Testing report

Types of testing techniques	Used?
Unit tests	Yes
Integration tests	Yes
User tests	Yes

Unit tests

In our project, we used the JUnit test to test some of the functionalities in our web application. Such as the user management methods, the query builder among other methods. Taking all the scenarios/possibilities of the result of the functions, we've written multiple test cases for each function to test its functional correctness. For some other functionalities related to the RESTful service (user management), we've tested manually using the application called Postman by sending all kinds of test requests to the server. (The manual test report can be found on the test package) As we were testing, we've seen some bugs that we didn't find out during development, so we've found the JUnit test helpful in testing our web applications.

Integration tests

For integration tests, we have decided to use Selenium. This is a Google Chrome extension that allows us to record our mouse clicks, user input, mouse movement and screen scrolling behaviour. By creating multiple tests for our web application with Selenium and subsequently running all of the tests in the corresponding order, we have tested our web application extensively. And the result showed that our web application runs in the way that we've expected it to run.

User tests

We've invited five people who had 0 knowledge about our web application to try and execute a set of tasks that we've given to the testers.

- log in (with correct and wrong credentials)
- go to the account page
- play with the dashboard page
- go to the data page
- upload a data file
- download a data file
- go to the admin page
- modify a user
- add a new user
- log out

As the test was going on, we recorded the tasks that didn't go very well and asked for testers' feedback. Some issues were found during the test, such as the login with the wrong credential wasn't handled correctly, data import didn't work as expected etc. We've gone back to our application with all the recorded notes from tests, fixed the bugs, and implemented more things according to user feedback.