

# **Test report**

## **1. Java backend testing.**

**1.1.** For the backend, several junit tests were created. They are used to check if the logic of our servlets and utils was correct and they were doing the proper things. On average, the coverage of the tests is approximately 79% on methods and 85% on lines of code.

**1.2.** The way the servlets are tested is:

- First user creation is tested. If that passes, test class continues.
- A user who has runs is then used to login and test that.
- After successful login, updating run details is tested.
- After the previous bullet, we test if a user can add shoes with desired parameters.
- Then the getshoe is tested to see how much kilometers a user has ran with a certain pair of shoes. After which calendar servlet is tested to see if it returns the runs of the same user
- The user is then logged out of the system and is tested to see if it was successful
- Finally, an attempt is made to create the same user from the first bullet which should return an error.

## **2. Frontend testing**

**2.1.** For the frontend, we used the Selenium IDE to write our tests. We mainly use tests to make sure that our input validation/sanitization and filters are working as they should, namely that names can only contain alphabetical letters and spaces (but not only spaces), emails should be well formatted, age should be above 13 but not greater than 130, and passwords can only contain alphanumeric and special characters (must be at least one capital, one lowercase, one special character and one number). We use regex to ensure these, and as such we're able to prevent XSS attacks. Our tests show that the user isn't allowed to submit any data to the server unless it is well-formed.