

Group 7 - Sprint 7 Review Report

(Otto Pärnänen, Jarmo Ilikainen, Aaron Lyhtinen)

What has been done:

- Completed all Sprint 7 requirements.
- Added language support for Farsi
- Added RTL/LTR functionality for languages
- Fixed all issues in sonarqube
- Fixed all code duplications
- Conducted performance testing, acceptance testing, unit testing and security testing
- Conducted heuristic evaluation of the project and documentation
- Bug fixing.
- Updated documentation and README in github.

What is in progress:

- Nothing major is in progress.

Obstacles we faced:

- Learning and configuring JMeter for testing took some time, but no major blockers occurred.

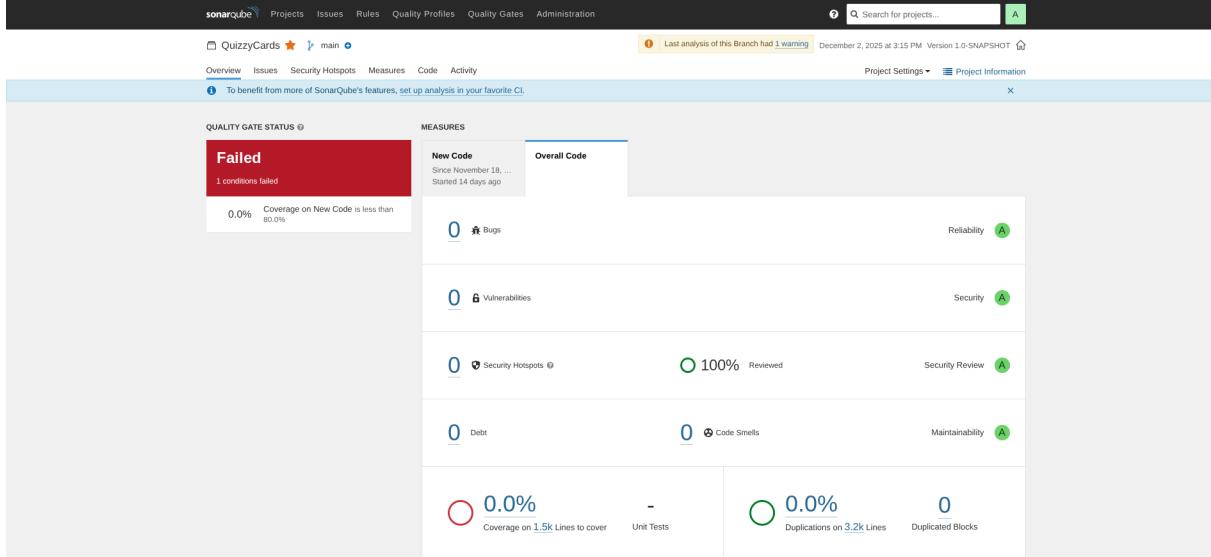
How much each has done work:

Group members' names	Tasks	Hours
Jarmo Ilikainen	performance testing, farsi language support and functionality	About 10 hours
Otto Pärnänen	code refactoring, documentation	About 10 hours
Aaron Lyhtinen	database support for farsi, readme, security testing	About 10 hours

Functional Testing Results

- All existing unit tests were executed after the refactoring and code changes.
- All tests passed except the E2E test (end-to-end test).

- All identified bugs, issues, duplications, and code smells were fixed based on testing results.
- SonarQube screenshot:



- For detailed analysis, see the Static Code Analysis Report in the links section.

Non functional testing results

Performance Testing

- Conducted using JMeter to load-test key application operations.
- Results were very positive: no slowdowns, performance issues, or database bottlenecks were detected.

Heuristic Evaluation

- A full heuristic evaluation was conducted.
- Detailed findings and screenshots are available in the linked report.

Acceptance Testing

- Performed according to the original acceptance test plan.
- All test cases passed successfully.
- See the Acceptance Test Plan document below for full details.

Security Testing

- Security testing was carried out using SonarQube security hotspots.
- No vulnerabilities were found.

- All hotspots were reviewed and addressed. Fixes included adding dedicated exception handling and verifying the use of safe JDBC practices.

UI/UX Improvements

- No major UI/UX changes were required, as the interface was already in a stable state.

Code Optimization

- Removed all duplicated code
- Improved structure and readability of several classes
- Enhanced initialization logic of the main stage
- Addressed all issues flagged by SonarQube

Links:

Trello:

<https://trello.com/invite/68a4258199297277a2398280/ATTIbc78c11e24c1ef0c3771aed48fcad911D951D32>

Project Plan:

<https://docs.google.com/document/d/1WRvAvACiisHjMJcPBnSaAb5-keeYUECYk0VX7rXa6d8/edit?tab=t.0#heading=h.oznufh9rezsb>

Product Vision:

https://docs.google.com/document/d/1b9nHPwjQfbamUmkKsPNW1CP1Q73o5Id44S7jin_OBaA/edit?tab=t.0

Static code analysis report:

<https://docs.google.com/document/d/1PHq2rd0XbP5zKOiRC5umlsbcIQ5-KcjUdF8Jy5EELME/edit?tab=t.0#heading=h.nj7f5y67ezgx>

Heuristic evaluation report:

https://docs.google.com/document/d/1Q-uU_IqKP-U Yi8xyd9wTWE PJuUQ2LEzUthyjAF_fwe s/edit?tab=t.0#heading=h.xc4qqugy2gw3

Acceptance test plan:

<https://docs.google.com/document/d/13DD1aPyIL0Mfpgh6SgxnF0weyOy9zuU1BPxkMdizx8/edit?tab=t.0#heading=h.cdjgvjxp5mb>

Figma UI prototype:

<https://www.figma.com/design/WOHsO7nSdEMgZaQvuPOW6z/Untitled?node-id=0-1&t=qjapZcNlv7a0wmfL-0>

Project repository:

<https://github.com/jarmoil/OTP1>

