Testing procedures

During our project we decided to focus all of our time on features rather than spending hours writing. Automatic integration tests and unit tests. Testing has therefore been done manually during the project using various tools to test each component and how they work together.

Components

We began by seperating the project into three components, namely:
- Web-frontend
- App-frontend
- Back-end

These have then in turn been tested using different methods.

Unit tests

Unit tests have been performed manually for each of the components. Writing automatic unit tests for each component was too time consuming when we had to deliver, which made us focus on getting the prototype to work rather than waste time trying to write automatic tests.

Web-frontend
Have mostly been manual testing by using the interface, such as manually transitioning between views and testing data-input.

App-frontend
Hard-coding and manually testing the data-interaction has been done in the app-frontend as a unit. For example make sure that the data backend sends is correctly decoded by the app.

Not much UI testing has been done on the App, due to the fact that the driver should not be able to interact at all in the end.

Back-end
Using *httpie* to send requests and ensuring the data is transfered correctly in each model (database-model).

Integration tests

The integration tests have also been manually performed by acting. Several of the group members acted as drivers, while two others acted as traffic-leaders; this was to catch bugs in the data transfer process or integrations between the frontend and app.

Acceptance tests

We decided to let the end users do the acceptance tests. This was done by contacting Keolis, visiting them, and let them test our prototype. The most significant user-test has been added to the repository.

Design testing

Before constructing the mockups it was important to confirm that the visual expectation of the graphical user interface of the web application was user friendly and easily navigable. Therefore, paper prototypes were constructed to confirm this and the group was divided in bus drivers and dispatchers in order to follow the process and make it as realistic as possible.