Inventory Management Tool

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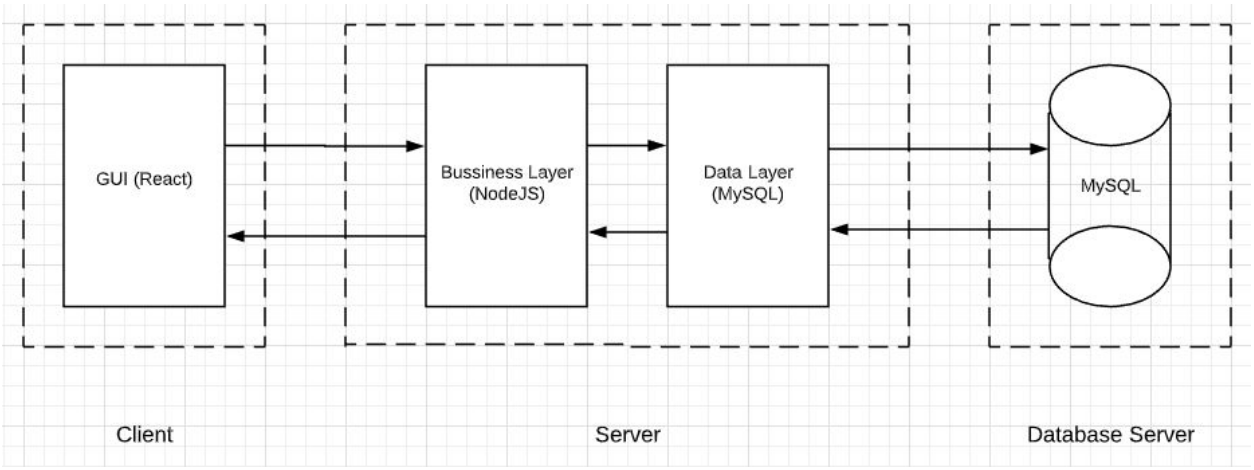
1. Overview:

Our proposed project is an inventory management system which will help companies to manage the stock of products by generating reports, maintaining the balance of the stock, as well as providing details about the sales and purchases in the company as this process is consuming a lot of time, involving a great amount of human effort, and it is prone to human error. In a general sense, the inventory system will work by allowing the user to manage and keep track of the stock.

2. System Environment:

A. A Structure Diagram of the System:



B. Hardware & Software:

- Back-end: **Node.js** (Javascript runtime environment), **Express.js** (Web application framework for node.js)
- Front-end: **React** (Javascript library for building UI), **Redux**
- Database: **MySQL Workbench**
- Misc: Any type of web browser (Chrome/Firefox/etc), Linux or Windows environment, and Wifi connect capability
- Visual Studio Code/Atom
- Git & Github
- Slack

C. Programming/Application languages used:

- Front-end: CSS, Javascript
- Back-end: Javascript

3. Functional Requirements:

A. Functionality/Features:

User can decrease the quantity of the item or remove it from the stock. They also can see a graph showing the status of a particular item (increase or decrease in terms of quantity) at a specific time. The user can edit the price of a specific item. The search function will be implemented to help the user find the item by type of the product. The users also need to log in with a given account in order to have access to the management system.

B. User Usage:

I. Scenario: User login
1/ Access to the login page
2/ Fill the the id and password (Account will be given in this case)
3/ Navigate to the homepage will account logged in

II. Scenario: Searching item
1/ Write the type of item that user want to find in the search bar
2/ A list of items will be displayed based on the type of items.

III. Scenario: Add/ Decrease quantity of items
1/ Search for the item that user want to add more quantity.
2/ Edit the quantity.
3/ Click the update button

IV. Scenario: Remove Item
1/ Search for the item that needs to be removed
2/ Click the remove button
3/ Click the update button

V. Scenario: View report
1/ Search for the item
2/ Click view report button
3/ A graph will be displayed

4. Non-functional Issues:

1. **GUI:**
-Web Application
-Build by React & Material UI, CSS

2. **Security & Access control:**
Authorization for logging in