

Postman testing

Create

The screenshot displays the Postman application interface. The top navigation bar includes 'Home', 'Workspaces', 'API Network', 'Reports', and 'Explore'. The left sidebar shows 'My Workspace' with 'Collections' (containing 'duck') and 'Environments'. The main workspace is set to 'POST localhost:8080/alehouse/create'. The 'Body' tab is selected, showing a JSON payload:

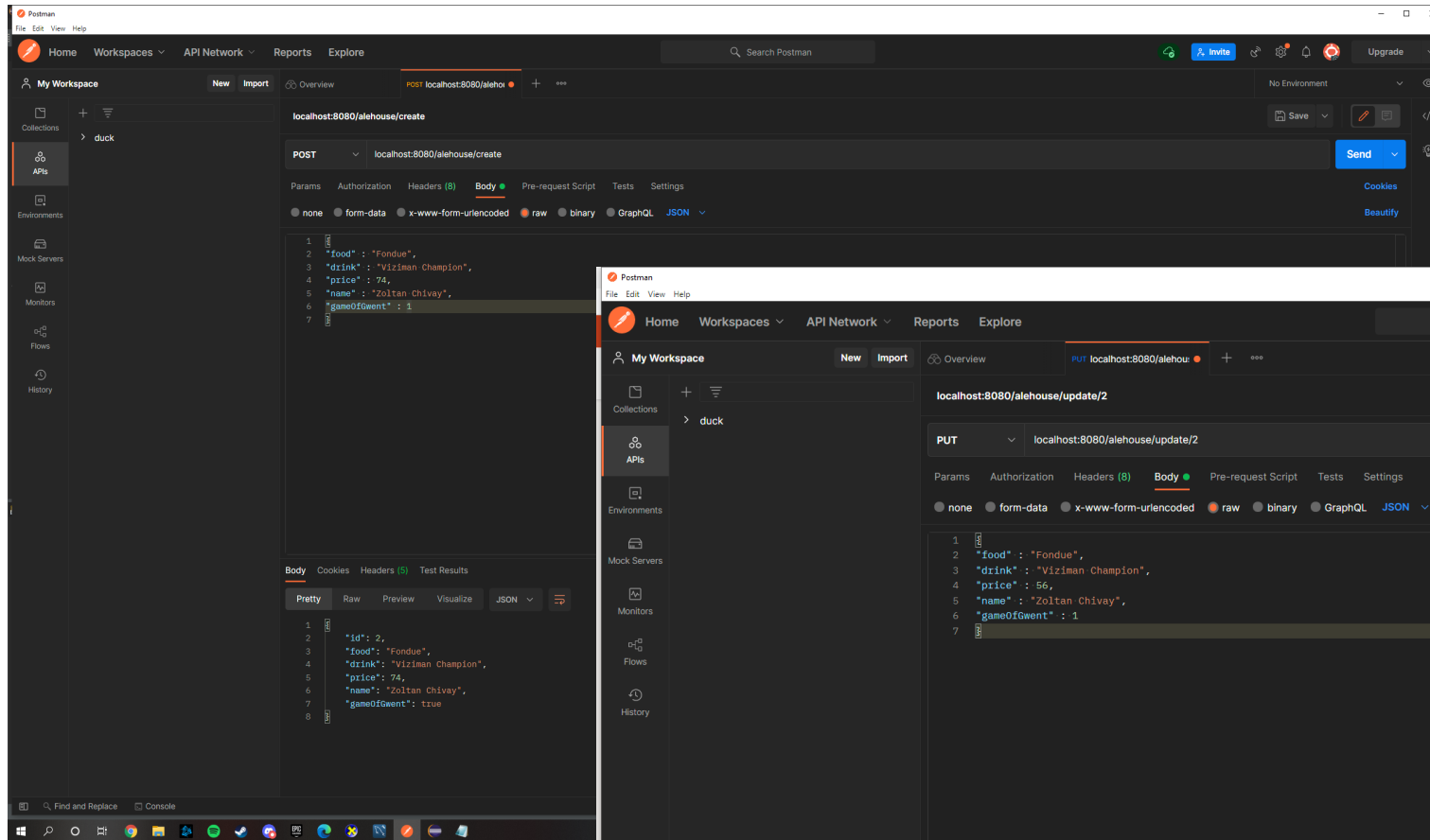
```
1 {
2   "food": "Fondue",
3   "drink": "Viziman Champion",
4   "price": 74,
5   "name": "Zoltan Chivay",
6   "gameOfGwent": 1
7 }
```

The bottom section shows the 'Body' tab of the response, displaying the received JSON:

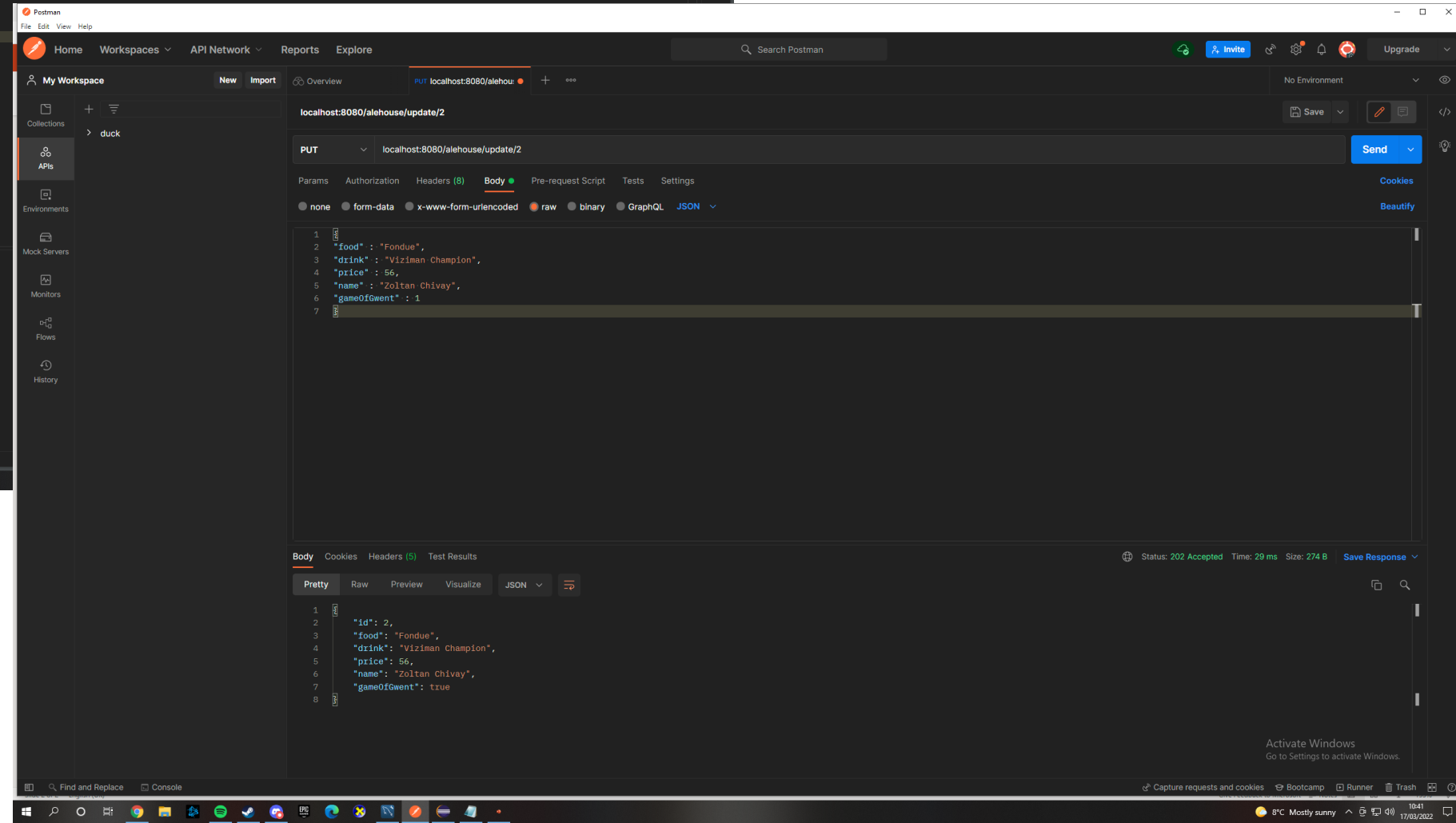
```
1 {
2   "id": 2,
3   "food": "Fondue",
4   "drink": "Viziman Champion",
5   "price": 74,
6   "name": "Zoltan Chivay",
7   "gameOfGwent": true
8 }
```

The status bar at the bottom indicates 'Status: 201 Created', 'Time: 9 ms', and 'Size: 273 B'. The Windows taskbar at the very bottom shows the system clock as 10:37 on 17/03/2022.

Update



In this you can see that the price has changed from 74 to 56



readAll

Postman

File Edit View Help

Home Workspaces API Network Reports Explore

Search Postman

Invite

Upgrade

My Workspace

Collections

APIs

Environments

Mock Servers

Monitors

Flows

History

New Import

duck

Overview

GET localhost:8080/alehou

localhost:8080/alehouse/readAll

Save

Send

GET

localhost:8080/alehouse/readAll

Params

Authorization

Headers (8)

Body

Pre-request Script

Tests

Settings

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

1

2

3

4

5

6

7

8

9

10

11

12

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27

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29

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32

Body

Cookies

Headers (5)

Test Results

Pretty

Raw

Preview

Visualize

JSON

1

2

3

4

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7

8

9

10

11

12

13

14

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27

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29

30

31

32

Status: 200 OK

Time: 103 ms

Size: 594 B

Save Response

Find and Replace

Console

Capture requests and cookies

Bootcamp

Runner

Trash

8°C Mostly sunny

10:47

17/03/2022

readById

Postman

File Edit View Help

Home

Workspaces

API Network

Reports

Explore

Search Postman

Invite

Upgrade

My Workspace

New Import

Overview

GET localhost:8080/alehou:

+ ...

No Environment

Save

Send

Beautify

localhost:8080/alehouse/readById/3

GET localhost:8080/alehouse/readById/3

Params Authorization Headers (8) Body Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary GraphQL JSON

```
1 {
2   "food" : "Potion of tir na lia",
3   "drink" : "Kaedweni stout",
4   "price" : 15,
5   "name" : "Gerald",
6   "gameOfGwent" : 1
7 }
```

Body Cookies Headers (5) Test Results

Pretty Raw Preview Visualize JSON

```
1 {
2   "id": 3,
3   "food": "Wyvern meat",
4   "drink": "Raspberry juice",
5   "price": 47,
6   "name": "Emhyr Var Emreis",
7   "gameOfGwent": true
8 }
```

Status: 200 OK Time: 15 ms Size: 275 B Save Response

Find and Replace

Console

Capture requests and cookies

Bootcamp

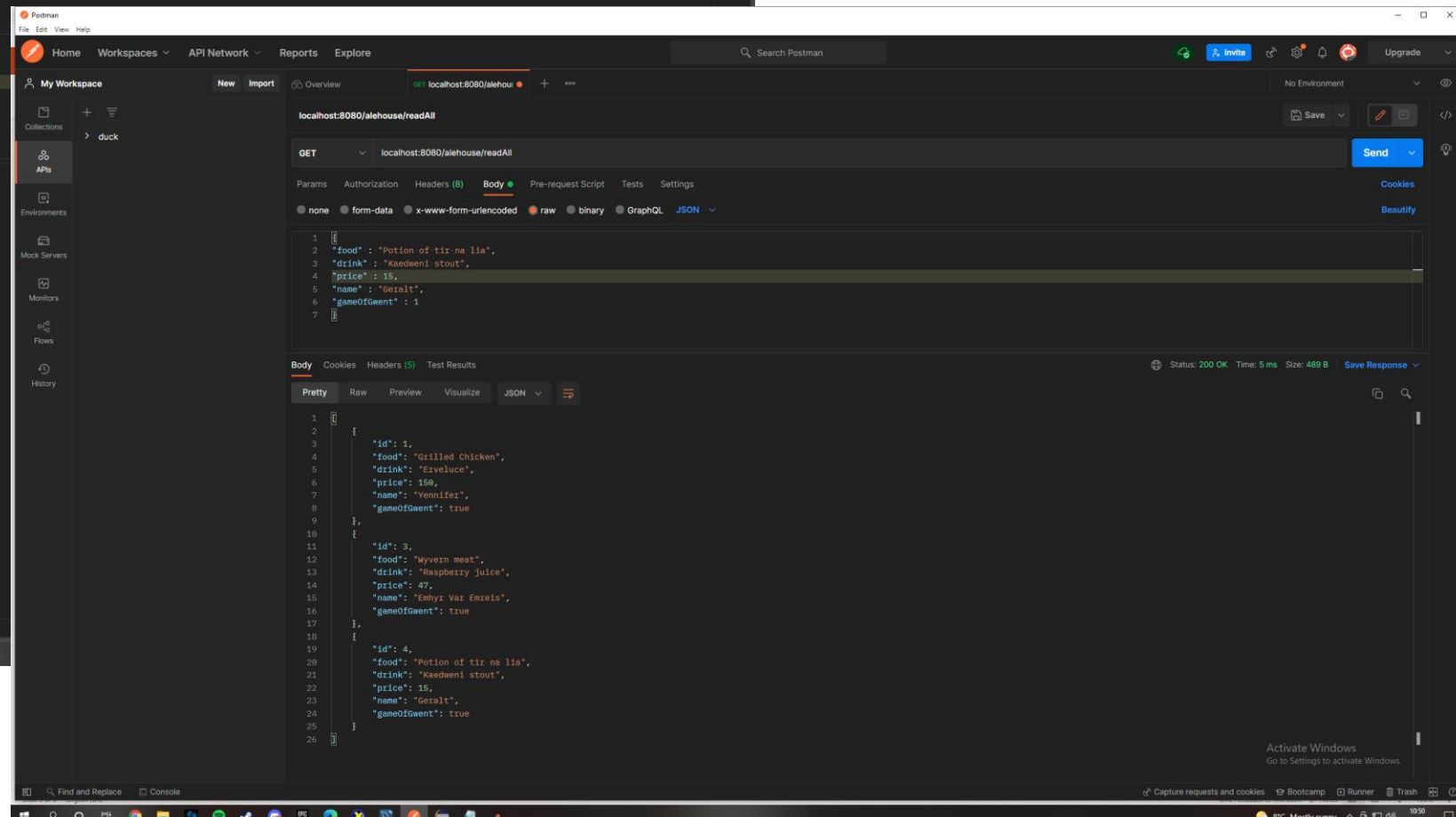
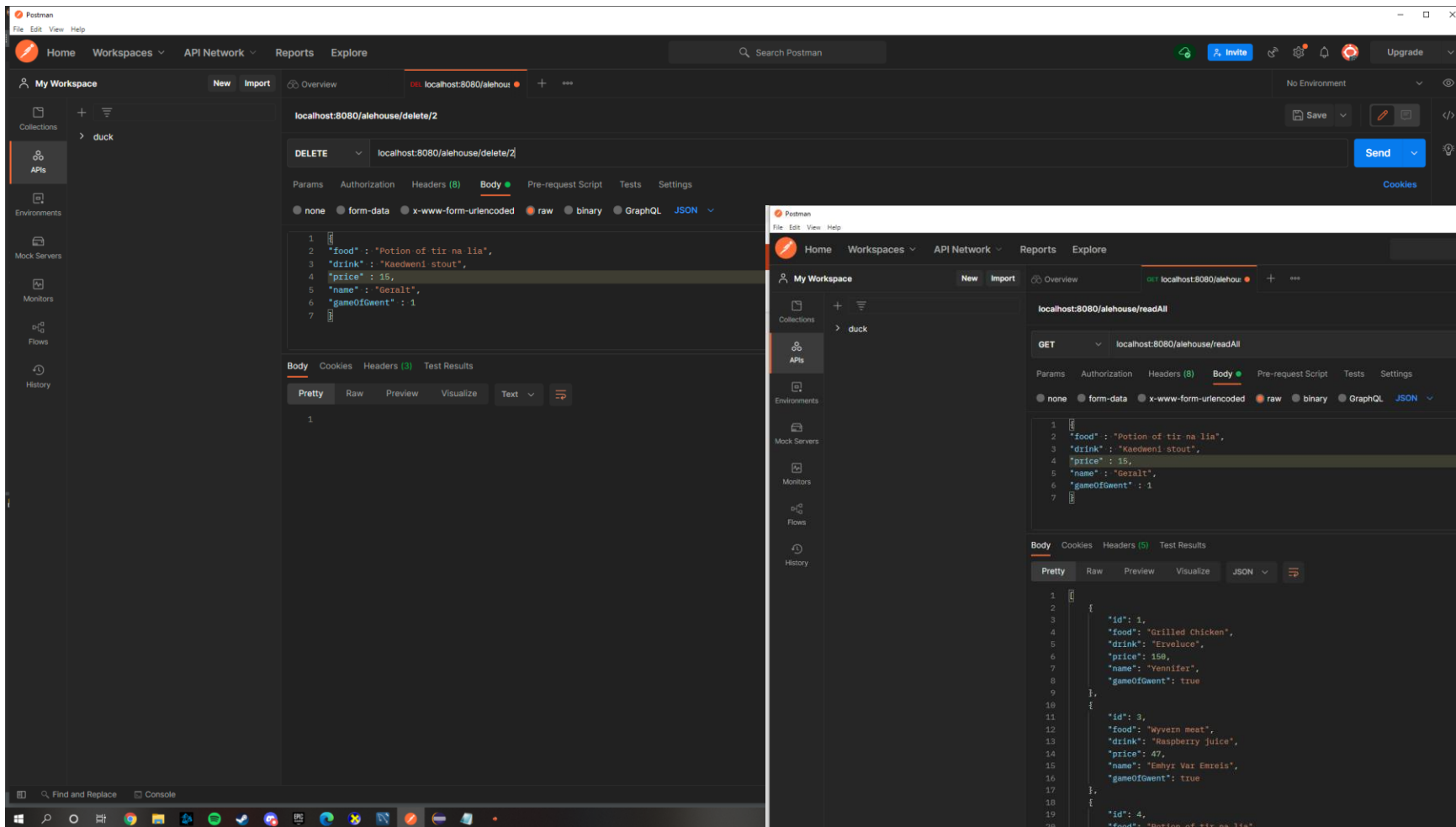
Runner

Trash

10:48 17/03/2022

Delete

In this you can see that I have deleted the order with an id of 2 and it does not show in the readAll.



JUnit testing

Controller integration test

The screenshot displays the Eclipse IDE environment. The main editor window shows the source code for `AleHouseControllerIntegrationTest.java`. The code includes imports for Spring Boot test utilities, annotations for `@SpringBootTest`, `@AutoConfigureMockMvc`, and `@ActiveProfiles("test")`, and a `@Sql` block to execute database scripts. The test class `AleHouseControllerIntegrationTest` contains a `@Test` method `testCreate()` that simulates a POST request to `/alehouse/create` and verifies the response status and body.

```
2
3import static org.springframework.test.web.servlet.request.MockMvcRequestBuilders.delete;
28
29 @SpringBootTest(webEnvironment = WebEnvironment.RANDOM_PORT)
30 @AutoConfigureMockMvc
31 @ActiveProfiles("test")
32 @Sql(executionPhase = ExecutionPhase.BEFORE_TEST_METHOD, scripts = { "classpath:AleHouse-schema.sql",
33 "classpath:AleHouse-data.sql" })
34 public class AleHouseControllerIntegrationTest {
35     //INTEGRATION TESTING
36     @Autowired
37     private MockMvc mvc;
38
39     @Autowired
40     private ObjectMapper mapper;
41
42     @Test
43     public void testCreate() throws Exception {
44         AleHouse testAleHouse = new AleHouse("Erveluce", "Grilled Chicken", 150, "Yennifer", true);
45         String testAleHouseAsJSON = this.mapper.writeValueAsString(testAleHouse);
46         RequestBuilder req = post("/alehouse/create").content(testAleHouseAsJSON)
47             .contentType(MediaType.APPLICATION_JSON);
48
49         AleHouse testSavedAleHouse = new AleHouse(2L, "Erveluce", "Grilled Chicken", 150, "Yennifer", true);
50         String testSavedAleHouseAsJSON = this.mapper.writeValueAsString(testSavedAleHouse);
51
52         ResultMatcher checkAleHouseStatus = status().isCreated();
53         ResultMatcher checkAleHouseBody = content().json(testSavedAleHouseAsJSON);
54
55         this.mvc.perform(req).andExpect(checkAleHouseStatus).andExpect(checkAleHouseBody);

```

The left sidebar shows the Package Explorer with the project structure and the Failure Trace panel. The bottom panel displays the console output, which includes log messages from Tomcat and the application, as well as error messages related to the database connection and HikariDataSource shutdown.

```

2022-03-17 10:52:45.995 INFO 9020 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 63789 (http) with context p
2022-03-17 10:52:46.002 INFO 9020 --- [main] .q.d.C.AleHouseControllerIntegrationTest : Started AleHouseControllerIntegrationTest in 2.944 sec
2022-03-17 10:52:46.466 INFO 9020 --- [ionShutdownHook] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit
2022-03-17 10:52:46.467 INFO 9020 --- [ionShutdownHook] .SchemaDropperImpl$DelayedDropActionImpl : HHH000477: Starting delayed evictData of schema as par
2022-03-17 10:52:46.468 WARN 9020 --- [ionShutdownHook] o.h.engine.jdbc.spi.SqlExceptionHelper : SQL Error: 90121, SQLState: 90121
2022-03-17 10:52:46.468 ERROR 9020 --- [ionShutdownHook] o.h.engine.jdbc.spi.SqlExceptionHelper : Database is already closed (to disable automatic closi
2022-03-17 10:52:46.469 WARN 9020 --- [ionShutdownHook] o.h.engine.jdbc.spi.SqlExceptionHelper : SQL Error: 90121, SQLState: 90121
2022-03-17 10:52:46.469 ERROR 9020 --- [ionShutdownHook] o.h.engine.jdbc.spi.SqlExceptionHelper : Database is already closed (to disable automatic closi
2022-03-17 10:52:46.469 WARN 9020 --- [ionShutdownHook] o.s.b.f.support.DisposableBeanAdapter : Invocation of destroy method failed on bean with name
2022-03-17 10:52:46.469 INFO 9020 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown initiated...
2022-03-17 10:52:46.471 INFO 9020 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown completed.

```

Controller unit test

The screenshot displays the Eclipse IDE environment. The main editor shows the file `AleHouseControllerUnitTest.java` with the following code:

```
15 import org.springframework.boot.test.mock.mockito.MockBean;
16 import org.springframework.http.HttpStatus;
17 import org.springframework.http.ResponseEntity;
18
19 import com.qa.demo.Entity.AleHouse;
20 import com.qa.demo.Service.AleHouseService;
21
22 @SpringBootTest(webEnvironment = WebEnvironment.RANDOM_PORT)
23 public class AleHouseControllerUnitTest {
24
25     @Autowired
26     private AleHouseController controller;
27
28     @MockBean
29     private AleHouseService service;
30
31     @Test
32     public void createTest() {
33         AleHouse AleHouse = new AleHouse("Viziman Champion", "Fondue", 74, "Zoltan Chivay", true);
34
35         Mockito.when(this.service.create(AleHouse)).thenReturn(AleHouse);
36
37         ResponseEntity<AleHouse> response = new ResponseEntity<AleHouse>(AleHouse, HttpStatus.CREATED);
38
39         assertThat(response).isEqualTo(this.controller.createAleHouse(AleHouse));
40
41         Mockito.verify(this.service, times(1)).create(AleHouse);
42     }
43
44     @Test
```

The left sidebar shows the Package Explorer with the project structure and the Failure Trace panel, which is currently empty. The bottom panel displays the Console output, showing the execution of the test. The logs indicate that the test passed successfully, with the following key messages:

- 2022-03-17 12:08:49.750 INFO 12600 --- [main] o.hibernate.annotations.common.Version : HCANN000001: Hibernate Commons Annotations {5.1.2.Fir
- 2022-03-17 12:08:49.839 INFO 12600 --- [main] org.hibernate.dialect.Dialect : HHH000400: Using dialect: org.hibernate.dialect.H2Dia
- 2022-03-17 12:08:50.137 INFO 12600 --- [main] o.h.e.t.j.p.i.JtaPlatformInitiator : HHH000490: Using JtaPlatform implementation: [org.hib
- 2022-03-17 12:08:50.142 INFO 12600 --- [main] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence
- 2022-03-17 12:08:50.204 WARN 12600 --- [main] JpaBaseConfiguration\$JpaWebConfiguration : spring.jpa.open-in-view is enabled by default. Theref
- 2022-03-17 12:08:50.798 INFO 12600 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 60792 (http) with context
- 2022-03-17 12:08:50.805 INFO 12600 --- [main] c.q.d.C.AleHouseControllerUnitTest : Started AleHouseControllerUnitTest in 2.988 seconds (
- 2022-03-17 12:08:50.919 INFO 12600 --- [ionShutdownHook] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit
- 2022-03-17 12:08:50.919 INFO 12600 --- [ionShutdownHook] .SchemaDropperImpl\$DelayedDropActionImpl : HHH000477: Starting delayed evictData of schema as pa
- 2022-03-17 12:08:50.923 INFO 12600 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown initiated...
- 2022-03-17 12:08:50.925 INFO 12600 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown completed.

The bottom status bar shows the file is writable, smart insert is enabled, and the cursor is at line 46, column 1479. The system tray at the bottom right indicates a temperature of 8°C, mostly sunny weather, and the date/time is 12:08 on 17/03/2022.

Service unit test

```
1 package com.qa.demo.Service;
2
3 import static org.junit.jupiter.api.Assertions.assertEquals;
4
5 @SpringBootTest
6 public class AleHouseServiceUnitTest {
7     //THIS IS UNIT TESTING
8
9     @Autowired
10     private AleHouseService service;
11
12     @MockBean
13     private AleHouseRepo repo;
14
15     @Test
16     public void createTest() {
17         AleHouse orders = new AleHouse("Beauclair white", "Poisoned apple", 100, "Triss", true);
18         AleHouse outgoing = new AleHouse(3, "Beauclair white", "Poisoned apple", 100, "Triss", true);
19
20         Mockito.when(this.repo.save(orders)).thenReturn(outgoing);
21
22         assertEquals(outgoing, this.service.create(orders));
23
24         Mockito.verify(this.repo, Mockito.times(1)).save(orders);
25     }
26
27     @Test
28     public void updateTest() {
29         Optional<AleHouse> optionalOutgoing = Optional.of(new AleHouse(1L, "Raspberry juice", "Wyvern meat", 41, "Emhyn", true));
30         AleHouse orders = new AleHouse("Raspberry juice", "Wyvern meat", 41, "Emhyn", true);
31     }
32 }
```

2022-03-17 10:53:58.870 INFO 3228 --- [main] o.s.b.a.h2.H2ConsoleAutoConfiguration : H2 console available at '/h2-console'. Database available

2022-03-17 10:53:59.103 INFO 3228 --- [main] c.q.d.Service.AleHouseServiceUnitTest : Started AleHouseServiceUnitTest in 2.674 seconds (JVM

2022-03-17 10:53:59.182 INFO 3228 --- [ionShutdownHook] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory for persistence unit

2022-03-17 10:53:59.182 INFO 3228 --- [ionShutdownHook] .SchemaDropperImpl\$DelayedDropActionImpl : HHH000477: Starting delayed evictData of schema as part of

2022-03-17 10:53:59.183 WARN 3228 --- [ionShutdownHook] o.h.engine.jdbc.spi.SqlExceptionHelper : SQL Error: 90121, SQLState: 90121

2022-03-17 10:53:59.183 ERROR 3228 --- [ionShutdownHook] o.h.engine.jdbc.spi.SqlExceptionHelper : Database is already closed (to disable automatic closing of the connection, please use a non

2022-03-17 10:53:59.184 WARN 3228 --- [ionShutdownHook] o.h.engine.jdbc.spi.SqlExceptionHelper : SQL Error: 90121, SQLState: 90121

2022-03-17 10:53:59.184 ERROR 3228 --- [ionShutdownHook] o.h.engine.jdbc.spi.SqlExceptionHelper : Database is already closed (to disable automatic closing of the connection, please use a non

2022-03-17 10:53:59.184 WARN 3228 --- [ionShutdownHook] o.s.b.f.support.DisposableBeanAdapter : Invocation of destroy method failed on bean with name

2022-03-17 10:53:59.185 INFO 3228 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown initiated...

2022-03-17 10:53:59.187 INFO 3228 --- [ionShutdownHook] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Shutdown completed.

Entity test

```
1 package com.qa.demo.Entity;
2
3 import org.junit.jupiter.api.Test;
4
5
6
7
8
9
10 public class AleHouseEntityTest {
11
12     @Test
13     public void testAll() {
14         assertEquals(AleHouse.class).usingGetClass().verify();
15     };
16 }
17
18 @Test
19 public void GetterAndSetterTest() {
20     AleHouse alehouse = new AleHouse(4, "Chicken", "Zerrikanian spirit", 5, "Ciri", true);
21
22     assertNotNull(alehouse.getId());
23     assertNotNull(alehouse.getDrink());
24     assertNotNull(alehouse.getFood());
25     assertNotNull(alehouse.isGameOfGwent());
26     assertNotNull(alehouse.getName());
27     assertNotNull(alehouse.getPrice());
28
29     assertEquals(alehouse.getId(), 4);
30     assertEquals(alehouse.getFood(), "Chicken");
31     assertEquals(alehouse.getDrink(), "Zerrikanian spirit");
32     assertEquals(alehouse.getPrice(), 5);
33     assertEquals(alehouse.getName(), "Ciri");
34     assertEquals(alehouse.isGameOfGwent(), true);
35 }
```

Failure Trace

Git Repositories

Problems | Javadoc | Declaration | Console | Progress | Terminal

terminated> AleHouseEntityTest [JUnit] C:\Program Files\Java\jdk-17.0.2\bin\javaw.exe (17 Mar 2022, 10:55:50 - 10:55:52)

Activate Windows
Go to Settings to activate Windows.

Writable | Smart Insert | 17:5:395

8°C Mostly sunny 10:55 17/03/2022