Describe each individual function, functional process and I/O:

**Functions:**

Check in item

* Library staff shall be able to change the status of an item in the database from “checked-out” to “available” after searching for it and clicking the “edit’ button next to the item on the results page.
* The system shall reflect those changes for all users to see.

Check out item

* Library users shall be able to check out an item from the database by clicking the “check-out” button next to an item.
* The system shall verify that the item is not already checked out or placed on hold. It shall also update the status of the item in the database and add the item to the checked-out list of the user with the date and time it was checked out.

Browse inventory

* Library staff/users shall be able to browse all items in inventory whether on hold, checked in, or checked out. They will be able to click on any item to view further details or edit information (only if they were staff members).
* The system shall display a list of all items in the database. It will also allow users to refine results by specifying certain parameters such as author, genre, or “available” for browsing.

Search for item

* Library staff/users shall be able to search the inventory for items by providing information about the item such as name, genre, or author in a search bar.
* The system shall display an item or a list of items that satisfy the search criteria retrieved from the database. If no item matches the search parameters, a message will be displayed to the user to inform them that no items were found. Functionality on items on the results page will differ depending on the type of account logged in (Staff vs User).

View item information

* Library staff/users shall be able to view item information by clicking on a button.
* The system shall display the item information in a new page by retrieving data from the database. The system will also allow users to add the item to their wish list. Functionality on the item information page will differ depending on the type of account logged in (Staff vs User)

Add/Remove item

* Library staff shall be able to add an item to the library inventory by adding its information (such as name, barcode, call number, checkout duration, …) to the database. Items can come from purchases, donations, or transfers from another library.
* Library staff shall be able to remove an item from the library inventory by clicking on the delete button after searching for that item and selecting it.
* The system shall allow allow staff members to add items by filling out a form. The system shall also update the database with information entered and reflect it on the web application.

Edit check-out duration of item

* Library staff shall be able to edit the check-out duration of an item by clicking the “edit” button next to the item on the search results page.
* The system shall update the database with those changes and reflect them on the application.