

Testing REST APIs

Spring REST Controllers



Problem

- How can we test REST API developed with Spring REST Controllers?
- How can we create HTTP requests and send to the Spring REST controller?
- How can we verify HTTP response?
 - status code
 - content type
 - JSON response body

Spring Testing Support

- For testing Spring REST controllers, you can use `MockMvc`
- Provides Spring REST processing of request / response
- There is no need to run a server (embedded or external)

In general, the process is VERY similar to Spring MVC testing

Slight differences for content-type and checking JSON results

Preliminary Set Up

- For GradebookControllerTest
- Stub out the test class
- Define fields that we'll use later: MockMvc, Service, DAOs etc
- @BeforeAll, @BeforeEach, @AfterEach

GradebookControllerTest.java

```
...  
@TestPropertySource("/application-test.properties")  
@AutoConfigureMockMvc  
@SpringBootTest  
public class GradebookControllerTest {  
  
    // inject support utils  
  
    // inject Service and DAOs  
  
    // inject SQL strings  
  
    // @BeforeAll, @BeforeEach and @AfterEach  
  
}
```