

Domain: Product Validation Checklist

1. Dependencies

- **Spring Web, Lombok, and Validation** dependencies must be included in the project for proper functionality and annotations.

2. Product Model and ProductController

- **Product Model :**
 - ID
 - name
 - quantity
 - price
 - expirationDate
- **ProductController**

3. Validation for Product Model

- **ID**

Cannot be null or duplicate.

- **Name**

Cannot be null.

Must have at least 3 characters.

- **Quantity**

Cannot be null.

Must be a positive integer.

- **Price**

Cannot be null.

Must be a positive number.

- **Expiration Date**

Cannot be null.

Must be a valid future date.

4. ProductController Endpoints

1. **Get all products:** Retrieve a list of all products.
2. **Add a new product:** Add a new product to the inventory.
3. **Update product details:** Modify an existing product's information.
4. **Delete a product:** Remove a product from the inventory.
5. **Search products by name:** Find products based on their names.
6. **Get products by quantity range:** Retrieve products with quantities within a specified range