Project Documentation

Project Name: Company Task – Item Management REST API
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1. Project Overview
This project is a Spring Boot RESTful backend application developed to manage a collection of items such as ecommerce products or movies. It provides APIs to add a new item and retrieve an item by ID. Data is stored using an in memory ArrayList.

2. Technologies Used
Java, Spring Boot, Spring Web, Jakarta Validation, Maven, Embedded Tomcat.

3. Project Structure
Controller – ItemController
Model – Item
Service – ItemService, ItemServiceImpl
Exception – GlobalExceptionHandler
Main Class – CompanytaskApplication

4. API Endpoints
Add Item
POST http://localhost:8050/api/items

Sample JSON:
{
"name": "Laptop",
"description": "Dell i5 12th Gen",
"price": 55000,
"quantity": 5
}

5. Input Validation
Validation ensures required fields are present and values are valid using Jakarta Validation annotations.

6. Exception Handling
GlobalExceptionHandler manages validation errors and item not found responses.

7. How to Run
1. Import project as Maven project.
2. Run CompanytaskApplication.java
3. Server starts on port 8050

Conclusion
This application demonstrates REST API development, layered architecture, validation, and in memory data storage as required in the sample task.