

Scenario:

With the increased online shopping market, an Inventory has to be managed in a completely digitized manner without manual interventions. Design and implement an end to end solution to enable this.

Requirements:

Develop a web application which exposes REST APIs to perform CRUD Operations on a backend Database system.

- Design the database schema (sample data as below)

Product ID	Product Category	Product Name	Product Description	Units
P01	Commercial	A320	Passenger aircraft family	2
P02	Commercial	A380	Passenger aircraft family	3
P03	Space	Sentinel	Satellite family	1
P04	Helicopter	H135	Light twin	2
P05	Helicopter	H125	Intermediate single	3

- Design and implement the REST APIs to integrate with Sql/NoSql database
  1. GET all products of a given category
  2. GET all products
  3. POST to add new product
  4. PUT to update a existing product
  5. Delete a product
- Implement APIs with the best REST Practices.
- Implement custom error handling in APIs to gracefully handle all exceptions.
- Use JWT Tokens and validate all endpoints for security.
- Develop a UI:
  - a. Use REST APIs to display all the product names, description and units in a table, b. Filters for data.
  - c. Add / Update the product.
  - d. Search Product based on Category
- Both the frontend and backend applications to be deployed on cloud (AWS preferred).

Good to Have (Not Mandatory):

- Unit Test Cases for the frontend and backend
- Login page which should be able to accept email and password