

Handling User Authentication

Project objective:

Set up a standalone project to do unit testing of the user authentication class which is used in the main web application. The objective is to create a JUnit class that will test all aspects of the authentication class.

Step by step process

First I went to Spring Initilzr and generated a spring boot project. On the main menu select create file->new->spring starter project and give the group id and artifact id and click finish it. and loaded it into eclipse. Next, I added the necessary dependencies to the pom.xml file. I then edited the Application Properties file to connect to my database. I created files to serve as the homepage and added functionality to direct the user to the all users page, which shows all the users in the database. I added a form for the user to input their name, email and password which adds them to the database. I created a controller class which handles mapping for the homepage, login page, and all users page. I then created a user class and initialized it with the necessary components (id, name, email, password). Also, I added getters and setters for all these elements. I created a class called UserRepository which extends CrudRepository and allows me to make changes to the database. Next, I added a class called userService that used userRepository to find from the database.

Testing:

I wrote 4 tests in the AuthenticationApplicationTests class: one that checks if the context loads, one that ensures that the number of users in the database is not 0, one that checks that the count in the database is the same as the expected value, and one that verifies that the users in the database have values not null.