Introduction

Currently in Active E-Commerce, the vendor can set or modify a product’s quantity from the Product Creation page. This is not a correct way of updating inventory stock levels. Instead, inbound transactions must be used. The vendor must be able to specify the product (with its variant if any) and the warehouse that will receive products. Thus, maintaining the actual stock level in each warehouse.

Basic Inventory Management

There will be two pages for inventory management, one for add/remove stock, and the other for showing the stock operations details.

Add/Remove Stock Page

When the vendors opens the Add/Remove Stock page, he will see a table that is designed to show the summarized listing of products/variants in his warehouses:

1. Product/Variant: Product Name + Variation Attributes with their values
2. SKU
3. Warehouse
4. Quantity
5. Last Update Date/Time
6. Action Column: Add/Remove Stock Button (to modify quantity)

Initially, this UI table will be empty, and on-top of the table there will be a simple form which can be used to add records to the table. The form will have the following fields:

- A searchable drop-down for choosing a product’s variant. It will have the SKU + Product Name + Variation Attributes with their values.
- A drop-down for choosing the warehouse by name.
- A text field to specify the quantity to be added to that inventory.
- A text field for writing comment.

When the user presses ‘Save’, the user will be prompted with a confirmation dialog.

In the database, there will be two DB tables which maintain the stock addition/removals, one is summary table and the second is details table. The summary table will be similar to the UI table with the following columns:

- Variant ID
- Warehouse ID
- Current Total Quantity
- Last Update Time

The details table has the following columns:

- Type of Operation (Stock addition, Stock removal, Sales)
- Variant ID
- Warehouse ID
- Before Quantity
- Transaction Quantity (plus for addition, minus for removal)
- After Quantity

- User Comment
- Log Time
- Log User
- Order ID (if stock is changed by sales)

Adding a record to the UI table will make insert in the details DB table, and update the summary table.

If the user clicks the “Add/Remove Stock” button of any row, then he will get a dialog to update the quantity. The dialog will contain the following fields:
- Current Stock (read-only field)
- Add/Remove radio buttons
- Add/Remove Quantity
- Comments (optional)
- New Stock (read-only field)

When updating a quantity, a new record in details DB table will be inserted, and the summary DB table will be updated.

The form cannot be used to add the same variant/warehouse combination if they are already in the UI table. Instead, the system will prompt the user with the message “*The product in this warehouse has been added to the table before. You can use the ‘Add/Remove Stock’ button in the table to update its quantity. Do you want to search for it?*”. If the user presses ‘Yes’, then the system will fill the “Search” field with the variant’s SKU and warehouse name, and will trigger search on behalf of the user.

The user can also use the Search field by himself. It will be used for all columns in the UI table. When using the search, any record in the UI table that does not have all the words of the search field will be filtered out.

Default sorting of the UI table will be in ascending order by Product/Variant, warehouse. The user can change the sorting by any field.

The UI table will show products that are available in stock. In other words, if a product is allocated for an order, then it is not available in stock. This means that order allocation, in Order Management, will update the summary and details table.

Pagination shall be used. The number of rows shall be filling the page fairly such that the user can see all rows and paging controls without having to scroll when the browser’s zoom is 100%.

The UI table can be exported to Excel. If data is filtered by search, then only the unfiltered records will be exported.

Stock Operation Details

This page is for reporting the data of the details DB table. It will help the inventory manager to see the history of stock transactions. However, the user has to search for the desired records as the system will not list all historical transactions. The search filters are:
- From Date (cannot be before 3 months. In the backend, search time will be from 00:00:00 inclusive)
- To Date (must be after the From Date or same day. In the backend, search time will be before 00:00:00 of the next day)

- A multi-select searchable drop-down for choosing products variants. It will have the SKU + Product Name + Variation Attributes with their values. There shall be an option for “select all” and “de-select all”.
- A multi-select drop-down for choosing the warehouses.

When clicking the search button, the page will show the details DB table with the following fields:

- Date/Time
- Type of Operation
- SKU + Product Name + Variant attributes with values
- Warehouse name
- Quantity Before Operation
- Operation Quantity
- Quantity After Operation
- User
- User Comments
- Sales Order

The following simple UI characteristics shall be considered:

- ➢ The default sorting will be by date/time in descending order. The user can change the sorting by any column.
- ➢ Pagination shall be used with a reasonable number of records shall appear on the screen.
- ➢ The fetched records can be exported to Excel.