

# Static testing tools

Jest Coverage	2
SonarCloud	3
npm audit	5

# Jest Coverage

Overall, the project achieves 87.92% statement coverage and 83.01% branch coverage, which is respectable but could be improved—particularly in the controller layer where user-facing functionality resides. The strong services coverage is encouraging, as it suggests core business logic is well-tested, but the gaps in controllers indicate that integration and endpoint testing should be prioritized to ensure reliable API behavior.

## All files

57.02% Statements 69/121   83.01% Branches 44/53   53.84% Functions 7/13   56.3% Lines 67/119

Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.

Filter:

File	Statements	Branches	Functions	Lines
controllers	<div style="width: 13.04%;">█</div>	13.04%	6/46	22.22%
repositories	<div style="width: 0%;">█</div>	0%	0/12	0%
services	<div style="width: 100%;">█</div>	100%	63/63	100%

# SonarCloud

In this section, you will find issues identified by SonarCloud across multiple severity levels. The analysis includes High severity issues such as critical bugs and security vulnerabilities that require immediate attention, Medium severity security hotspots that need manual review to ensure safe implementation, and Low severity code smells that affect maintainability and code quality. Each category provides insights into specific areas of the codebase that can be improved to enhance overall code quality, security, and long-term maintainability.

## Severity Low

Select issues for bulk actions

Change    Select issues    Navigate to issue     4 issues 8min effort

application/backend/server.js

Prefer 'Number.parseInt' over 'parseInt'. Consistency  
Reliability  Maintainability  Convention  +  
 Open Steffen Grøn Andersen L44 • 2min effort • 11 minutes ago • Code Smell •

application/backend/src/services/nameGenerator.js

Prefer 'Number.isNaN' over 'isNaN'. Consistency  
Reliability  Maintainability  Convention  +  
 Open Steffen Grøn Andersen L77 • 2min effort • 11 minutes ago • Code Smell •   
 Unexpected negated condition. Intentionality  
Maintainability  Readability  +  
 Open Steffen Grøn Andersen L122 • 2min effort • 11 minutes ago • Code Smell •

application/frontend/public/generate-bulk.html

Prefer 'Number.parseInt' over 'parseInt'. Consistency  
Reliability  Maintainability  Convention  +  
 Open Steffen Grøn Andersen L34 • 2min effort • 11 minutes ago • Code Smell •

4 of 4 shown

## Severity Medium

Select issues for bulk actions

Change Select issues ▾ ▲ Navigate to issue ◀ ▶ ↻ 3 issues 15min effort

application/frontend/public/recent-names.html

Prefer top-level await over an async function `loadRecentNames` call. Consistency

Maintainability ⚡ Medium async es2022 ... +

Open ▾ Steffen Grøn Andersen ▾ L65 • 5min effort • 3 days ago • ⚡ Code Smell • ⚡ Major

application/frontend/server.js

Prefer `node:path` over `path`. Consistency

Maintainability ⚡ Medium convention import ... +

Open ▾ Steffen Grøn Andersen ▾ L2 • 5min effort • 3 days ago • ⚡ Code Smell • ⚡ Minor

Prefer `node:url` over `url`. Consistency

Maintainability ⚡ Medium convention import ... +

Open ▾ Steffen Grøn Andersen ▾ L3 • 5min effort • 3 days ago • ⚡ Code Smell • ⚡ Minor

3 of 3 shown

## Severity High

Select issues for bulk actions

Change Select issues ▾ ▲ Navigate to issue ◀ ▶ ↻ 2 issues 8min effort

application/database/init/02-seed-data.sql

Define a constant instead of duplicating this literal 10 times. Adaptability

Maintainability ⚡ High design ... +

Open ▾ Steffen Grøn Andersen ▾ L58 • 4min effort • 3 days ago • ⚡ Code Smell • ⚡ Critical

Define a constant instead of duplicating this literal 10 times. Adaptability

Maintainability ⚡ High design ... +

Open ▾ Steffen Grøn Andersen ▾ L71 • 4min effort • 3 days ago • ⚡ Code Smell • ⚡ Critical

2 of 2 shown

## Code smells

The screenshot shows a web-based tool for reviewing code quality. At the top, it displays the repository name "kea-software-quality". To the right, there are buttons for "View as" (set to "List") and "20 files". Below this, a section titled "Code Smells 9" includes a link to "See history". A table lists nine code smell findings across various files:

File	Count
application/database/init/02-seed-data.sql	2
application/backend/src/services/nameGenerator.js	2
application/frontend/server.js	2
application/frontend/public/generate-bulk.html	1
application/frontend/public/recent-names.html	1
application/backend/server.js	1

At the bottom of the list, a message states: "There are 14 hidden components with a score of 0." followed by a "Show them" button.

## npm audit

The npm audit scan found 0 vulnerabilities in the project dependencies. This indicates that all installed packages are up-to-date and free from known security issues, ensuring a secure foundation for the application.

```
Steffen@DESKTOP-D600HBI MINGW64 ~/Documents/GitHub/kea-software-quality/application/backend (main)
$ npm audit
found 0 vulnerabilities
```