

## Testing

### Note bridge team 2

#### Testing the methods

During the implementation process we had already done some testing for the back-end. We could use phpPgAdmin to test all our SQL queries and we used our own test cases for testing the servlet and the prepared statements.

We started off with testing the system with regression testing. We went through all the already working methods in the system and tested whether they still functioned the same as they did when we first implemented them.

During the implementation we of course tested most methods by simply looking at the result in the database, since most of our backend serves to add, alter or retrieve data from the database we had no real need for a lot of test cases to test all smaller methods.

#### *testing the methods*

#### Testing the system functionalities

We tested all of the main functionalities in the system by using them as much as possible and trying to come up with edge cases.

First we tested the map, we tested it by inputting different zip codes from all over the Netherlands, which worked perfectly. Any Dutch zip code can be accurately displayed on the map. The radius around the location selected also works in any situation, the different sizes can be switched between easily and scale up and down when zooming in or out. The instrument filter also works without problems and shows only the selected options.

Then we tested the search page. This page is meant to display teachers and recommend them to you and does so perfectly. The filters work without a problem and only show the teachers who fits the requirements. The review system works and all review results are added to the teachers rating. The book lesson functionality also works, it shows you a schedule of the current date and always changes to the correct date even if you go a few years backwards or forward.

Next we tested the profile page

At last we tested the sign up and login pages

## Testing the user stories (implemented so far)

1. As a user, I want to be able to sign up and register even if I don't have any digital knowledge.

When implementing the registering process we took into consideration the level of knowledge a user needs to have in order to correctly sign up and we tested this by trying to recreate some common mistakes someone might make, such as inputting a wrong email or the passwords not matching. We added methods that check for such errors and made it such that you are not allowed to sign up if all the fields are not completed correctly.

2. As a user, I want to be able to choose between being a teacher and a student when signing up.

We implemented this dual sign up system in which a user can choose between a teacher and a student and we tested it by creating both types of accounts.

3. As a user, I want to be able to schedule lessons according to my and my teacher's schedule.

Each user has his own scheduling page and when a student books a lesson he will be able to book only in the time frames a teacher has marked as available. This makes it possible for both teacher and student to schedule lessons according to their own plans.

4. As a user, I want to be able to search for teachers based on location, skill, experience level and availability.

The teacher search function currently uses multiple factors to filter options. These filters are location, instruments, rating, and availability. We plan to also add experience in the near future. The filters were tested and we confirmed they work correctly.

5. As a user, I want to be able to see a map of my area with the rough locations of all different musicians in the area.

The map page was one of the earliest implementations to our website and during development we added multiple features such as searching by zip codes and area radius display so that a user can choose how close the teachers are. The distances available start from 3 km up to 20 km and can be turned off if the student wants an option further away from their location.

6. As a teacher, I want to be able to create my own profile where I can showcase my skills, qualifications, and experiences.

The teacher profile page offers a lot of customization, currently it displays the rating, reviews, the rate per lesson of the teacher, a video displaying their skills, a description that the teacher can write himself and the availability that he himself sets for his account.

7. As a user, I want to review teachers in order to leave feedback.

We added this feature during our latest sprint and it offers the possibility for a student to go to the page of the teacher and write a review of their experience of the lesson along with an overall rating of the lesson.

8. As a user, I want to be able to use this web application on my computer, as well as my mobile phone.

We tested the website with multiple devices that differ in screen resolution and with both computers and mobile phones. Right now the website works on phones but the small displays have created problems with background size and different display problems. We plan on fixing them in the future.

9. As a user, I want to have a drop-down menu for quick navigation between pages

Initially we had a drop down menu for easy navigation but while experimenting with various alternatives we found that a side menu looks the best and offers quick and easy access to all the features the website has to offer so we switch it.

10. As a teacher, I want to be able to mark when I am available to do lessons.

We implemented a working availability system that offers every teacher to mark their available work hours and to display these time slots to students that want to plan lessons.