
CAT THINGS

API Requirements

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Introduction

The purpose of this document is to serve as an agreement between the developers and the customers on what the API will do. The target audiences for this document are the project stakeholders. Please review this document and comment on anything that may need clarification.

Product Overview

THINGS is an inventory control system for the C.A.T. Its purpose is to track the on-hand inventory of equipment and consumable products. It will allow for easier item management by highlighting usage trends and giving alerts when products fall below a predefined threshold. Specifically, the API will act as an intermediary between the front-end and the database.

Functional requirements

The API will be implemented with Node.js and will be hosted on a CAT provided web server.

Authenticate / Authorize

- 1) The API will authenticate and authorize the User or Admin.

Generate Shopping List

- 1) The API will return a list of items & details where the quantity in stock is at or below threshold.
 - a. Name
 - b. Quantity
 - c. Threshold
 - d. Price
 - e. Date last in / out
 - f. Tags

Transaction History

- 1) User requests the transaction history
 - a) The user may specify the history of an item by:
 - i) Name (single item or collection)
 - ii) Tag (returns all items with the tag)
 - b) The user may specify the number of transactions to return or a period of time in which transactions occurred. (i.e. return the last 30 transactions OR return all transactions in the last 7 days)

- c) The API returns the requested transaction history.
 - i) Default if nothing specified is to return the last 15 transactions.

Retrieve Item Details.

- 1) User requests the details of one or more items by name or UID.
- 2) The API will return a list of items and their attributes.
- 3) The API will generate a notice if an item does not exist.

Get Statistics:

- 1) The user makes a request for the statistics of a specific item by name or UID
- 2) The API will return any data that can be calculated
 - a) Qty/week
 - b) Date last in
 - c) Date last out

Check in Item

- 1) User will specify the item by Name or UID & quantity to check in
- 2) The API will update the database with the newly checked in inventory.
- 3) A transaction of the update will be recorded

Add New Item

- 1) User will specify the following about the item to be added
 - a) Name
 - b) Description
 - c) initial quantity (default 0)
 - d) Price
 - e) Tags
 - f) Threshold (default 0)
 - g) Expiration Date
 - h) Consumable
 - i) Creation date
- 2) The API will verify this item does not exist already and create the item.

User Check Out

- 1) A user requests to checkout a specified quantity of a specified item.
- 2) The API will update the database with the changes and confirm transaction.