QUALITY AND PERFORMANCE AUDIT

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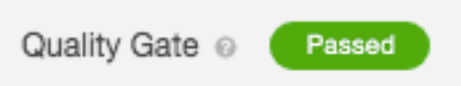
Quality Report

The application's code quality was analyzed using SonarCloud. SonarCloud breaks down an application's code quality into 5 different measures, which are then analyzed to give an overall pass or fail status.

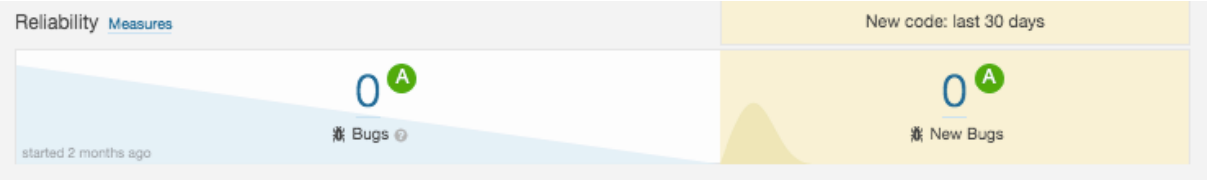


Todo&Co's to-do list application passed SonarCloud's Quality check. The results of the different measures are listed below. The full report is available here.

1. Reliability

To assess the app's reliability, SonarCloud determines the number of bugs contained within the application. Bugs are defined as being "*A coding error that will break your code and needs to be fixed immediately*".

The reliability metric passes the quality gate with an A rating.

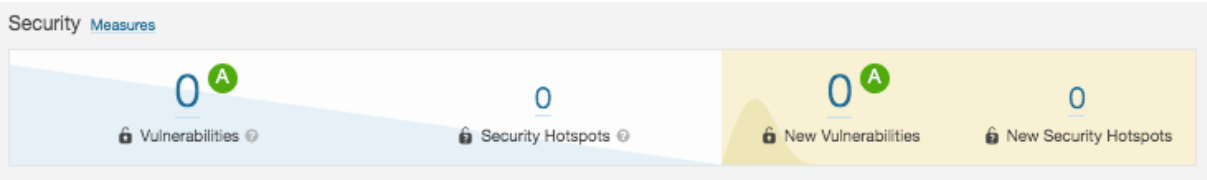


No bugs were detected during the analysis.

2. Security

To determine whether the app is secure, SonarCloud checks if the code contains any vulnerabilities, which are defined as "*Code that can be exploited by hackers*".

The security metric passes the quality gate with an A rating.

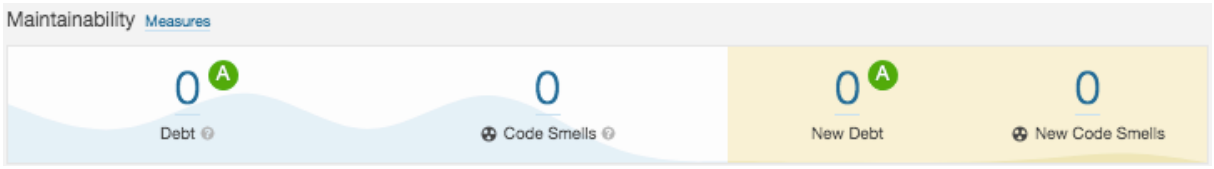


The analysis did not raise any security concerns.

3. Maintainability

The app's maintainability is assessed based on code smells and the estimated time it will take to fix them. Code smells are described as "*Code that is confusing and difficult to maintain*".

The maintainability metric passes the quality gate with an A rating.

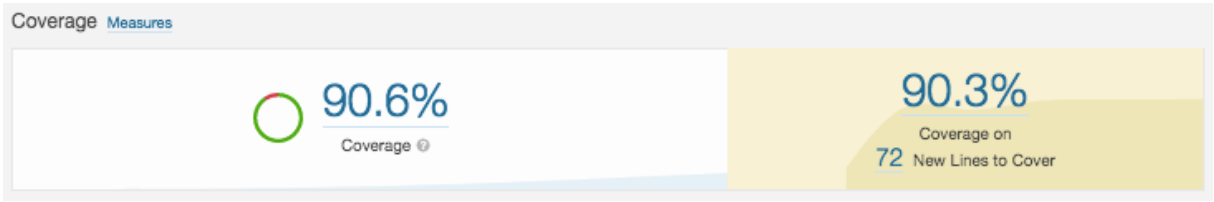


The analysis did not detect any code smells.

4. Coverage

The coverage indicates the percentage of lines covered by tests. The analysis is based on PHPUnit's coverage reports.

The coverage metric passes the quality gate with an 80% coverage rate.



90.6% of the app's source code is covered by tests.

5. Duplications

This last measure analyses the number of duplicated lines and blocks of code.

The duplications metric passes the quality gate with a duplication rate under 3%.

The app contains 0 duplicated lines of code.

Conclusion

Todo&Co's application has overall achieved a good quality level, which is demonstrated by SonarCloud's quality gate badge.

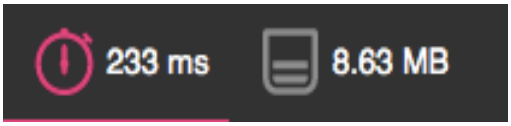
In order to maintain the current code quality, any further code addition should not decrease any of the above-mentioned metrics.
To further ensure the application's stability and quality a possible and recommended option would be to set up a continuous integration platform, thus preventing any code that does not pass the quality gate to be merged in production.

Performance Report

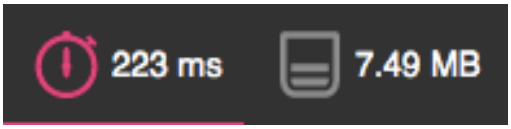
The application's performance was assessed using Blackfire.
A performance analysis was conducted for each route of Todo&Co's to-do list application.

NB: These analyses were performed locally in production environment. The state of the machine and local server may thus impact the speed and overall metrics.

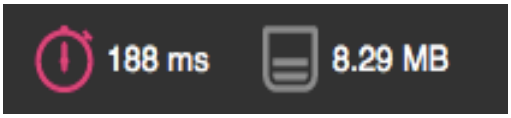
Login



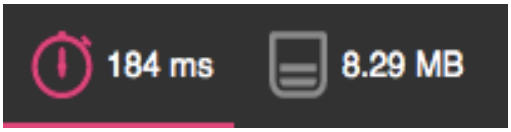
Logout



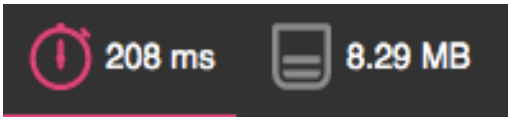
Dashboard



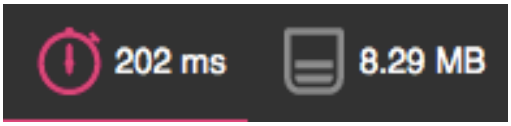
Create task



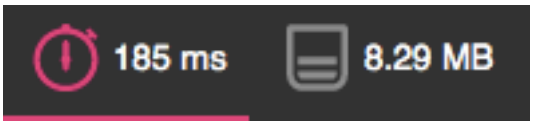
Delete task



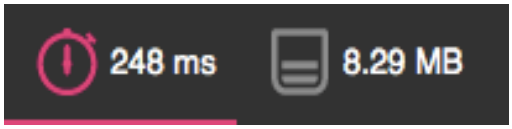
Edit task



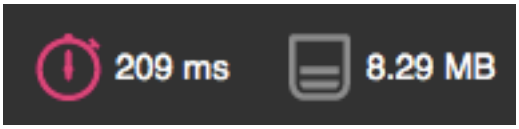
List task



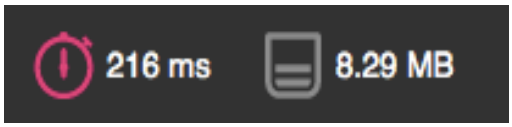
Prioritize task



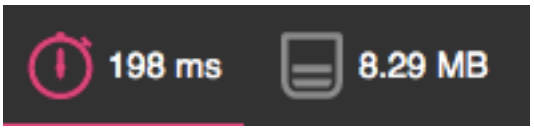
Toggle task



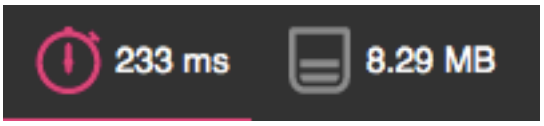
Create user



Edit user



List users



The above metrics were analyzed prior to any optimization. The optimization of composer's autoloader helped to reduce the overall response time, the results of which will be displayed below.

List users

Login

Conclusion

Despite the relatively long response time that may be caused by the state of the machine and local server, there are no significant gaps between each route and thus no real area of concern regarding the application's performance.