[Toppan Ecquaria] Inventory Management System

A company is engaging a skilled software tester to evaluate and assess an Open-source inventory management system developed by a vendor called Inventree. With the aim of determining its suitability for their specific needs, the company understands the significance of thorough testing. By leveraging the expertise of the tester, the company intends to gain valuable insights into the system's functionality, performance, and usability. Through comprehensive testing and meticulous analysis, the company seeks to make an informed decision regarding the adoption of the Inventree system.

References Links

- Github repo:

- Install Development env using Docker:
  https://docs.inventree.org/en/latest/start/docker_dev/

  - Follow the steps from **Development Setup Guide**

  - **WARNING**: the initial setup will be taking quite a long period of time

  - Required to use Docker to deploy the application system

- Login info: https://inventree.org/demo.html

The information below should help you understand the product process of each core element in InvenTree ecosystem:

- Part https://docs.inventree.org/en/latest/part/part/

- Stock https://docs.inventree.org/en/latest/stock/stock/

- Orders https://docs.inventree.org/en/latest/order/company/

- Report https://docs.inventree.org/en/latest/report/report/

- Admin https://docs.inventree.org/en/latest/settings/global/

- InvenTree API https://docs.inventree.org/en/latest/api/api/

Testing Tools:

- Required Testing framework for UI: as per instruction

- Required Testing framework for API: as per instruction

- Programming language: as per instruction

Application System other details:

- Database used: PostgreSQL

Objective

Your task is to design and automate test scenarios for these stories to the best of your ability, this assignment aims to assess your test design thinking as well as your proficiency with the testing framework. Coming up with additional scenarios beyond the Acceptance Criteria below.

Deliverable

Please submit your repo links which consist of

- Test scripts

- Test Report

- Bug Report

- Readme - instructions of how to run your test scripts

- Any other documents that you may find it required.

User Stories:

User Story 1: Add new Product using API

As a third-party application, I want to add new Product via API(from API document: api-doc/#tag/part), so that I could relied on my own system to do adding new product in the Inventree System.

Acceptance Criteria:

1. The product details should consist of the following:

   - Name, minimum_stock, keywords, salable, units, IPN, description, default_expiry, category, part_internal_price, part_sale_price

2. Ability to apply Update and Delete action on new product

3. Ability to list all product based on the query parameters

4. Validate the modification of each action calls

5. Expecting Errors if using the API incorrectly

API document: /api-doc/#tag/part

- Refers to the API document for Field validations

Out of Scope:

Here are the following API that should be excluded:

- part_internal_price_* (except **part_internal_price_.*_create/list will be use**)

- part_sale_price* (except **part_sale_price_.*_create/retrieve will be use**)

- part_bom_*

- part_requirements_*

- part_scheduling_*

- part_serial_*

- part_metadata_*

- part_stocktake_*

- part_thumbs*

User Story 2: Apply Build Order process

As a furniture Builder lead, I want to apply a new build order to build "**Blue Round Table",** so that I could keep track of the process of building the product in the "**Factory**" and to be deliver to the "**Jurong warehouse**"

Acceptance Criteria:

1. A new build order of "**Blue Round Table**" via (Create Build Order) form should be **issued by "Engineer"**

   a. the build will be done in Factory and completed product will be stored in **Jurong Warehouse**

2. Allocate Stock of the required part should be available, else option to buy new part will be available from Purchase Order

   a. Complete the Purchase Order procedures

3. Verify the quantity of the product and the required parts

4. Ability to query, in the search for the newly build product from the Stock dashboard

Note: Please note that certain data in the pre-set database is missing or does not exist. Please add the required data as per the needs of your user story.

Note: Refresh the dashboard page may required to verify if the status has updated or not

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User Story 3: Download Stock with different file format using UI

As a purchaser, I want to download the list of Stock from the InvenTree system so that I attached to the email for approval

Acceptance Criteria:

1. Able to download file consist of the stock item

2. Verify that the content in the downloaded file are able to tally with those display in Supplier stock dashboard.

3. Verify that the content is tally with the database

User Story 4: Searchability for (Parts / Stock Items / Sales Orders) in the dashboard

As a users, I should able to query for 1 or many items in any of the dashboard, based on the Keyword used in the search-input.

Acceptance Criteria:

1. Using any one of the dashboard, I would like to view all the item (e.g. list of parts, list of stocks, or list of sales orders)

2. Apply partial or full Keyword(s), I should able to search specific list or one of the items, displaying in dashboard's panel-content table.

User Story 5: Apply Sales order with product to new Customer using UI

As a Sale lead, I would like to create a new Sales order to a new Customer, so that I could delivery the requested stocks from our warehouse and I would like to check the quantity of stock remaining.

Acceptance Criteria:

1. Create a new Customer, "**JurongVille School**" and Upload an image for new Customer

2. Create a new Sales orders for a new Customer, "**JurongVille School**", via create Sales Order form

3. Proceed to complete the shipping procedure (Add line and allocation) then finalize the Sale order

4. Total Cost (Formula: Quantity * Cost), and Status from the Sale Order dashboard should be correct.

5. Verify the notification number from the main dashboard (index page), has updated based on the new change.