Inventory

Overview

The **Inventory** microservice (“Inventory”) manages the inventory of a particular store using the concept of bins and bin items. A bin is the container of the products (SKUs) and is always mapped to a store. It is identified using the bin ID (system generated). The contents (primarily the SKUs) of a bin are referred to as bin items. While defining a bin, the bin name, description, channel, collection, and parent bin (if applicable) need to be provided. While defining a bin item, the bin ID, SKU ID, ATP quantity, back-ordered quantity, out-of-stock threshold, and low-stock threshold need to be provided.

See the Inventory glossary [https://developer.skava.com/microservices/inventory/inventory-glossary/] for definitions of some key Inventory microservice terms.

Core Features

- Real-time inventory
- Bulk updates
- Provides flexible thresholds for alerts for “low stock” as well as “out of stock” to ensure a great consumer experience and avoid downstream customer service issues.
- Can be the system of record
- Ready to be integrated into a WMS or OMS
- Bulk operations can be easily done using the import and export of bins, bin items, and/or transactions utilizing user-friendly spreadsheets
- Full audit trail
- Create bins and bin items
- Create transactions (Add, Remove, Transfer, and/or Reconcile) on bin items
- Set maximum number of quantities for backordering an item

Inventory Transactions

Add Inventory

The add inventory transaction enables the user to add the inventory of an item into a bin.

Remove Inventory

The remove inventory transaction enables the user to make adjustments to transactions created prior to the last reconciliation point. For example, let us assume that the last reconciliation was on 12-Apr-2018. If an add inventory transaction was wrongly done on

10-Apr-2018 then you cannot directly update the add inventory transaction today. As such, a remove inventory transaction needs to be created to rectify the wrong entry. It is important to note that the remove inventory transaction does not directly update the data in the transaction. It only passes another entry in the current reconciliation cycle.

In comparison, this is similar to the banking transactions where a wrong entry in the previous statement cycle is usually reversed in the current billing cycle.

Transfer Inventory

The transfer inventory transaction enables the user to transfer the bin items from one bin to another. In transfer inventory transactions, there is no intermediate state (in-transit). Once a transfer inventory transaction is initiated, the inventory from the source bin would be reduced for the corresponding bin item and increased in the destination bin. The entire process is locked until completion. If there are any exceptions, then the entire process would be reversed and there would be no change in the bin status. However, if the destination bin does not have the relevant bin item, then a new transaction would be initiated to create the bin item first.

Reconcile Inventory

The reconcile inventory transaction enables the user to reconcile the system inventory against the actual physical inventory through periodic stock checks. As a result of the reconciliation transaction, the system inventory would be updated to be in sync with the actual available physical inventory. This transaction always happens at the bin item level.

Bins Within Bin

It is possible for a set of bins to be grouped under another bin, which would be called the parent bin. As such, only the innermost bin will contain bin items whereas the other bins can only hold their child bins and not bin items. Depending on the requirements or the business logic of the clients, the bin configurations need to be done carefully.

Revision History
2020-09-28 | AN – Updated the Core Features section.
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