

Introduction to Selenium

- Introduction to Selenium
- Scope of Selenium Training
- Introduction to Selenium components
- What is Selenium 3.0
- Selenium 1 V/s Selenium 2 Vs Selenium 3 (Docs)
- **Introduction of Web Driver**
- What is web driver?
- Why Web Driver?
  Installation of Python and PIP
- Downloading and setting up Selenium
- Download & configuring Web driver
- **Architecture of selenium web driver**
- Drivers for Firefox, IE, chrome

- First Selenium Code
- Introduction to basic commands like get/navigate
- Exception Handling in Selenium
- Working with web page elements/ Controls
- Dropdown
- Listbox
- Radio buttons
- Multi-select box
  o Date picker
  o Combobox widget
- Introducing wait - implicit and explicit wait
- Handling different browsers - Firefox, Chrome and Internet Explorer browser :Done
- Taking screenshots
- Handling Java script alerts, confirmations and prompts
- Working with Windows, Tabs and Frames
- Working with static and dynamic Web tables
- ACTIONS CLASS FOR MOUSE AND KEYBOARD ACTIONS
- File Upload and Download

  Page Object Model (POM)
- Example and Exercises

Day 8

Mobile Application Testing
- Introduction to Mobile Application testing
- What is Mobile App testing?
- Basic concepts in Mobile App testing
- Different types of Mobile apps
- Native
- Hybrid
- Web mobile apps

  Manual Mobile Application testing
- Mobile Platforms
- Mobile app testing challenges
- Cloud based mobile testing
- Mobile app testing tools
  - Bluestacks
  - SeeTestManual
  - See TestCloud
- Mobile Application Testing types

- UI Testing
- Functional Testing
- Regression Testing
- Interruption Testing
- Installation/ Upgrade Testing
- Compatibility Testing
- Network Testing
- Certification Testing
- Field Testing
- Usability Testing
- Localization Testing
- Performance Testing
- Mobile platforms
- Android platform
  - Introduction to Android
  - Architecture
  - Setting up of Android development environment
  - Developing your first Android App
  - Executing app on Emulator and Real Device
  - Code Walkthrough of Android Application
  - Build Process
  - Debugging – DDMS/ ADB/ AVD
- IOS platform
  - MAC OS Introduction
  - IOS/ Architecture
  - Introduction to XCODE
  - Provisioning Profile
  - Build Process

Day 9 : Automation testing in Mobile Application
· **INTRODUCTION**
- Introduction to Automation of web application
- Open source and paid tools used for web and mobile automation
- AUTOMATION IN WEB APPLICATION
  - Introduction to Selenium WebDriver.
  - Architecture of WebDriver
  - Configuring WebDriver
  - Locators-ID,Name,Xpath,CSSetc
- AUTOMATION IN MOBILE APPLICATION

- Types of Mobile Applications-Native,Hybrid,Web
- Various Mobile Platforms(iOS,Android,Windows Phone)
- Real Mobile Device/ Emulators and Simulators

•

- **APPIUM**
    - Introduction to Appium
    - Appium Architecture
    - Appium on Android and iOS
    - Appium Server
    - Introduction to client Libraries -Python,Java and Ruby
- FEATURES IN APPIUM
    - Android Mobile Application Testing using Appium Demo
    - Android Application UI Features Testing
    - Android Application Rest Services Testing
    - Cross Platform Testing using Appium Demo
    - Rich Internet Application Testing using Appium Dem

    Appium Practical
- **INSTALLATION OF APPIUM ON ANDROID AND IOS**
    - Android Platform
    - Installation of JDK and Configuration of eclipse
    - Installation of Android SDK
    - Installation of Appium Exe
    - Configuration of real mobile Devices-Settings,PDAnet+ etc
    - Application utilities-APK Extractor,Activity Launcher etc
    - Configuring Selenium jar and Appium Client Library.
    - Android settings
    - Adb Commands, Android Settings
    - Developer Settings, AppiumInspector,Trash actions
- IOS Platform
- Xcode tool for iOS
- Homebrew, Npm to install appium server