Finalized Tech stack

-**Front end: HTML, JQuery/Java script, Angular JS**

- Backend: Node JS, Expess JS
-Mobile app: Hybrid in React Native
-Database: MySQL
-Data Parsing: Microservice APIs

(a) **Hosting** VPS/Dedicated hosting/AWS
(b) **Database** MySQL
(c) **Payment gateway** Tap Gateway

Mobile application:

- Simple and easy l UI
- Login/Signup
- One-click order check out
- View order history
- Easy checkout
- Payment gateway

Admin Panel Features:
- Login / Sign up
- User-friendly design
- Manage Banner advertisement
- Add-remove product according to categories
- Receive order notifications
- Find Orders / History
- Update status of your order
- Cancel orders
- Push Notification
- SMS notification
- Email notification

4.1 Process Flow

The solution will have the following modules

- User
- Admin
- Store
- Reports

(i) User

- **Login/sign up**

Signup by Email/mobile Number - Customer can sign up with Email id or phone number. Customers can create their own password for login.

Signup by FB - Customer can sign up with personal FB id. FB API to be evoked and details from FB will be fetched

Account activation – Customers will receive a confirmation via Email or SMS that the created account is approved. So customer can Log in with their user id and password.

Login – Customer can login using email/Mobile number or FB id. Guests can also login with their mobile number and email (optional)

Forgot password – Customers will have the ability to reset the password by clicking this field. A link to be sent to his mail id for resetting his password.

Select store – Customer will be using GPS coordinates of his current location to view the store near to him. If not available, option to manually select the store will be provided

Home Screen – Once the customer logs in to the application, he will be navigated to the home screen to view the different categories of products based on the store location selected.

Offers - Customers can view the ongoing Offers set by the vendors

Product Ordering – Customer have the option to view the category and subcategory of the products and price of each items. He can add selected items to the cart for ordering. Customers have the option to delete a selected product from the cart (cancel order). Once if the selection is over then he can place the Order.

Delivery option – Before confirming the order, customer needs to enter the address where the product needs to be delivered.

Payment – Once the order is confirmed, invoice is generated. On receiving the Invoice customer can make the payment using payment gateway.

Notifications – when the Order is placed and confirmed, then customer will receive a confirmation through mail/SMS that the order is accepted. Once the order is delivered, customer gets a notification in the app.

Others – Customers can view and edit their profile and change the password. He can also view the order history.

Sign-out – Customer have the option to sign-out from the application.

(ii) Admin

* Dashboard view – Admin can view the following details for individual store View Daily Revenue.
View Total Users registered for a day or for a period. Total
Order Request placed for a day, for a period. etc

- **User management** – Admin can view the list of all users, view details of each user and block/unblock the user. Create privileges for Super admin, Admin, user , delivery boys

- **Authentication** – Users Authentication is sent through mail/sms for user creation

- **Store management** – Create 3 stores with location and add products against each of them

- **Staff Management** – Admin can Add, update and delete the staff details. Roles can also be fixed for each staff.

- **Location span management**- Upload and manage the location details that gets covered under each store.

- **Product management**- Admin can create /edit Product category, subcategory, price ..etc. He can add/ remove the products from listing

- **Order Management**- Admin can view the customer Order details, acknowledge the order request and reject the order with reason.

- **Notifications** – Admin can send notifications for new registration and send notifications to all users.

- **Accounts** – Admin can view the total sales for a day, for a particular period or for a month ..etc. Admin can view all the Reports.

- **Promotions**:
  SMS Management: Option to send SMS using predefined template and also to view History, Status
  Email Management: Option to send Email using predefined template and also to view History, Status
  Push Notification Management: Option to push notifications to the customer mobile app predefined template and also to view History, Status. This will be for individual stores

- **Analytics** – View Users statistics of registered users and guest users
  Traffic analytics Google Analytics / Web engage analytics user engagements, events, conversions.

(iii) Store

- **Login/sign up** – There will be an admin for each store. Super admin will create login with their username and password. Option to reset the password also will be provided.

- **Product management**- Admin can create /edit Product category, subcategory, price.etc. He can add/ remove the products from listing.

- **Manage stock/products** – depending upon the availability and demand of the products, proper stock can be maintained for the demand by the admin from the backend.

- **Threshold management**- Admin can set threshold against stock, beyond which the product will get removed from the store. When the stock is filled, the product will be displayed in the store

- **Manage pricing** – Pricing can be done depending on the availability and demand with profit margin.

- **Listings** – Stores have the option to list the products category, product sub category ..etc and can to enter details related to each item.

- **Order Management**- Admin can view the customer Order details, acknowledge the order request and reject the order with reason.

- **Notifications** – Admin can send notifications for new registration and send notifications to all users

- **Payment**- Admin will be able to view the payment details against each order.

- **Delivery management**– After receiving the payment from the customer, store will arrange to deliver order to the customer.

  Delivery staff will receive notification in their mobile apps based on the selection criteria. The process can be made either automatic which is based on

- The staff who is currently available from the pool of delivery staff
- Random selection from the pool
- Alphabetical order of assignment

Store manager (admin) will be able to select the option to select the delivery staff

The delivery boys can confirm the delivery of the order in two ways which can be set by the store manager (admin)
-4-digit PIN which gets generated in the system which the customer will receive
 The code will have to be keyed into the delivery boy's mobile app to close the order at the time of delivery.
-Manual confirmation using a confirm delivery button in the mobile app

 (iv) Reports

Individual store admins will be able to view and download the following reports.

- **Order Received** – Received order for each day, for a specific period or for a month ..etc.
- **Orders processed -**Processed status of past and present orders
- **Sale report-** total sales for a day, for a particular period or for a month
- **Payment report** – payment received for a day, for a specific period or for a month with Invoice No.
- **Product report** – Detailed product report for purchase and sales
- **Delivery report** - Delivery status Report orders placed, Pending .report. etc
- **Customer report** - Customers detailed report with how many purchases made during a period, purchase Amount.

Architectural Diagram

- Customer
- Admin
- Mobile App React native
- Web Interface Angular JS
- Micro service API
- Micro service API
- Sms/Email Gateway
- Payment Gateway

Back End(MEAN framework) Modules
- User
- Order
- Finance
- Notification
- Product
- Staff
- Stock
- Inventory
- Reports

Database (My SQL)

- Authentication
- Application Server
- Order Fulfillment Application
- Order Processing
- Message Queue
- Fulfillment
- Reporting
- Site Manager
- Site Pages
- Session Store/ Shopping Cart
- Customer Profile Management
- Search and Discovery
- Product Catalog
- Product Catalog Manager