
ISTQB Foundation Level Mobile Application Testing

Overview

With the increasing number of mobile device users and their demands today, there is a huge competition between mobile app vendors to develop high quality apps, for which there is a great demand for mobile app testers in the industry.

Appium is one of the leading tools in the mobile testing market and in the last few years there has been a rapid increase in its popularity and stability. With the mobile marketplace fragmented between OS platforms and app types, there is need for a truly cross-platform mobile automation tool, and Appium definitely meets that need.

Course Objectives

At the end of the course, successful trainees will be able to:

- Understand what makes mobile application testing different from standard software testing
- Learn some of the underlying technologies behind mobile devices and how testing is affected
- Explore the different types of mobile applications and how to test for each
- Get hands on experience with different mobile testing tooling, including:
 - ✓ Exploratory Testing
 - ✓ Testing with Simulators, Emulators, and Physical Devices
 - ✓ Service Testing
 - ✓ Cloud Emulation Testing
 - ✓ Test Automation using Selenium IDE
 - ✓ Globalization Testing
- Discover how mobile applications work and different techniques for testing them
- equip trainees with the expertise of testing on mobile devices using Appium and its best features

Syllabus

MANUAL MOBILE APPLICATION TESTING

1. Mobile Origin and Mobile today
2. Mobile usage/ Statistics
3. Mobile Platforms
4. Mobile SDLC/ Methodologies
5. Mobile Testing/ Mobile Application Testing

6. Mobile Ecosystem
7. Challenges in Mobile Application Testing
8. Test Case Design – Mobile Applications
9. Cloud based Mobile Testing – Keynote Deviceanywhere
10. Tools – Bluestacks, SeeTest Manual, SeeTest Cloud
11. Types of Mobile Application Testing
 1. UI Testing
 2. Functional Testing
 3. Regression Testing
 4. Interruption Testing
 5. Installation/ Upgrade Testing
 6. Compatibility Testing
 7. Network Testing
 8. Certification Testing
 9. Field Testing
 10. Usability Testing
 11. Localization Testing
 12. Performance Testing
12. ANDROID PLATFORM
 - A. Android Introduction/ Version History
 - B. Android Architecture
 - C. Setting up Android development environment
 - D. Building your first Android App
 - E. Running app on Emulator and Real Device
 - F. Android Application Code Walkthrough
 - G. Build Process
 - H. Debugging – DDMS/ ADB/ AVD
13. IOS PLATFORM
 - A. Introduction to MAC OS
 - B. Introduction to IOS/ Architecture
 - C. Introduction to XCODE
 - D. Provisioning Profile
 - E. Build Process

Mobile Application Automation

1. INTRODUCTION

- A. Automation of Web Applications
 - B. Automation of Mobile Applications
 - C. Open Source and Paid tools for Web and Mobile Automation
- 2. WEB APPLICATION AUTOMATION**
- A. Selenium WebDriver Introduction
 - B. WebDriver Architecture
 - C. WebDriver Configuration
 - D. Locators - ID, Name, Xpath, CSS etc
 - E. Handling Different Browsers
- 3. MOBILE APPLICATION AUTOMATION**
- A. Mobile Application Types – Native, Hybrid, Web
 - B. Different Mobile Platforms (iOS, Android, Windows Phone)
 - C. Real Mobile Device/ Emulators and Simulators
 - D. Introduction to Appium, Features, Advantages and Limitations
- 4. APPIUM ARCHITECTURE**
- A. Appium on Android and iOS
 - B. Appium Server - Command Line, Application, Exe
 - C. Client Libraries Introduction – Java, Python, Ruby
- 5. APPIUM INSTALLATION on ANDROID AND IOS**
- A. Android Platform**
 - A. JDK (Java Development Kit) and Eclipse Configuration
 - B. Android SDK Installation
 - C. Appium Exe – Installation
 - D. Real Mobile Device configuration – Settings, PDAnet+ etc
 - E. Application utilities - APK Extractor, Activity Launcher etc
 - F. Selenium Jar and Appium Client Library configuration
 - G. ADB Commands, Android Settings, Developer Settings, Appium Inspector, Trash actions
 - B. iOS Platform**
 - A. Xcode tool for iOS
 - B. Homebrew, Npm to install appium server
- 6. MOBILE ELEMENT IDENTIFICATION**
- A. Android - UI Automator Tool, Appium Inspector, Chrome ADB plugin
 - B. IOS - Appium Inspector, Safari Dev Tools
 - C. Locators - Resource-ID, Name, Xpath, ClassName, Content-desc, text, AccessibilityID, IOSUIAutomation, AndroidUIAutomator etc

D.

7. APPIUM CONCEPTS AND CHALLENGES

- A. Automation of Native, Hybrid and Web App
- B. Desired Capabilities concepts
- C. Drag and drop, TouchActions, Scroll, Swipe using touch actions
- D. Multi-Touch, Swipe, Tap, LongPress, Flick, Pinch and Zoom
- E. Upload pic from Gallery, Camera, DatePicker, Taking Screenshot, Android Key Events

8. APPIUM FRAMEWORK DEVELOPMENT

- A. POM Framework, Maven, TestNG, Git/ SVN, Jenkins CI

9. SELENDROID

- Introduction and Script Creation

10. JOB PERSPECTIVE

- A. Interview Questions and Answers
- B. Resume Preparation

Audience

This introductory course is appropriate for both novice and experienced software testers who are new to mobile application testing. Technical support, business analysts, and test managers may also find this course helpful.

Duration

- (3) Days
- (20) Hours: (7) Hours/Day.

Pre-requisite:

A background of basic software testing principles is required.