

## Introduction to Appium & Mobile automation Testing

- Introduction to Mobile automation testing
- Selenium 3.0 and APIs
- Automation for IOS and Android devices
- Running the scripts on Emulators
- Running the scripts on Real devices
- Various tools available for Mobile automation testing
- Understanding the API Levels and Appium Concepts
- Client/Server Architecture, Session, Desired Capabilities, Appium Server and Appium Clients
- Installing JDK, Maven and Android SDK
- Pre-requisite for starting with Appium
- Supported Java versions
- Configuring environment variables
- Downloading and Installing JDK
- Downloading and installing Maven on Windows
- Downloading Android SDK
- Taking a look at available Android Virtual Devices
- Basic installation for Appium on Windows
- Visiting Appium.exe
- Downloading Appium for Windows
- Downloading Appium jars and other dependencies
- Configuring SDK Manager
- Downloading different Android API levels
- Setting up Android environment variables
- Downloading Appium GUI Tool
- Understanding Application path, Package & Launch Activity
- Starting Appium Server
- Running a sample test to make sure everything works fine
- Downloading Appium Dependencies
- Understanding Desired capabilities class
- Extracting Packages and Activities information of pre and post installed apps
- Downloading Appium Maven Dependencies
- Adding Device Name
- Connecting real device to USB and running ADB commands
- Starting the Appium server programmatically Windows OS
- Starting the Appium server through code / programmatically on Windows
- Downloading Appium Maven Dependencies
- Stopping the Appium server
- Kill all nodes
- UI Automator Viewer
- Opening UIAutomator Viewer through SDK tools kit
- Understanding different locator strategies
- Taking the Device screenshot
- Device screenshot with Compressed hierarchy
- Understanding the different locator tags
- Appium Inspector
- What is Appium Inspector?
- How and when to run it?
- Record and Play using Appium Inspector
- Locating elements with the help of Appium Inspector
- Inspector will only run with active session
- Object Repository
- What is object repository?
- How to use object repository in framework
- What is the use of maintain Object repository
- Types of creating object repository
- Additional Framework Features
- Execution with ANT
- Execution with Maven
- Execution with Continuous Integration tool i.e., Jenkins
- Object Locators and Techniques

- Locating Elements on the App
- What all can be locatable
- Locating elements within elements
- Locating multiple elements
- Find Element By Android UIAutomator
- Exploring UIAutomator API
- Finding Elements by ClassName
- Finding Elements by ids
- Finding Elements by Xpaths
- Using different functions inside UIAutomator class
- Exercises

## Testing Android Native, Hybrid & Web Apps on Windows

- Native App Test – Making a call with Internal Dialer Application
- Native App Test – Adding a new contact to Phonebook
- Native App Test – Sending SMS from a real device
- Native App Test – Automating a standard App
- Touch Actions and Events – Handling user gestures
- WebApp Test – Automating Web based testing on Chrome Browser
- Hybrid App Test – Automating the mobile messaging app

## Unit Test Framework

- JUnit Introduction
  - JUnit Annotations
  - JUnit Implementation in Selenium RC/ Web Driver Scripts
- TestNG Introduction
  - TestNG Annotations
  - TestNG Implementation in Selenium RC/ Web Driver Scripts
- Difference between JUnit and TestNG
- Java
- Setting up Java Environment in windows platform
- Object – Oriented Programming Concepts
  - Classes and Objects, Interfaces , Encapsulation, Access and Non-Access Modifiers

- Variables , Methods and Arrays
- Inheritance, Abstraction and Polymorphism
- Collections , loop concepts and if-else statements
- File I/O, Exception Handling , Code Debugging and Java API Understanding
- Practice Programs in the Java Concepts
- JDBC – Database Testing Introduction
- Handling Sql Server database using JDBC scripts

## Miscellaneous

- Resume Preparation
- Job Assistance
- Help of Interview Questions and Answers by Real-Time Faculty