FOOD FRENZY
Online food-ordering system

Design Document

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1. Overall Description:

FoodFrenzy is an online food-ordering software which is made for customers to order food from their desired place and time at their ease. This software can be used by anyone who wants to order food. The software allows the restaurant owners to register their restaurants in the system so that customers can place orders from them. The system also possesses delivery agents to deliver orders from restaurants to the customers. Basic privileges for customers will be able to browse restaurants, place orders and give feedback while the restaurant owners will be able to register/remove their restaurants from the system, accept/reject orders and add or update items on the menu. Delivery agent is equipped with the functionality of changing the status of order.

2. Functionalities of the software

2.1 Login
- Create account option for customer, restaurant owner and delivery agent
- Enter details for the account
- Change password option
- View account details option
- Edit details option
- Sign-in option if account has already been created
- Forgot password

2.2 Customer Order food
- Select order food option for customer
- Option to browse restaurants
- Choosing a restaurant from the listed options
- Selecting items from the menu
- Adding the selected items to the cart
- Updating the items in the cart
- Option to select payment method
- Receive ETA
- Place order
- View order history
- View nearby restaurants on map

2.3 Restaurant Owner
- Register for new restaurants
- Enter details for the restaurant
- Accept or reject order
- Create menu for the restaurant
- Enter items and their prices in the menu
- Update items of the menu
- View incoming orders to the restaurant
- View past orders of the restaurant
- Remove registration of the restaurant
- View ratings

2.4 Delivery Agent
- Sign-in to the account
- View account details
- Edit account details
- Change order status
- View order history

2.5 Payment
- Payment gateway is integrated into the system.
- Payment gateway displays options for payment through paytm and netbanking.

3. Business Requirements
3.1. Ease of Access (BR1)
3.2. Provide functionality for updation (BR2)
3.3. Data Authentication (BR3)
3.4. Integrated System (BR4)
3.5. Food Ordering Process (BR5)

4. Functional Specification Requirements
4.1. Data Accessibility (FS1)
4.2. Entity Profile Administration (FS2)
4.3. User Accounts (FS3)
4.4. Data Integrity (FS4)

5.   Non-functional Specification Requirements

6. Requirements Traceability Matrix

Requirements Traceability Matrix

BR No.	FS No.	TS No.	TS Description	Priority	Status
BR1.	FS1.1	TS_001	Validate log in to the account for customer,restaurant owner and delivery agent	High	Done
		TS_002	Validate 'view account details' for the user	High	Done
		TS_003	Validate 'delete account' functionality of user	Low	Done
		TS_004	Validate 'edit account information' of the user	Medium	Done
	FS1.2	TS_005	Validate display of information for customer,restaurant and delivery agent	High	Done
		TS_006	Validate 'order history' functionality for user	Medium	Done
BR2.	FS2.1	TS_007	Validate 'add restaurants' functionality by checking credentials of the respective restaurant	High	Done
	FS2.2	TS_008	Validate 'edit menu' functionality of the restaurant owner	High	Done
BR3.	FS3.1	TS_009	Validate 'forgot password' functionality for the user	Medium	Done
		TS_010	Validate generation of error message when incorrect username and correct password is entered	High	Done
		TS_011	Validate generation of error message when correct username and incorrect password is entered	High	Done
		TS_012	Validate 'create account' feature for new users	High	Done
		TS_013	Verify the credentials then allow creation of account	Medium	Done
BR4.	FS4.1	TS_014	Validate 'display restaurants' functionality for the customer	High	Done
		TS_015	Validate 'search restaurants' functionality for the customer	Medium	Done
		TS_016	Validate 'show nearby restaurants' functionality for customer	Low	Done
	FS4.2	TS_017	Validate 'accept/reject order' functionality for restaurant	High	Done
	FS4.3	TS_018	Validate 'on the way/delivered' functionality for delivery agent	High	Done
BR5.	FS5.1	TS_019	Validate 'add to cart' functionality from the restaurant menu for customer's order	High	Done
		TS_020	Validate 'place order' functionality for an order	High	Done
	FS5.2	TS_021	Validate 'make payment' functionality for customer's order	High	Done
	FS5.3	TS_022	Validate 'give ratings' functionality for the customer's experience	Medium	Done

7.   Modules and Functionalities

Modules	Functionalities
about.html	This page provides a description of the website by briefing its functionalities and its purpose.
callback.html	This page shows the payment details like order-id, bank-id, amount, currency and bank name.
dbhome.html	This is the home page for delivery boy which displays the incoming orders.
dbdetails.html	This page will display the profile details of the delivery boy and also there will be an option to edit and save them. It also provides an option for delete account.
dbhistory.html	This page gives the history of all the orders delivered by the delivery boy.
email.html	This page asks to enter the email when one clicks on the forgot password button.
login.html	This is the main page of the website.It provides options for login and signup for whoever accesses the website being either a customer, a restaurant owner or a delivery boy.
ordercart.html	It displays the food items which have been chosen for placing an order by the customer in the form of cart.
pay.html	User is redirected on this page when he/she requests payment. It asks for email and password for continuing payment.
ratings.html	This page shows the ratings provided by the users for that particular restaurant.
redirect.html	This page is used to show transition to paytm gateway when one clicks on the make payment button.
resthistory.html	This page displays the history of all the

	orders which have been placed for a particular restaurant.
resthome.html	This is the main page of a particular restaurant when viewed from the restaurant side by the restaurant owner. It displays the incoming orders for the restaurant.
restprofile.html	This page shows the profile of the restaurant. It displays the items already present in the menu with their prices and also provides an option to add new items to the menu by mentioning the price and cuisine.
restview.html	This page displays the main page of the restaurant on the customer side. It shows the cuisines and food items available. It also provides an option to the customer to give ratings and reviews to the restaurant.
userdetails.html	This page allows the user to edit his/her details. It also provides an option for delete account.
userhistory.html	This page will show all the past orders placed by the user from all the restaurants.
userhome.html	This page shows all the accepting restaurants for ordering food.

8. System Architecture

Interface/Application Layer
- WebApp
- Local Storage/Cache

Server/Application Layer
- Backend Server
- Authentication
- User Management
- Error Messages

Server Storage
- SQL Database

External Services
- Google Maps
- PayTM API

System Architecture Diagram
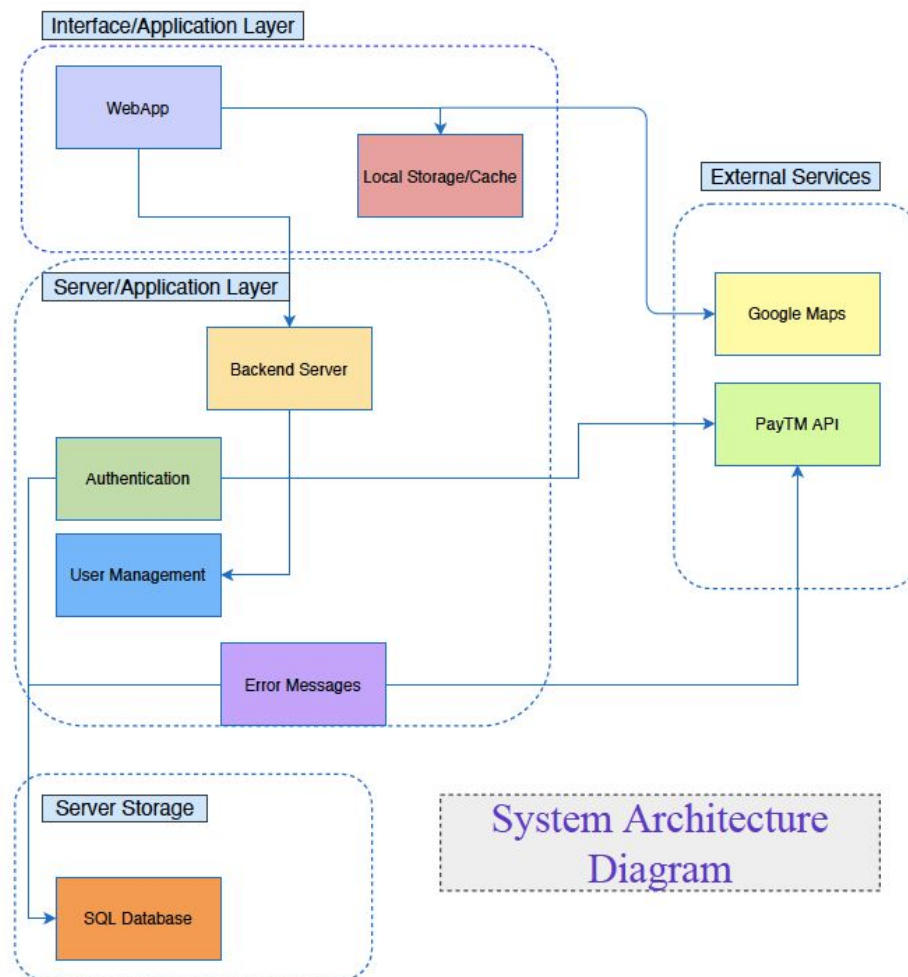
9. Diagrams

● Physical Schema
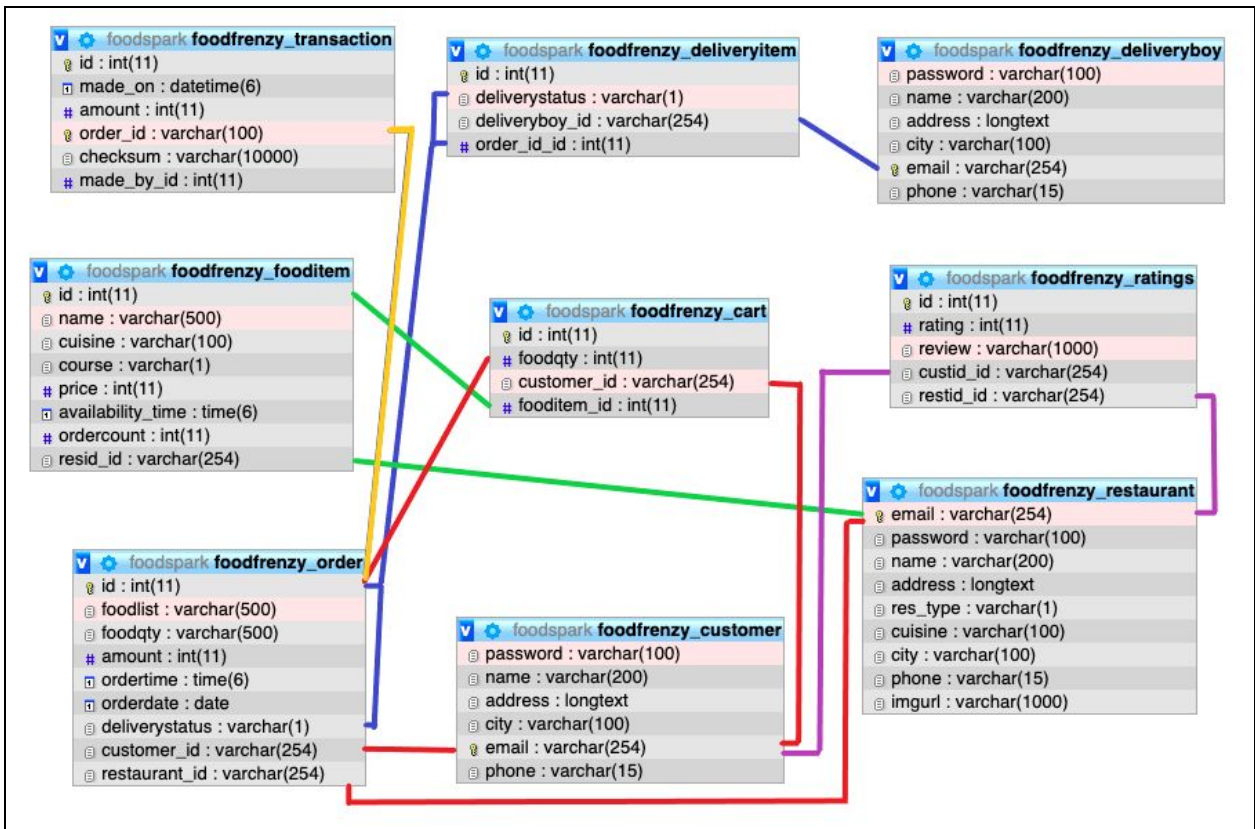
● UML Diagram
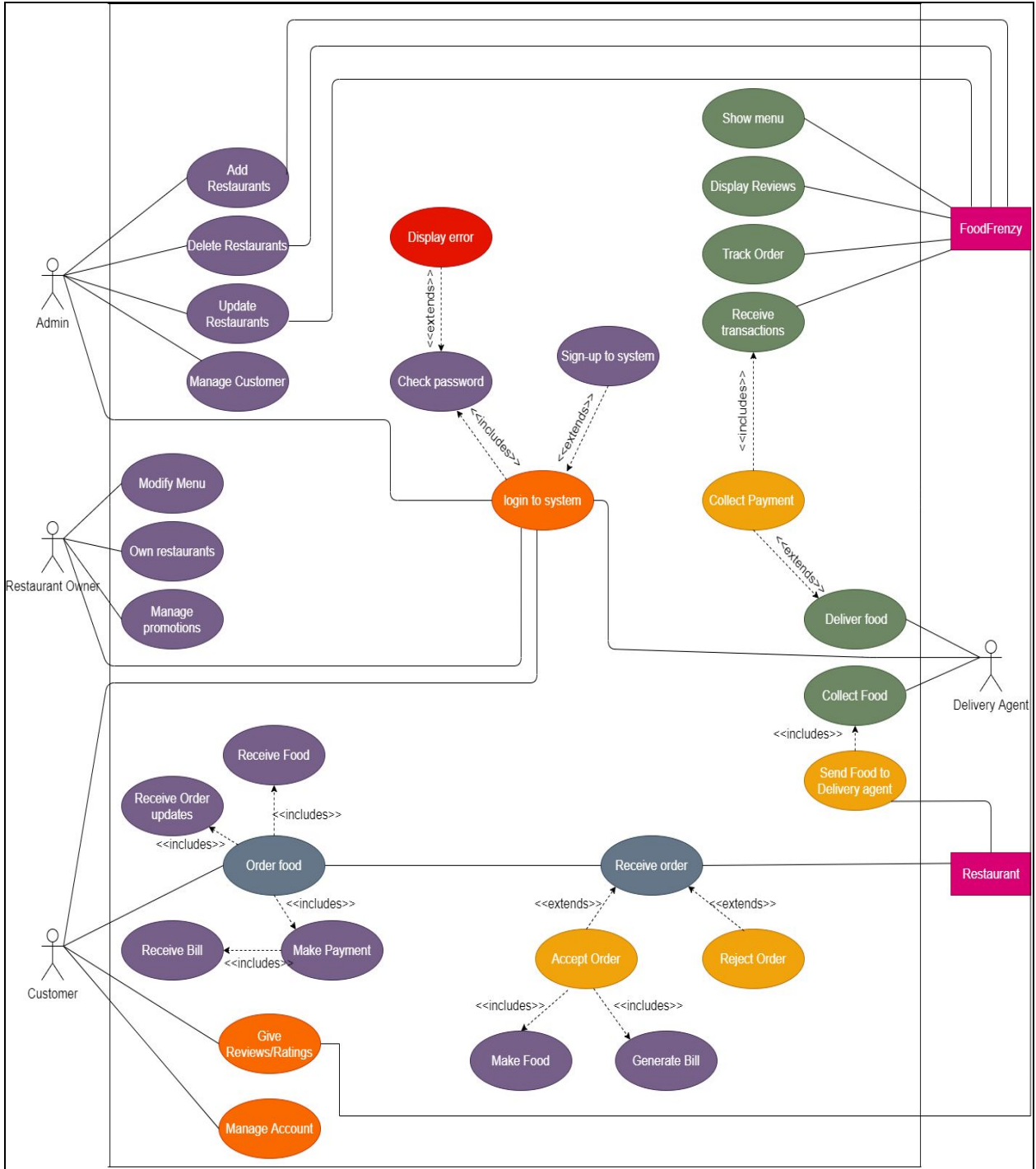
- ● SEQUENCE DIAGRAM
  - ○ Customer
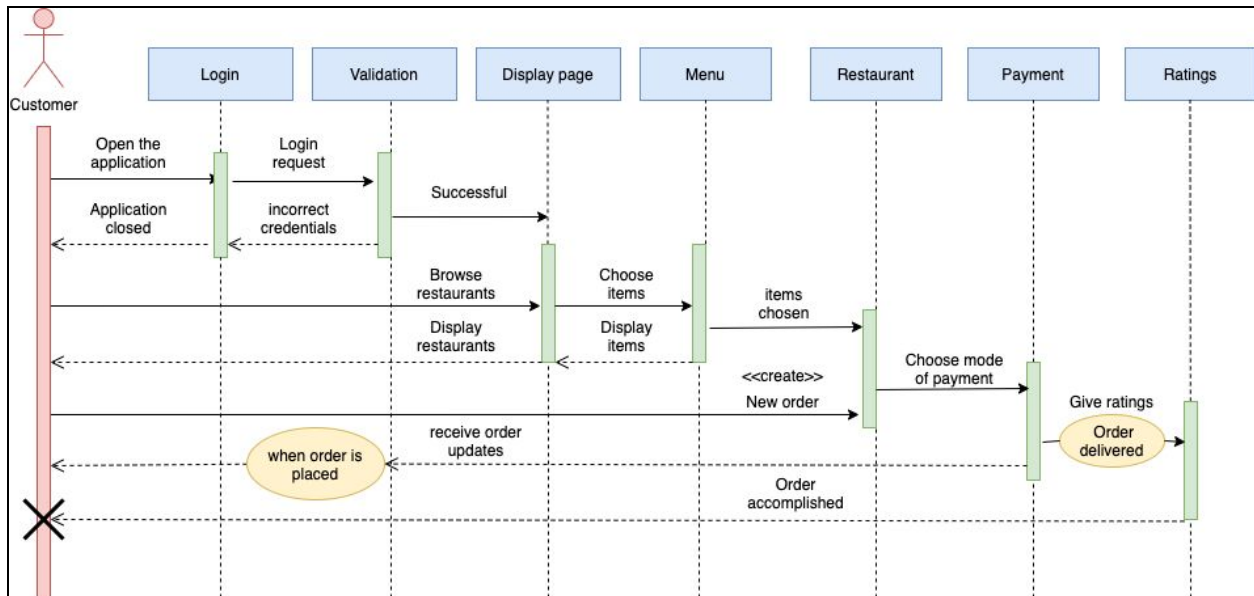
  - ○ Admin
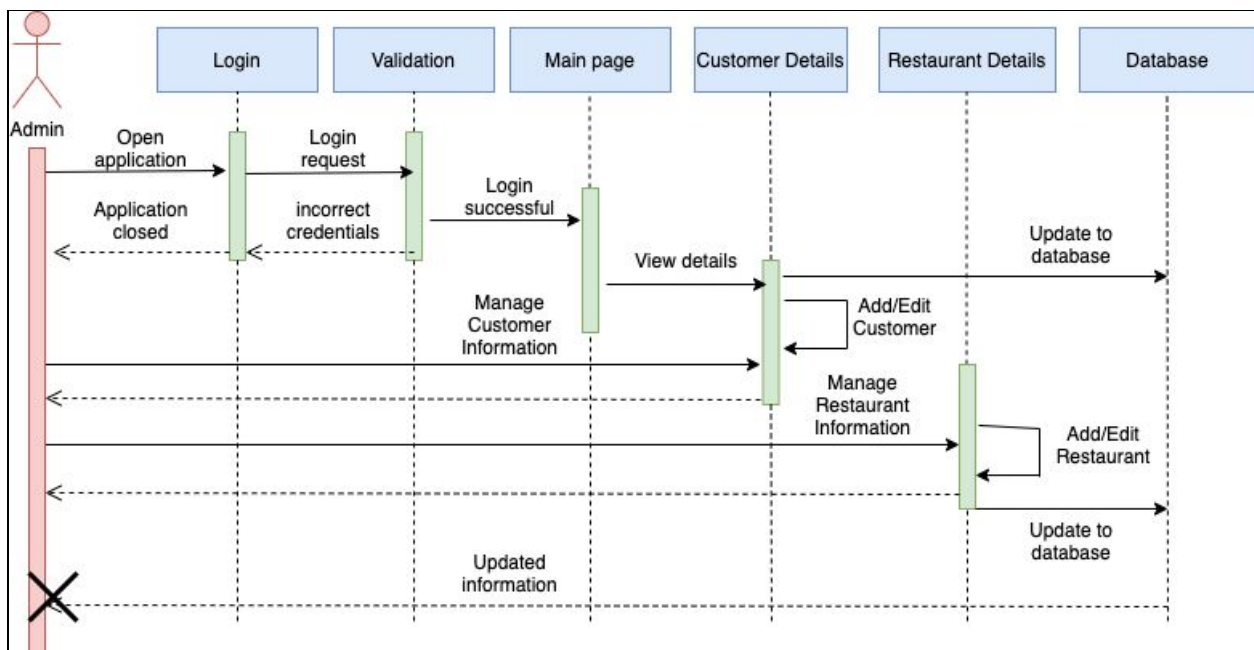
○ **Restaurant Owner**
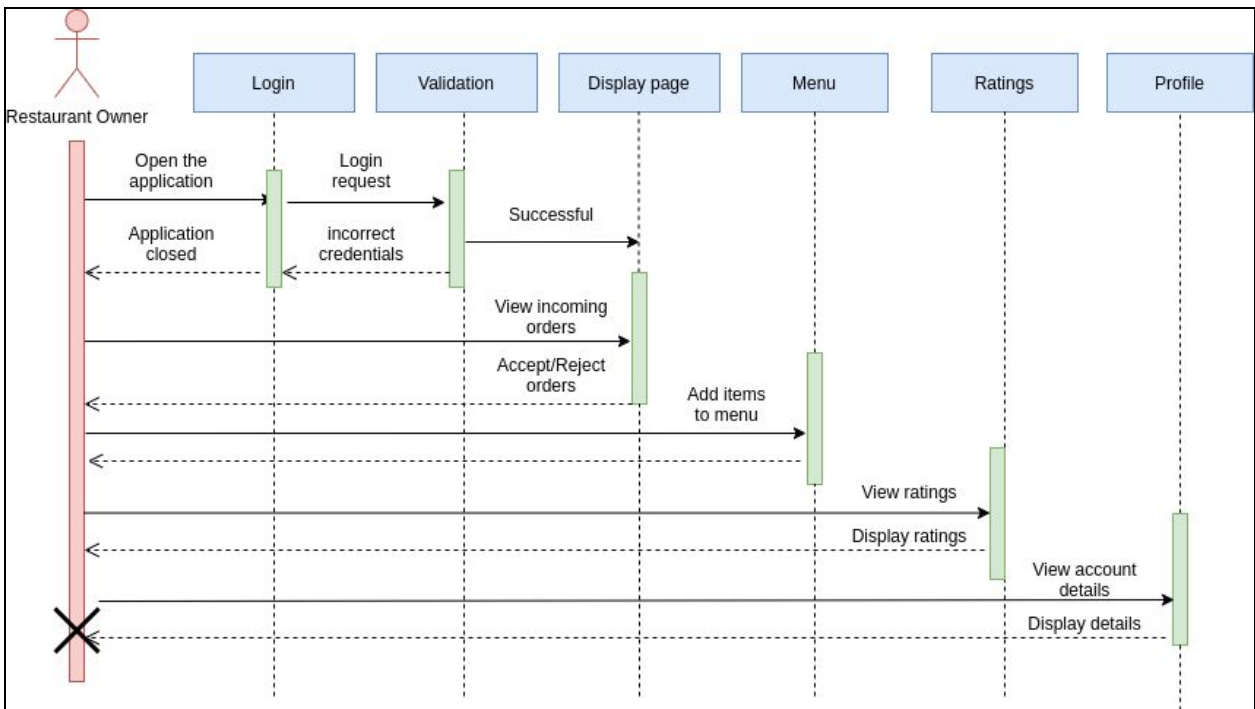
○ **Delivery Agent**
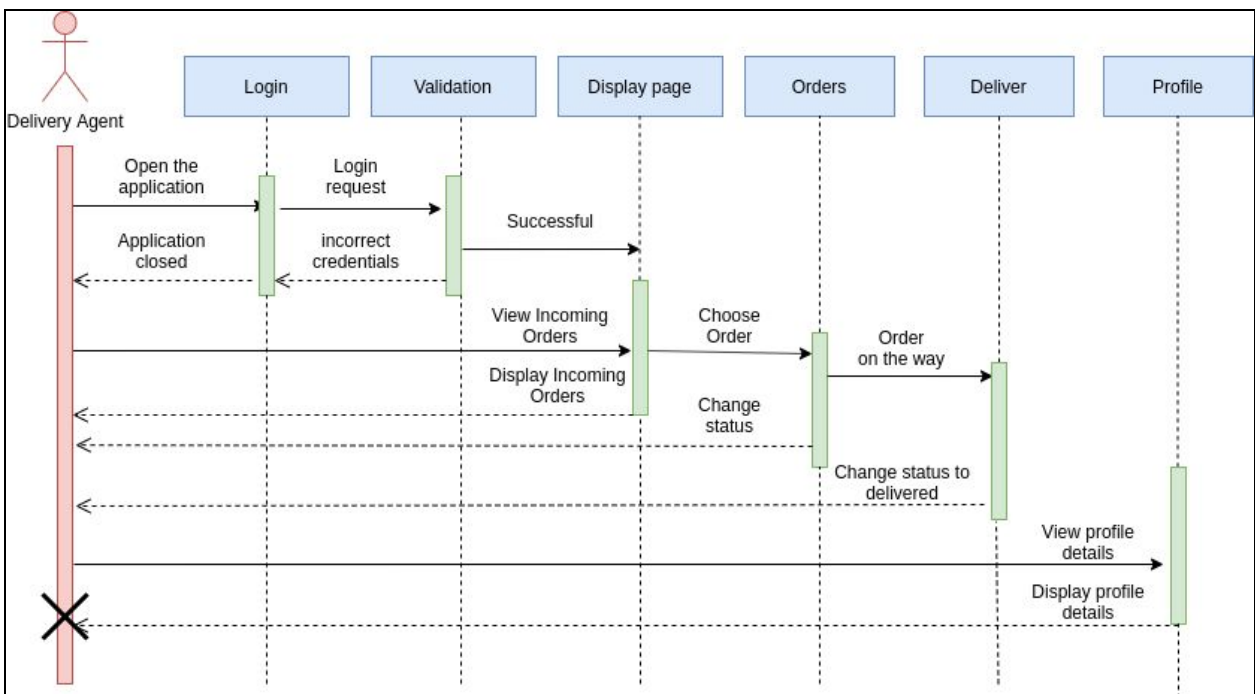
- **Data Flow Diagram**
  - LEVEL 0
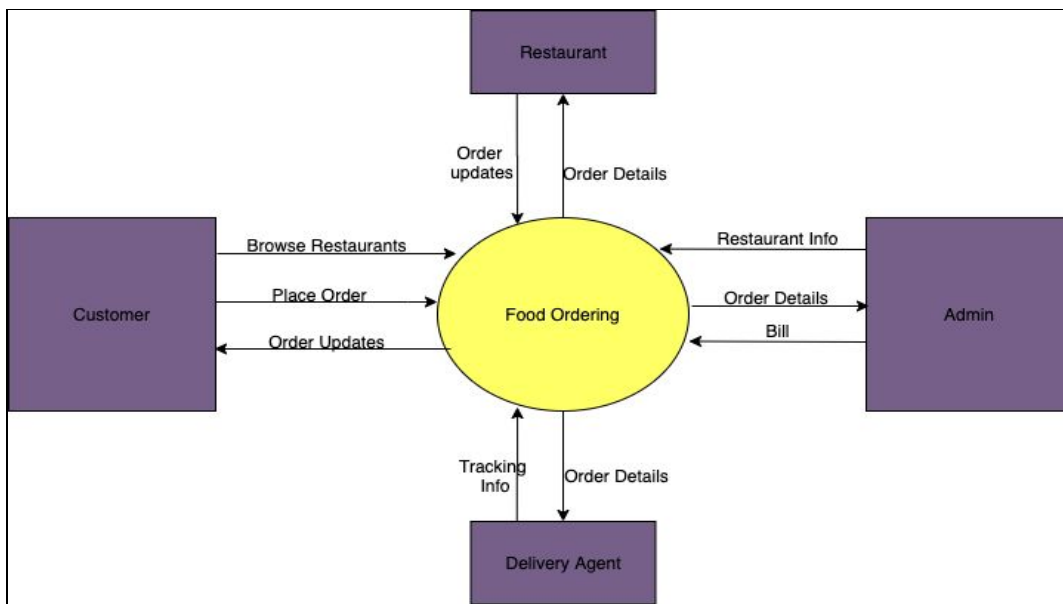
  - LEVEL 1
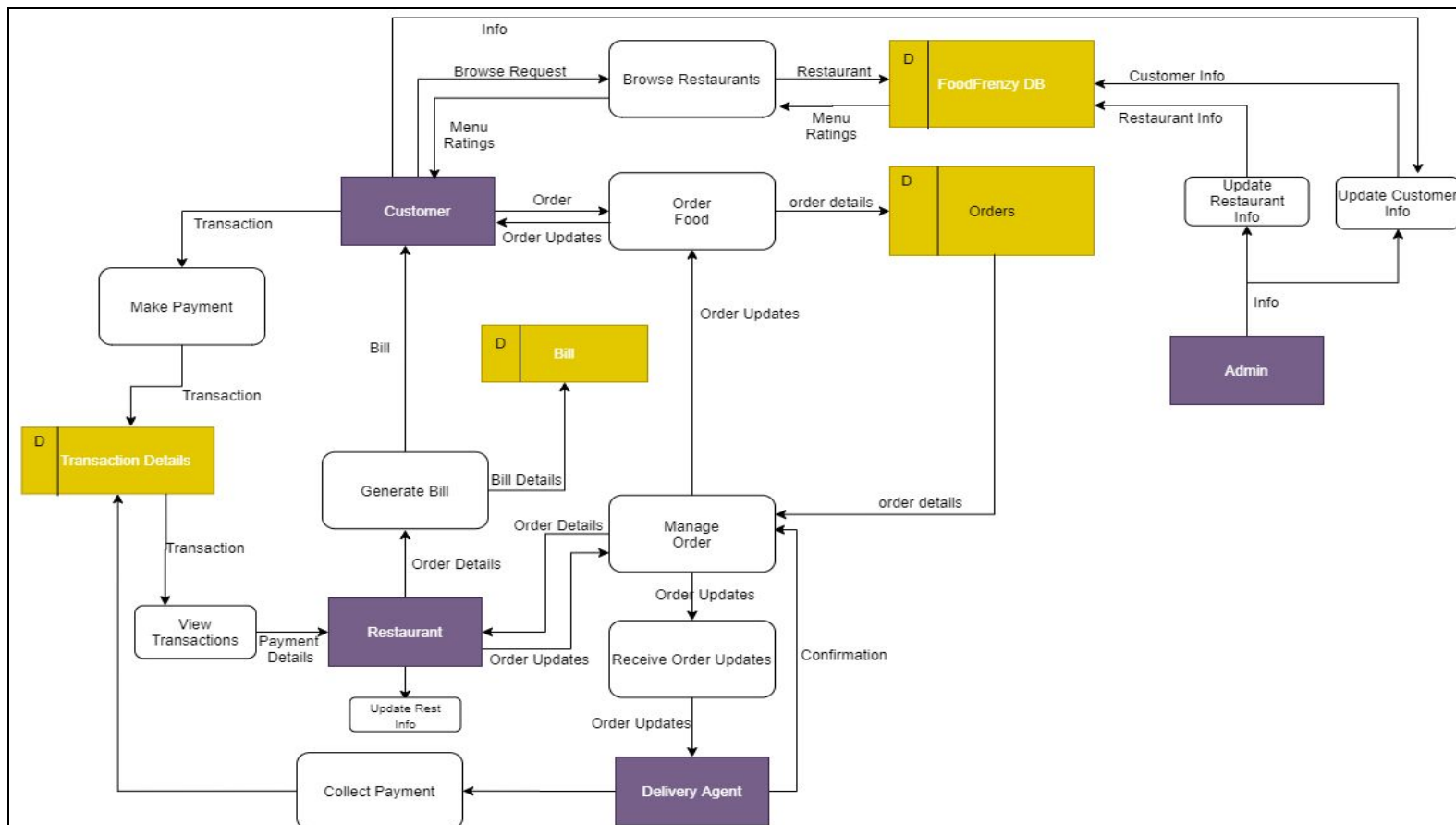
- LEVEL 2
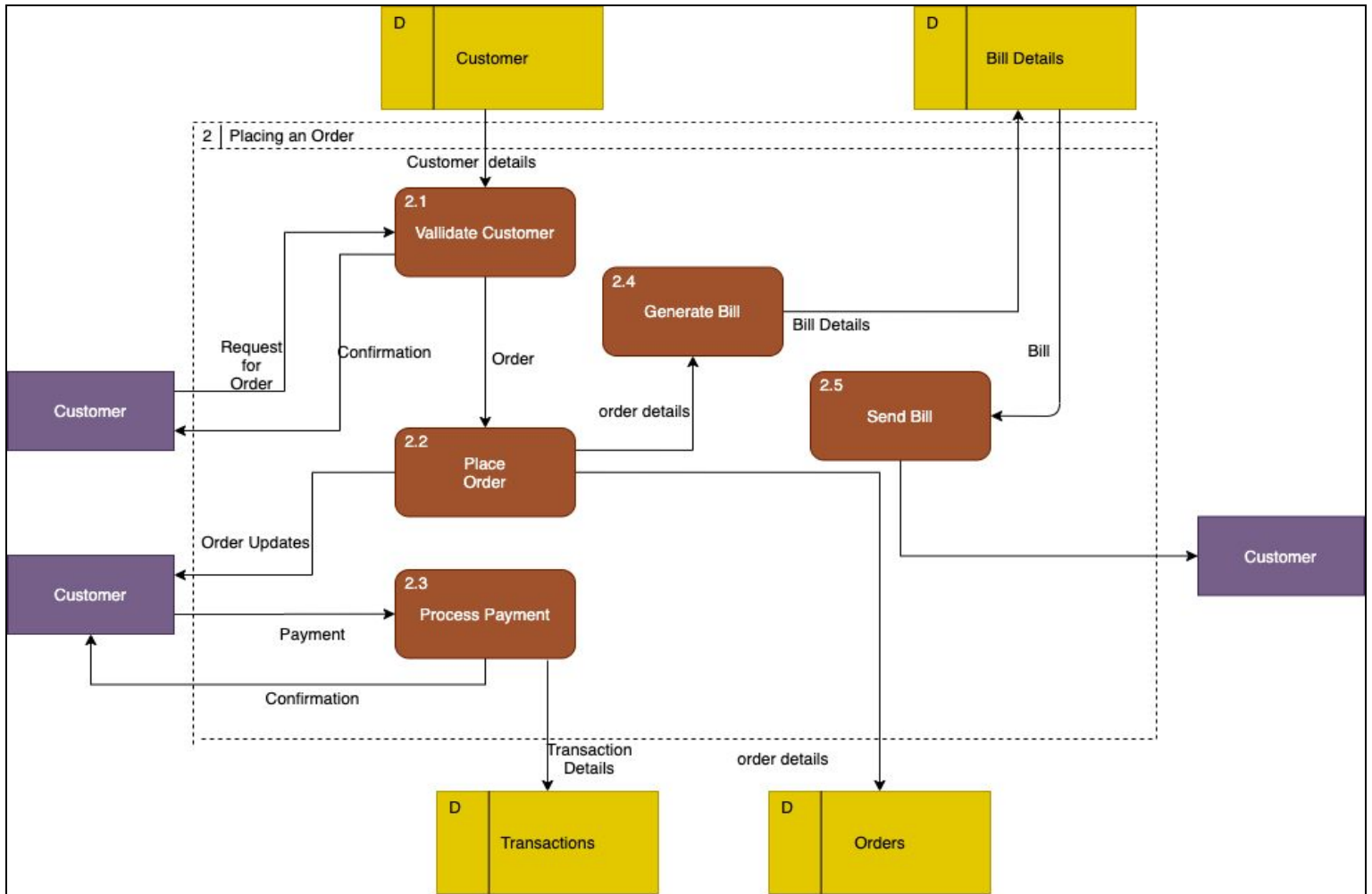
● **Activity Diagram**
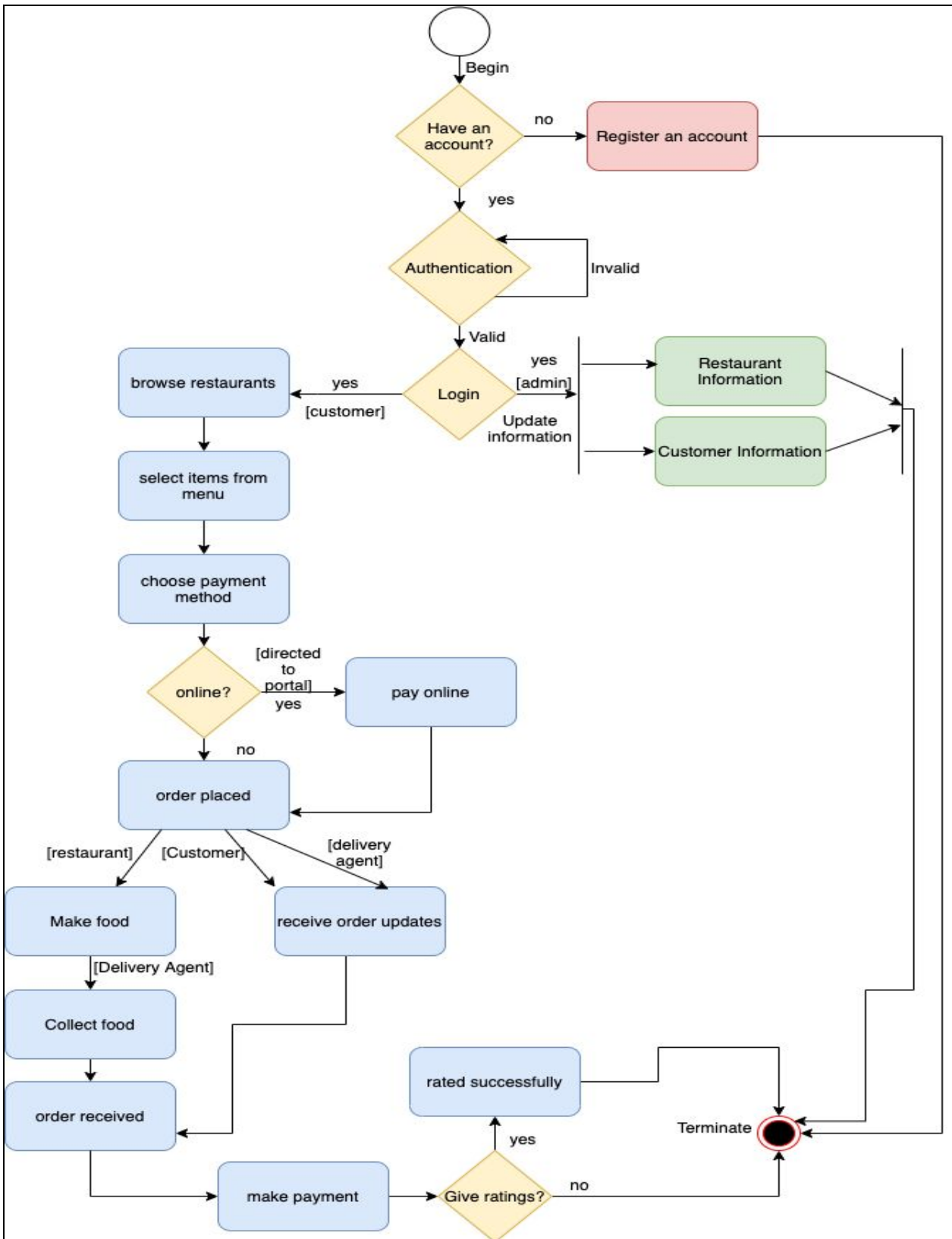
● **Entity Relationship Diagram**
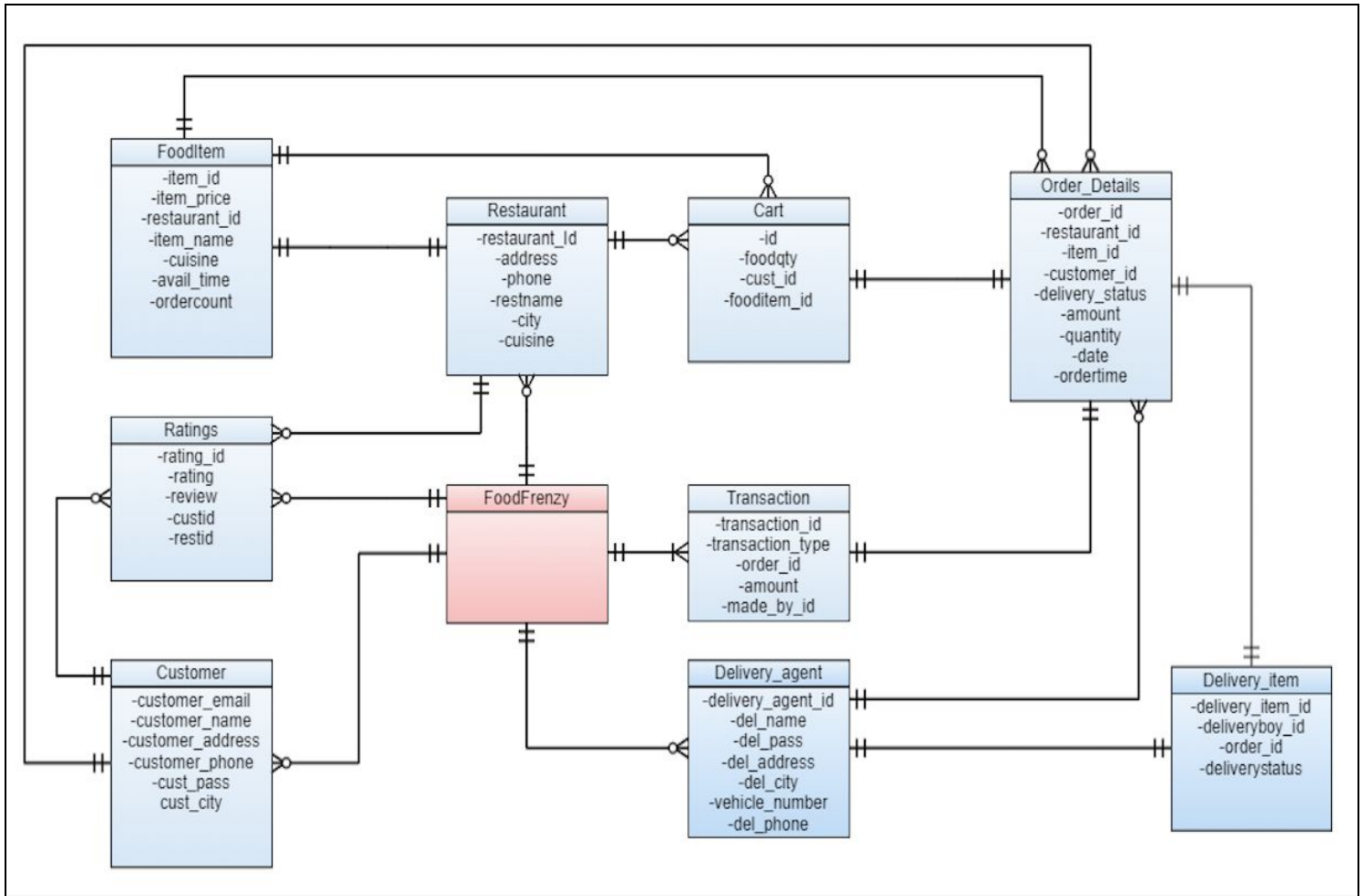
10. Screen Designs

1. Home Page
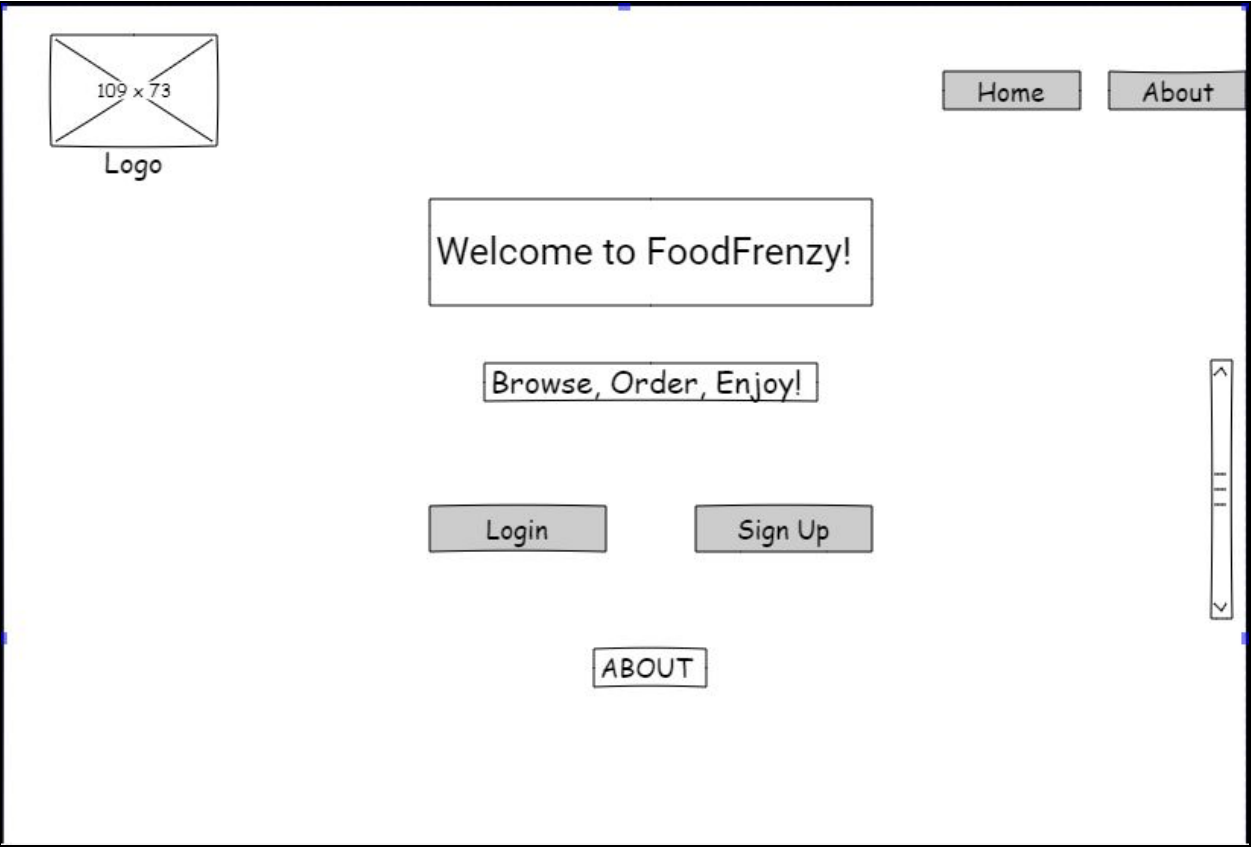
2. Sign Up

Enter Details

Name

Email

Phone Number

Address

User Type ▼

Username

****

Create Account

3. Login

Log in

Username

****

Forgot your password?

Go

4. Edit Details

Edit Details

Username

Email

Password
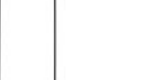
Contact

Address
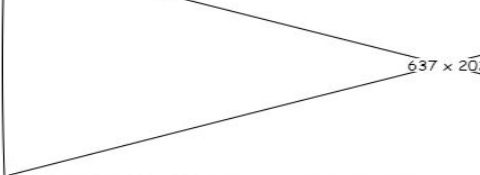
City

Save

5. Customer Home Page

6. Place Order

7. Cart for Order

	Order Cart			
49 × 45 FOODFRENZY				

Hello, Username!

Details
Order History
Order Cart
Log Out
About

Welcome to, Restaurant_Name!

Item name	Price	Quantity	
Burger	50	2	

Checkout

Make Payment

8. Incoming orders on restaurant side and delivery boy side

Incoming Orders

Pending...   Location: Date: Time: Contact:

Item name * Qty
☑ Delivered
Total =

Pending...   Location: Date: Time: Contact:

Item name * Qty
☑ Delivered
Total =

9. Order history of customer

Order History

Total:		Status:	Date:	Time:	Restaurant:

Item name * Qty

Item price:

Total:		Status:	Date:	Time:	Restaurant:

Item name * Qty

Item price:

10. Order history on restaurant and delivery boy side

49 x 45 FOODFRENZY

Hello, Restaurant!

Order History

Details
Order History
Order Cart
Log Out
About

Delivered		Location:	Date:	Time:	Customer:

Item name * Qty

Total =

Delivered		Location:	Date:	Time:	Customer:

Item name * Qty

Total =

11. Adding items to the menu (For restaurant)

Enter item details

Name

Cuisine

Price

Create item

12. Payment login

Payment Details

Username

Password

Amount

Submit

13. Payment gateway

Test Order

Transaction id:

Amount to be paid:

Choose an option to pay

◯ Paytm

◯ Credit Card

◯ Debit Card

◯ Netbanking

☑ 100% secure payments powered by paytm

14. PayTM

Paytm

Enter mobile no.

| +91 | Submit |

Paytm

Enter OTP

| | Submit |

15. Callback

Callback Message:

Checksum Verification:

MID:

TXNID:

ORDERID:

BANKTXNID:

TXNAMOUNT:

CURRENCY:

Make payment

16.   Credit card

Credit Card

Card number | Card Expiry Date | CVV

Enter number | MM / YY | Enter cvv | Pay

17.   Debit Card

Debit Card

Card number | Card Expiry Date | CVV

Enter number | MM / YY | Enter cvv | Pay

18.   Net Banking

Net Banking

| 49 x 40 | 49 x 40 | 49 x 40 | 49 x 40 | 49 x 40 |
| State Bank of India | ICICI | HDFC | YES BANK | PNB |
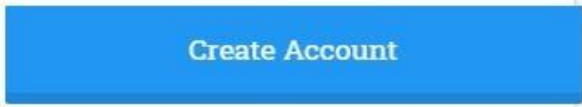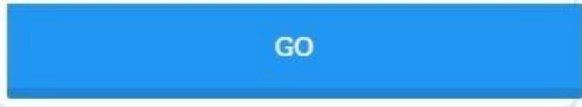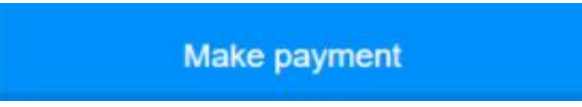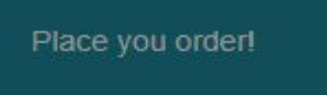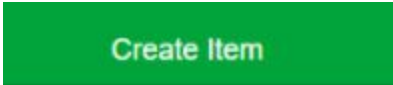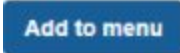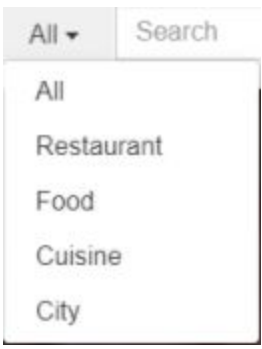
Select from other banks ▼   PAY

11. Navigation Buttons:

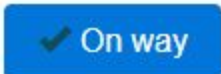| Navigation Button	Activity Performed
Create Account	On clicking this button after filling the necessary details, a new account for the user is created.
GO	This button takes to the page where the customer can select the restaurant to order upon successful login.
Make payment	This button leads to the payment window which asks the customer to select the payment mode and add card details id the selected mode is online.
Forgot Password	This button redirects to a page where email is asked to send the otp for resetting the password.
My Profile	This button redirects to the page where customer/restaurant details are displayed.
Place you order!	This button will show all the restaurants which are currently accepting orders.
Order History	This button takes to the page where all the details of the previous orders is listed.
Your Cart	This button redirects to the page where current items in the order are shown.
Log out	Upon clicking this button,the user or restaurant owner will log out from the system.
Ratings	This button will show the ratings on the restaurant side.

Add/Update Menu	This button will allow the restaurant owner to add/update in the menu.
Incoming Orders	This button will show all the incoming orders on the restaurant side.
Create Item	This button enables the restaurant owner to create a new item in the menu.
Add to menu	This button enables the restaurant owner to add new items in the menu.
ABOUT	This button redirects to the about page where all the necessary details of the web application is listed.
SIGN UP	This button will redirect to the sign up page.
LOGIN	This button will redirect to the login page.
Return	This button will redirect to the order cart page.
Save	On clicking this button, edited details by the user/restaurant owner will be saved to the profile.
All ▾ Search All Restaurant Food Cuisine City	This is a drop down menu which is used to enhance the search experience. It will allow the user to filter the restaurants on the basis of cuisine, city, restaurant, food or all of them together. Apart from that the user can also search by typing the food name or restaurant name in the search bar.
✓ On way	When this button is clicked by the delivery boy, the order status on the user's profile will be changed to on way.

	When this button is clicked by the restaurant owner, the order status on the user's profile will be changed to accepted.
	When this button is clicked by the restaurant owner, the order status on user's profile will be changed to delivered
	This button will enable the user to submit ratings and reviews for the restaurant.

12. Recommendations

An analyst would suggest following recommendations for the system :
➔ Security measures should be employed into the system for safe payment transactions without theft
➔ Troubleshooting and updating of the system should be done to maintain the standards of the system.
➔ Latest versions of antivirus should be installed and updated frequently to detect the presence of any virus.
➔ Each customer, delivery agent and the restaurant owner should be identified uniquely with a unique id and password
➔ Google Maps API (Paid) should be used for fetching accurate geolocation and complete address of any user
➔ Geolocation and GPS hardware should be used to track customer and delivery agent
➔ Portability to mobile application
➔ Add more payment options such as PayPal, Google Pay, and net banking
➔ Improve summary statistics display for restaurant to see their reviews
➔ Functionality to remove items directly from cart