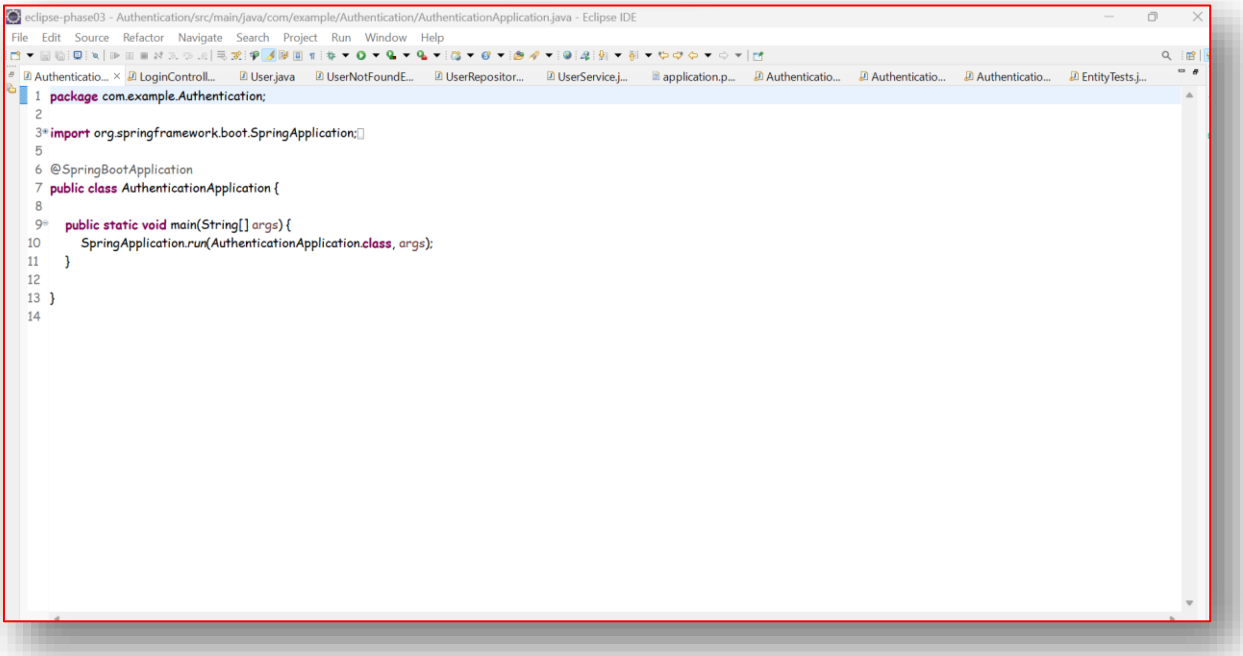
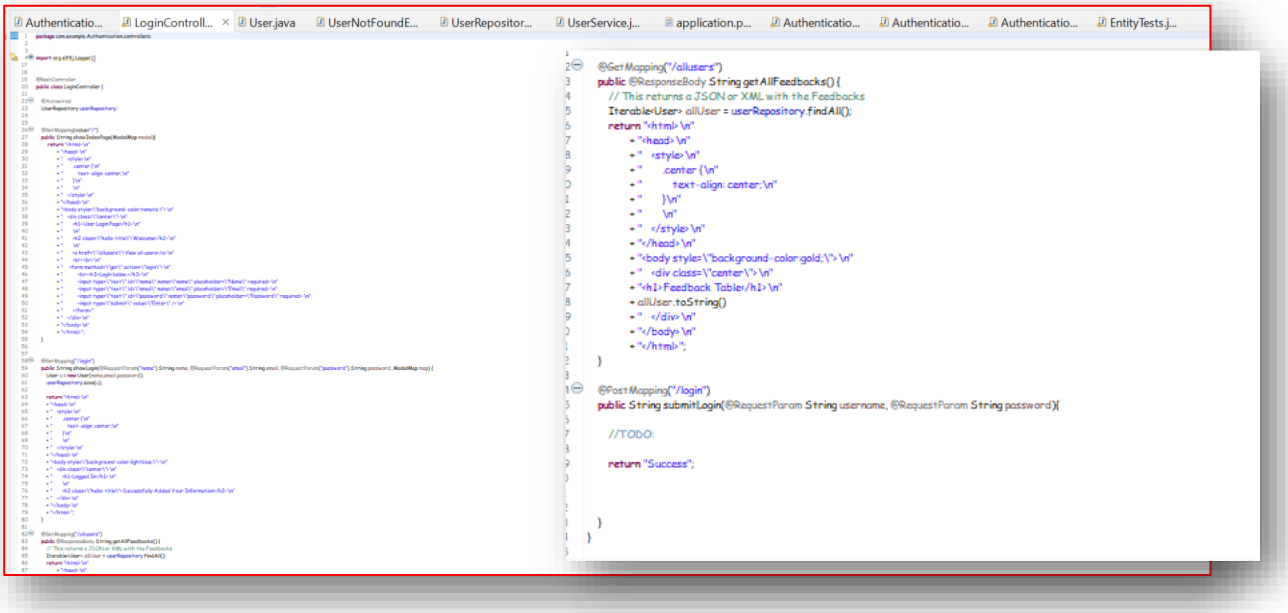


eclipse-phase03 - Authentication/src/main/java/com/example/Authentication/AuthenticationApplication.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Authenticatio... LoginControll... User.java UserNotFoundE... UserRepositor... UserService.j... application.p... Authenticatio... Authenticatio... Authenticatio... EntityTests.j...

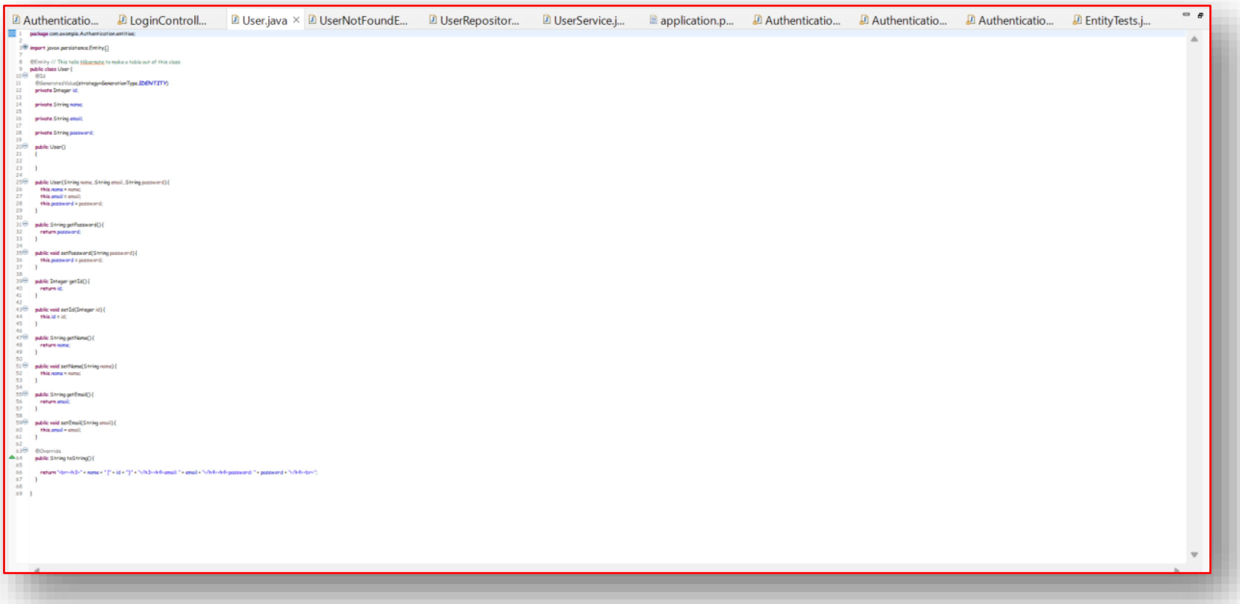
```java
package com.example.Authentication;

import org.springframework.boot.SpringApplication;

@SpringBootApplication
public class AuthenticationApplication {

    public static void main(String[] args) {
        SpringApplication.run(AuthenticationApplication.class, args);
    }

}
```



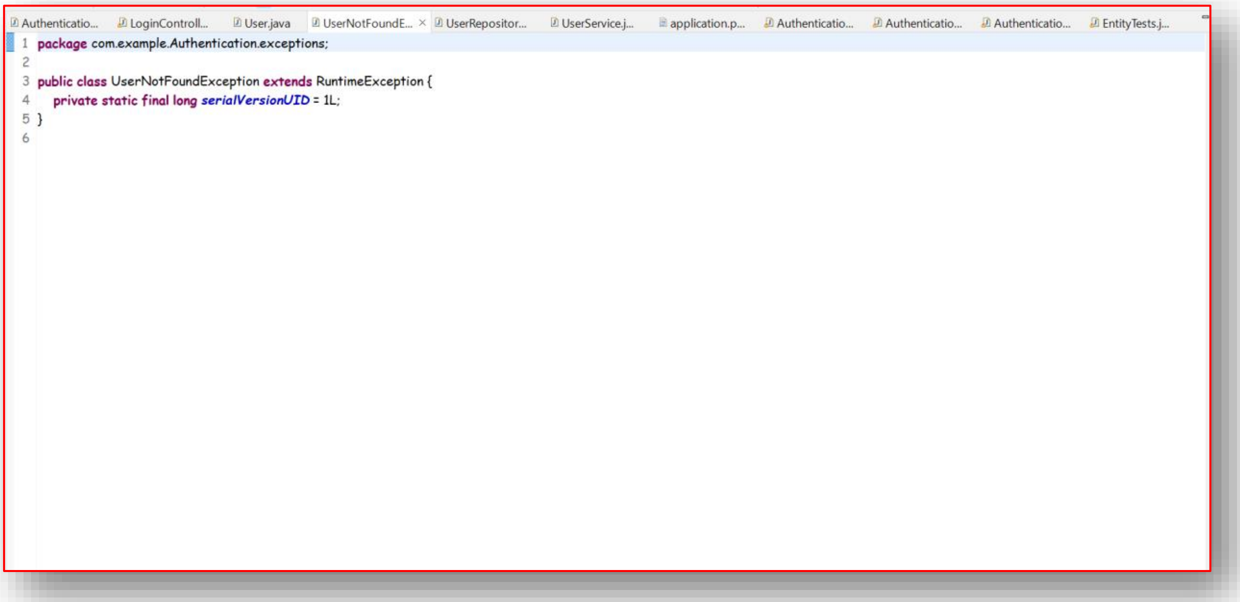
Authenticatio... LoginControll... User.java UserNotFoundE... UserRepositor... UserService.j... application.p... Authenticatio... Authenticatio... Authenticatio... EntityTests.j...

```java
package com.example.Authentication.controllers;


import org.slf4j.Logger;


@RestController
public class LoginController {

    @Autowired
    UserRepository userRepository;


    @GetMapping(value="/")
    public String showIndexPage(ModelMap model){
        return "<html> \n"
            + "<head> \n"
            + "   <style> \n"
            + "      .center {\n"
            + "         text-align: center;\n"
            + "      }\n"
            + "      \n"
            + "   </style> \n"
            + "</head> \n"
            + "<body style=\"background-color:tomato;\"> \n"
            + "   <div class=\"center\"> \n"
            + "      <h1>User Login Page</h1> \n"
            + "      \n"
            + "      <h2 class=\"hello-title\">Welcome</h2> \n"
            + "      \n"
            + "      <a href=\"/allusers\">View all users</a> \n"
            + "      <br><br> \n"
            + "   <form method=\"get\" action=\"login\"> \n"
            + "         <br><h3>Login below </h3> \n"
            + "         <input type=\"text\" id=\"name\" name=\"name\" placeholder=\"Name\" required> \n"
            + "         <input type=\"text\" id=\"email\" name=\"email\" placeholder=\"Email\" required> \n"
            + "         <input type=\"text\" id=\"password\" name=\"password\" placeholder=\"Password\" required> \n"
            + "         <input type=\"submit\" value=\"Enter\" /> \n"
            + "      </form>"
            + "   </div> \n"
            + "</body> \n"
            + "</html>";
    }


    @GetMapping("/login")
    public String showLogin(@RequestParam("name") String name, @RequestParam("email") String email, @RequestParam("password") String password, ModelMap map) {
        User u = new User(name,email,password);
        userRepository.save(u);

        return "<html> \n"
        + "<head> \n"
        + "   <style> \n"
        + "      .center {\n"
        + "         text-align: center;\n"
        + "      }\n"
        + "      \n"
        + "   </style> \n"
        + "</head> \n"
        + "<body style=\"background-color:lightblue;\"> \n"
        + "   <div class=\"center\"> \n"
        + "      <h1>Logged In</h1> \n"
        + "      \n"
        + "      <h2 class=\"hello-title\">Successfully Added Your Information</h2> \n"
        + "   </div> \n"
        + "</body> \n"
        + "</html>";
    }

    @GetMapping("/allusers")
    public @ResponseBody String getAllFeedbacks() {
        // This returns a JSON or XML with the Feedbacks
        Iterable<User> allUser = userRepository.findAll();
        return "<html> \n"
            + "<head> \n"
```

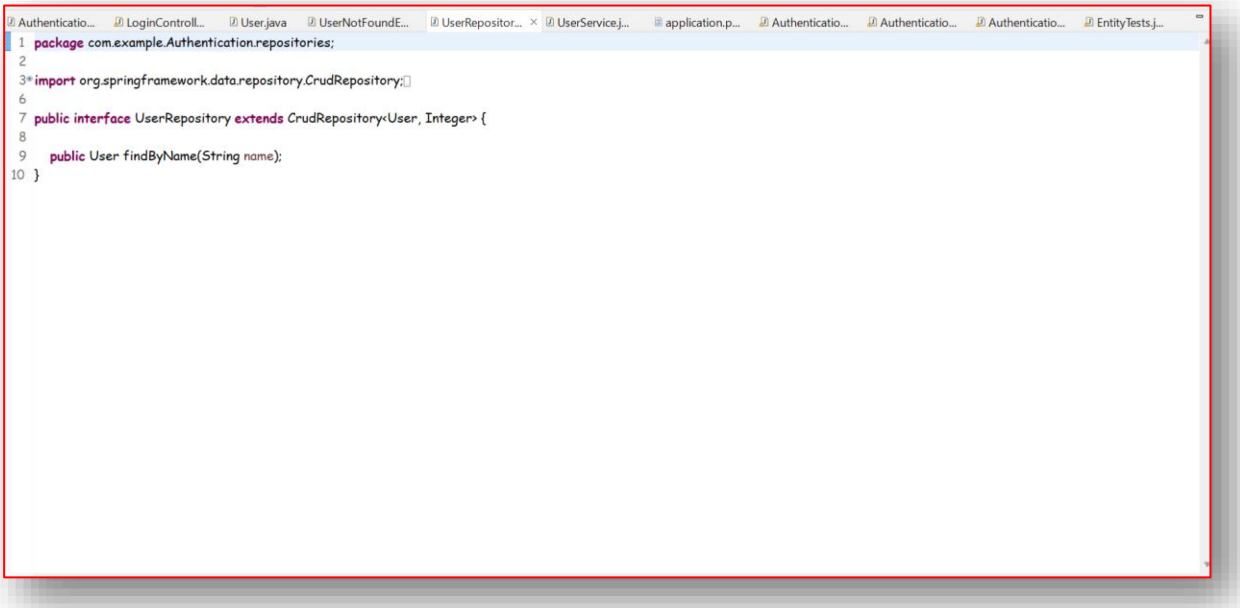
```java
    @GetMapping("/allusers")
    public @ResponseBody String getAllFeedbacks() {
        // This returns a JSON or XML with the Feedbacks
        Iterable<User> allUser = userRepository.findAll();
        return "<html> \n"
            + "<head> \n"
            + "   <style> \n"
            + "      .center {\n"
            + "         text-align: center;\n"
            + "      }\n"
            + "      \n"
            + "   </style> \n"
            + "</head> \n"
            + "<body style=\"background-color:gold;\"> \n"
            + "   <div class=\"center\"> \n"
            + "<h1>Feedback Table</h1> \n"
            + allUser.toString()
            + "   </div> \n"
            + "</body> \n"
            + "</html>";
    }

    @PostMapping("/login")
    public String submitLogin(@RequestParam String username, @RequestParam String password){

        //TODO:

        return "Success";



    }
}
```



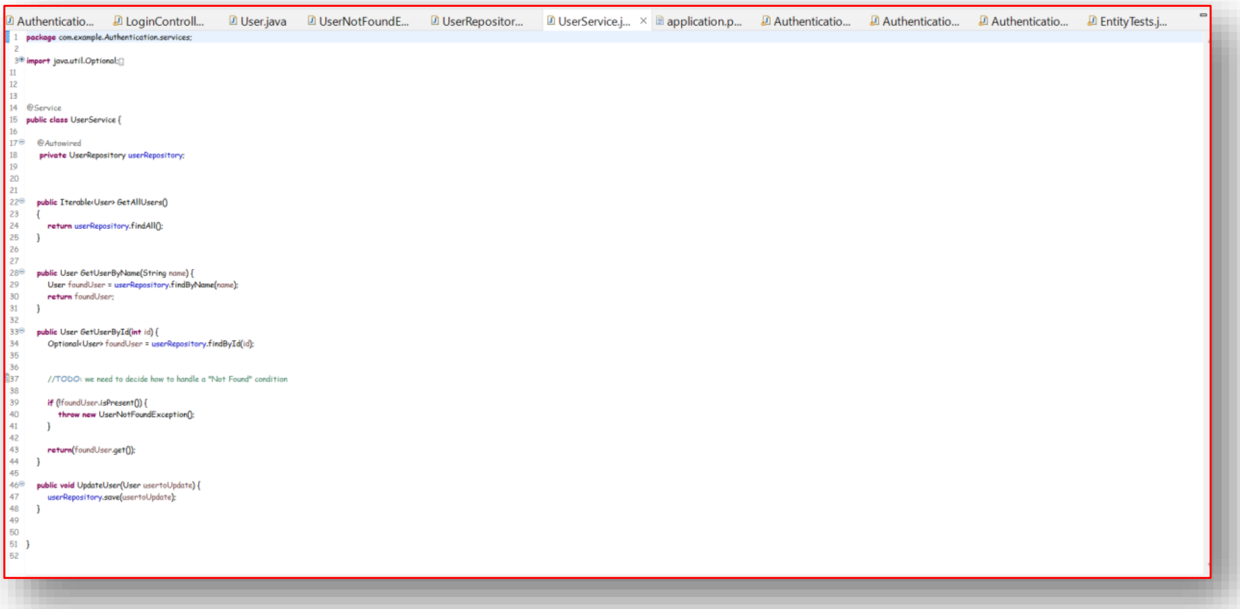
```java
package com.example.Authentication.entities;

import javax.persistence.Entity;

@Entity // This tells Hibernate to make a table out of this class
public class User {
    @Id
    @GeneratedValue(strategy=GenerationType.IDENTITY)
    private Integer id;

    private String name;

    private String email;

    private String password;

    public User()
    {

    }

    public User(String name, String email, String password) {
        this.name = name;
        this.email = email;
        this.password = password;
    }

    public String getPassword() {
        return password;
    }

    public void setPassword(String password) {
        this.password = password;
    }

    public Integer getId() {
        return id;
    }

    public void setId(Integer id) {
        this.id = id;
    }

    public String getName() {
        return name;
    }

    public void setName(String name) {
        this.name = name;
    }

    public String getEmail() {
        return email;
    }

    public void setEmail(String email) {
        this.email = email;
    }

    @Override
    public String toString() {

        return "<br><h3>" + name + " [" + id + "]" + "</h3><h4>email: " + email + "</h4><h4>password: " + password + "</h4><br>";
    }

}
```



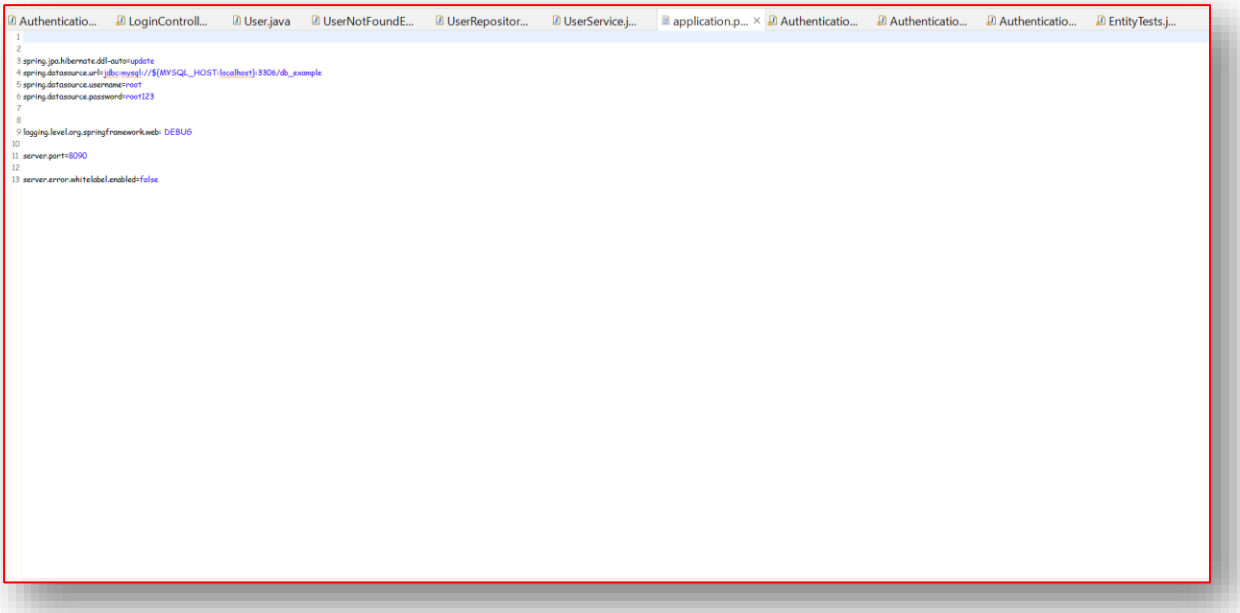
```java
package com.example.Authentication.exceptions;

public class UserNotFoundException extends RuntimeException {
    private static final long serialVersionUID = 1L;
}
```



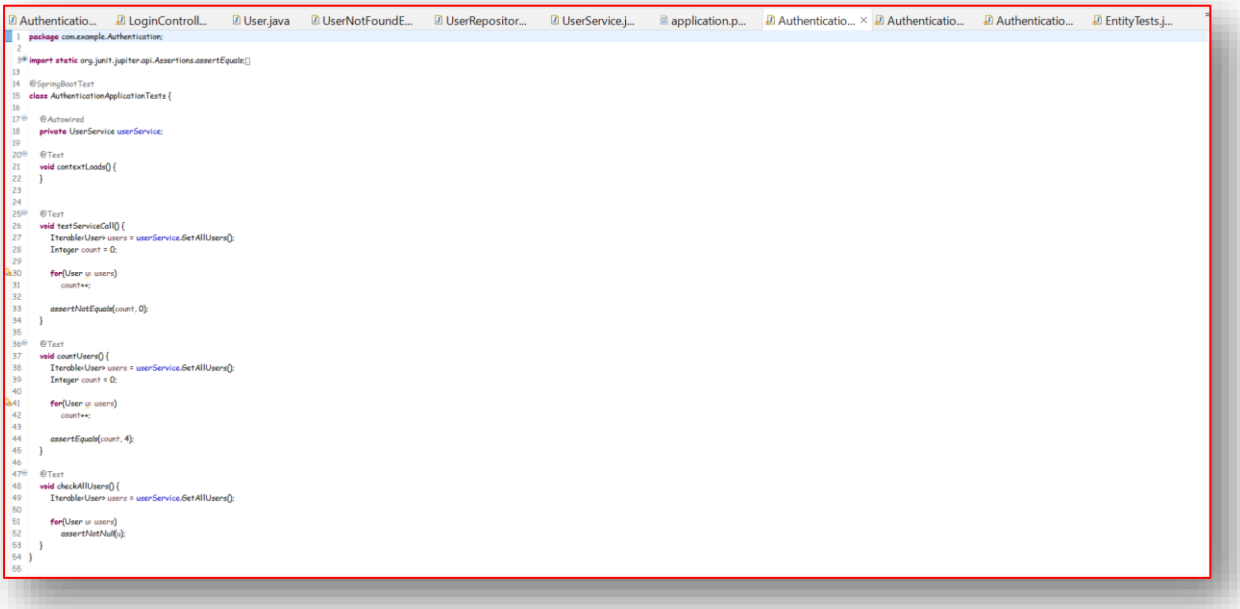
```java
package com.example.Authentication.repositories;

import org.springframework.data.repository.CrudRepository;

public interface UserRepository extends CrudRepository<User, Integer> {

    public User findByName(String name);
}
```



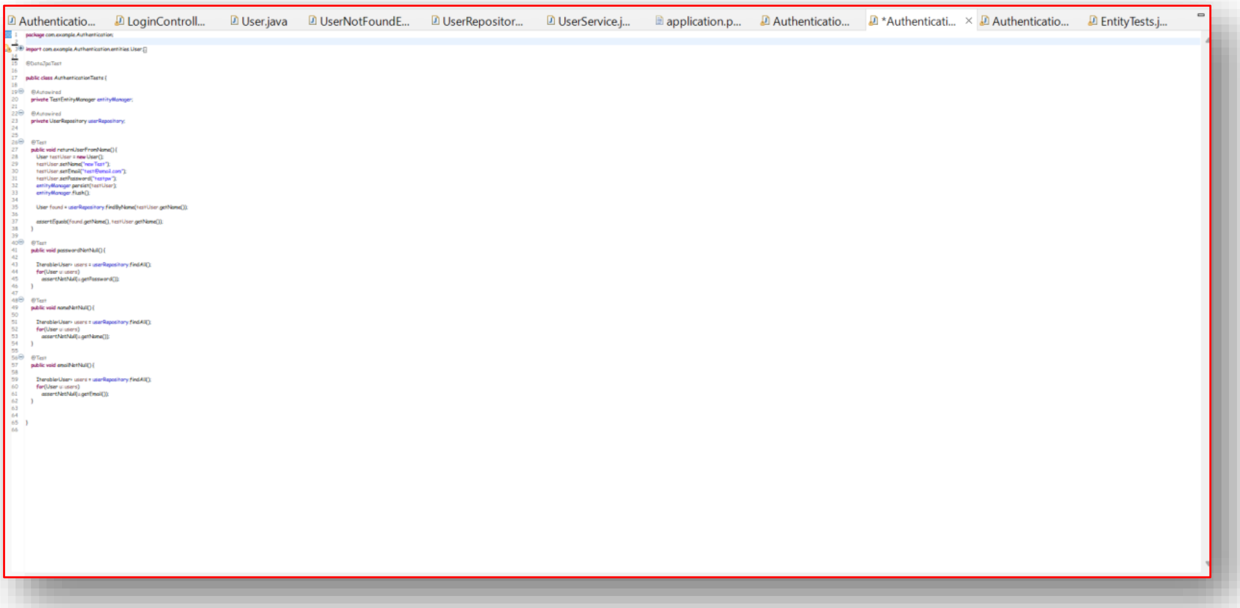
```java
package com.example.Authentication.services;

import java.util.Optional;



@Service
public class UserService {

    @Autowired
    private UserRepository userRepository;



    public Iterable<User> GetAllUsers()
    {
        return userRepository.findAll();
    }


    public User GetUserByName(String name) {
        User foundUser = userRepository.findByName(name);
        return foundUser;
    }

    public User GetUserById(int id) {
        Optional<User> foundUser = userRepository.findById(id);


        //TODO: we need to decide how to handle a "Not Found" condition

        if (!foundUser.isPresent()) {
            throw new UserNotFoundException();
        }

        return(foundUser.get());
    }

    public void UpdateUser(User usertoUpdate) {
        userRepository.save(usertoUpdate);
    }


}
```



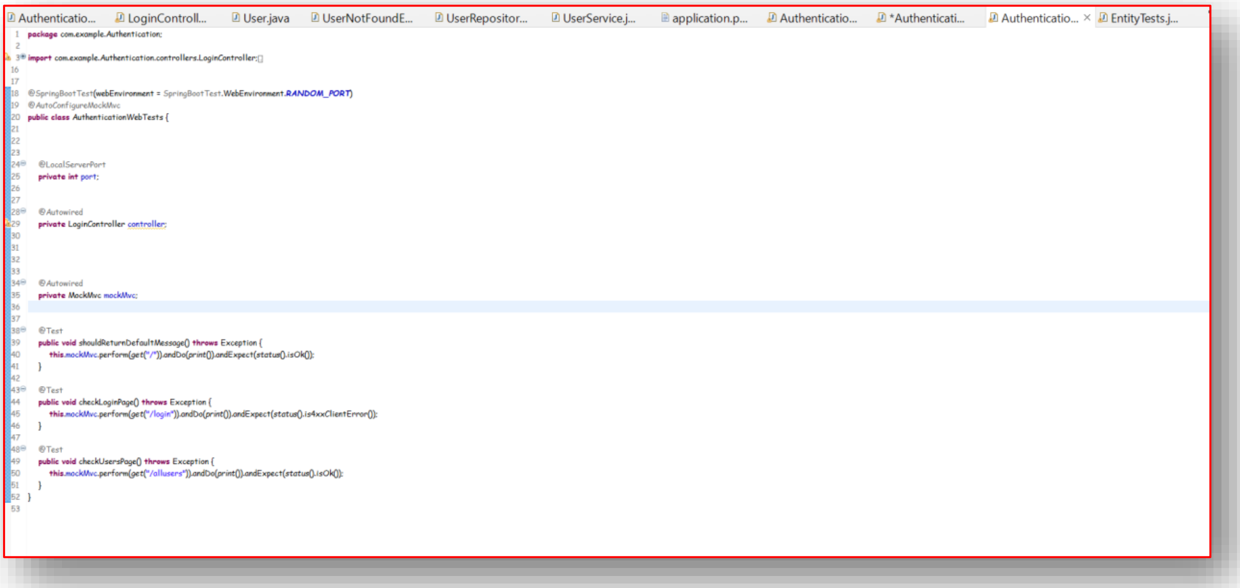
```


spring.jpa.hibernate.ddl-auto=update
spring.datasource.url=jdbc:mysql://${MYSQL_HOST:localhost}:3306/db_example
spring.datasource.username=root
spring.datasource.password=root123


logging.level.org.springframework.web: DEBUG

server.port=8090

server.error.whitelabel.enabled=false
```



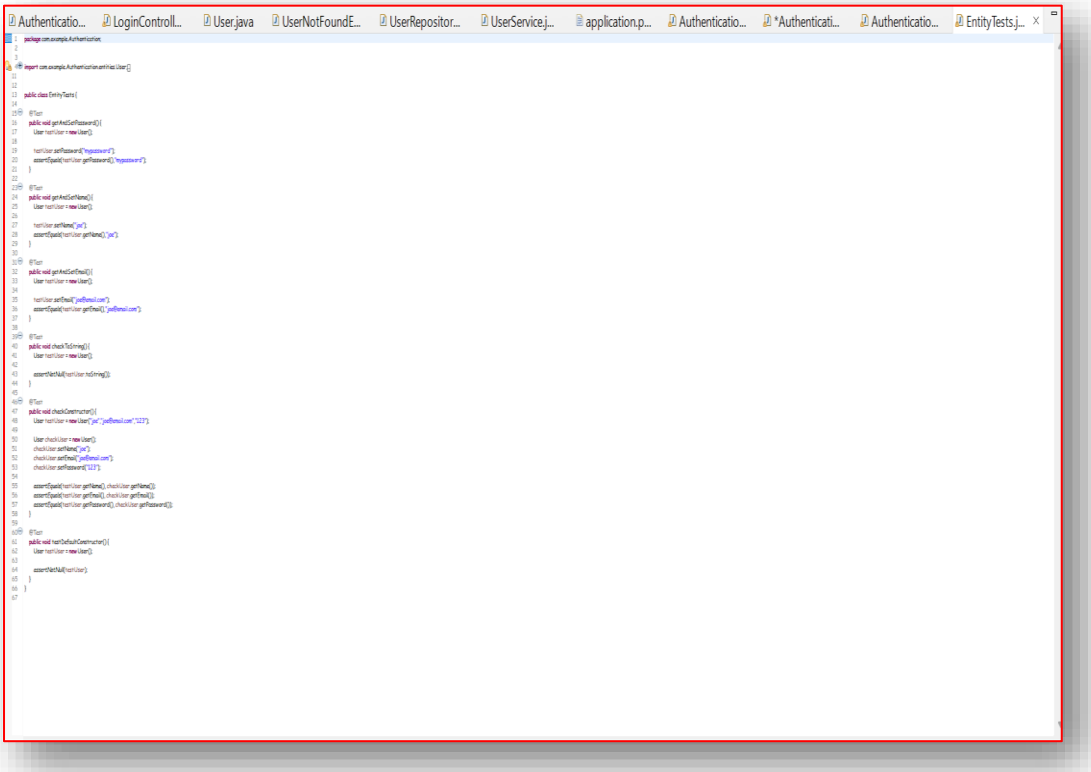
```
package com.example.Authentication;

import static org.junit.jupiter.api.Assertions.assertEquals;

@SpringBootTest
class AuthenticationApplicationTests {

    @Autowired
    private UserService userService;

    @Test
    void contextLoads() {
    }


    @Test
    void testServiceCall() {
        Iterable<User> users = userService.GetAllUsers();
        Integer count = 0;

        for(User u: users)
            count++;

        assertNotEquals(count, 0);
    }

    @Test
    void countUsers() {
        Iterable<User> users = userService.GetAllUsers();
        Integer count = 0;

        for(User u: users)
            count++;

        assertEquals(count, 4);
    }

    @Test
    void checkAllUsers() {
        Iterable<User> users = userService.GetAllUsers();

        for(User u: users)
            assertNotNull(u);
    }
}

```



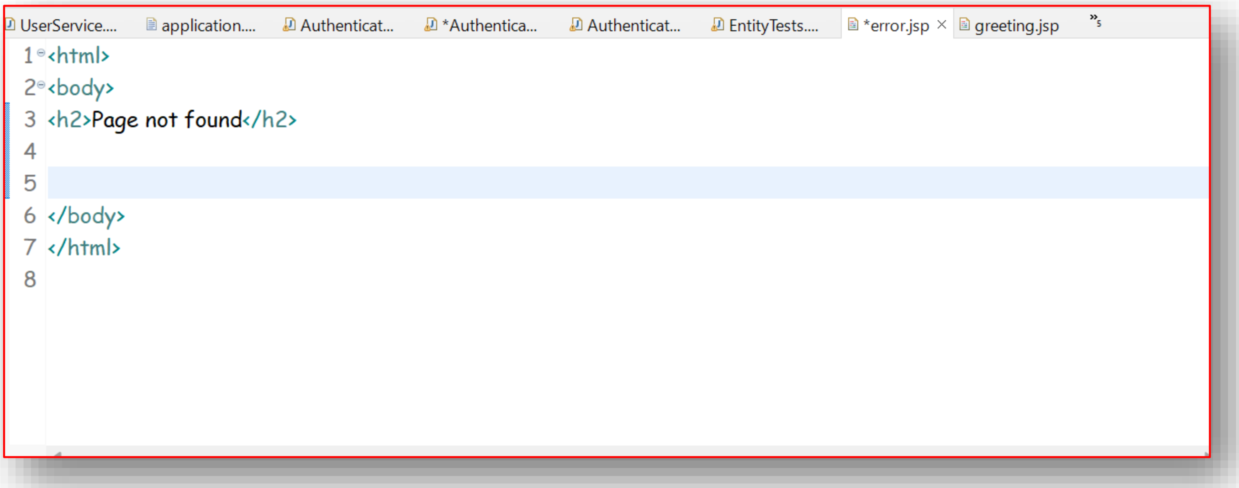
```
package com.example.Authentication;

import com.example.Authentication.entities.User;[]

@DataJpaTest

public class AuthenticationTests {

    @Autowired
    private TestEntityManager entityManager;

    @Autowired
    private UserRepository userRepository;


    @Test
    public void returnUserFromName() {
        User testUser = new User();
        testUser.setName("newTest");
        testUser.setEmail("test@email.com");
        testUser.setPassword("testpw");
        entityManager.persist(testUser);
        entityManager.flush();

        User found = userRepository.findByName(testUser.getName());

        assertEquals(found.getName(), testUser.getName());
    }

    @Test
    public void passwordNotNull() {

        Iterable<User> users = userRepository.findAll();
        for(User u: users)
            assertNotNull(u.getPassword());
    }

    @Test
    public void nameNotNull() {

        Iterable<User> users = userRepository.findAll();
        for(User u: users)
            assertNotNull(u.getName());
    }

    @Test
    public void emailNotNull() {

        Iterable<User> users = userRepository.findAll();
        for(User u: users)
            assertNotNull(u.getEmail());
    }


}
```



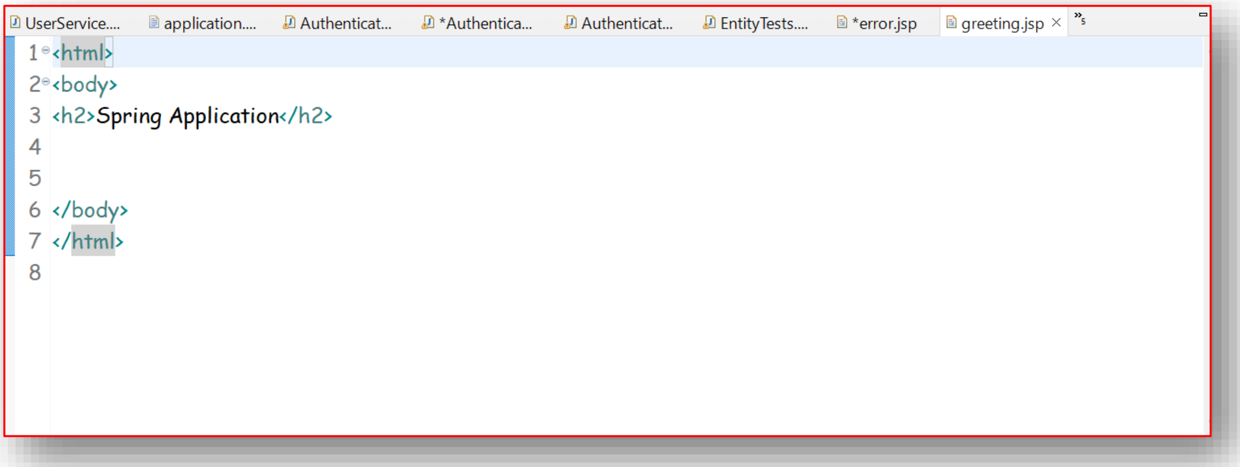
```
package com.example.Authentication;

import com.example.Authentication.controllers.LoginController;[]


@SpringBootTest(webEnvironment = SpringBootTest.WebEnvironment.RANDOM_PORT)
@AutoConfigureMockMvc
public class AuthenticationWebTests {



    @LocalServerPort
    private int port;


    @Autowired
    private LoginController controller;




    @Autowired
    private MockMvc mockMvc;


    @Test
    public void shouldReturnDefaultMessage() throws Exception {
        this.mockMvc.perform(get("/")).andDo(print()).andExpect(status().isOk());
    }

    @Test
    public void checkLoginPage() throws Exception {
        this.mockMvc.perform(get("/login")).andDo(print()).andExpect(status().is4xxClientError());
    }

    @Test
    public void checkUsersPage() throws Exception {
        this.mockMvc.perform(get("/allusers")).andDo(print()).andExpect(status().isOk());
    }
}
```



```java
package com.example.Authentication;


import com.example.Authentication.entities.User;


public class EntityTests {

    @Test
    public void getAndSetPassword() {
        User testUser = new User();

        testUser.setPassword("mypassword");
        assertEquals(testUser.getPassword(),"mypassword");
    }

    @Test
    public void getAndSetName() {
        User testUser = new User();

        testUser.setName("joe");
        assertEquals(testUser.getName(),"joe");
    }

    @Test
    public void getAndSetEmail() {
        User testUser = new User();

        testUser.setEmail("joe@email.com");
        assertEquals(testUser.getEmail(),"joe@email.com");
    }

    @Test
    public void checkToString() {
        User testUser = new User();

        assertNotNull(testUser.toString());
    }

    @Test
    public void checkConstructor() {
        User testUser = new User("joe","joe@email.com","123");

        User checkUser = new User();
        checkUser.setName("joe");
        checkUser.setEmail("joe@email.com");
        checkUser.setPassword("123");

        assertEquals(testUser.getName(), checkUser.getName());
        assertEquals(testUser.getEmail(), checkUser.getEmail());
        assertEquals(testUser.getPassword(), checkUser.getPassword());
    }

    @Test
    public void testDefaultConstructor() {
        User testUser = new User();

        assertNotNull(testUser);
    }
}

```



```html
<html>
<body>
<h2>Page not found</h2>


</body>
</html>

```



```html
<html>
<body>
<h2>Spring Application</h2>


</body>
</html>

```