ProTech Professional Technical Services, Inc.

Mobile Test Automation

Course Summary

Description

Test automation, very useful for all platforms, is crucial for mobile. Shorter time to market demands quicker development and testing cycles, and the only way to reduce timelines without giving up much of the regression tests is automation. Manual data entry speed is much slower on mobile devices than on the PC, so automation comes handy. You are likely to need to test your native app or mobile website on several platforms, so having a script that will do it saves you time and allows human test engineers to focus on tasks that require analysis rather than repetitive test execution. Yet at the same time mobile poses a number of automation challenges: the platforms are diverse and not easily accessible, native apps and mobile websites frequently should be tested in conjunction with other platforms, and more. The course focuses on analyzing different methods of mobile test automation in light of these challenges, and highlights their advantages and weaknesses; this includes discussion of tool demos that emphasize creative uses of mobile test automation. Then we proceed to discussing possible models for mobile test automation architecture and integrating it into your overall automation. The class ends in a group project of defining mobile testing approach for a mobile app or website.

Objectives

After taking this course, students will be able to:
- 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

Topics

- What the course is about
- Intro: The necessity to automate
- The Mobile Challenge: platforms, technologies, and more
- Coping with the Mobile Challenges:
- From challenges to criteria for evaluating automation options

- Different approaches
- Choosing the best automation approach
- Tools for Mobile Testing
- Mobile Test Automation Architecture
- Group project: defining mobile automation approach for app / mobile website

Audience

This course is designed for Test Engineers.

Prerequisites

There are no prerequisites for this course.

Duration

One day

Course Outline

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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. Intro: The necessity to automate

III. The Mobile Challenge: platforms, technologies, and more

IV. Coping with the Mobile Challenges:
   A. Diverse platforms
   B. Weaker hardware
   C. Variety of connectivity modes
   D. Interoperability

V. From challenges to criteria for evaluating automation options

VI. Different approaches
   A. Emulators
   B. Hardware modification
   C. Software modification: jailbreaking vs. instrumentation
   D. Special tools
   E. Common tools

VII. Choosing the best automation approach

VIII. Tools for Mobile Testing

IX. Mobile Test Automation Architecture
   A. Requirements
   B. Possible models
   C. Components

X. Group project: defining mobile automation approach for app / mobile website