Android Studio Plug-in for Code Reviews

SCG Seminar
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Introduction

Android Lint

Reviewer Data
Android Lint

- Provides 300+ checks

  Android Lint is a tool for analysis of source code to highlight programming errors, and suspicious constructs.

- Android Studio

  Android Studio is the recommended IDE by Google and integrates Android Lint.
Android Lint Execution

App Source Files → Android Lint → lint.xml

Android Lint Output (by issue category):
- Correctness
- Usability
- Security
- Accessibility
- Performance
- I18n
Android Lint Execution

App Source Files → Android Lint → Export of Smell Details → Results in Inspection Window

Android Lint Output (by issue category):
- Correctness
- Usability
- Security
- Accessibility
- Performance
- I18n
Workflow Reviewer

- Results: inspection window
- Exploration: security smells
- Decision: about validity
- Persistence: xml file

Bug Fix required

Bug Fix not required
Complexity #1
Complexity #2

- No documentation
- Search into IntelliJ source code
- Android studio build in plugins
- Plug-in development is different
Results
Results
Future Work

- Suggestions for reviewers
- Quick fixes
- Enhancement:
  plug-in for reviewers ➔ plug-in for developers
Conclusion

- Our tool will make android apps more secure
- Working without documentation was challenging
- Android Studio interface was *not* easy to use
- Debugging of nested plug-ins is *very* time consuming and boring