

Feature: Seller Dashboard

(Item modification, deletion, stocking, and financial reporting)

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Major Positive:

- The feature has many smaller features, which includes Item Modification, Item Deletion, Inventory Stock List, and Financial Progress Report. The developer can combine three features into 1 view with pagination, which improves the experience for seller. Item Stock, and Finance Report work efficiency using hash set to only select the desired amount of data in constant time. An online storage service, AWS s3 bucket, is being used to store media files separately from the database, that helps to save their metadata and lower the workload for the server. Dev able also able to host the project on AWS EC2. He used restful API to communicate between the front and backend. Object model is populated instead of passing multiple parameters. Services and Data Access Objects are used widely, coding structure is easy to understand.
- The BRD is followed closely by having success and failure cases with error handling and logging. Data validation for the text, numerical, Boolean variables, and sandbox folder check are being implemented from both front and back end. Design goals are extensibility and usability, which the product fits in good but can be improved.
- Sequence diagrams have a good format with function(parameters) and return types.

Major Negative:

- The front-end testing is missing. The Item Modification and Deletion feature are facing a difficulty due to the sandbox feature. Media Files can be accommodated during the failing process, or S3 files could be deleted accidentally due to multiple calling processes at the same time.
- Testing case is limited and use hardcoding values instead of using specific function for reusable purposes. Error handling is not enough to prevent system from stopping. Stress test is not implemented, the UI design is favoring wide screen user and Paginating, sorting is not flexible.

Design Recommendations

- Logic for storing images and videos on S3 could be improved. Checking and comparison are important before deleting sandbox and s3 bucket folder. UX design could be more flexible to let user not having to input as much data for every modification time. Checking for non-update variables could be convenient to users while lower the time and effort of servers. The dev should send the unauthenticated users to log in page when they intend to use these features.
- For a small project, we can consider letting the user upload directly to s3 bucket instead of going through our sandbox. Losing control on modifying the standard

dimension for pictures or lower video files size can be a negligible scarify. Having Docker environment can be a better choice for reusable and extensible.

- Having a good structured front end platform could benefit both users and developers; therefore, dev should consider writing a DAR report to client next time for a better performance, security, and reliability product.

Testing Recommendations

- Jet and Cypher are good for unit test while K6 model is for high load test. Dev should consider SQL Injection test and Cross-Site Scripting test in the feature, and having more type of user accounts for testing is recommended.