Exercise 3: Testing REST Controller with MockMvc

**User.java:**

package com.example.springtest;

public class User {

private Long id;

private String name;

public User() {}

public User(Long id, String name) {

this.id = id;

this.name = name;

}

public Long getId() {

return id;

}

public void setId(Long id) {

this.id = id;

}

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

}

**UserService.java:**

public class UserService {

public User getUserById(Long id) {

return new User(id, "Default");

}

}

**UserController.java:**

package com.example.springtest;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.http.ResponseEntity;

import org.springframework.web.bind.annotation.\*;

@RestController

@RequestMapping("/users")

public class UserController {

@Autowired

private UserService userService;

@GetMapping("/{id}")

public ResponseEntity<User> getUser(@PathVariable Long id) {

return ResponseEntity.*ok*(userService.getUserById(id));

}

}

**UserControllerTest.java:**

package com.example.springtest;

import org.junit.jupiter.api.Test;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.boot.test.autoconfigure.web.servlet.WebMvcTest;

import org.springframework.boot.test.mock.mockito.MockBean;

import org.springframework.test.web.servlet.MockMvc;

import static org.mockito.Mockito.*when*;

import static org.springframework.test.web.servlet.request.MockMvcRequestBuilders.*get*;

import static org.springframework.test.web.servlet.result.MockMvcResultMatchers.\*;

@WebMvcTest(UserController.class)

public class UserControllerTest {

@Autowired

private MockMvc mockMvc;

@MockBean

private UserService userService;

@Test

void testGetUserById() throws Exception {

User mockUser = new User(1L, "Aswin");

*when*(userService.getUserById(1L)).thenReturn(mockUser);

mockMvc.perform(*get*("/users/1")

.accept(MediaType.*APPLICATION\_JSON*))

.andExpect(*status*().isOk())

.andExpect(*jsonPath*("$.name").value("Aswin"));

}

}

**Output:**

