

# Testing Strategy

*S6 Software Engineering*

*4207734*

*Matei-Cristian Mitran*

*Fontys Eindhoven*

*08.04.2023*

# 1. Introduction

YouSound is an enterprise grade music streaming web application. This means that a high code quality is required to ensure reliability and good user experience. Testing is a very important part of the software development process that helps the application meet the standards set by the stakeholders. Therefore, writing tests for YouSound is essential to guarantee it working correctly and identifying bugs early in the development cycle.

The purpose of this document is to present the testing strategy incorporated for YouSound, detailing the types of tests that will be created, how they will be performed and the integration of these tests in the CI pipeline.

## 2. Tests

- **Unit Tests:** Tests that validate individual entities of code
- **Integration Tests:** Tests that ensure that the services and controllers work correctly together
- **Acceptance Tests:** Tests that verify the specified requirements
- **End-to-End Tests:** Tests verifying the functionality of the system from the point of view of a user
- **Stress Tests:** Tests that assess the system's performance under heavy load to ensure reliability and robustness

## 3. Continuous Integration

Whenever there is a push to the Git repository, the tests will be run in every microservice, as part of the continuous integration process. This will aid in identifying any issues as soon as possible, preventing them from being deployed. The CI process will be set up to automatically execute the test suite and generate a report of the results.

## 4. Conclusion

In conclusion, the testing strategy detailed in this document will ensure that YouSound is a reliable enterprise grade web application that performs optimally and meets industry standards. By using a thorough testing approach that covers all components and systems of the application, we can make sure that any bugs are detected and fixed early in the development cycle.