

Smart Checkout System

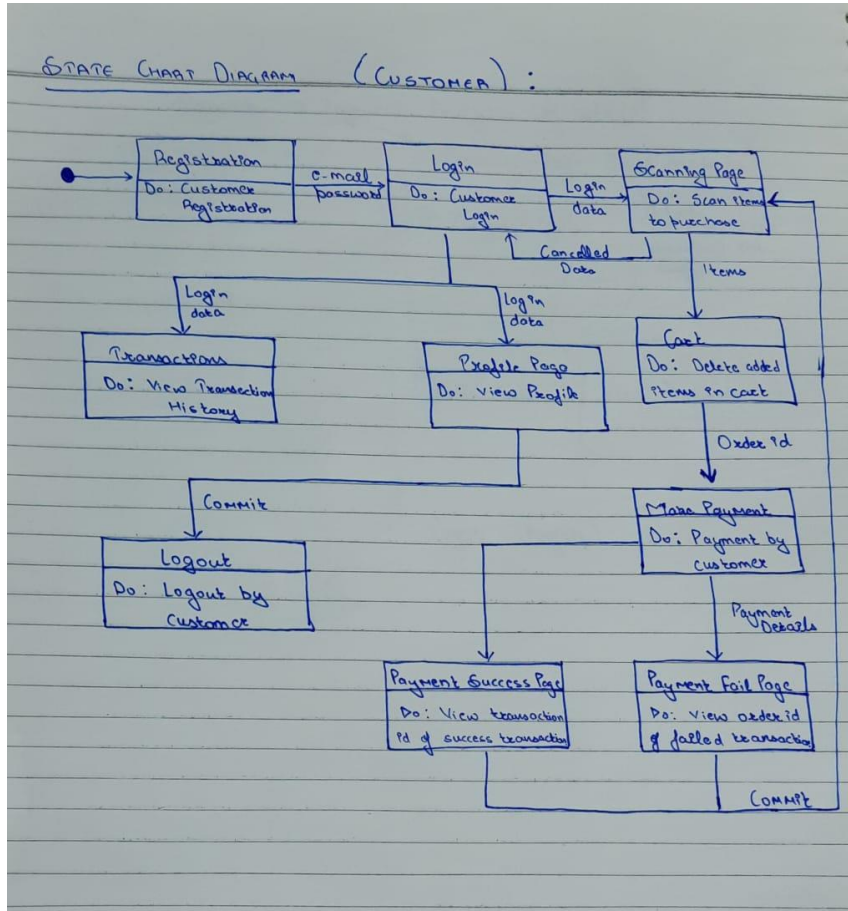
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Abstract and Aim:

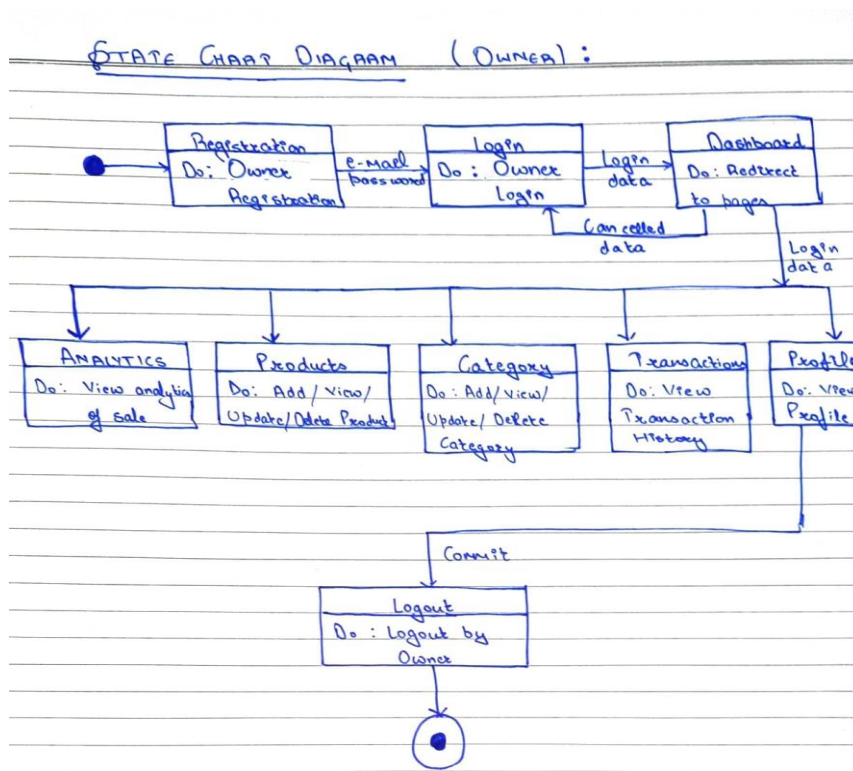
Imagine if you could shop at your local supermarket, without having to queue at checkouts to pay for your groceries. Dealers and small store owners don't have checkouts where a customer can buy. It is all managed and maintained by owner. So, we have thought of a solution to minimize the workload and man-work.

Problem Statement:

This is useful for small scale business and local retail shops especially during the time of pandemic this will help in maintain social distancing and contactless buying.



Owner



Module Description:

1 For website

1.1) Login Page:

This login page is for the store administrator only. Its a simple form which validates the stored credentials from the database. The database also hashes and stores the password so the form sends credentials to backend and then hashes them and checks against the stores credentials.

1.2) Dashboard Page:

The dashboard page gives an insight to the store admin, the daily sale, the customers for the day, the possible profit,sale in different categories,etc. We have implemented role-based access control,thus only people with permissions can see certain pages.

1.3) Products Page:

This lets the admin search for a particular product and get its defined information like how many are left in the inventory and the current price of the product.

There is an option to create more products and thus while extending the product range in the store it could be added to the database as well.

1.4) Categories Page:

Lists out the different products in their respective categories for easy segregation. Also has the option to add newer products in different categories.

1.5) Profile Page

This is solely for the store admin to make their profiles and shop profiles on the website.

1.6) Transaction Page

Gives a detailed view of all transactions that takes place hence keeping in check of the accounts.

2 Mobile App

2.1) Login Screen

This screen is for the customers to login into the app. The login will be authenticated only when the customer is present in the store.

2.2) Qrcode Scanner

Used to scan the barcode on the products to scan the prices and to put it in the cart. Open source library pytesseract and pyzbar for optical character recognition and qrcode recognition.

2.3) Product details screen

Right after scanning this screen pops up giving the product details.

2.4) Transaction Screen

After buying the items which are in the cart. Checkout leads to payment portal (UPI) which gives a list of all transactions with seller information.

Prototype Design

Web Interface

1. Login

LOGIN

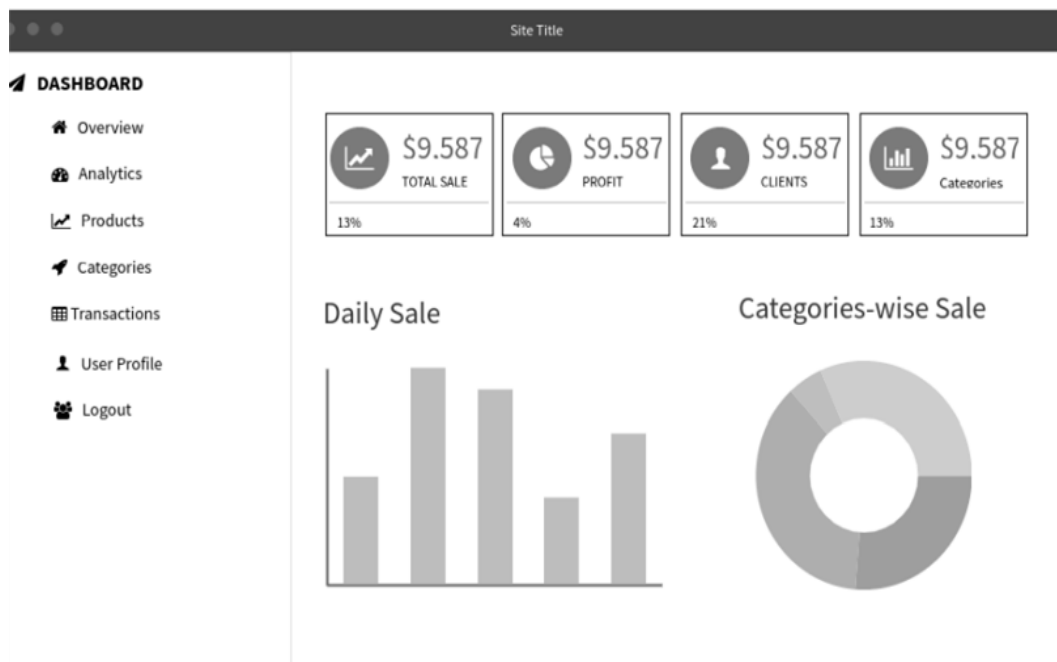
☒ Remember Me

Sign In

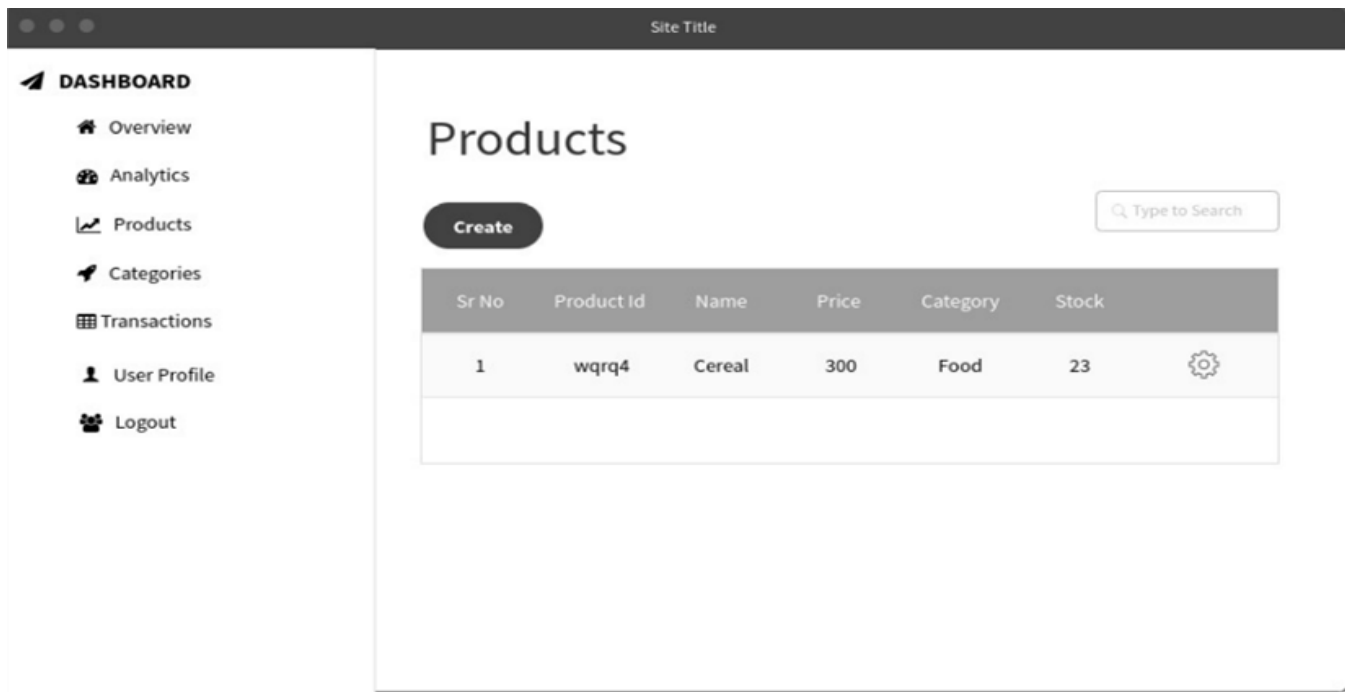
Sign In with Facebook

Sign In with Google Plus

2. Dashboard

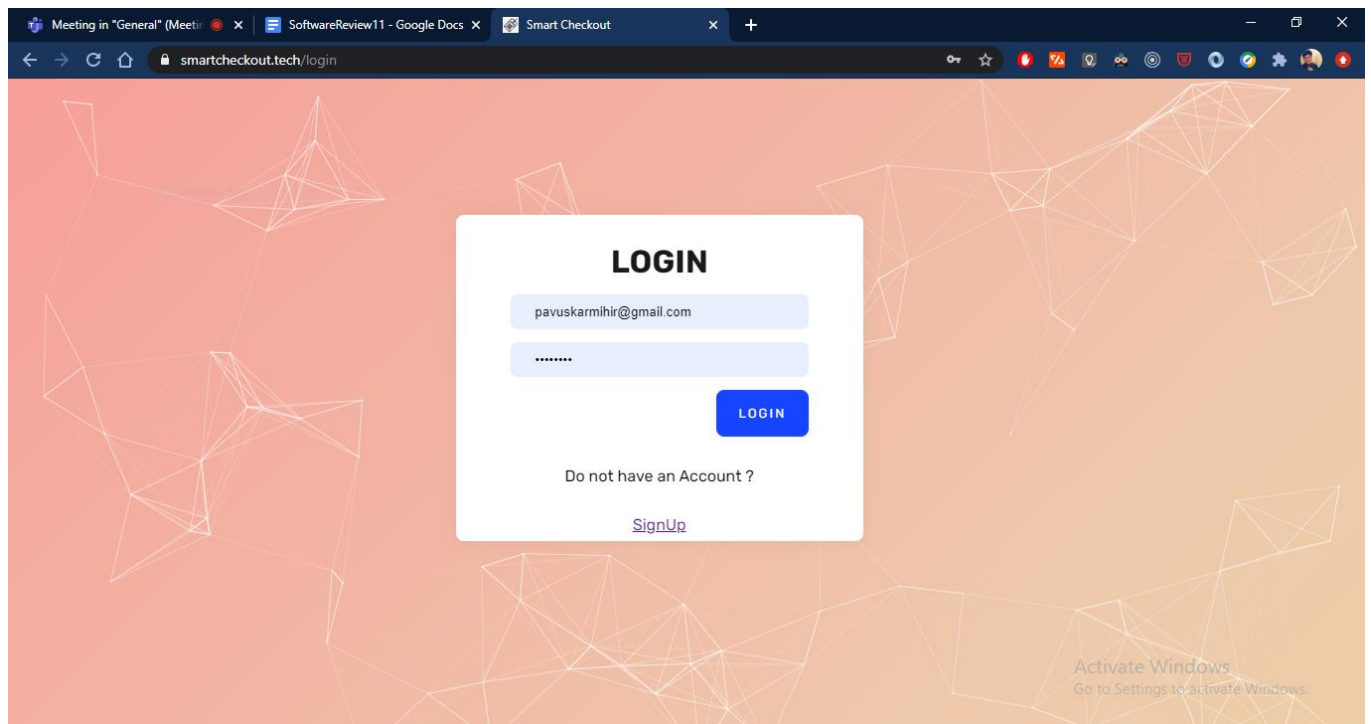


3. Products

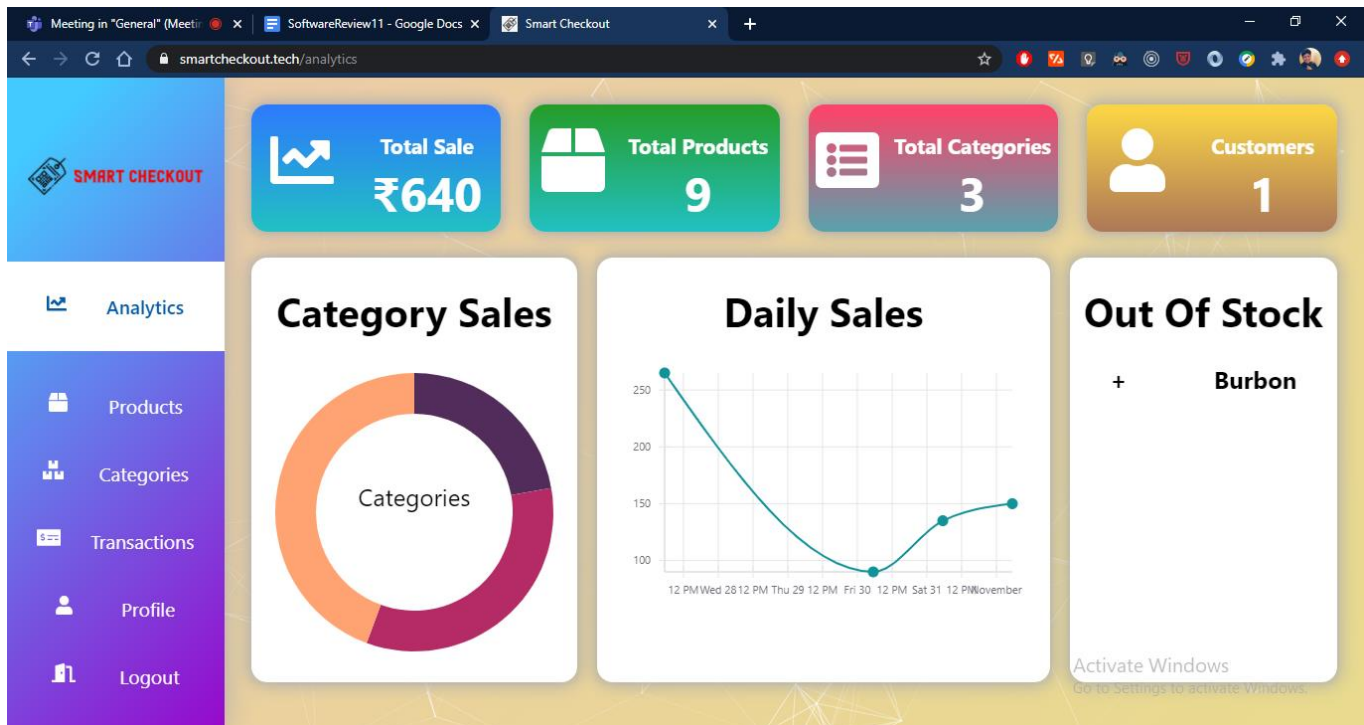


Frontend-Design: Web Interface (Seller)

1. Login Page



2. Dashboard



3. Products Page

The products page allows users to manage their inventory. It includes an 'Add Product' button, a category filter dropdown, and a search bar. The product list is displayed in a table with columns for Sr. No., Product Id, Name, Price, Category, and Stock. The background features a geometric pattern.

SMART CHECKOUT

Analytics

Products

Categories

Transactions

Profile

Logout

Products

Add Product

Category

Sr. No.

Product Id

Name

Price

Category

Stock

1	5f968cbcf6a9ac001a9d2e15	Apple	50	Fruits	98
2	5f968cd2f6a9ac001a9d2e16	Banana	45	Fruits	97
3	5f968d76f6a9ac001a9d2e17	Lays	20	Snacks	97
4	5f968d89f6a9ac001a9d2e18	Oreo	35	Snacks	95
5	5f968db3f6a9ac001a9d2e19	Burbon	35	Snacks	0
6	5f97a8c1608271001a4a4fa6	Notebook	50	Stationary	97
7	5f97a8d5608271001a4a4fa7	Pen	10	Stationary	98
8	5f97a8e4608271001a4a4fa8	Crayons	50	Stationary	100

Activate Windows
Go to Settings to activate Windows.

4. Create New Product Page

The screenshot shows the 'Add Product' modal in the Smart Checkout application. The modal is a light blue box with a large plus sign icon at the top. Below the icon, there are input fields for 'Name', 'Price', 'Stock', and 'Category'. The 'Category' field is a dropdown menu. At the bottom of the modal, there are two buttons: 'Submit' and 'Cancel'.

The background shows the 'Products' page with a table of products. The table has columns for 'Sr. No.', 'Price', 'Category', and 'Stock'.

Sr. No.	Price	Category	Stock
1	50	Fruits	98
2	45	Fruits	97
3	20	Snacks	97
4	35	Snacks	95
5	35	Snacks	0
6	50	Stationary	97
7	10	Stationary	98
8	50	Stationary	100

Activate Windows
Go to Settings to activate Windows.

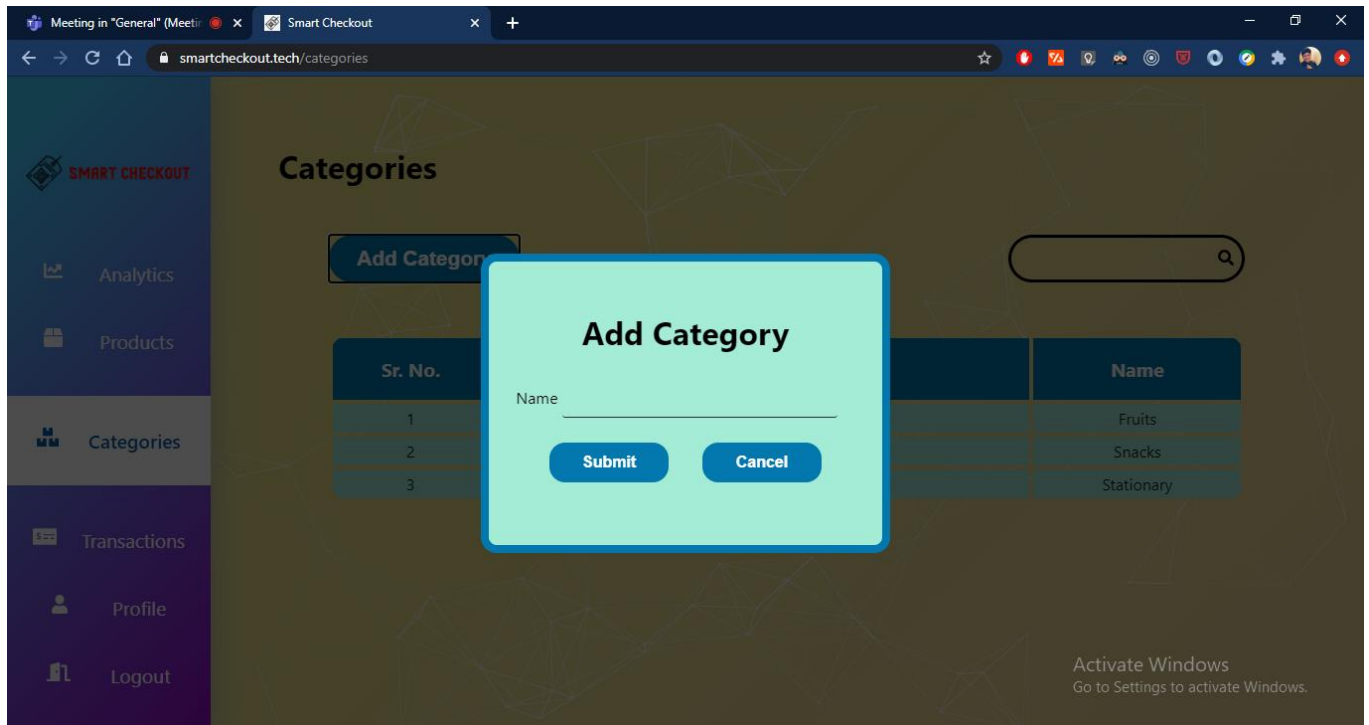
5. Categories Page

The screenshot shows the 'Categories' page in the Smart Checkout application. The page has a light orange background with a geometric pattern. At the top, there is a search bar and an 'Add Category' button. Below this, there is a table with columns for 'Sr. No.', 'Category Id', and 'Name'.

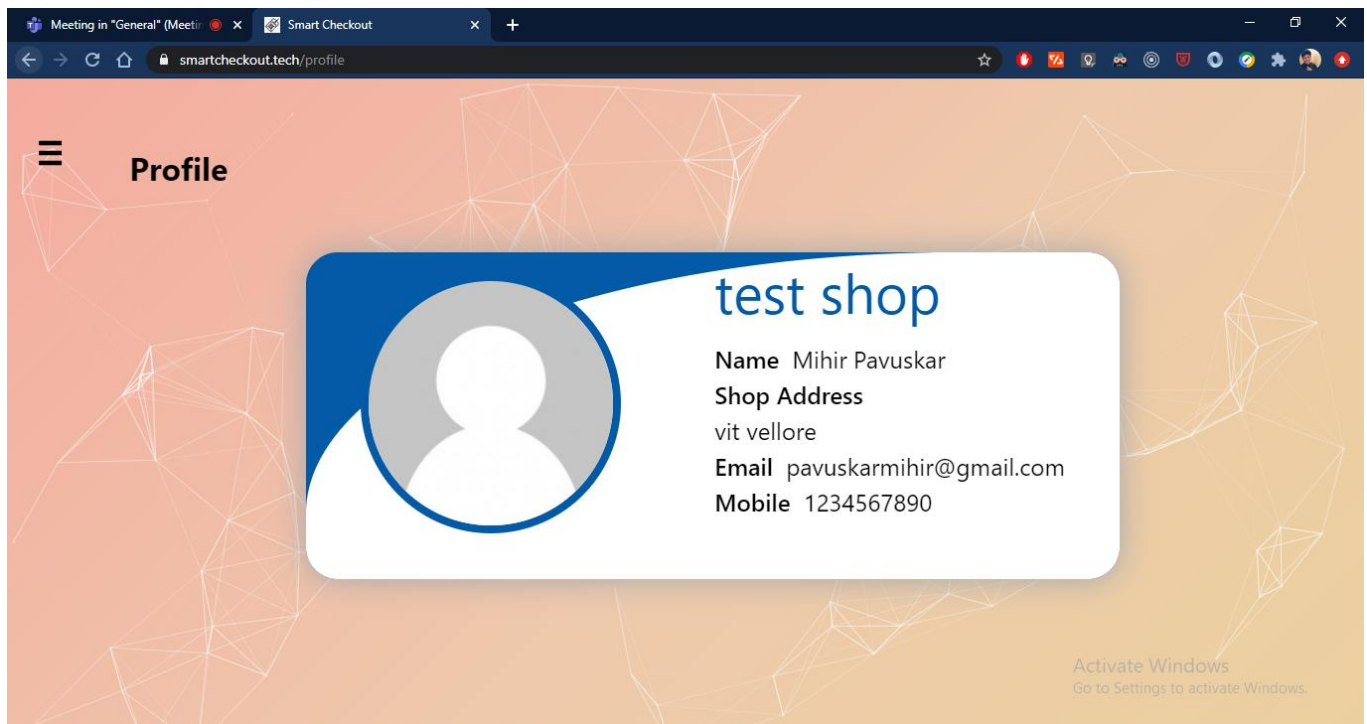
Sr. No.	Category Id	Name
1	5f968ca3f6a9ac001a9d2e13	Fruits
2	5f968cabf6a9ac001a9d2e14	Snacks
3	5f97a89d608271001a4a4fa5	Stationary

Activate Windows
Go to Settings to activate Windows.

6. Create New Category Page

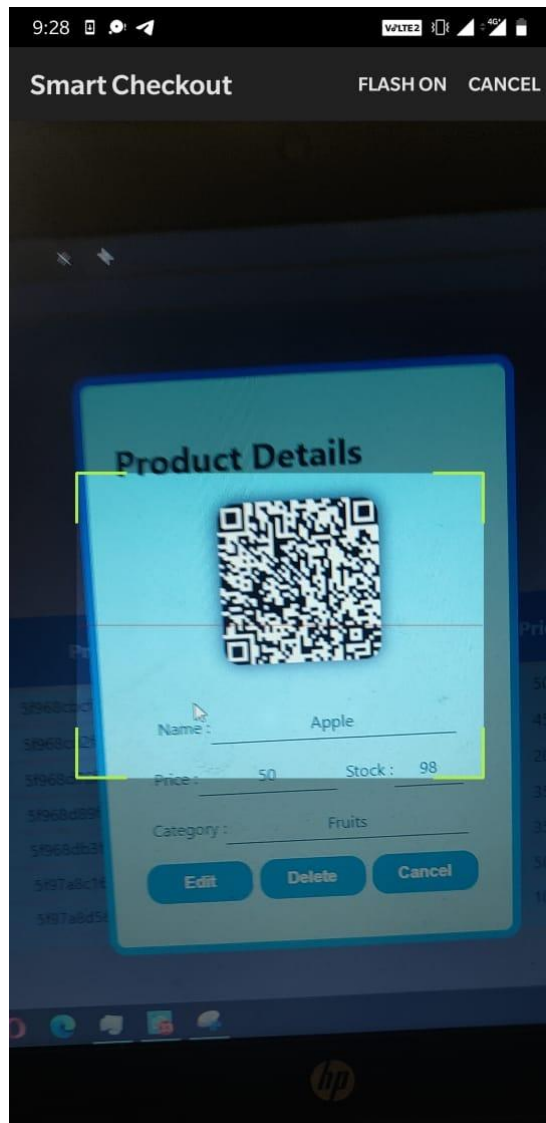


7. Profile Page

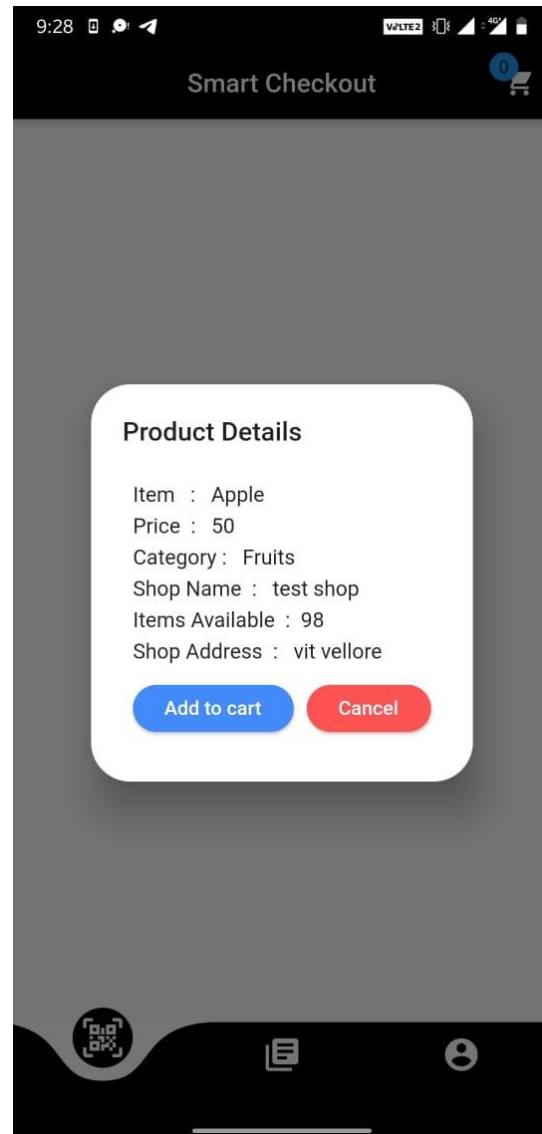


Mobile Interface (Buyer)

QrCode Scanner



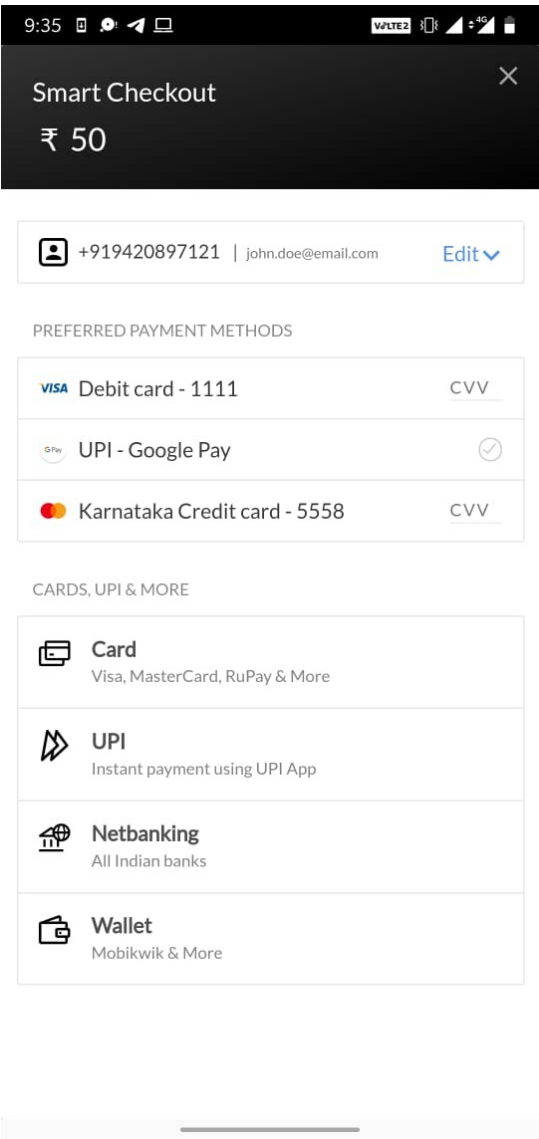
Add to Cart



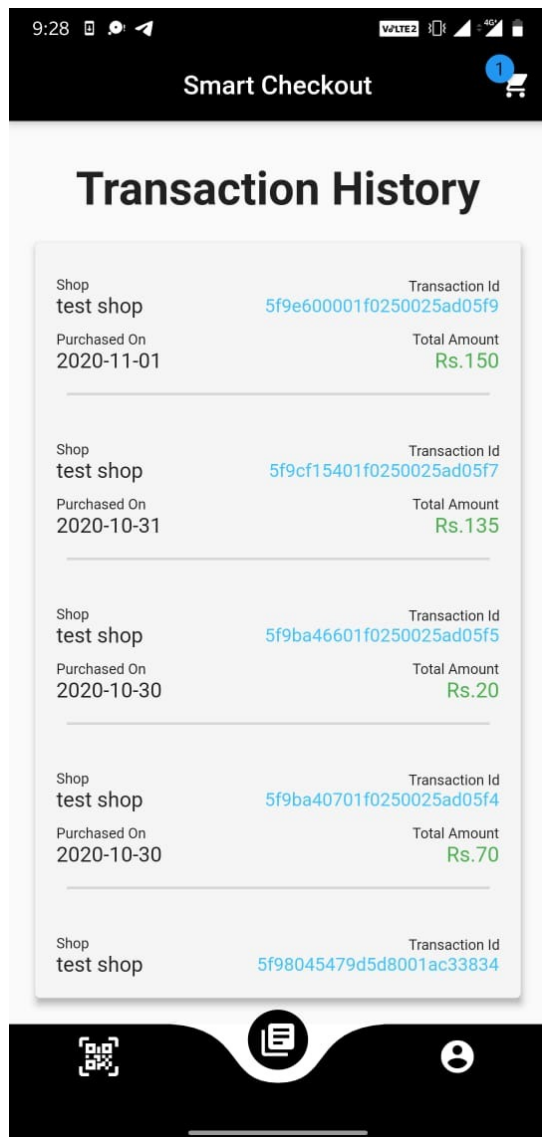
Cart



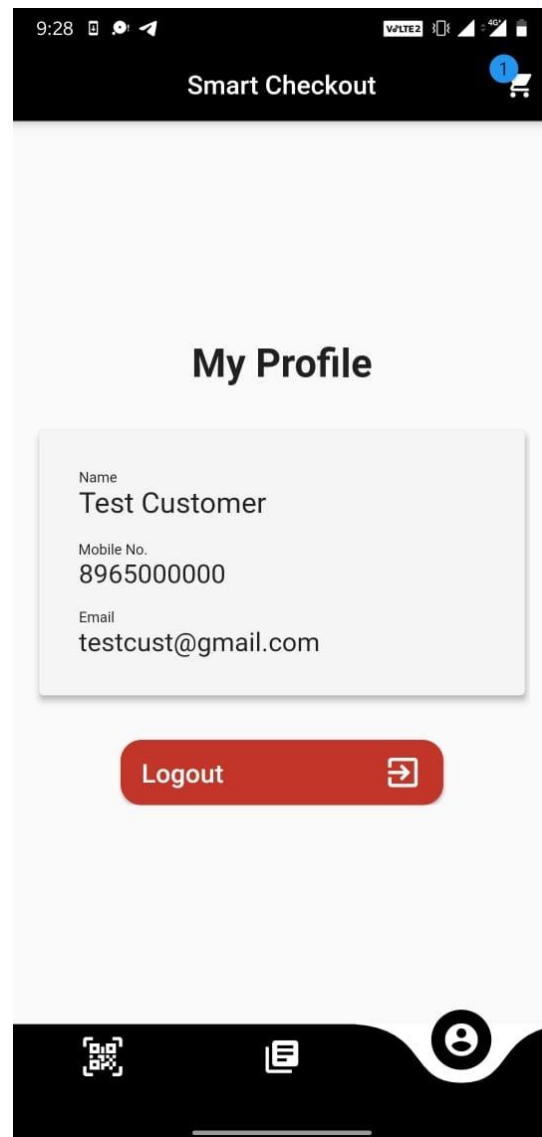
Checkout



Transaction History



Profile



Database Details

We are using MongoDB and have connected it to our app using Mongoose. The details of the Schemas are as follows

Customer

1. Emilid
2. Name
3. Mobile
4. Password

Shopkeeper

1. Emilid
2. Name
3. Mobile
4. Password
5. Avatar
6. ShopName
7. Address

Category

1. Owner
2. Name

Products

1. Owner
2. Name
3. Price
4. Category
5. Quantity
6. QRurl

Transaction

1. byuerID
2. SellerID
3. productID
4. cost
5. date