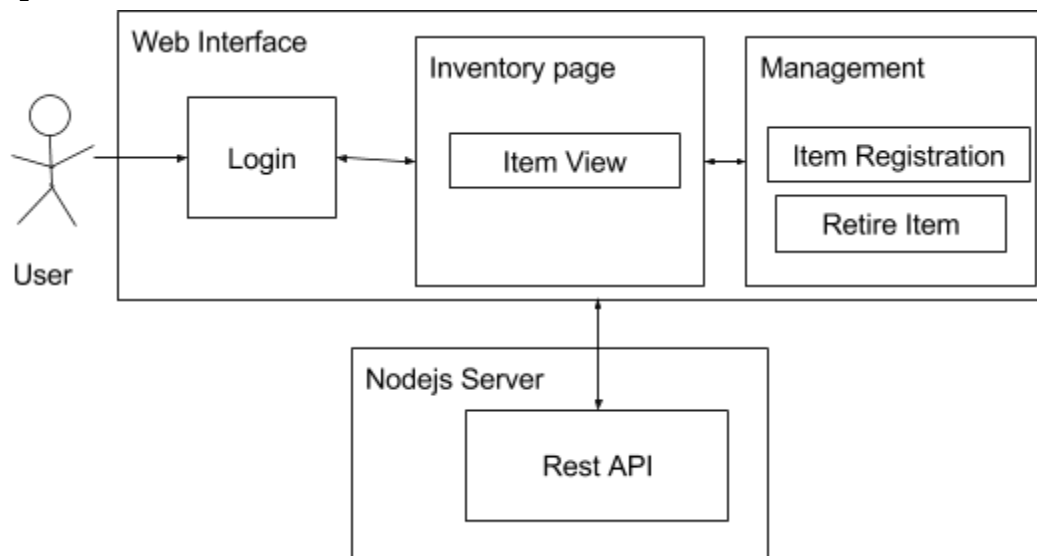# Sprint 1: Incremental and Regression Test Log

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1. Classification of Components

1.1 Component Definitions

  Sprint 1 saw us build up the framework of components for our application. Three major components were the Web interface, the Restful API server and the Database. The database is not pictured here as our main interface to test it was the Restful API. Major modules/components tested were the login function, viewing a single item, item registration and item retirement, and viewing all inventory.

1.2 Incremental testing Method

  We used bottom-up incremental testing because as this was only our first sprint, many of the higher end of components were not functioning correctly anyways so it would have essentially been a futile effort to exercise the top down testing practice.

2. Incremental and Regression Testing

<div align="center">Module: Login</div>

Incremental Testing

Defect #	Description	Severity	How to Correct

1	No feedback is received on incorrect login attempt	1	Add tool tips or js alerts
2	No real security introduced via login. Simply a redirect to index.html	3	Add user login data to session data. Check for this on subsequent page loads
3	Using username instead of email to login would not login	2	Set input to email on form to sanitize email input

Regression Testing

Defect #	Description	Severity	How to Correct
1	Description says username and not email	3	Text change for description
2	Called wrong database column to log in user	1	Set routes to use correct column
3	Getting http error to login	1	Include "http://" in front of the url

Module: Inventory

Incremental Testing

Defect #	Description	Severity	How to Correct
1	When hovering over the buttons designated for inventory items, edit text cursor appears.	1	Add css cursor property to item container.
2	When loading the initial page elements do not load until after several refreshes.	2	Move external JS file load code to index file rather than main.js.
3			

Regressions Testing

Defect #	Description	Severity	How to Correct
1	Always appears as a button cursor which goes against UI conventions.	1	Add individualized cursor attributes rather than blanket css classes.

Module: Register an Item

Incremental Testing

Defect #	Description	Severity	How to Correct
1	Not putting anything into registering item crashes	1	Check of nils before making a query to database
2	Putting invalid characters when registering item crashes	2	Sanitize user input before formatting into user query
3	When pressing the register an item, user is unsure if the item is in the database or not	2	Created a confirmation message that checks for the item

Regression Testing

Defect #	Description	Severity	How to Correct
1	Adding user sanitization prevented any user inputs	1	Sanitization logic was incorrect in that it was rejecting any input with size larger than 1
2	Created a confirmation message that sometimes returns false on first try	3	Because of the asynchronous method of Javascript, the confirmation is sometimes send before the item is being registered. Made a synchronous call instead

Module: View Item

Incremental Testing

Defect #	Description	Severity	How to Correct
1	Cannot see more than item status in output page.	3	Change item.js to handle building variables for the handlebars context outside of the function.

Regression Testing

Defect #	Description	Severity	How to Correct
1	In viewing a single item, navigation bar refuses to function properly to allow admin switching to alternate global menu.	1	Separate global navigation and administrative accounts from user accounts in sprint 2. Figure out why views are not refreshing as admin code is removed.

Module: Retire Item

Incremental Testing

Defect #	Description	Severity	How to Correct
1	Inputting an invalid item ID would retire the zeroth item in the database	3	The number defaulted to the zeroth entry, to fix it instead of defaulted an error message is sent instead

Regression Testing

Defect #	Description	Severity	How to Correct
1	Error mssg for retiring item would not appear	2	Removed junk in send request

Module: Rest API

Incremental Testing

Defect #	Description	Severity	How to Correct
1	createNewItem() route did not return result to client	1	Use res.send on call back function to client
2	retireItem() route result returned sql error unknown column	1	Use single quotes instead of double quotes in connection query string
3	getAllDevices() would not obtain newly added items. When the using the terminal for testing, quickly create a new item and then requesting to list all devices would cause a race condition would occur.	3	Since this is a rare test that can only be reproduced with fast calls one after the other, the bug would be avoidable with network latency.

Regressions Testing

Defect #	Description	Severity	How to Correct
1	createNewItem() route returned wrong data, not row count	1	Use req.query.send row count
2	When trying to create a priority queue for APIs it would create a query starvation not allowing the lower priority queue to run	2	Remove the priority queue because with network latency is would be hard to reproduce need for priority queue