

## Strategies for Testing Mobile Devices

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### Course Summary

#### Description

The course is designed to provide software quality assurance managers with the background and tools necessary to outline the strategy for testing native apps and websites for mobile devices, manage mobile testing, select and train testing personnel for mobile projects. We will start with the challenges the mobile world poses for testing and proceed to outlining the management tools for making sure that testing plugs into the mobile software life cycle as effectively as it does with more traditional development efforts. We will also discuss some specific aspects of mobile test management, for example, mobile test automation, as well as personnel selection and training.

#### Topics

- What are the challenges posed by mobile technologies and how they impact test management
- What are the necessary components of the mobile testing strategy
- How to decide whether to build or rent a mobile test lab
- How to choose among the existing mobile test automation methods and tools
- What is the skillset of a mobile test engineer needs
- How to find and train mobile test engineers

#### Audience

Software Quality Assurance Managers

#### Duration

1 Day

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### Course Outline

#### *I. What the course is about*

- A. Scope: what do we cover in depth, what do we glance over, what we do not cover
- B. Goals: what will we learn
- C. Administrative items

#### *II. Mobile testing challenges*

- A. Platforms and compatibility
- B. Data entry
- C. Embeddedness in the enterprise business processes
- D. Unique functionalities: location, orientation, and more
- E. Domain-related challenges: banking, gaming, real-time, etc.
- F. The store challenge: Apple, Android, Microsoft – and more
- G. Time-to-market as an (unstable) driver

#### *III. Outlining the mobile testing strategy*

- A. Functionality: how to test GIS, orientation, real-time updates, etc. unique aspects
- B. Performance: endurance testing and beyond
- C. Compatibility: hardware and software
- D. Usability: size, lighting, etc. do matter
- E. Security on the move
- F. Interoperability: crucial chain in the enterprise link
- G. User acceptance: when, where, and who will do it

#### *IV. Mobile testing lab*

- A. What do we need to have:
  - 1. Devices and other hardware
  - 2. Software
  - 3. Securing the lab, local and remote
- B. Procedures
- C. Rent, build, or both: criteria to decide
- D. Managing your mobile lab while the mobile world changes

#### *V. Automating mobile tests*

- A. The necessity to automate
- B. Challenges: diverse, weak, signal-related and interoperable
- C. From challenges to criteria
- D. Options: emulators, tools, methods
- E. Different approaches
  - 1. Emulators
  - 2. Hardware
  - 3. Special tools
  - 4. Common tools
- F. Choosing the best approach
- G. One possible option: live demonstration

#### *VI. Mobile testing team*

- A. The skillset of mobile test engineer
- B. Finding mobile testers
- C. Training your team