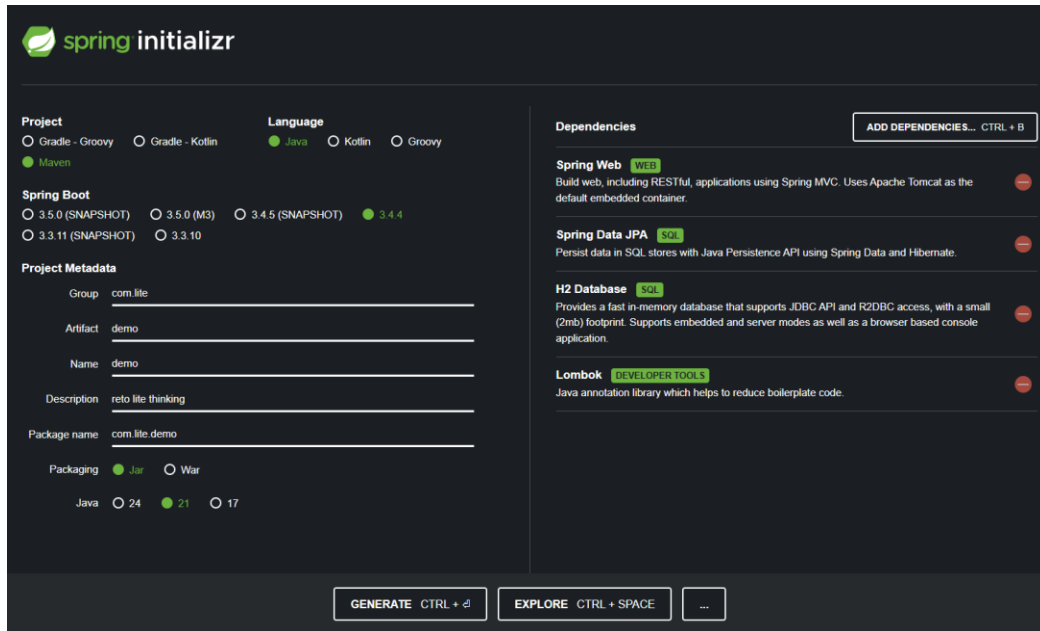


1. Crear Proyecto



The Spring Initializr web interface is shown with a dark theme. It includes sections for Project, Language, Spring Boot, Project Metadata, Dependencies, and buttons for GENERATE, EXPLORE, and a menu icon.

Project

Gradle - Groovy ☐ Gradle - Kotlin ☐ **Maven ☒**

Language

Java ☒ Kotlin ☐ Groovy ☐

Spring Boot

☐ 3.5.0 (SNAPSHOT) ☐ 3.5.0 (M3) ☐ 3.4.5 (SNAPSHOT) **☒ 3.4.4**

☐ 3.3.11 (SNAPSHOT) ☐ 3.3.10

Project Metadata

Group

Artifact

Name

Description

Package name

Packaging **☒ Jar** ☐ War

Java ☐ 24 **☒ 21** ☐ 17

Dependencies ADD DEPENDENCIES... CTRL + B

Spring Web **WEB**
Build web, including RESTful, applications using Spring MVC. Uses Apache Tomcat as the default embedded container.

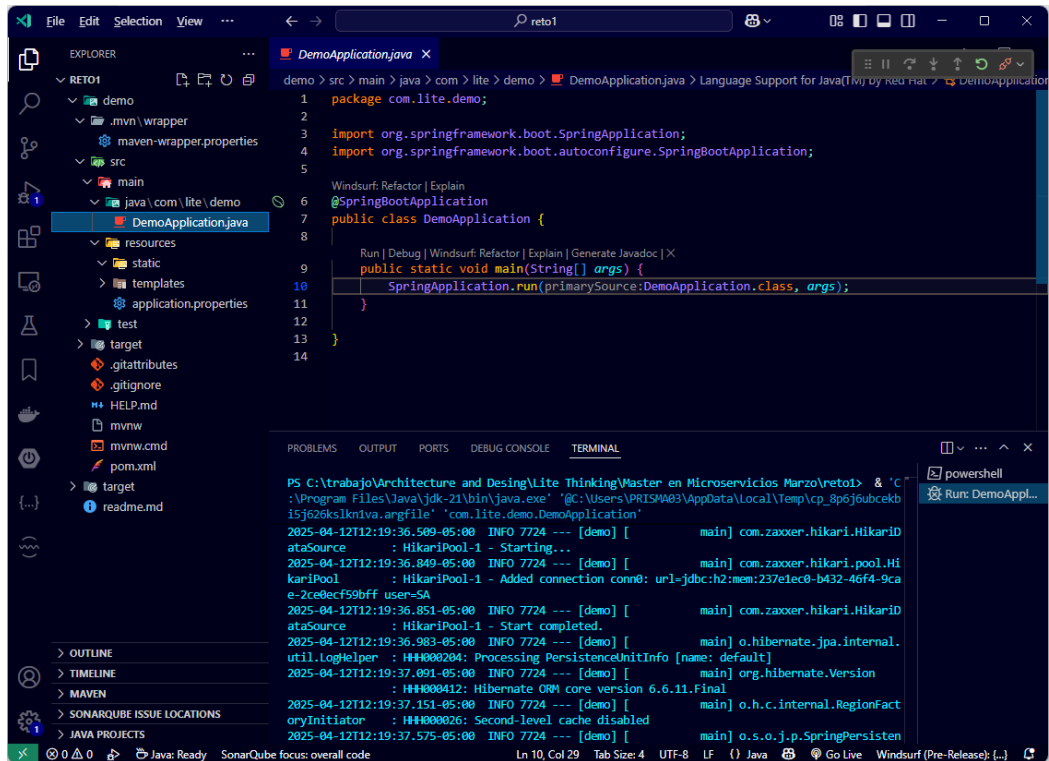
Spring Data JPA **SQL**
Persist data in SQL stores with Java Persistence API using Spring Data and Hibernate.

H2 Database **SQL**
Provides a fast in-memory database that supports JDBC API and R2DBC access, with a small (2mb) footprint. Supports embedded and server modes as well as a browser based console application.

Lombok **DEVELOPER TOOLS**
Java annotation library which helps to reduce boilerplate code.

GENERATE CTRL + G **EXPLORE** CTRL + SPACE ...

2. Configurar application.properties



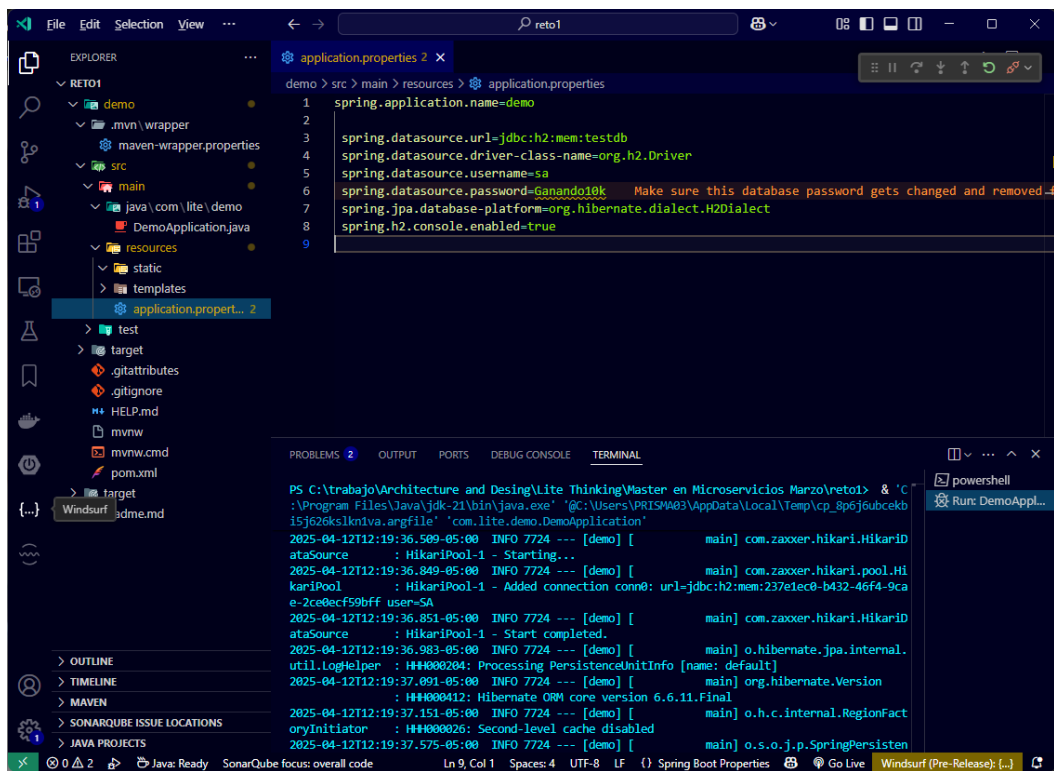
The VS Code editor shows the `DemoApplication.java` file with the following code:

```
1 package com.lite.demo;
2
3 import org.springframework.boot.SpringApplication;
4 import org.springframework.boot.autoconfigure.SpringBootApplication;
5
6 @SpringBootApplication
7 public class DemoApplication {
8
9     public static void main(String[] args) {
10         SpringApplication.run(primarySource: DemoApplication.class, args);
11     }
12 }
13
14
```

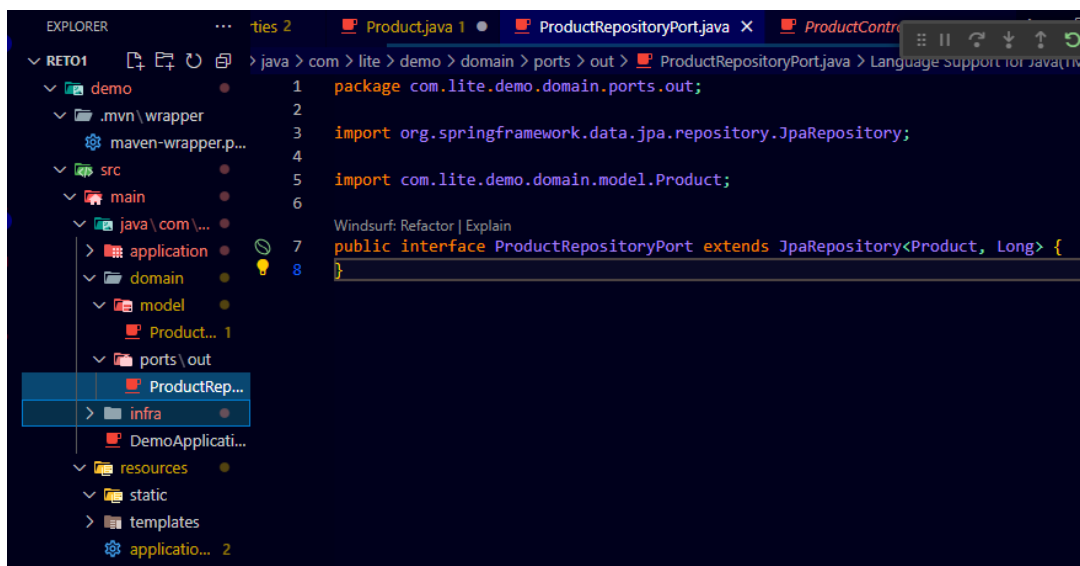
The terminal output shows the application running successfully:

```
PS C:\trabajo\Architecture and Desing\Lite Thinking\Master en Microservicios Marzo\reto1> & 'C:\Program Files\Java\jdk-21\bin\java.exe' -cp 'C:\Users\PRISMA03\AppData\Local\Temp\cp_8p6j6ubcekb15j626ks1kn1va.argFile' 'com.lite.demo.DemoApplication'
2025-04-12T12:19:36.509-05:00 INFO 7724 --- [demo] [main] com.zaxxer.hikari.HikariID
ataSource : HikariPool-1 - Starting...
2025-04-12T12:19:36.849-05:00 INFO 7724 --- [demo] [main] com.zaxxer.hikari.pool.Hi
kariPool : HikariPool-1 - Added connection conn0: url=jdbc:h2:mem:237e1ec0-b432-46f4-9ca
e-2ce0ecf59bfff user=SA
2025-04-12T12:19:36.851-05:00 INFO 7724 --- [demo] [main] com.zaxxer.hikari.HikariID
ataSource : HikariPool-1 - Start completed.
2025-04-12T12:19:36.983-05:00 INFO 7724 --- [demo] [main] o.hibernate.jpa.internal.
util.LogHelper : ###000204: Processing PersistenceUnitInfo [name: default]
2025-04-12T12:19:37.091-05:00 INFO 7724 --- [demo] [main] org.hibernate.Version
: ###000412: Hibernate ORM core version 6.6.11.Final
2025-04-12T12:19:37.151-05:00 INFO 7724 --- [demo] [main] o.h.c.internal.RegionFact
oryInitiator : ###000026: Second-level cache disabled
2025-04-12T12:19:37.575-05:00 INFO 7724 --- [demo] [main] o.s.o.j.p.SpringPersisten
```

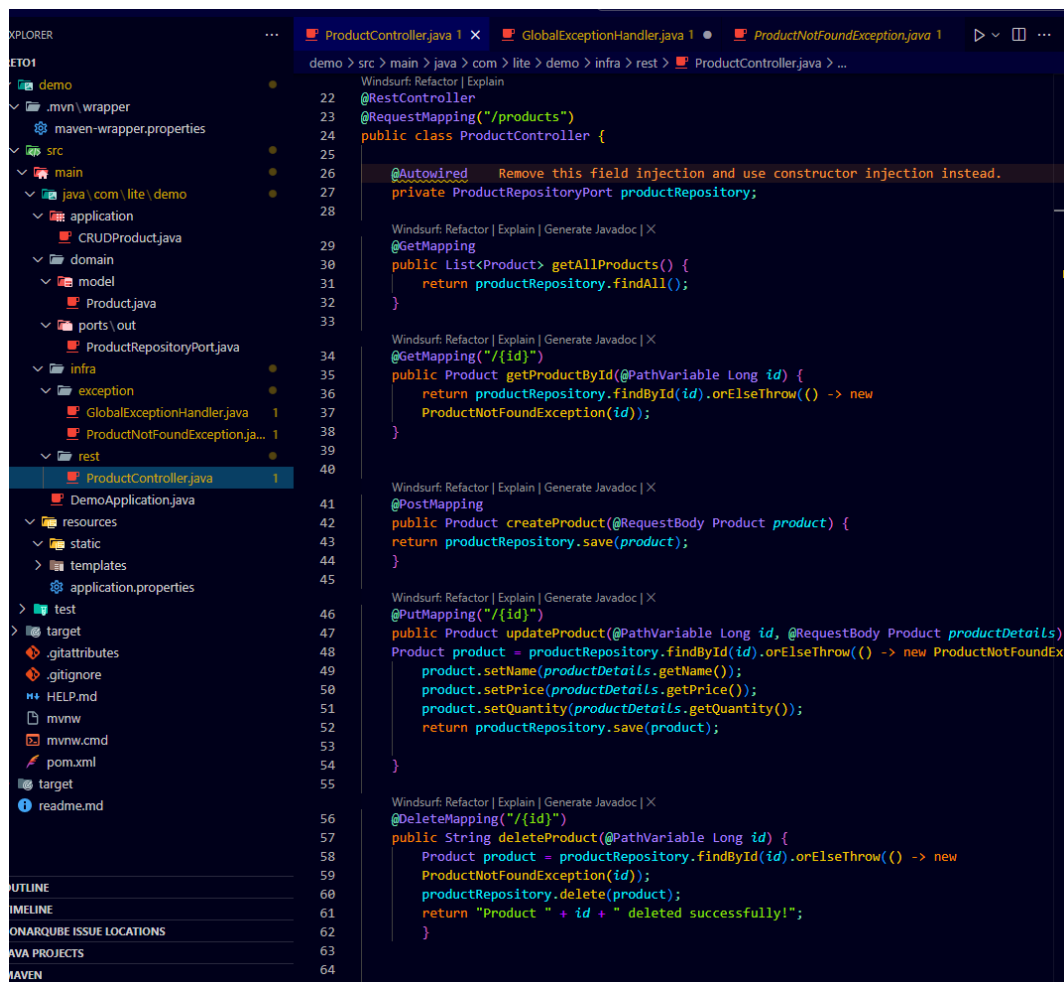
3. Crea la entidad producto



4 Crear un repositorio



5 crear un controlador REST



package com.lite.demo.infra.rest;

import java.util.List;

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

import org.springframework.web.bind.annotation.DeleteMapping;

import org.springframework.web.bind.annotation.GetMapping;

import org.springframework.web.bind.annotation.PathVariable;

import org.springframework.web.bind.annotation.PostMapping;

import org.springframework.web.bind.annotation.PutMapping;

import org.springframework.web.bind.annotation.RequestBody;

import org.springframework.web.bind.annotation.RequestMapping;

import org.springframework.web.bind.annotation.RestController;

import com.lite.demo.domain.model.Product;

import com.lite.demo.domain.ports.out.ProductRepositoryPort;

```
import com.lite.demo.infra.exception.ProductNotFoundException;
```

```
@RestController
```

```
@RequestMapping("/products")
```

```
public class ProductController {
```

```
    @Autowired
```

```
    private ProductRepositoryPort productRepository;
```

```
    @GetMapping
```

```
    public List<Product> getAllProducts() {
```

```
        return productRepository.findAll();
```

```
    }
```

```
    @GetMapping("/{id}")
```

```
    public Product getProductById(@PathVariable Long id) {
```

```
        return productRepository.findById(id).orElseThrow(() -> new  
        ProductNotFoundException(id));
```

```
    }
```

```
    @PostMapping
```

```
    public Product createProduct(@RequestBody Product product) {
```

```
        return productRepository.save(product);
```

```
    }
```

```
    @PutMapping("/{id}")
```

```
    public Product updateProduct(@PathVariable Long id, @RequestBody Product productDetails) {
```

```
        Product product = productRepository.findById(id).orElseThrow(() -> new  
        ProductNotFoundException(id));
```

```
        product.setName(productDetails.getName());
```

```
        product.setPrice(productDetails.getPrice());
```

```
        product.setQuantity(productDetails.getQuantity());
```

```
        return productRepository.save(product);
```

```
}
```

```
@DeleteMapping("/{id}")
```

```
public String deleteProduct(@PathVariable Long id) {
```

```
    Product product = productRepository.findById(id).orElseThrow(() -> new
```

```
    ProductNotFoundException(id));
```

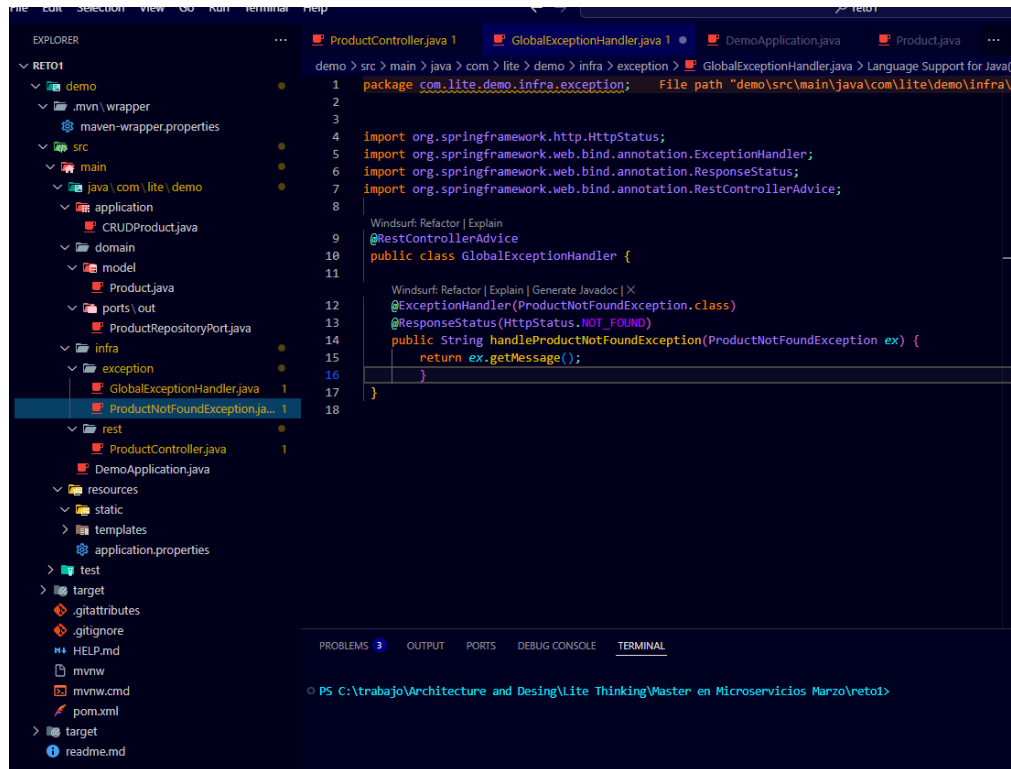
```
    productRepository.delete(product);
```

```
    return "Product " + id + " deleted successfully!";
```

```
}
```

```
}
```

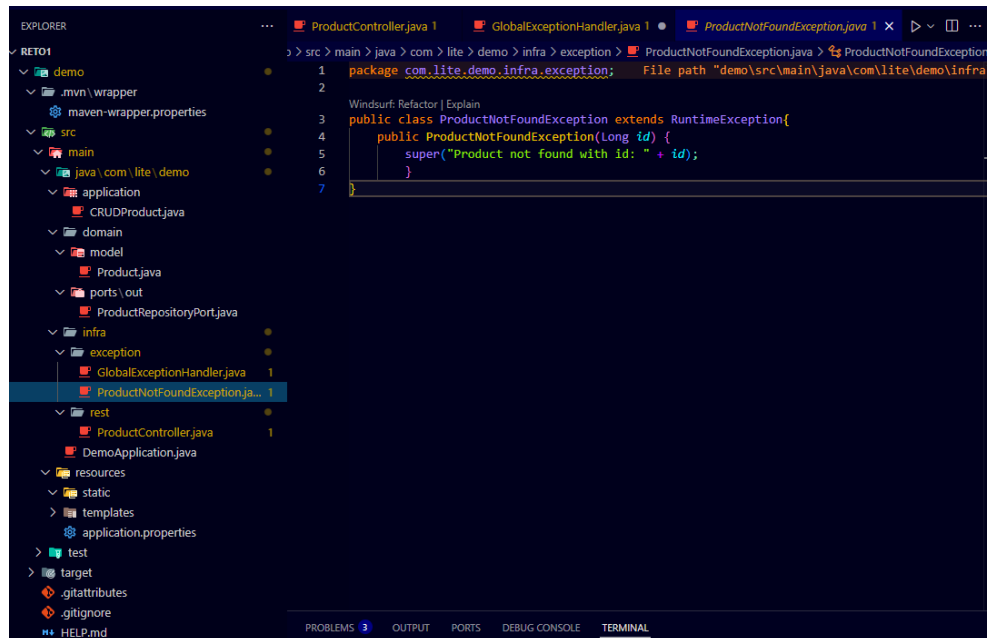
6. Excepciones



```
demo > src > main > java > com > lite > demo > infra > exception > GlobalExceptionHandler.java > Language Support for Java
1 package com.lite.demo.infra.exception; File path "demo\src\main\java\com\lite\demo\infra\
2
3
4 import org.springframework.http.HttpStatus;
5 import org.springframework.web.bind.annotation.ExceptionHandler;
6 import org.springframework.web.bind.annotation.ResponseStatus;
7 import org.springframework.web.bind.annotation.RestControllerAdvice;
8
9 Windsurf: Refactor | Explain
10 @RestControllerAdvice
11 public class GlobalExceptionHandler {
12
13 Windsurf: Refactor | Explain | Generate Javadoc | X
14 @ExceptionHandler(ProductNotFoundException.class)
15 @ResponseStatus(HttpStatus.NOT_FOUND)
16 public String handleProductNotFoundException(ProductNotFoundException ex) {
17     return ex.getMessage();
18 }
```

PROBLEMS 3 OUTPUT PORTS DEBUG CONSOLE TERMINAL

PS C:\trabajo\Architecture and Desing\Lite Thinking\Master en Microservicios Marzo\reto1>

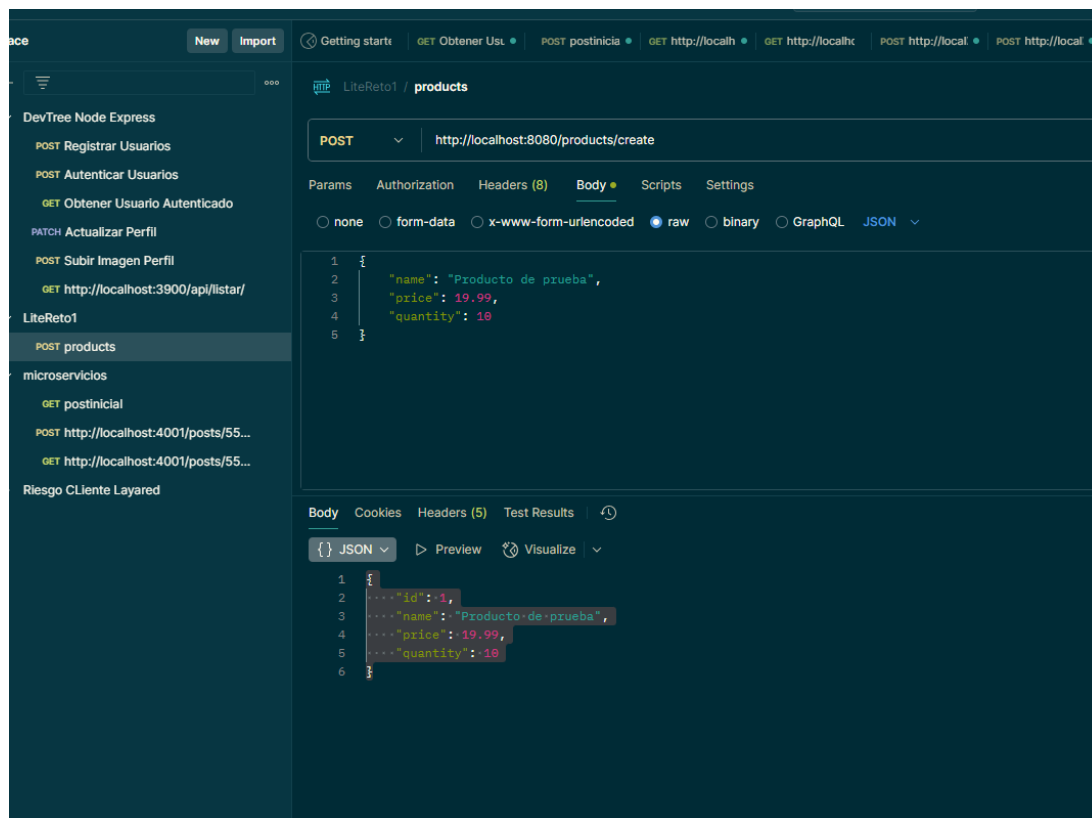


```
> > src > main > java > com > lite > demo > infra > exception > ProductNotFoundException.java > ProductNotFoundException
1 package com.lite.demo.infra.exception; File path "demo\src\main\java\com\lite\demo\infra\
2
3 Windsurf: Refactor | Explain
4 public class ProductNotFoundException extends RuntimeException{
5     public ProductNotFoundException(Long id) {
6         super("Product not found with id: " + id);
7     }
8 }
```

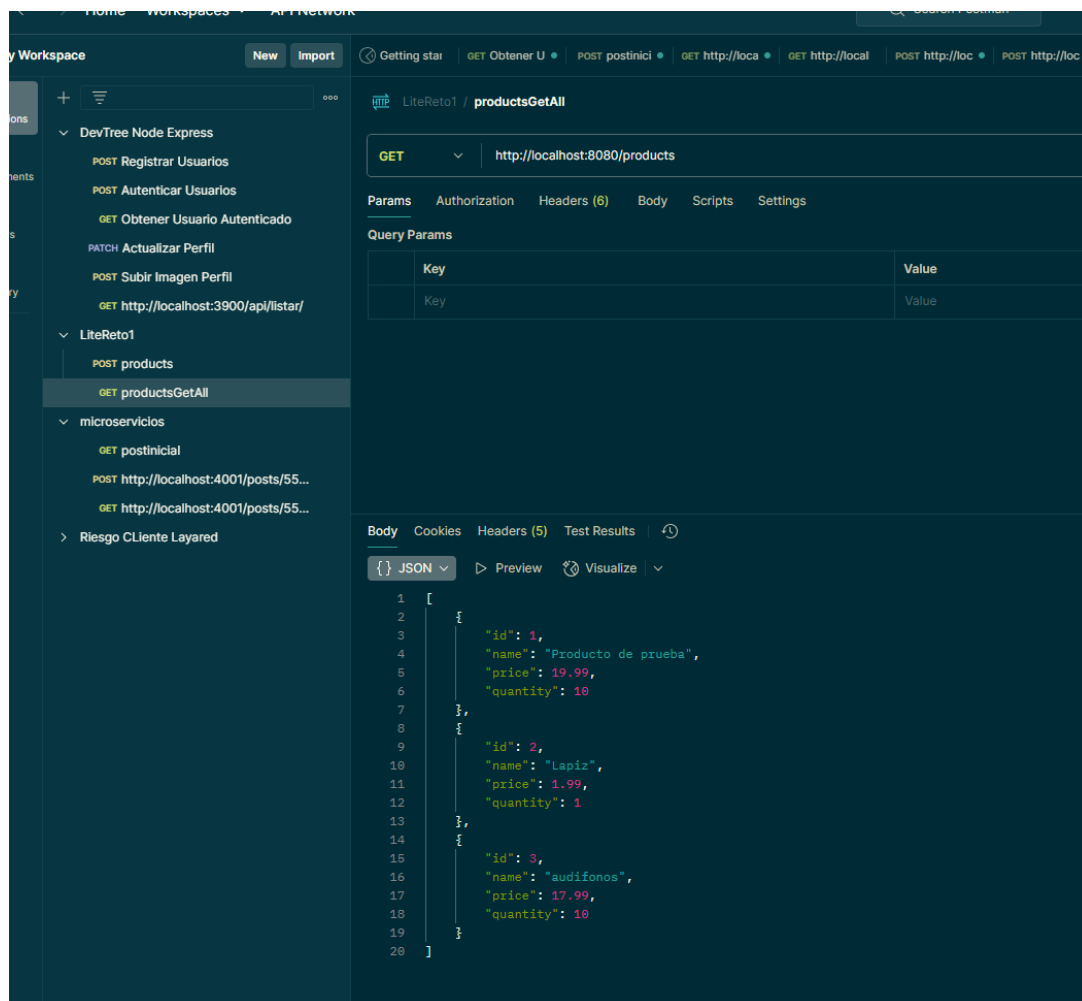
PROBLEMS 3 OUTPUT PORTS DEBUG CONSOLE TERMINAL

7 probar microservicios

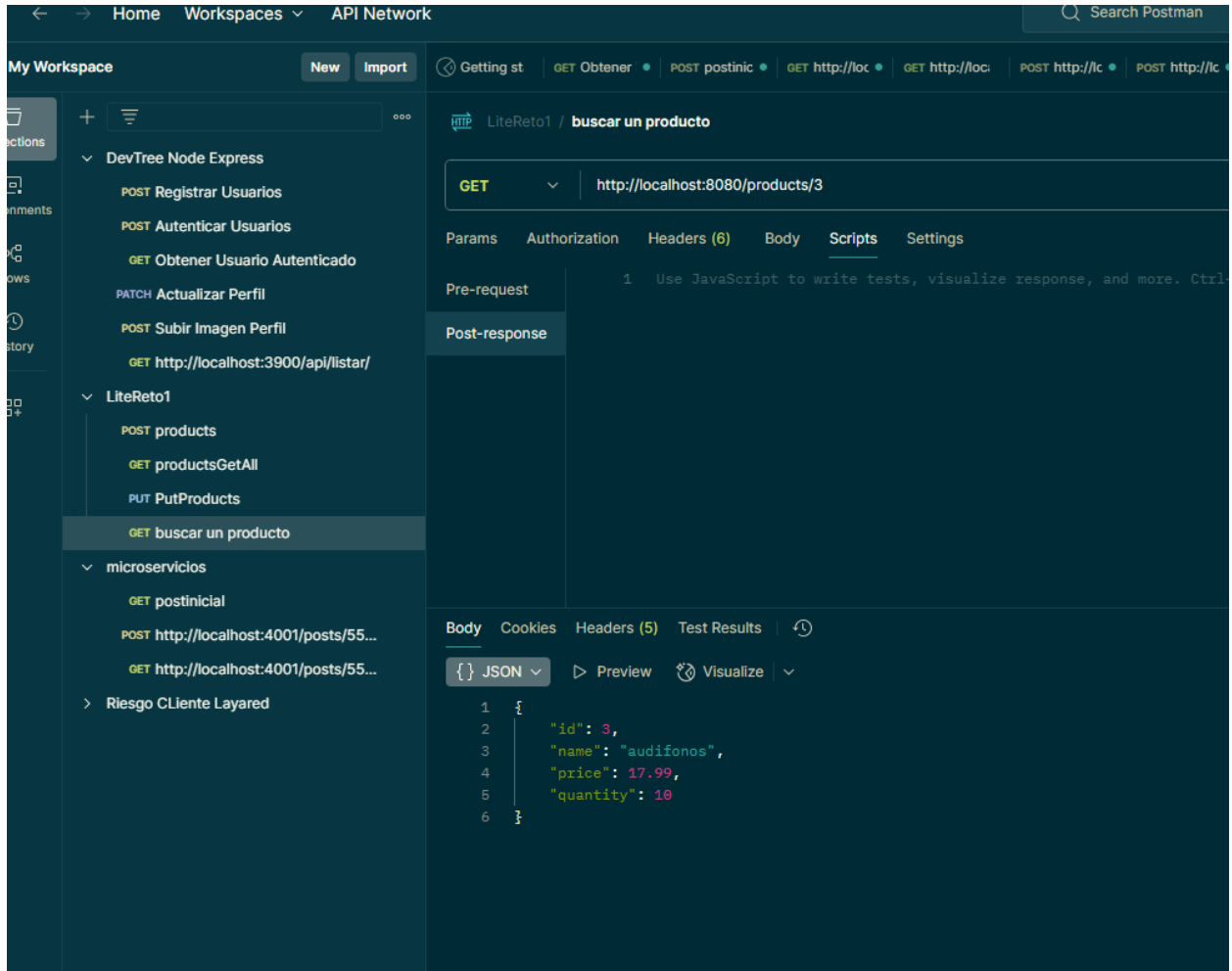
Post:



`http://localhost:8080/products`



Get : <http://localhost:8080/products/3>



Put: <http://localhost:8080/products/1>

My Workspace

NewImport

Getting stGET ObtenerPOST postiniciGET http://locGET http://loc:POST http://lcPOST htt

lections

ronments

Flows

History

+≡ooo

DevTree Node Express

POST Registrar Usuarios

POST Autenticar Usuarios

GET Obtener Usuario Autenticado

PATCH Actualizar Perfil

POST Subir Imagen Perfil

GET http://localhost:3900/api/listar/

LiteReto1

POST products

GET productsGetAll

PUT PutProducts

GET buscar un producto

microservicios

GET postinicial

POST http://localhost:4001/posts/55...

GET http://localhost:4001/posts/55...

Riesgo CLiente Layared

LiteReto1 / PutProducts

PUThttp://localhost:8080/products/1

ParamsAuthorizationHeaders (8)BodyScriptsSettings

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

```
1 {
2   "name": "Laptop EliteBook Pro",
3   "price": 1399.99,
4   "quantity": 10
5 }
```

BodyCookiesHeaders (5)Test ResultsVisualize

{ } JSONPreviewVisualize

```
1 {
2   "id": 1,
3   "name": "Laptop EliteBook Pro",
4   "price": 1399.99,
5   "quantity": 10
6 }
```

Workspace

DevTree Node Express

- POST Registrar Usuarios
- POST Autenticar Usuarios
- GET Obtener Usuario Autenticado
- PATCH Actualizar Perfil
- POST Subir Imagen Perfil
- GET http://localhost:3900/api/listar/

LiteReto1

- POST products
- GET productsGetAll
- PUT PutProducts
- GET buscar un producto

microservicios

- GET postinicial
- POST http://localhost:4001/posts/55...
- GET http://localhost:4001/posts/55...

Riesgo CLiente Layared

GET http://localhost:8080/products

Params

Query Params

Key	Value
Key	Value

Body

JSON

```
1 [
2   {
3     "id": 1,
4     "name": "Laptop EliteBook Pro",
5     "price": 1399.99,
6     "quantity": 10
7   },
8   {
9     "id": 2,
10    "name": "Lapiz",
11    "price": 1.99,
12    "quantity": 1
13  },
14  {
15    "id": 3,
16    "name": "audifonos",
17    "price": 17.99,
18    "quantity": 10
19  }
20 ]
```

DELETE http://localhost:8080/products/3

Workspace

DevTree Node Express

- POST Registrar Usuarios
- POST Autenticar Usuarios
- GET Obtener Usuario Autenticado
- PATCH Actualizar Perfil
- POST Subir Imagen Perfil
- GET http://localhost:3900/api/listar/

LiteReto1

- POST products
- GET productsGetAll
- PUT PutProducts
- GET buscar un producto
- GET elimina un producto Copy

microservicios

- GET postinicial
- POST http://localhost:4001/posts/55...
- GET http://localhost:4001/posts/55...

Riesgo CLiente Layared

DELETE http://localhost:8080/products/3

Params

Query Params

Key	Value	Description
Key	Value	Description

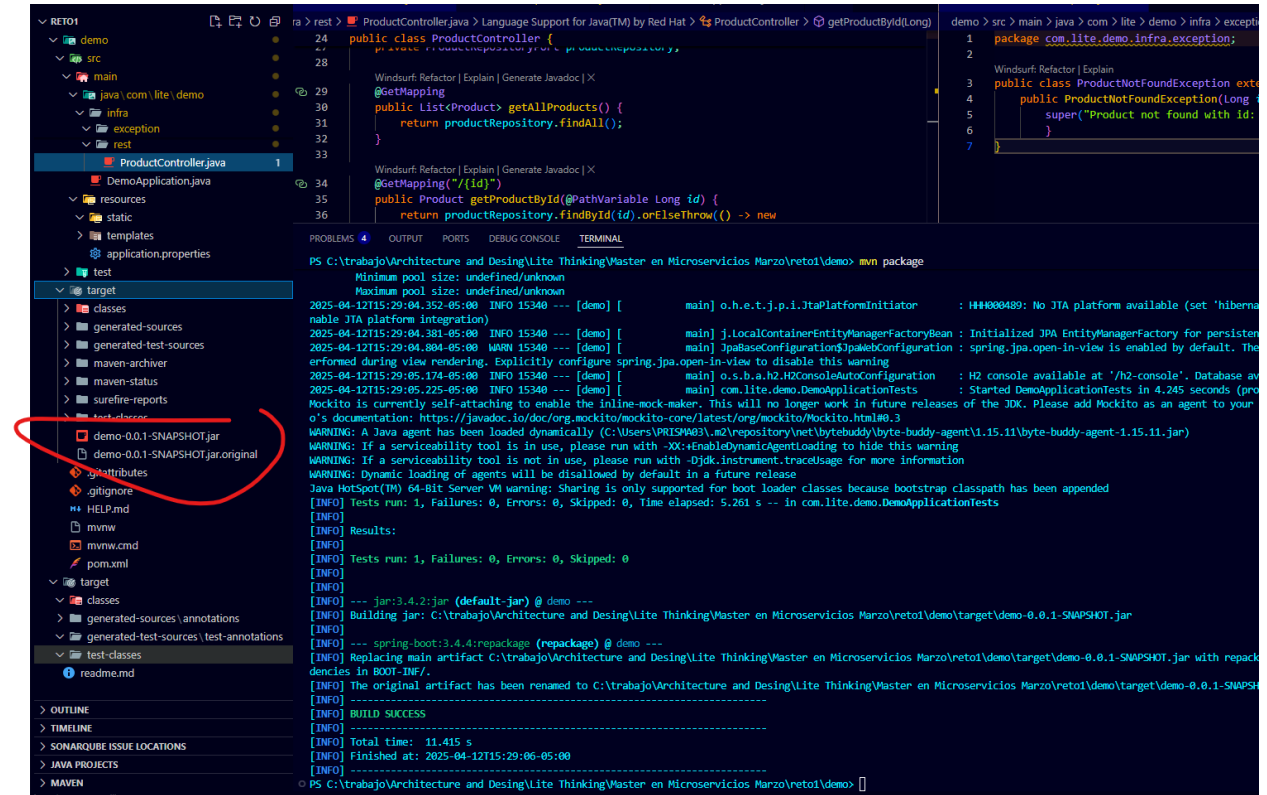
Body

Raw

```
1 Product 3 deleted successfully!
```

200 OK

8. Empaquetar:



9. Lanar microsrevicio desde consola



