Chapter 26

Testing Mobile Applications

Mobile App Testing Strategy Questions

- Do you have to build a fully functional prototype before you test with users?
- Should you test with the user’s device or provide a device for testing?
- What devices and user groups should you include in testing?
- When is lab testing versus remote testing appropriate?

Mobile Testing Guidelines

- Understand the network landscape and device landscape.
- Conduct testing in uncontrolled real-world test conditions.
- Select the right automation test tool.
- Identify the most critical hardware/platform combinations to test.
- Check the end-to-end functional flow in all possible platforms at least once.
- Conduct performance, GUI, and compatibility testing using actual devices.
- Measure MobileApp performance under realistic network load conditions.

Automated Testing

- Feasibility analysis
- Proof of concept
- Best practice test framework
- Customize testing tools
- Test under real world conditions
- Rapid defect resolution
- Reuse of test scripts

Stress Test Cases

- Running several mobile apps on the same device
- Infecting system software with viruses or malware
- Attempting to take over a device and use it to spread spam
- Force the mobile app to process inordinately large numbers of transactions,
- Storing large amounts of data on the device
Mobile Usability Elements

- Functionality
- Information architecture
- Screen Design
- User input mechanisms
- Mobile context taken into account
- Interface usability
- Trustworthiness
- Feedback
- Help facilities

Specialized Usability Tests

- Gestures
- Voice input and recognition
- Virtual keyboard input
- Alerts and errors

Mobile App Testing Tools

- Mobile page compliance checkers
- Mobile browser emulators
- Device emulators
- Key logging and playback
- Network monitors
- Mobile analytics collectors