**Inventory Management System**

**Overview**

The Inventory Management System is a backend application designed to manage inventory and sales transactions for a small shop. It allows users to add items to inventory, create sales bills, and automatically update inventory quantities upon sales. The system uses Node.js, Express.js, MongoDB and front end uses React.

**Features**

1. **Add new items to the inventory.**

Steps:

* Login to the application using the admin credentials:
  + **Email**: admin@gmail.com
  + **Password**: 12345
* Click on the "Inventory" tab in the sidebar.
* Click the "Add Item" button at the top of the inventory page.
* Fillin the item details.
* Click the "Submit" button to add the item to the inventory.

1. **Retrieve a list of all inventory items.**

Steps:

* Login to the application using the given admin credentials.
* Click on the "Inventory" tab in the sidebar.
* The list of all inventory items will be displayed on the screen.

1. **Create sales bills specifying items and quantities.**

Steps:

* Login to the application using the user credentials:
  + **Email**: sarath@gmail.com
  + **Password**: 12345
* Select the items you wish to purchase from the inventory list by clicking the "Add to Cart" button.
* Adjust the quantity of each item as necessary.
* Click on the "Buy Product" button to generate the bill.
* The inventory will be automatically updated to reflect the sold items.

1. **Retrieve a list of all bills.**

Steps:

* Login to the application using the given admin credentials.
* Click on the "Sales Bill" tab in the sidebar.
* The list of all sales bills will be displayed on the screen.

1. **Get details of a specific bill.**

Steps:

* Login to the application using the given admin credentials.
* Click on the "Sales Bill" tab in the sidebar.
* Select the specific bill from the list by clicking on the “View Details” button.
* The detailed view of the selected bill, including item names, quantities, and total price, will be displayed.

1. **Automatically update inventory when a bill is created.**

Explanation:

* When a user creates a sales bill by purchasing items (as outlined in step 3), the inventory is automatically updated.
* The quantities of the sold items are deducted from the total available stock in the inventory
* There is no additional action required by the user; the system handles this automatically during the bill creation process.

**Technologies Used**

* **Node.js**: Server-side JavaScript runtime.
* **Express.js**: Web framework for Node.js.
* **MongoDB**: NoSQL database for data storage.
* **React**: For building the user interface and managing application state.

**Setup and Installation**

**Prerequisites**

* Node.js (v14.x or later)
* MongoDB

**Installation Steps**

1. **Clone the Repository**

git clone https://github.com/sarathsathish07/inventory-management.git

cd inventory-management

1. **Install Dependencies**

npm install

1. **Configure Environment Variables** (Not committing .env file due to security risks)

Create a .env file in the root directory with the following content:

NODE\_ENV=development

PORT=5000

MONGO\_URI=mongodb+srv://sarathsathish1998:sarath123@cluster0.k7ls3.mongodb.net/

1. **Run the Server**

npm run dev

The server will start on http://localhost:5000.

**API Endpoints**

* **Users**: Access the API by navigating to the root URL http://localhost:3000
* **Admins**: Access the API by navigating to http://localhost:3000/admin

**Credentials**

* **User Credentials**:
  + **Email**: sarath@gmail.com
  + **Password**: 12345
* **Admin Credentials**:
  + **Email**: admin@gmail.com
  + **Password**: 12345