

Project Report

StackArea | An Inventory Management System

Micro Project | Team 2



STACK AREA



Table of Contents

➤ Project Overview	2
➤ Requirements	2
➤ Schema Diagram	3
➤ Project Walkthrough	4
➤ Conclusion	6
➤ Contributors	7

Project Overview

Stack Area is an Inventory Management System developed using the technologies of HTML, CSS, & Javascript for supporting the Front-End and PHP & MySQL for supporting the Back-End. Stack Area provides a platform for users to keep records of stocks in inventory, providing utilities for adding and deleting the stocks.

With Stack Area, you can keep detailed tracks of your inventory that contains Product ID, Product Name, Category, Unit Price, and Seller details of each item in stock. In addition, Stack Area also provides you a utility to classify items in your inventory on the basis of the safe stock. All items that can potentially move out of stock can be listed on this platform with just a click. For a detailed explanation of the functioning of the project, refer to the walkthrough session.

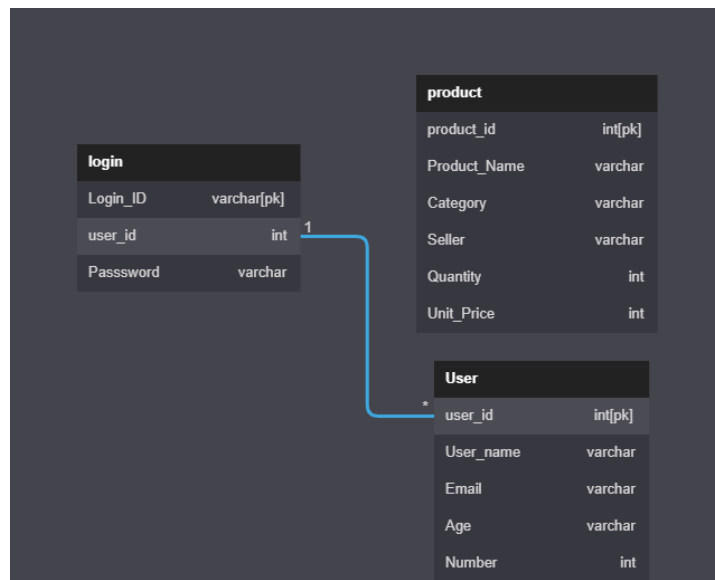
Requirements

Our requirements for the project are :

- This application should allow the user to manage the inventory in an effective and convenient way.
- Optimization of the inventory and the stock levels.
- Alerting the user when a particular product is below the safety stock level
- Help the user to find stock levels and plan accordingly.
- This application provides security and protection for the information provided by the user.
- As the User itself can manage the application, additional labor costs can be reduced
- Users can classify the objects in the inventory according to their stock levels and identify the ones below the safety stock level.
- should allow its client to save time and resources.



Schema Diagram



Schema

Login(Login_ID, user_id, User_Name, Password);

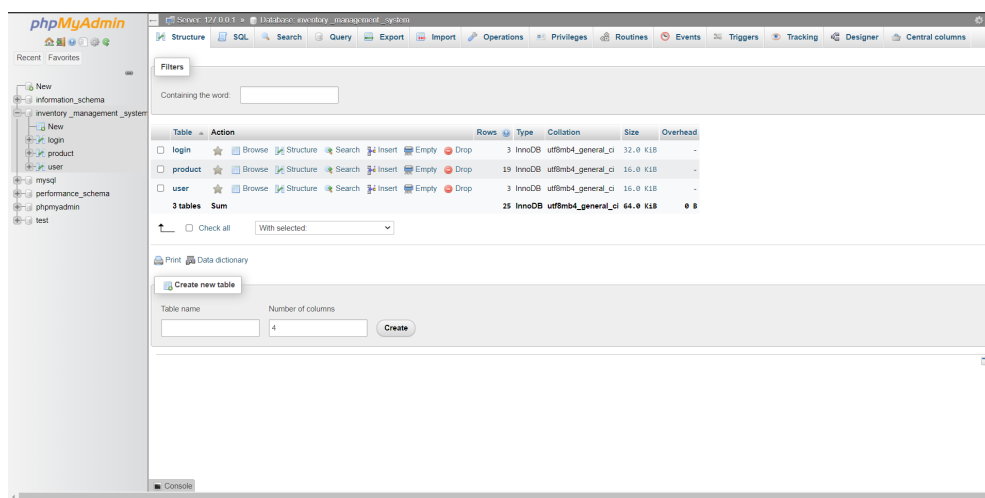
user(user_id, User_name, Number, Age)

product(Product_id, Product_Name, Category, Seller, Quantity, Unit_price)

Project Walkthrough

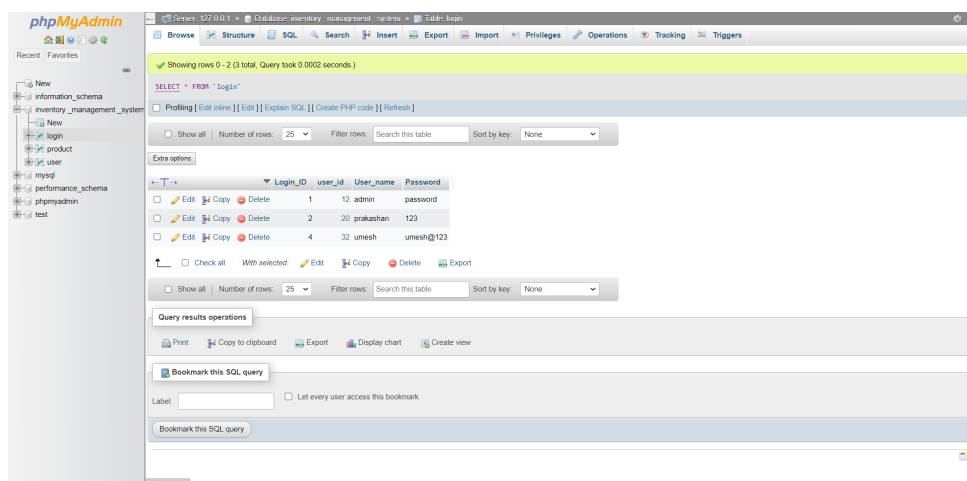
1. Structure of the Database

As already mentioned, our project depends on a relational database to handle the data needs. To ensure the tracking of our users, and the stock we have divided our database into three relations, namely login, product, and user respectively. A visual representation of the database and the relations is provided below.



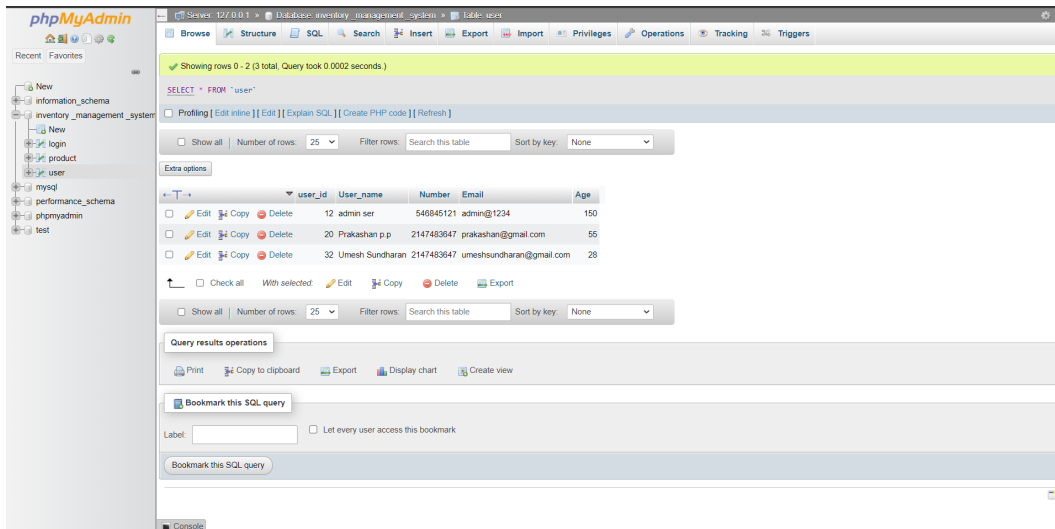
a) Login Table

The login table is used to store the login credentials of the administrative users of this system. It is using this table that we authenticate the users of our systems. It holds the Login ID, User ID, Username, and Password in it.



b) User Table

The user table is used to store the user details of our system. It holds the User ID, Username, Number, E-Mail, and Age in it.



The screenshot shows the phpMyAdmin interface for the 'user' table. The table structure is defined as follows:

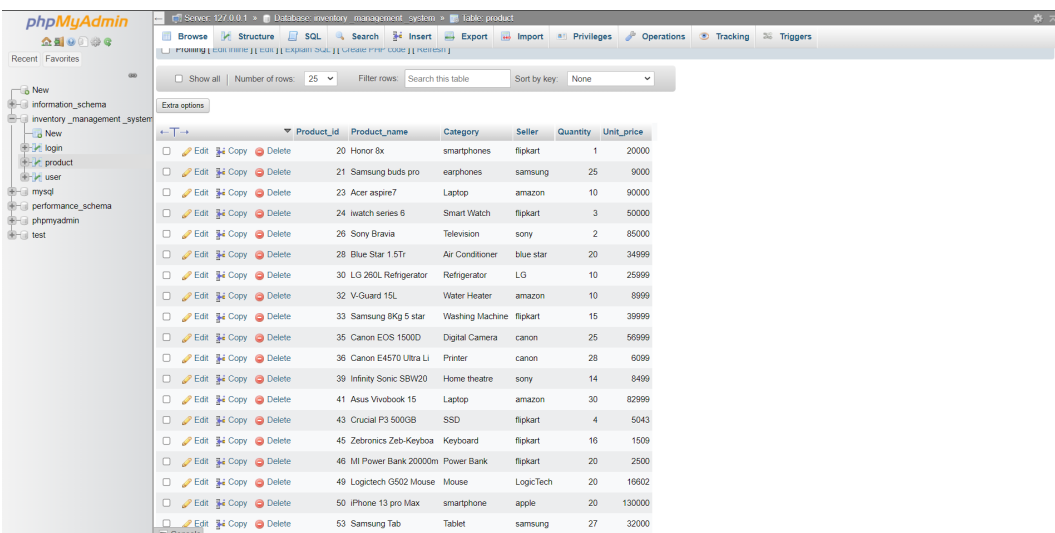
Field	Type	Length	Charset	Collation	Extra
user_id	INT	11	utf8mb4	utf8mb4_0900_ai_ci	UNSIGNED, ZEROFILL
User_name	VARCHAR	45	utf8mb4	utf8mb4_0900_ai_ci	
Number	VARCHAR	15	utf8mb4	utf8mb4_0900_ai_ci	
Email	VARCHAR	100	utf8mb4	utf8mb4_0900_ai_ci	
Age	TINYINT	3	utf8mb4	utf8mb4_0900_ai_ci	UNSIGNED

The table contains the following data:

user_id	User_name	Number	Email	Age
12	admin ser	546845121	admin@1234	150
20	Prakashan p.p	2147433647	prakashan@gmail.com	55
32	Umesh Sundharan	2147433647	umeshsundharan@gmail.com	28

c) Product Table

The product table is used to store the details of products in our inventory. It holds the Product ID, Product Name, Category, Seller, Quantity, and Unit Price in it.



The screenshot shows the phpMyAdmin interface for the 'product' table. The table structure is defined as follows:

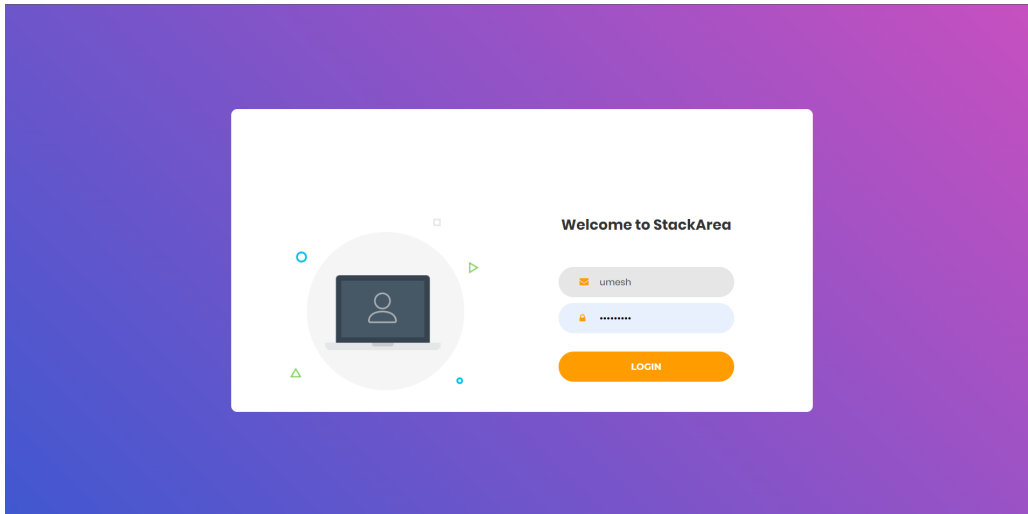
Field	Type	Length	Charset	Collation	Extra
Product_id	INT	11	utf8mb4	utf8mb4_0900_ai_ci	UNSIGNED, ZEROFILL
Product_name	VARCHAR	45	utf8mb4	utf8mb4_0900_ai_ci	
Category	VARCHAR	45	utf8mb4	utf8mb4_0900_ai_ci	
Seller	VARCHAR	45	utf8mb4	utf8mb4_0900_ai_ci	
Quantity	TINYINT	3	utf8mb4	utf8mb4_0900_ai_ci	UNSIGNED
Unit_price	DECIMAL	(10,2)	utf8mb4	utf8mb4_0900_ai_ci	

The table contains the following data:

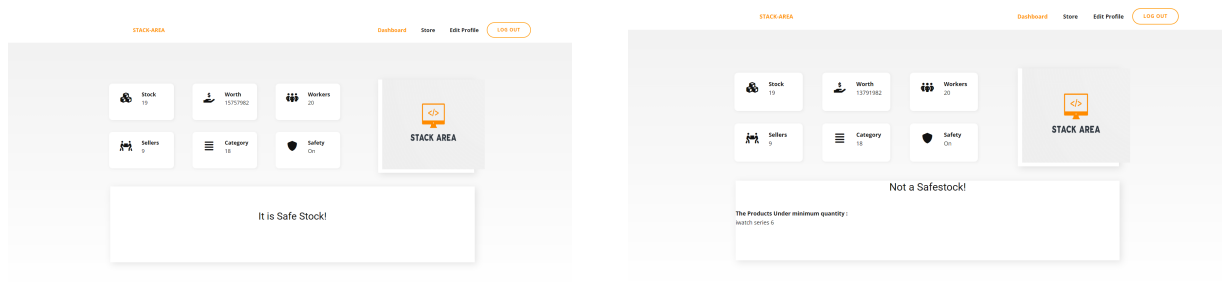
Product_id	Product_name	Category	Seller	Quantity	Unit_price
20	Honor 8x	smartphones	flipkart	1	20000
21	Samsung buds pro	earphones	samsung	25	9000
23	Acer aspire7	Laptop	amazon	10	90000
24	iwatch series 6	Smart Watch	flipkart	3	50000
26	Sony Bravia	Television	sony	2	85000
28	Blue Star 1.5Tr	Air Conditioner	blue star	20	34999
30	LG 260L Refrigerator	Refrigerator	LG	10	25999
32	V-Guard 15L	Water Heater	amazon	10	8999
33	Samsung Bkg 5 star	Washing Machine	flipkart	15	39999
35	Canon EOS 1500D	Digital Camera	canon	25	56999
36	Canon E4570 Ultra Li	Printer	canon	28	6099
39	Infinity Sonic SBW20	Home theatre	sony	14	8499
41	Asus Vivobook 15	Laptop	amazon	30	82999
43	Crucial P3 5000GB	SSD	flipkart	4	5043
45	Zebronics Zeb-Keyboa	Keyboard	flipkart	16	1509
46	MI Power Bank 20000m	Power Bank	flipkart	20	2500
49	Logitech G502 Mouse	Mouse	LogicTech	20	16602
50	iPhone 13 pro Max	smartphone	apple	20	130000
53	Samsung Tab	Tablet	samsung	27	32000

2. Project Outlook

To utilize this system, the user needs to the first login to our portal. If the credentials provided by the user are authenticated to be true, the user will be redirected to the dashboard panel.



In the dashboard panel, the user will be able to see the current status of the inventory that he is managing. Here, the quantity of the stock, total price worth, number of product categories, number of sellers, and other useful details will be displayed. This will aid the user in analyzing the current updates in his/her system. Along with that, the dashboard will also provide updates on the safety stock level of the inventory. If any product falls beyond the safety stock level, it will be listed in the dashboard panel.



From the dashboard panel, the user can direct to the store panel using the navigation bar. In the store panel, a detailed list of all the items in the inventory will be displayed.



STACK AREA

[< Back](#)

Product List

[+ ADD PRODUCT](#) [EXPORT PRODUCT](#)

[FILTER](#) [PDF](#)

ID	NAME	CATEGORY	SELLER	QUANTITY	UNIT PRICE
20	Honor 8x	smartphones	flipkart	25	20000
21	Samsung buds pro	earphones	samsung	25	9000
23	Acer aspire7	Laptop	amazon	10	90000
24	watch series 6	Smart Watch	flipkart	50	50000
26	Sony Bravia	Television	sony	24	85000
28	Blue Star 1.5Tr	Air Conditioner	blue star	20	34999
30	LG 260L Refrigerator	Refrigerator	LG	10	25999
32	V-Guard 15L	Water Heater	amazon	10	8999
33	Samsung 8Kg 5 star	Washing Machine	flipkart	15	39999
35	Canon EOS 1500D	Digital Camera	canon	25	56999
36	Canon E4570 Ultra Li	Printer	canon	28	6099
39	Infinity Sonic SBW20	Home theatre	sony	14	8499
41	Asus Vivobook 15	Laptop	amazon	30	82999
43	Crucial P3 500GB	SSD	flipkart	50	5043
45	Zebronics Zeb-Keyboa	Keyboard	flipkart	16	1509
46	Mi Power Bank 20000m	Power Bank	flipkart	20	2500
49	Logitech G502 Mouse	Mouse	LogiTech	20	16602

From the store panel, users can add or delete products. The add product utility will enable them to add new items to the inventory and the delete product utility will enable them to update the magnitude of the items in the inventory. These data will be reflected in the main store panel immediately.

[< Back](#)

Add Product Details

Product ID

Name of Product

Category

Unit Price

Quantity

Seller

[Save](#)

[+ ADD PRODUCT](#) [EXPORT PRODUCT](#)

[FILTER](#) [PDF](#)

ID	NAME	CATEGORY	SELLER	QUANTITY	UNIT PRICE
20	Honor 8x	smartphones	flipkart	25	20000
21	Samsung buds pro	earphones	samsung	25	9000
23	Acer aspire7	Laptop	amazon	10	90000
24	watch series 6	Smart Watch	flipkart	50	50000
26	Sony Bravia	Television	sony	24	85000
28	Blue Star 1.5Tr	Air Conditioner	blue star	20	34999
30	LG 260L Refrigerator	Refrigerator	LG	10	25999
32	V-Guard 15L	Water Heater	amazon	10	8999
33	Samsung 8Kg 5 star	Washing Machine	flipkart	15	39999
35	Canon EOS 1500D	Digital Camera	canon	25	56999
36	Canon E4570 Ultra Li	Printer	canon	28	6099
39	Infinity Sonic SBW20	Home theatre	sony	14	8499
41	Asus Vivobook 15	Laptop	amazon	30	82999
43	Crucial P3 500GB	SSD	flipkart	50	5043
45	Zebronics Zeb-Keyboa	Keyboard	flipkart	16	1509
46	Mi Power Bank 20000m	Power Bank	flipkart	20	2500
49	Logitech G502 Mouse	Mouse	LogiTech	20	16602
50	Phone 13 pro Max	smartphone	apple	20	130000
53	Samsung Tab	Tablet	samsung	27	32000

[< Back](#)

Export Product Details

Product ID

Quantity to Delete

[Update](#)

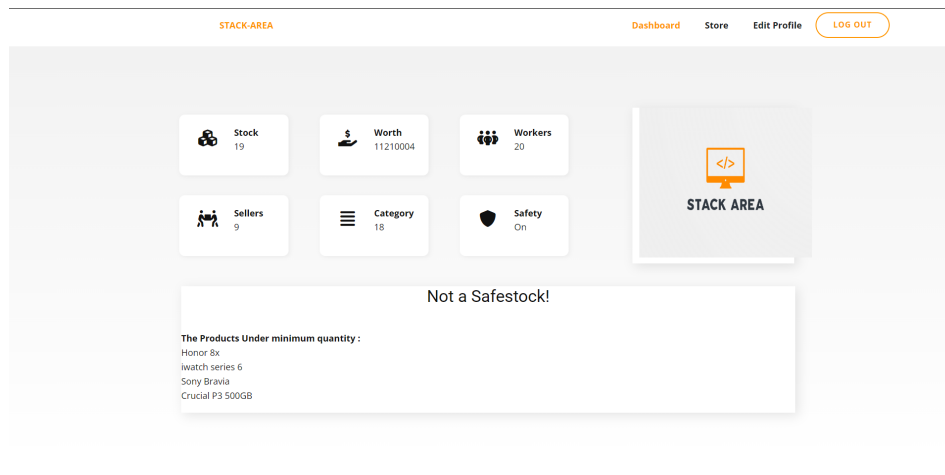
Product List

[+ ADD PRODUCT](#) [EXPORT PRODUCT](#)

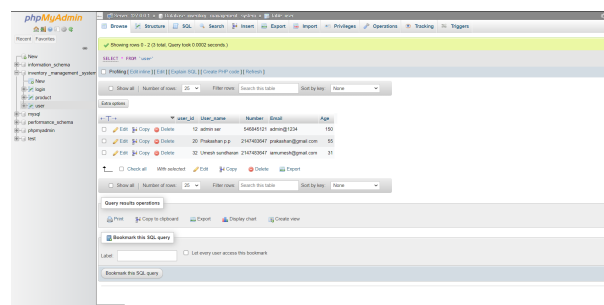
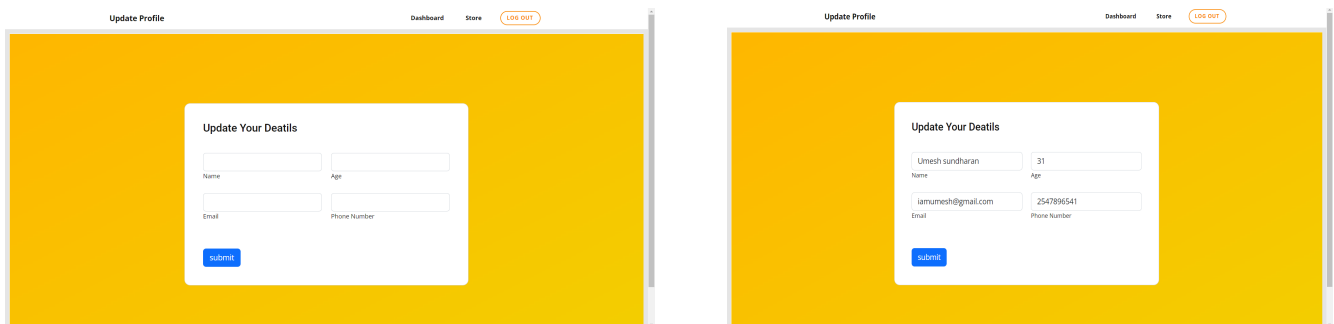
[FILTER](#) [PDF](#)

ID	NAME	CATEGORY	SELLER	QUANTITY	UNIT PRICE
20	Honor 8x	smartphones	flipkart	25	20000
21	Samsung buds pro	earphones	samsung	25	9000
23	Acer aspire7	Laptop	amazon	10	90000
24	watch series 6	Smart Watch	flipkart	50	50000
26	Sony Bravia	Television	sony	24	85000
28	Blue Star 1.5Tr	Air Conditioner	blue star	20	34999
30	LG 260L Refrigerator	Refrigerator	LG	10	25999
32	V-Guard 15L	Water Heater	amazon	10	8999
33	Samsung 8Kg 5 star	Washing Machine	flipkart	15	39999
35	Canon EOS 1500D	Digital Camera	canon	25	56999
36	Canon E4570 Ultra Li	Printer	canon	28	6099
39	Infinity Sonic SBW20	Home theatre	sony	14	8499
41	Asus Vivobook 15	Laptop	amazon	30	82999
43	Crucial P3 500GB	SSD	flipkart	50	5043
45	Zebronics Zeb-Keyboa	Keyboard	flipkart	16	1509
46	Mi Power Bank 20000m	Power Bank	flipkart	20	2500
49	Logitech G502 Mouse	Mouse	LogiTech	20	16602
50	Phone 13 pro Max	smartphone	apple	20	130000

If any item falls below the safety stock level as the user updates the, it will be listed in the dashboard panel. This will allow the user to take the necessary steps to manage the inventory stock.



Along with that, our system also provides utility for the users to update their personal details provided in our system. The Update Profile utility in the navigation bar facilitates this. From there users can update their data and it will be reflected immediately in our database.





Project Repo

For the codebase of this project, refer to the repository listed below:

<https://github.com/StackArea/stack-area.git>

Contributors

- ★ AJO THOMAS
- ★ AKASH VIJAY
- ★ AKSHARA KALATHIL
- ★ ALAN MATHEW TOM
- ★ ALVIN VARGHESE
- ★ AMAL B PALACKAL
- ★ ANANDU KRISHNA VR