

Test Case: Simple Warehouse Management System

Objective:

Evaluate the candidate's ability to create a basic warehouse management system with both front-end and back-end components, integrating essential features for inventory tracking.

Requirements:

1. Front-End:

- Build a user interface for managing inventory.
- Features:
 - Display a list of products in the warehouse (fields: product name, SKU, quantity, location, status).
 - Add new products to the warehouse.
 - Update product details (e.g., quantity, location, status).
 - Delete products from the inventory.
- Optional: Include a dashboard showing total stock, number of products, and low-stock items.
- Use a front-end framework Vue.js.

2. Back-End:

- Develop a RESTful API to support the following operations:
 - **Create:** Add a new product to the inventory.
 - **Read:** Retrieve the list of products (with optional filtering by status or low stock).
 - **Update:** Modify product details.
 - **Delete:** Remove a product from the inventory.
- Use a database to store product data.
- Implement proper error handling and input validation.

3. Full-Stack Integration:

- Connect the front-end to the back-end Fetch API.
- Use JSON for data exchange.

4. Bonus Features:

- Add user authentication (e.g., login system to restrict access).
- Implement an export feature to download the product list as a CSV file.
- Include barcode generation for each product's SKU.

- Deploy the application and provide a live demo link.

5. Tech Stack :

- Backend : Golang
- Frontend : VueJS
- Database : MySQL / MariaDB

Expected Deliverables:

- A GitHub repository with:
 - Front-end and back-end code.
 - A README.md file containing:
 - Project setup instructions.
 - A brief description of features.
 - API documentation (endpoints, methods, sample requests/responses).
 - Screenshots or a demo link if deployed.
- Clean and modular code with meaningful comments.