ProTech Professional Technical Services, Inc.

Mobile Testing—ASTQB Software Testing Certification Training

Course Summary

Description

This course provides testers and test managers with an understanding of test fundamentals for mobile applications. Attendees will get a brief introduction to mobile testing, including how mobile app testing differs from testing PC, web-based, and client/server apps. Attendees will then learn how to apply and adapt proven best practices to test planning and design for mobile apps, in a hands-on, creative fashion, using actual mobile applications in a workshop setting. Attendees will outline tests for functional and non-functional characteristics such as performance, security, reliability, and usability, again using real apps for hands-on work. We'll look at the challenges associated with test environments, test data, and test automation, with attendees designing test environments, selecting simulators, identifying the wide range of test tools available for mobile projects, evaluating cloud-based testing options, and creating a keyword-driven test grammar to create automated regression tests for their chosen mobile app. Finally, attendees will develop a plan for future-proofing their testing, a major challenge in the fast-paced world of mobile apps.

This course is ideal for testers experienced with the development of web-based, PC, and client-server applications, entry-level testers with an interest in mobile testing, and experienced developers with a lot to a little knowledge of testing who work in mobile app development. Testers, test analysts, test engineers, test consultants, test managers, user acceptance testers, and software developers working on mobile apps will find this course useful, informative, and fun. We suggest that attendees hold the ISTQB Foundation Level certificate, especially if they intend to take the ASTQB Mobile Tester exam, but non-certificate holders can benefit from the course and take the exam.

Objectives

After taking this course, students will be able to:

- Identify and mitigate the challenges that face a mobile application tester.
- Plan, design and implement appropriate test cases for mobile applications.
- Work with other team members to identify and assess risks and to implement a testing solution to help mitigate those risks.
- Identify the applicable quality characteristics for a mobile application and identify an appropriate testing approach to address those characteristics.
- Participate in tool analysis and selection to select the most appropriate tools for conducting mobile application testing.

- Identify areas for non-functional testing and prepare appropriate tests for those areas.
- Understand the differences between the various mobile application types and select appropriate tools, techniques and approaches to test those applications.
- Effectively employ simulators, emulators, the cloud, and real devices for testing.
- Participate in planning for the future, including proper tool selection and building for maintainability.

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Course Summary (cont.)

Topics

- Introduction to Mobile Testing
- Test Planning and Design
- Quality Characteristics for Mobile Testing

- Environments and Tools
- Future-Proofing

Audience

The target audience for this course includes:

- Mobile testers
- Mobile functional users
- Software testers
- Senior testers

- Test analysts
- Test leads
- Managers including test managers, project managers, quality managers

Prerequisites

- It is recommended, but not required, to have the ISTQB Foundation Level Certification (CTFL) prior to taking this class.
- Prior to attending class please download and review the following document: Mobile Tester Syllabus

Duration

Two Days

Course Outline

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I. *Introduction to Mobile Testing*
- A. What is a Mobile Application
- B. Expectations from Mobile Users
- C. Challenges for Testers
    1. Frequent Releases
    2. Portability/Compatibility
- D. Necessary Skills
- E. Equipment Requirements
- F. Lifecycle Models

II. *Test Planning and Design*
- A. Identify Functions and Attributes
- B. Identify and Assess Risks
- C. Determine Coverage Goals
- D. Determine Test Approach
- E. Identify Test Conditions and Set Scope
- F. Regression Testing

III. *Quality Characteristics for Mobile Testing*
- A. Introduction
- B. Functional Testing
    1. Introduction
    2. Correctness
    3. Security
    4. Interoperability
    5. Test Design
- C. Non-Functional Testing
    1. Performance Testing
    2. Usability Testing
    3. Portability Testing
    4. Reliability Testing

IV. *Environments and Tools*
- A. Tools
    1. Application to Mobile
    2. Generic Tools
    3. Commercial or Open Source Tools
- B. Environments and Protocols
    1. Environment Considerations
    2. Protocols
- C. Specific Application-Based Environment Considerations
    1. Browser-based Applications
    2. Native Device Applications
    3. Hybrid Applications
- D. Real Devices, Simulators, Emulators and the Cloud
    1. Real Devices
    2. Simulators
    3. Emulators
    4. Cloud
- E. Performance Test Tools and Support
- F. Test Automation
    1. Tool Support
    2. Skills Needed

V. *Future-Proofing*
- A. Expect Rapid Growth
- B. Build for Change
    1. Architect the Testing
    2. Enable Efficient Maintenance
    3. Select Tools for Flexibility
    4. Select Partners Carefully
- C. Plan for the Future
    1. Lifecycle Models
    2. Alternative Testing
- D. Anticipating the Future