

Mobile Application Testing

Types of Mobile Testing

Testing Types	Focus Area
✓ Functional Testing	Validate workflows, UI behavior, and expected outputs.
⚡ Performance Testing	Assess speed, responsiveness, load handling, resource usage.
🦧 Accessibility Testing	Ensure app usability for users with disabilities (screen readers, contrast, etc).
📱 Compatibility Testing	Verify across OS versions, screen sizes, hardware specs.
🔒 Security Testing	Check vulnerabilities, secure data handling, permission control.
🧩 Usability Testing	Evaluate intuitiveness and user-friendliness.
🤖 Automation Testing	Speed up testing with reliable test scripts.

Tools Used in Mobile Testing

□ Functional Testing Tools:

Android Emulator, Real Device Browsers, LambdaTest

□ Performance Testing Tools:

JMeter, LoadRunner








□ Automation Tools:

Appium, Xcode, BrowserStack, Katalon, Ranorex, Robot Framework, RestAssured

□ Security Testing Tools:

OWASP ZAP, MobSF, Burp Suite (optional additions)

Mobile Testing Strategies

Stage	Description
 Requirement Analysis	Target OS, devices, networks, key features.
 Tool Selection	Based on app type and testing goals.
 Test Design	Functional, UI, API, Performance, and Security flows.
 Device Matrix	Mix of real devices and emulators.
 Continuous Test Execution	Integrate with CI/CD for fast feedback.
 Reporting	Track pass/fail, metrics, and insights.
 Strategic Testing	Helps minimize risk and build user trust.

Best Practices in Mobile Testing

- ❑ Proven ways to improve test efficiency, coverage, and reliability:
- ❑ Combine real devices & emulators for balanced coverage.
- ❑ Test across screen sizes & OS versions to avoid UI issues.
- ❑ Automate stable flows; manually test critical paths.
- ❑ Simulate 2G/3G/4G/Wi-Fi/Offline network modes.
- ❑ Monitor battery, memory, and crash performance.
- ❑ Run regression tests before every release.
- ❑ Include accessibility tests for inclusivity & compliance.

Detailed test cases for each testing type are available in the accompanying spreadsheet.

Thank you