**Manual Test Cases (Gherkin)**

**Scenario: Fetch all product details**

Scenario: Get all products from the inventory

Given the inventory contains products

When I send a GET request to "/api/products"

Then the response status should be 200 OK

And the response should contain a list of products

**Scenario: Fetch product details by ID**

Scenario: Retrieve details of a specific product

Given a product exists with ID "123456"

When I send a GET request to "/api/products/123456"

Then the response status should be 200 OK

And the response should contain product details with ID "123456"

**Scenario: Try fetching a non-existent product**

Scenario: Try retrieving a product that does not exist

Given no product exists with ID "999999"

When I send a GET request to "/api/products/999999"

Then the response status should be 404 Not Found

**Scenario: Add a new product**

Scenario: Add a new product to the inventory

Given I have a product with Name "Laptop", Price 75000, and StockAvailable 10

When I send a POST request to "/api/products" with the product details

Then the response status should be 201 Created

And the response should contain the created product with a unique ID

**Scenario: Update an existing product**

Scenario: Update an existing product details

Given a product exists with ID "123456"

When I send a PUT request to "/api/products/123456" with updated Name "Gaming Laptop" and Price 80000

Then the response status should be 200 OK

And the product details should be updated in the inventory

**Scenario: Delete a product**

Scenario: Delete an existing product from inventory

Given a product exists with ID "123456"

When I send a DELETE request to "/api/products/123456"

Then the response status should be 200 OK

And the product should be removed from inventory

**Scenario: Decrement stock**

Scenario: Decrease stock of an available product

Given a product exists with ID "123456" and StockAvailable 10

When I send a PUT request to "/api/products/decrement-stock/123456/2"

Then the response status should be 200 OK

And the StockAvailable should be reduced to 8

**Scenario: Try decrementing stock below 0**

Scenario: Attempt to decrement stock more than available

Given a product exists with ID "123456" and StockAvailable 2

When I send a PUT request to "/api/products/decrement-stock/123456/5"

Then the response status should be 400 Bad Request

And the StockAvailable should remain 2

**Scenario: Add stock to a product**

Scenario: Increase stock of an existing product

Given a product exists with ID "123456" and StockAvailable 5

When I send a PUT request to "/api/products/add-to-stock/123456/3"

Then the response status should be 200 OK

And the StockAvailable should be updated to 8