### **Lab: Interacting with the Java Web Application**

*Your task is to interact with the provided* ***Java Web Application*** *that manages* ***products****. The application allows you to perform various* ***operations*** *such as* ***retrieving****,* ***creating****,* ***updating****, and* ***deleting products****. All responses from the application will be in* ***JSON*** *format — you will not get HTML content.*

#### **Host**

The application is running on host:

127.0.0.1**:**8080

#### **Available Paths**

The following paths are available in the application:

1. /products
2. /products/{id} (where {id} is the unique identifier of a product, e.g. 1, 2, 3 etc.)

### **Description**

Send the appropriate HTTP requests to the web application. For each sub-task, determine:

* The **HTTP method** to use (e.g., GET, POST, PUT, PATCH, DELETE)
* The correct **URL** path
* Whether you need to include additional data (e.g., in the **request body** or **query parameters**)

### **Exercise 1: Fetch All Products**

**Retrieve** the full list of products stored in the application. The response will include all available products in JSON format

**Expected output:  
 {**

**"id": 1,**

**"name": "Apple",**

**"quantity": 10**

**},**

**{**

**"id": 2,**

**"name": "Kiwi",**

**"quantity": 4**

**},**

**{**

**"id": 3,**

**"name": "Strawberry",**

**"quantity": 12**

**}**

### **Exercise 2: Fetch a Single Product by ID**

Get the details of a specific product using its unique id. Replace {id} in the path with the actual ID of a product in the system.

### **Exercise 3: Create a New Product**

Add a new product to the application. To do this, send the product details in JSON format as part of your request. Use the following format for the product data:

{

**"name"**: **"Orange"**,

**"quantity"**: **15**

}

The response will include the newly created product with its assigned ID.

### **Exercise 4: Update the Quantity of a Product**

Update the quantity of an existing product by its id. You will need to specify the new quantity as part of your request as a **query parameter**. The query parameter that the application expect is quantity

### **Exercise 5: Update entirely a product**

Replace all details of an existing product with new information. You will need to update the product by specifying its unique id and providing the full product details in **JSON format** (same format as for the creation of the product)

**Exercise 6: Delete a Product**

Remove a product from the application using its unique id. After successfully deleting the product, confirm the deletion by attempting to fetch it again