Android UI Automation with Espresso



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Types of Testing

- Unit Testing
- Manual UI Testing
- Automated UI Testing









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Why should we automate UI testing?





Time-efficient

Accurate & Consistent

Espresso: An Overview

- Android's native UI testing framework
- Simulates user interactions with application views
- Usage: Verify correct application behavior
 - New feature development
 - Feature removal
 - Code refactoring



Espresso: Usage

- Procedure:
 - Espresso set an entry point
 - ViewMatchers find a view
 - ViewActions perform an action on a view
 - ViewAssertions verify your behavior
- Sample functions
 - onView()
 - perform()
 - click()
 - scrollTo()
 - check()
 - o onData()



Considerations

- Write out your test cases first, then implement them
- Keep your tests as simple as possible
- Accurate timing is essential:
 - Too fast may return false negatives
 - Too slow increases total test suite time

Demo

Resources

- Espresso Official Documentation
- Efficient Android Testing Using WireMock And Espresso
- GitHub repo for Espresso demo code

Questions