

## Phase-3 Practice Project

### Implement Spring Security with Authentication

#### Writeup

- First I went to Spring Initializr and created a maven project. Next, I downloaded the zip file and imported it into eclipse.
  - I added the dependencies to the pom.xml file that were necessary to run the project. I then edited the Application Properties file to connect to my database, and added the username and password.
  - I created a file for the homepage and added a login form. Users are redirected here unless they are authenticated.
  - If the user logs in with valid credentials, they are taken to an index page.
  - This page is very similar to the one used in the UserManager application.
  - It has a view link which leads to the table displaying all the users.
  - It also has a form to input the id of any user in the table.
  - The user can then edit the name, email, and password of the specified user.
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- I created a controller class which handles mapping for the homepage, index page, update page, and view page.
  - I created an error controller which leads to an error page in case something goes wrong or the user tries to view a nonexistent page.
  - I then added a user class, initialised it with the necessary components (id, name, email, password), and added getters and setters for these elements.
  - I created UserRepository, a class that 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.
  - I then uploaded everything to my github.