

Milestone 2

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Changes (based off Git commits)

| Date Time | Description |
|-----------|-------------|
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1 Executive Summary

TODO: [Richard]

2 Introduction

TODO: [Richard]

3 Project Background

TODO: [Richard]

4 Use Case Identification

5 Use Cases

5.1 Add an Item

Brief Description This use case shows the procedure for adding an item to the inventory.

Actors

- User

Basic Flow of Events

1. The user clicks the "Add Item" link. [A0]
2. The user fills in the required fields. [A1]
3. The system dynamically adds the optional attribute fields for the category chosen.
4. The user fills in the appropriate optional attributes and "Notes" fields.
5. The user clicks the "Add Item" button. [A2]
6. The system adds the item to the inventory database.

Alternative Flows of Events

Alternative Flow A0: Server is Down

1. The user is notified that the server could not be reached.

Alternative Flow A1: Required Fields Ommitted

1. The user does not fill in the required title or UPC fields.
2. Steps 3, 4, and 5 from the basic flow.
3. The server notifies the user that the required fields were not completed.

Alternative Flow A2: UPC not Unique

1. The system notifies the user that the item cannot be added because the UPC is not unique.

Pre-conditions

- The current page must have a link to the "Add Item" page.

Post-conditions

- The user is brought to the home page.
- The added item is displayed under the "Recently Modified" list.

Extension Points None

Special Requirements None

5.2 Basic Search for an Item

Brief Description This use case shows how a basic search from any page would proceed. This case will encompass the progression from the user entering the search term to the display of the search result(s).

Actors

- User

Basic Flow of Events

1. The user types a query in the search box.
2. The user clicks the search button.
3. The browser sends a request to the server. [A0]
4. The server queries the database for items entered into the system that match the query. [A1]
5. The server responds with the formatted and sorted results of the database query. [A2]
6. The user is directed to the Advanced Search page with the results of the basic search displayed at the bottom.

Alternative Flows of Events

Alternative Flow A0: Empty Query

1. The user remains on the current page.

Alternative Flow A1: Server is Down

1. The user is notified that the server could not be reached.

Alternative Flow A2: No Matches

1. The server responds with the message "No results."
2. The results page displays the message returned by the server.

Pre-conditions

- The current page must have a basic search box.

Post-conditions

- The results page will display the response from the server or that the server was unreachable.
- The search box will preserve the search term that was originally entered.
- The results will be prioritized and sorted according to exact matching, then fuzzy matching.
- The results will be matched using wildcards if they are present in the query. This will replace the exact matching, and fuzzy matching will then be done on the query with the wildcard characters removed.

Extension Points

- 5.4 Search Result Sorting
- 5.5 View Details of an Item

Special Requirements None

5.3 Advanced Search for an Item

Brief Description This use case shows how a search from the advanced search page would proceed. This case will encompass the progression from the user entering the search term to the display of the search result(s).

Actors

- User

Basic Flow of Events

1. The user chooses a category from a dropdown menu. [A0]
2. The category selection is sent to the server.
3. The server responds with the attribute fields related to the category. [A1]
4. The category's attribute fields are dynamically added to the page.
5. The user optionally fills in the attribute, name, and UPC fields appropriately.
6. The user clicks the search button.

7. The browser sends a request to the server.
8. The server queries the database for items entered into the system that match the query. [A1]
9. The server responds with the formatted and sorted results of the database query. [A3]
10. The list of candidates for the search parameter(s) provided is dynamically added to the bottom part of the page.

Alternative Flow of Events

Alternative Flow A0: No Category

1. The user fills in the name and/or UPC.
2. Return to basic flow step 6.

Alternative Flow A1: Server is Down

1. The user is notified that the server could not be reached.

Alternative Flow A2: Empty Query

1. The user remains on the current page.

Alternative Flow A3: No Matches

1. The server responds with the message "No results."
2. The results page displays the message returned by the server.

Pre-conditions

- The current page must be the advanced search page.

Post-conditions

- The results page will display the results of the search.
- The search fields will preserve the search parameter(s) that were originally entered.
- If appropriate, the results will be prioritized and sorted according to exact matching, then fuzzy matching.
- The results will be matched using wildcards if they are present in the query. This will replace the exact matching, and fuzzy matching will then be done on the query with the wildcard characters removed.
- If completed, the category field will only use exact matching.

Extension Points

- 5.4 Search Result Sorting
- 5.5 View Details of an Item

Special Requirements None

5.4 Search Result Sorting

Brief Description This use case shows how changing the sorting of the items on the search results page would proceed. This case will encompass the progression from the user clicking the sort type link to the display of the search result(s) in the new order.

Actors

- User

Basic Flow of Events

1. The user clicks on a sort type link (options are Name, UPC, Recently Created, and Recently Modified).
2. The browser sends a request to the server.
3. The server queries the database for items entered into the system that match the query. [A0]
4. The server responds with the formatted and sorted results of the database query. [A1]
5. The screen displays to the user a list of candidates for the search parameter(s) provided.

Alternative Flow of Events

Alternative Flow A0: Server is Down

1. The user is notified that the server could not be reached.

Alternative Flow A1: No Matches

1. The server responds with the message "No results."
2. The results page displays the message returned by the server.

Pre-conditions

- The current page must be the search results page.

Post-conditions

- The results page will display the results of the search.
- The search field(s) will preserve the search parameter(s) that were originally entered.
- The search fields will be sorted by match method first (wildcard, exact, or fuzzy), then by the selected sort type.

Extension Points

- 5.5 View Details of an Item

Special Requirements None

5.5 View Details of an Item

Brief Description This use case shows how a user would select an item from a list to view more detailed information about it.

Actors

- User

Basic Flow of Events

1. The user clicks on an item (in search results, the recent changes list, or any other place with items listed).
2. The browser queries the server for the item using the UPC code to specify the item.
3. The server responds with all the data stored about the item. [A0]
4. The browser takes the user to a new page with all the data about the item that the server sent. It is displayed in divs labeled with Category:, Size:, etc. [A1]

Alternative Flow of Events

Alternative Flow A0: Server is Down

1. The user is notified that the server could not be reached.

Alternative Flow A1: Item not Found

1. The page displays a message saying that the item could not be found.

Pre-conditions

- The current page must have a link to the item which the user would like to view, as might happen in search results list or the recently modified items list.

Post-conditions

- The page will display all data about the item that the system currently has logged for the item

Extension Points

- 5.6 Edit Details of an Item

Special Requirements None

5.6 Edit Details of an Item

Brief Description This use case shows how a user would modify an item that already exists in the server and save the edited/new field information for future viewing.

Actors

- User

Basic Flow of Events

1. The user clicks on the value of a field (this starts off as a div element).
2. The page replaces the div element with a text field containing the text that was in the div element.
3. The user makes the desired changes to the value.
4. The user clicks outside of the field.
5. The browser sends a request to the server asking the value to be changed in the database.
6. The server changes the value in the database. [A0, A1]
7. The server responds that the value was changed.
8. The page changes the text field back into a div element that contains the updated value of the field.

Alternative Flow of Events

Alternative Flow A0: Server is Down

1. The user is notified that the server could not be reached.

Alternative Flow A1: Change Unsuccessful

1. The server responds that the value could not be changed.
2. The page notifies the user that the value could not be changed.
3. The user presses "Ok" in the message dialog.
4. The text field is focused again.

Pre-conditions

- The current page must be an item's detailed description page.

Post-conditions

- The data on the page will represent the updated state of the data in the system.

Extension Points None

Special Requirements None

5.7 Generate Inventory Report

Brief Description This use case shows the procedure for generating reports of the item inventory.

Actors

- User

Basic Flow of Events

1. The user clicks the "Generate Report" link. [A0]
2. The user is brought to the "Generate Report" page.
3. The user chooses what type of report to generate.
4. The user chooses appropriate report fields for the respective option.
5. The system generates the report accordingly.

Alternative Flows of Events

Alternative Flow A0: Server is Down

1. The user is notified that the server could not be reached.

Pre-conditions

- The current page must have a link to the "Generate Report" page.

Post-conditions

- After basic step 5, the user is displayed the report which is generated as specified.

Extension Points None

Special Requirements None

6 Context Flow Diagrams

TODO: [\[Susi\]](#)