IE4717 Web Application Design
Project Design Report

Design Project Group Number:
F34-DG14

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Project Title:
Meal Dash

Summary of Project:

Meal Dash is a food ordering web application. This web app provides users with details on food options, along with their images, and their prices. It allows users to browse the food menu, with the option of browsing via categories. Users can also order food items for delivery and select the quantity to add to the cart before checking out, where they will be able to view a summary of their order before successfully placing their order.

The web application allows users to create an account, log in/out of their account, and change their profile details such as email and delivery address. Users cannot add food items to the cart without signing into an account.

Table of Contents:

1. Application Requirements and Specifications

1.1. Product Scope

The web application comprises 9 content pages apart from the main home page. All content pages will contain a common navigation bar with quick links to other main content pages: Home, About, Menu, Orders, Contact, Cart, Profile. All content pages will also contain a list of latest items, contact information and address of MealDash.

Page Name	Scope
Home	Contains a list of Food Categories with placeholder images that will redirect users to the respective food categories, upon clicking the category images.
About	Contains a brief introduction to MealDash, steps to ordering food on the web application and customer reviews.
Menu	Contains a list of all available food items with product images, category, product name, price, with the option for users to input their desired quantity for ordering.
Order Summary *(server-side generated)*	Contains a summary of the current order to be placed by the user, including: name of food items, price of food items, total price of order, delivery address, customer contact details. Contains links to view cart, update information, update address, select payment method and place order.
Contact	Contains a form with fields: name, email, mobile number and message.
Cart	Contains a list of items added to cart and their details including product images, category, product name, price and quantity selected. Displays total cost of all food items in cart, and contains buttons to checkout items, remove all items and a link to continue browsing the menu.
Profile	Contains profile image, name, mobile number, email and delivery address. Contains links to allow users to edit these information.

Update Information	Contains a form to allow users to update their profile details with fields: name, email, mobile number and address.
Login	Contains a form to allow users to log into their account with fields: Email, Password. Contains a link to the registration page for users without an existing account.
Register	Contains a form to allow users to register for an account with fields: name, email, mobile number, password and confirm password. Contains a link to the login page for users with an existing account.
Orders	Contains information of past and current orders, including: date of which order was placed, name, mobile number, email, address, payment method, ordered items, total price of order, order status.
Admin Panel	Contains information of all orders received, including: user ID, date of which order was placed, name, mobile number, email, address, payment method, ordered items, total price of order, order status. Contains a form that allows the admin to change the order status.

1.2. Product Value

The web application needs to be able to successfully handle user's requests of placing orders for the food items that the user wants. It also needs to be able to allow the user to update their own information and make changes to the delivery address used while providing status updates on the delivery so that the user is aware of where their food is at any point.

1.3. Intended Audience

This web application is to be used by potential users that are looking to order food items from Meal Dash and have it delivered to an address.

1.4. Intended Use

This web application is to be used by users to order food items so that they will be delivered to their set delivery address. Users will begin by creating an account, logging in, adding items to cart and lastly, checking out.

1.5. Software Required & Technology Used

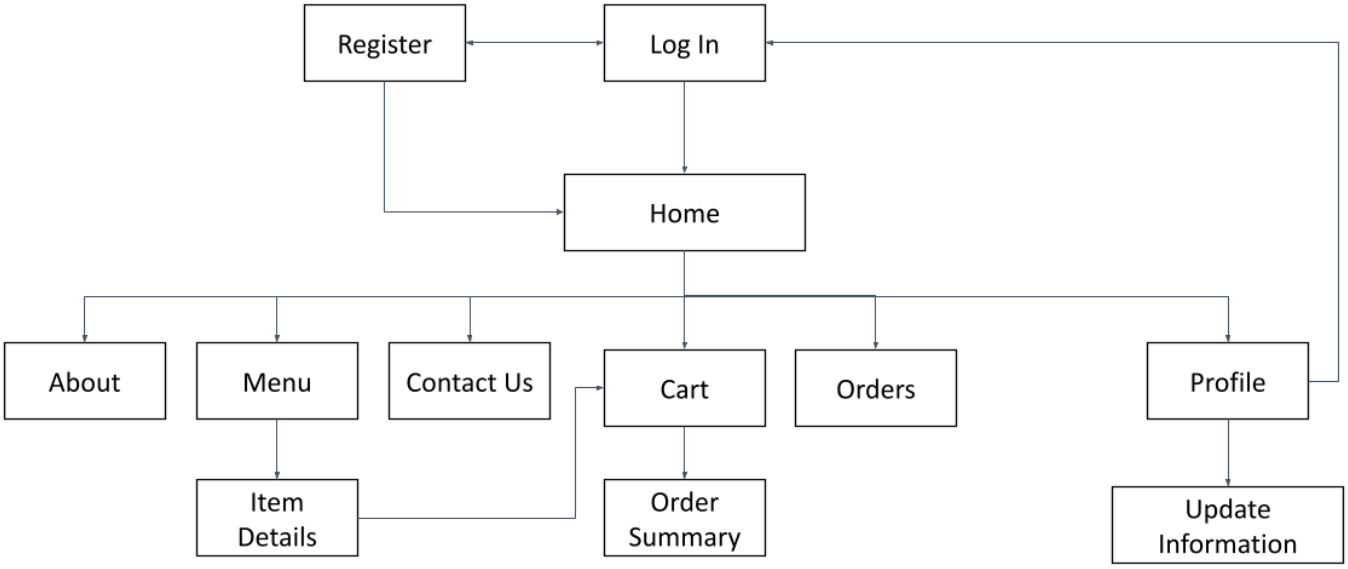
Github: for collaborative programming purposes.
Visual Studio Code: a simple code editor.
Programming languages used: HTML, CSS, Javascript, PHP
Google Chrome: for web app browsing and testing purposes.
XAMPP: server and database.

2. Functional Requirements and Specifications

	Requirement/Specification
Login	The web app must allow users to log in to their accounts by entering their email and password.
Sign Up	The web app must allow potential users to register for an account with their email.
Add To Cart	The web app must allow users to add and store items to the cart while browsing.
View Cart	The web app must allow users to view all items in their cart.
Checkout	The web app must allow users to checkout all items in their cart in order to place the order successfully.
View Item Details	The web app must allow users to view a description and all information about an item in an expanded view.
Update Profile + Address	The web app must allow users to change their profile information and delivery address.
View by Category	The web app must allow users to browse all items via a categorical view.
View Order Summary	The web app must allow users to view and verify all items they are ordering before checking out.
Order Acknowledgement	The web app must provide users with an acknowledgement of a successful order on-screen and via email.
Order Status Updates	The web app must provide users that have placed an order with a status update for every status change of their order. The admin panel must allow the admin to update the status of the order for the customer to see.

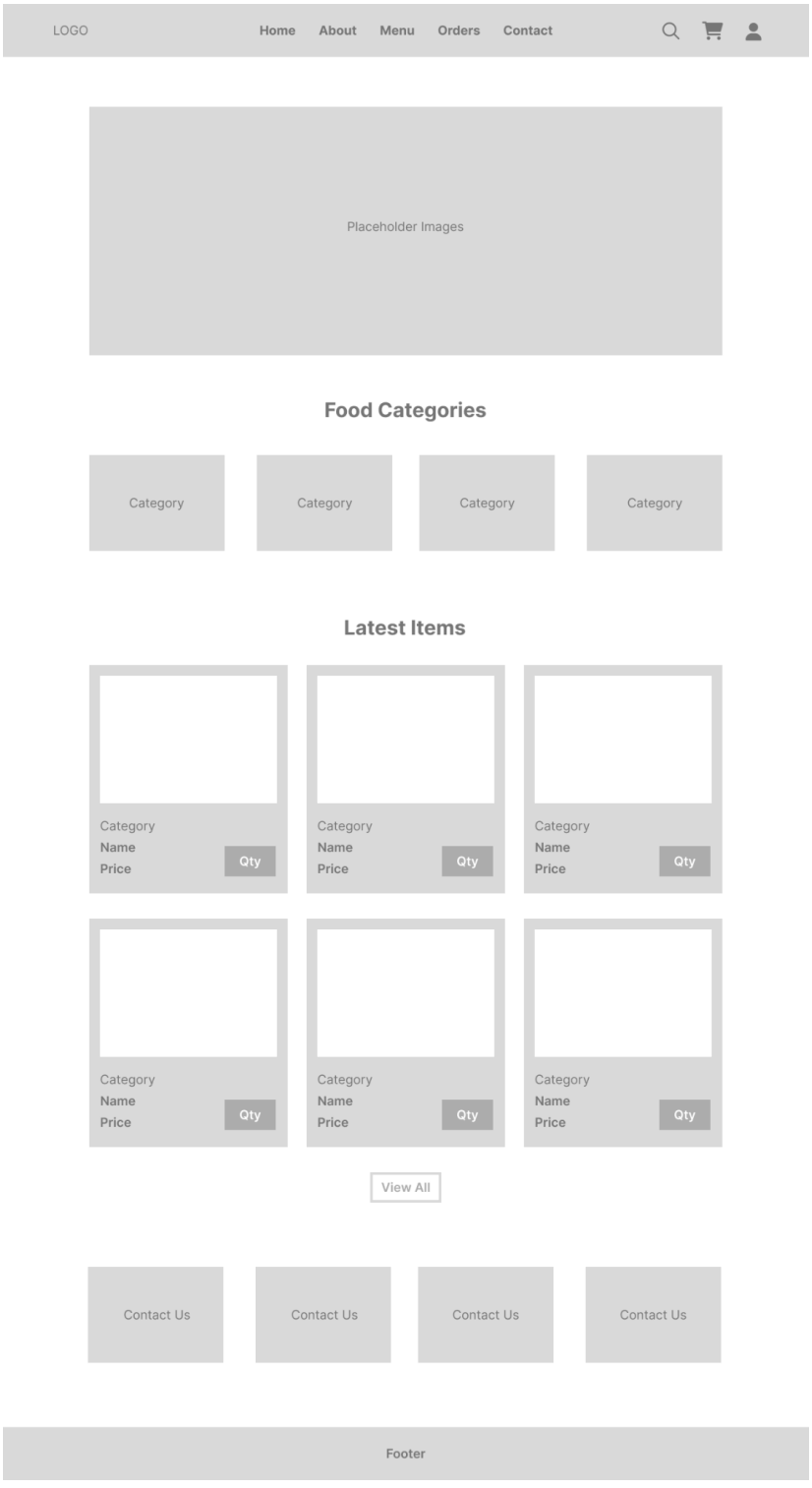
3. Design of Meal Dash

3.1. Sitemap

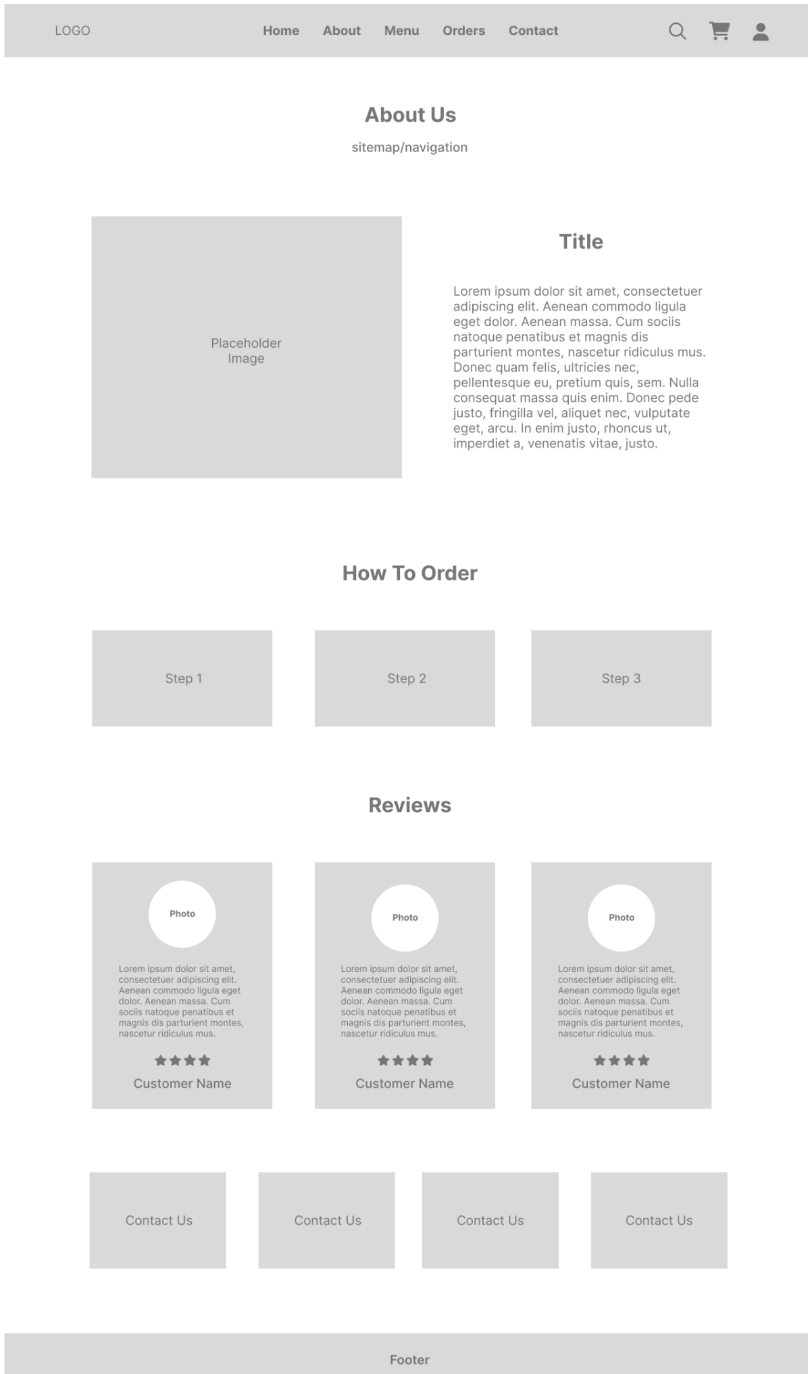


3.2. Wireframes

A. Home Page



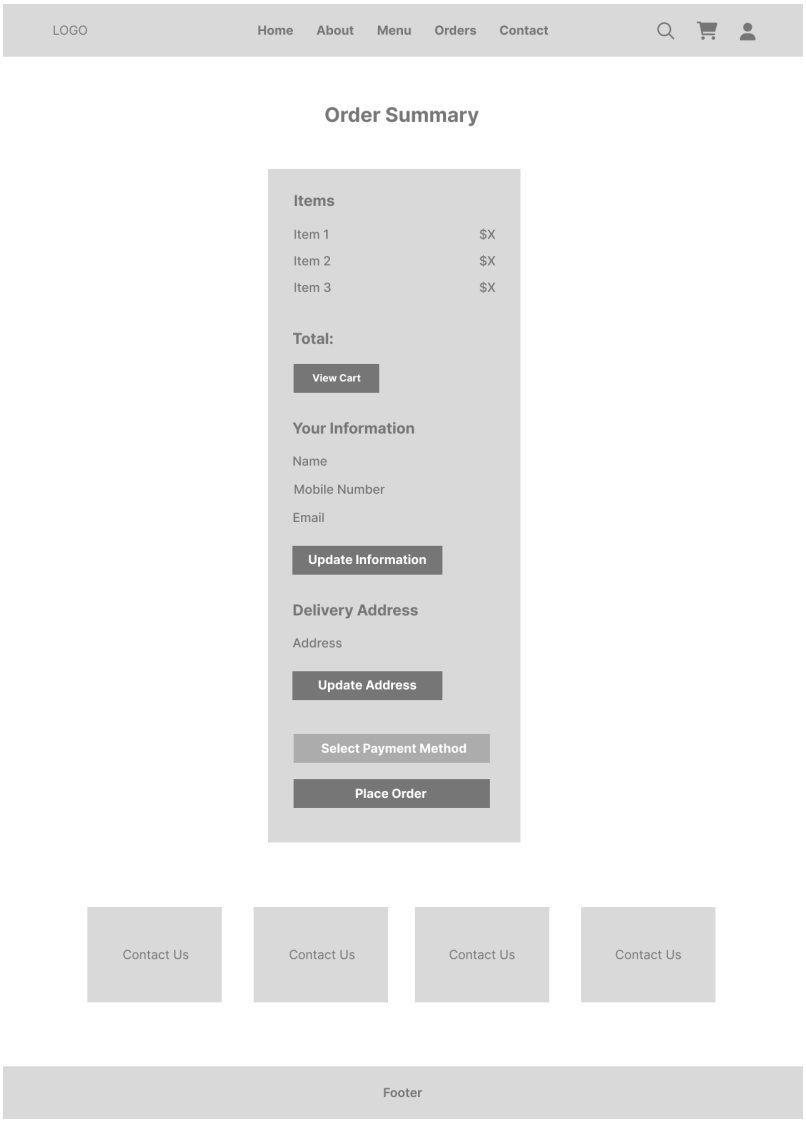
B. About Page


LOGO
Home
About
Menu
Orders
Contact
About Us
sitemap/navigation
Placeholder Image
Title
Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulputate eget, arcu. In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo.
How To Order
Step 1
Step 2
Step 3
Reviews
Photo
Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.
Customer Name
Photo
Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.
Customer Name
Photo
Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.
Customer Name
Contact Us
Contact Us
Contact Us
Contact Us
Footer

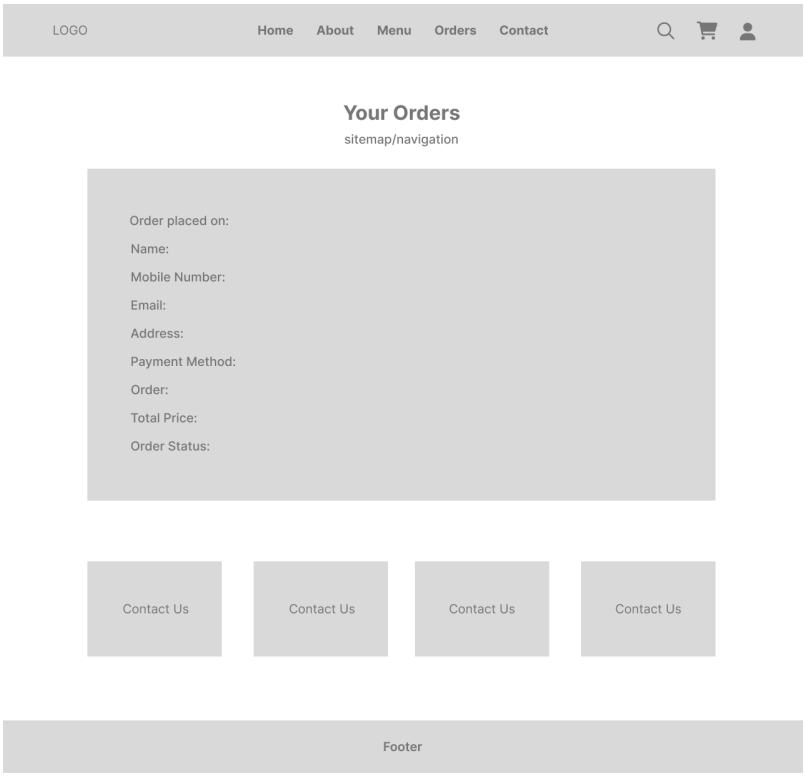
C. Menu Page


LOGO
Home
About
Menu
Orders
Contact
Menu
Category
Name
Price
Qty
View All
Contact Us
Contact Us
Contact Us
Contact Us
Footer

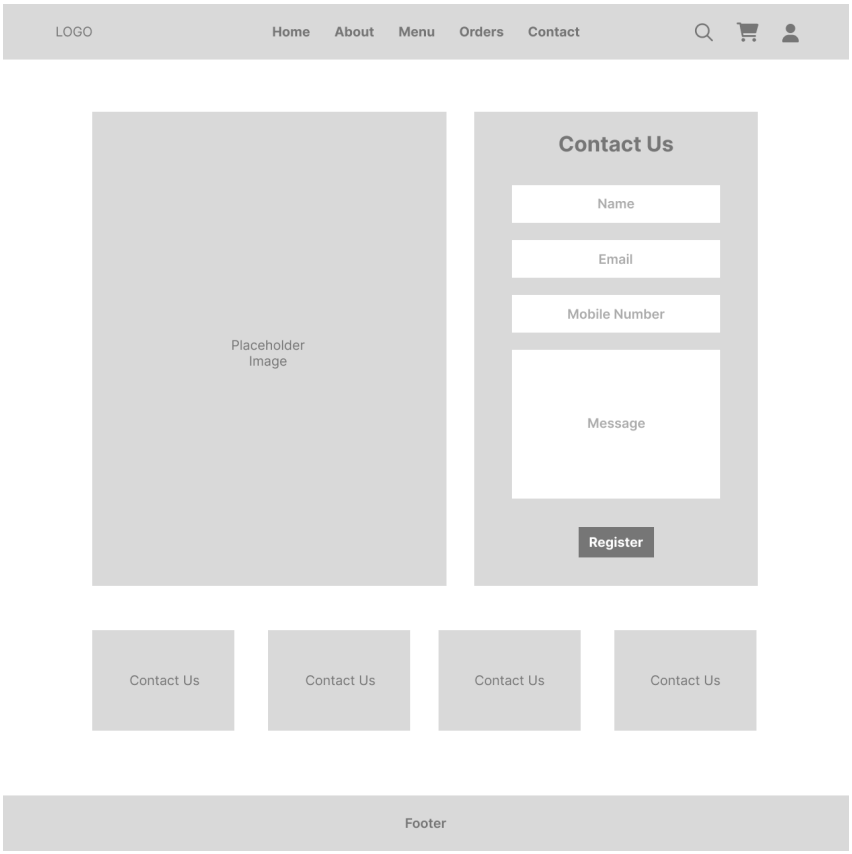
D. Order Summary Page



E. Orders Page



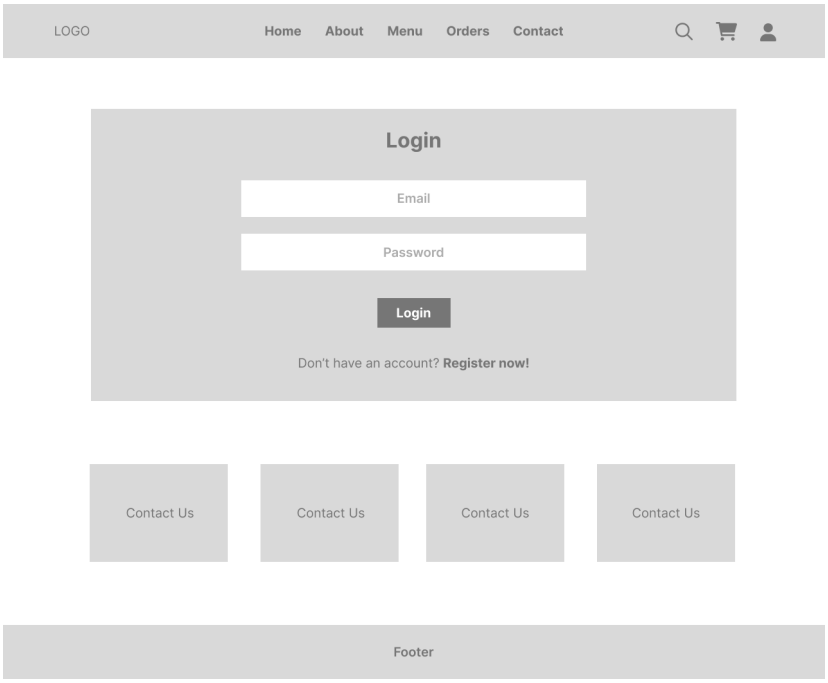
F. Contact Page



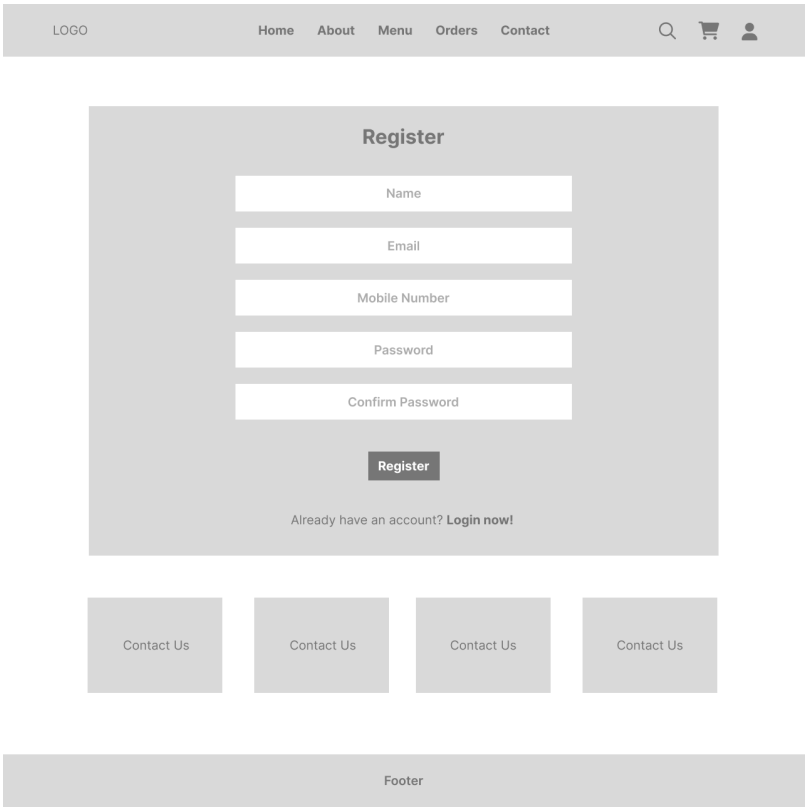
G. Cart Page


LOGO
Home
About
Menu
Orders
Contact
Cart
sitemap/navigation
Category
Name
Price
Qty
Category
Name
Price
Qty
Category
Name
Price
Qty
Total Cost:
Checkout
Remove All Items
Continue Shopping
Contact Us
Contact Us
Contact Us
Contact Us
Footer

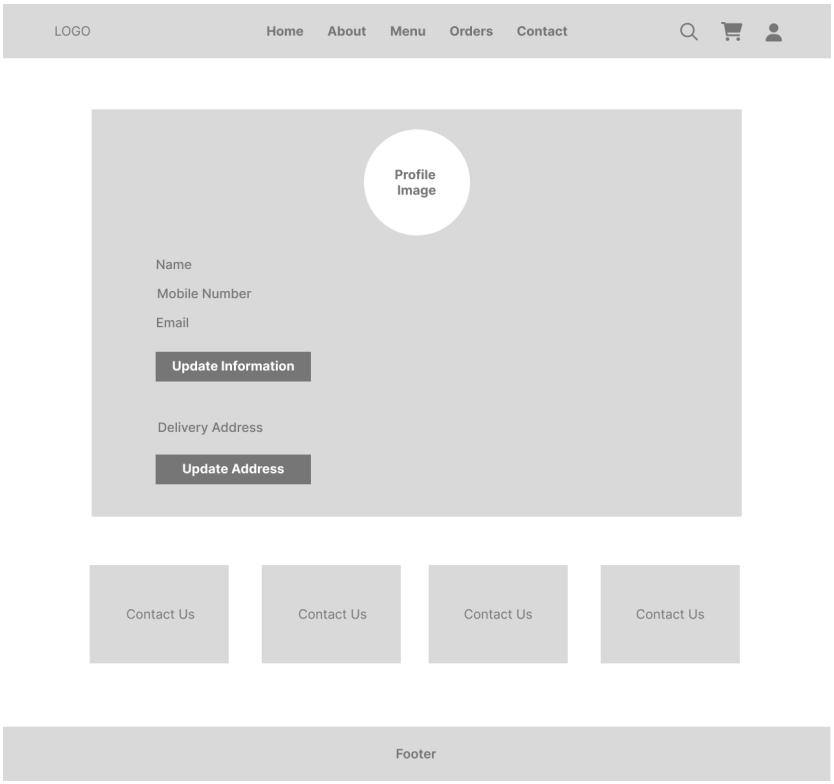
H. Login Page



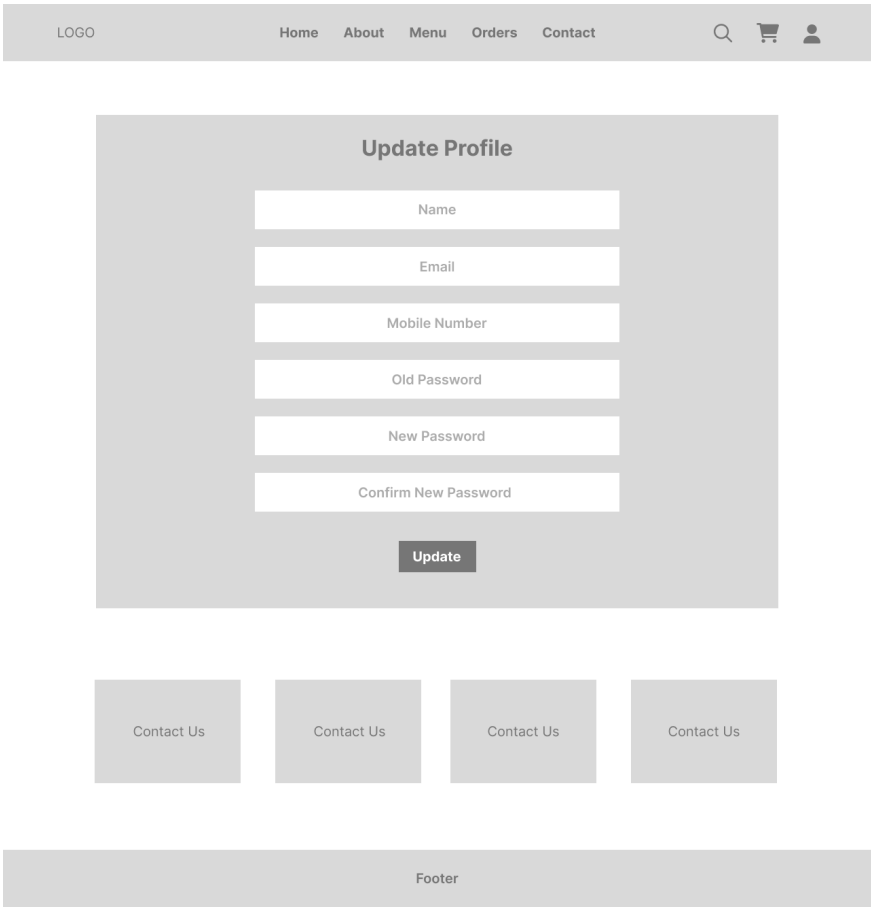
I. Register Page



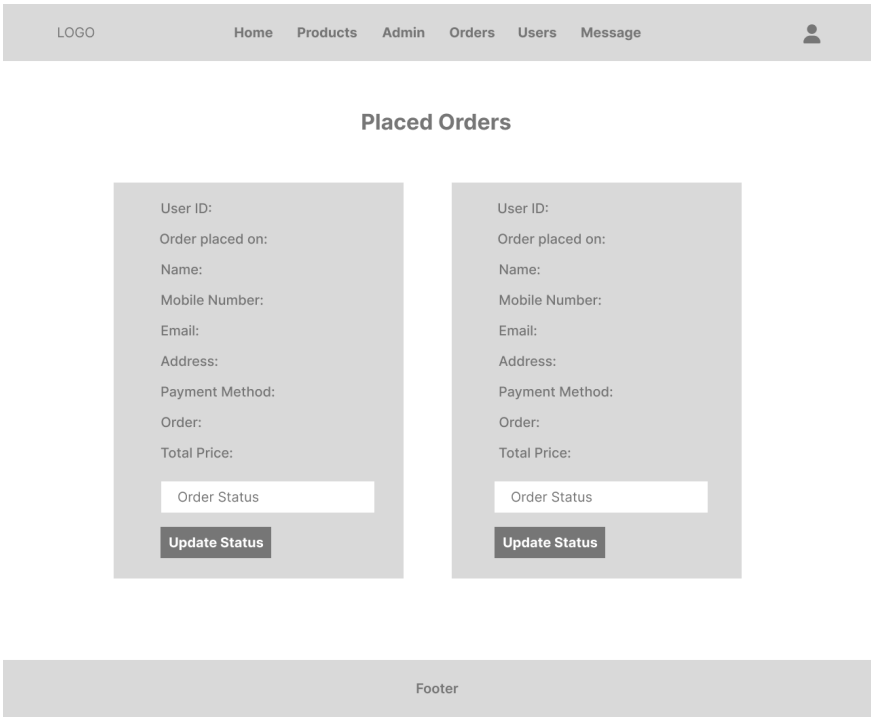
J. Profile Page



K. Update Information Page

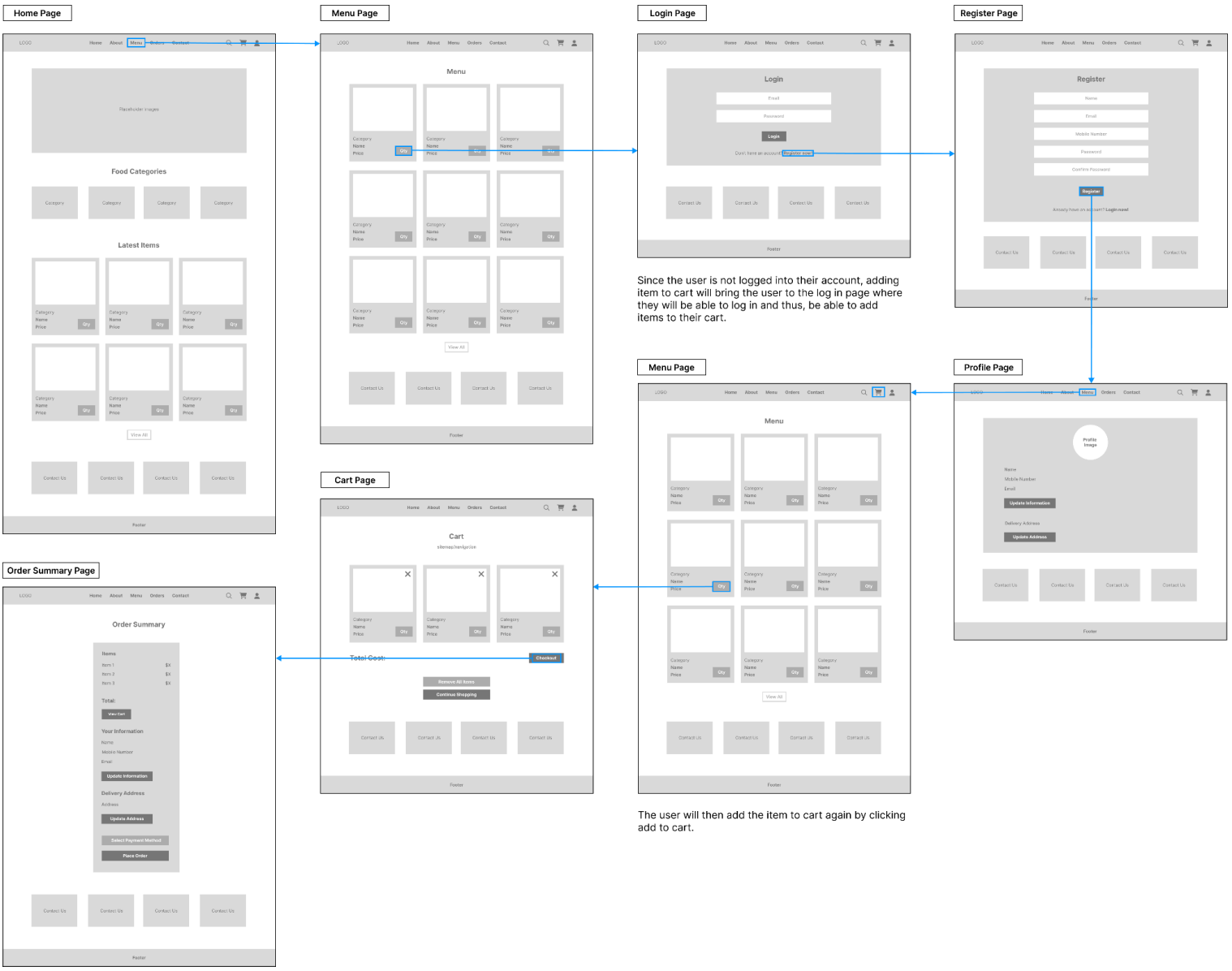


L. Admin Panel



3.3. Storyboard

Scenario: A user without an account is trying to purchase a food item.



3.4. Database

Databases required: admin, cart, messages, orders, products, users.

admin	id, name, password
cart	id, user_id, pid, name, price, quantity, image
messages	id, user_id, name, email, number, message
orders	id, user_id, name, email, number, method, address, total_products, total_price, placed_on, payment_status
products	id, name, category, price, image
users	id, name, email, number, password, address

3.5. Web Application Testing Plan

Functionality Testing:

- Test the outgoing links from all the pages to the specific domain under test.
- Test all internal links.
- Test links jumping on the same page.
- Test links are used to send emails to admin or other users from web pages.
- Test to see if there are any orphan pages.
- Check for broken links in all the above-mentioned links.
- Check all the validations in each field.
- Check for default values in the fields.
- Wrong inputs in the forms to the fields in the forms.
- Check for data integrity and errors while editing, deleting, modifying the forms or doing any database-related functionality.

Usability Testing:

- The website should be easy to use.
- The instructions provided should be very clear.
- Check if the instructions provided are perfect to satisfy its purpose.
- The main menu should be provided on each page.
- It should be consistent enough.
- Content should be logical and easy to understand. Check for spelling errors.
- Images should be placed properly in proper sizes.

Interface Testing:

- Web server and application server interface.
- Application server and Database server interface.
- Check if all interactions between these servers are executed and errors are handled properly.

Performance Testing:

- Performance of memory, CPU, file handling, etc.
- Large amount of data accessed by the user.