



THE OPEN UNIVERSITY OF SRI LANKA

EEY4189 - Software Design in Group

Final Report

iFood Online Ordering System

Group Alpha – M2

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Date: 28-02-2025

Introduction and Background

The **iFood Online Ordering System** is an innovative digital platform aimed at enhancing the food ordering experience for customers by delivering a seamless, efficient, and user-friendly solution. The project is spearheaded by **Group Alpha**.

The primary objective of the iFood system is to address existing gaps in traditional food ordering methods, including communication errors, delivery inefficiencies, and cumbersome payment processes. The system features functionalities such as menu browsing, secure order placement, real-time order tracking, and streamlined payment processing. Its scope encompasses both end-user convenience and backend efficiency, targeting users and restaurants alike.

Key functional requirements of the system include:

- **User Account Management:** Enabling registration, login, and profile management.
- **Restaurant and Menu Browsing:** Offering searchable menus with filters by location, cuisine, and ratings.
- **Order Tracking:** Providing real-time updates on delivery status via location services.
- **Restaurant Management:** Allowing restaurants to manage their profiles, menus, and orders effectively.
- **Admin Panel:** Facilitating system oversight and user management through a robust admin interface.

The iFood project also emphasizes non-functional requirements like performance scalability (supporting up to 1,000 concurrent users), security through encryption protocols (SSL/TLS), and cross-platform compatibility (major browsers and operating systems). Additionally, rigorous quality assurance measures ensure usability and system reliability.

The project has progressed through stages such as initial UI design, software requirement specification, and frontend development. Current efforts focus on the integration of backend and frontend components, with upcoming steps including testing and final report preparation. Despite facing challenges like resource constraints and integration delays, the project represents a significant stride toward redefining online food ordering systems.

Problem statement

Traditional food ordering methods often present numerous challenges for customers and restaurant operators alike. Customers frequently encounter issues such as communication errors during order placement, which result in incorrect or missed orders. Delivery inefficiencies, including incorrect address verification and delayed dispatch, further exacerbate the problem. Additionally, the absence of real-time order tracking and secure payment options limits the user experience, making the process cumbersome and unreliable.

For restaurant operators, managing order processing, delivery coordination, and menu updates can be time-consuming and error-prone. The lack of an integrated system to streamline these operations negatively impacts operational efficiency and customer satisfaction. In a competitive food service industry, these challenges highlight the urgent need for a digital platform that bridges the gap between customer expectations and operational capabilities.

Project Objectives

1. Enhance Order Accuracy and Efficiency

The iFood Online Ordering System aims to minimize communication errors by providing a streamlined, user-friendly interface for browsing menus, placing orders, and processing payments. Real-time order tracking and delivery management features will improve order accuracy and customer satisfaction.

2. Streamline Restaurant Operations

The system seeks to empower restaurant operators with tools for efficient profile management, menu updates, and order status tracking. This will reduce manual intervention, enhance operational efficiency, and support seamless communication between customers and restaurants.

These objectives align with the broader goal of delivering a robust, scalable, and secure platform that redefines the online food ordering experience.

- **Introduction to Similar Type of Systems**

1. Uber Eats

Uber Eats is a prominent platform that facilitates food delivery and pickup from a broad range of local restaurants. Its user-friendly interface allows customers to browse through an extensive selection of restaurants and menu items. Key features include real-time order tracking and status updates, which enhance the user experience by providing transparency and convenience. Integration with various payment methods ensures a smooth transaction process. Customer reviews and ratings play a crucial role in helping users make informed decisions, contributing to the platform's widespread popularity and seamless delivery service.

2. Pick Me

Pick Me is an emerging online food ordering service designed to offer a smooth and efficient food delivery experience. The platform provides a simple, user-friendly interface that allows customers to explore local restaurant options and place orders effortlessly. Real-time order tracking keeps customers informed about the status of their deliveries. Secure payment processing and multiple payment options further enhance the convenience of the service. Customer reviews and ratings are integral to the platform, assisting users in making reliable choices and ensuring a satisfying ordering experience.

3. Zomato

Zomato is a global food ordering and discovery platform known for its extensive restaurant database and rich user-generated content. It combines restaurant discovery with online ordering, featuring detailed restaurant profiles that include menus, photos, and user reviews. Additional functionalities such as in-app table reservations and loyalty programs provide a comprehensive dining experience. Zomato's robust community of food enthusiasts and extensive user feedback contribute to its reputation as a versatile and engaging platform for exploring dining options and ordering food online.

4. Just Eat

Just Eat is a leading online food ordering service primarily serving the European market. It connects users with local takeout restaurants through a user-friendly platform that offers a wide selection of nearby dining options. Features such as user reviews and ratings aid in decision-making, while multiple payment options, including cash on delivery, cater to various customer preferences. The platform also offers special deals and discounts, making it a convenient choice for ordering food from local eateries and enhancing the overall user experience.

Proposed solution

Proposed Solution Overview:

The proposed iFood Online Ordering System is designed to address the key issues identified in existing systems by leveraging modern technology to enhance user experience and operational efficiency. The system will include features such as real-time order tracking and secure payment processing. The main use case diagram below illustrates the core functionalities of the system and the interactions between different actors and the system components.



Figure 01: Use Case Diagram

Technology planning to use

➤ Backend

1. Database Design Tools

- **MySQL:** A robust RDBMS for handling data storage needs such as customer orders, menu items, and transaction records.
- **phpMyAdmin:** An open-source tool for administering MySQL over the web, supporting operations like managing databases, tables, and user permissions.

2. Server-Side Scripting

- **PHP:** A server-side scripting language for building the logic of the Restaurant Self-Ordering System, including handling customer requests and processing orders.

3. Web Server

- **Apache:** Apache is a highly configurable and widely used open-source web server software. It will serve as the HTTP server for hosting the web application, ensuring reliable delivery of web content to users. Apache's flexibility and extensive module support make it a suitable choice for the project.

➤ Frontend

1. UI Design Tools

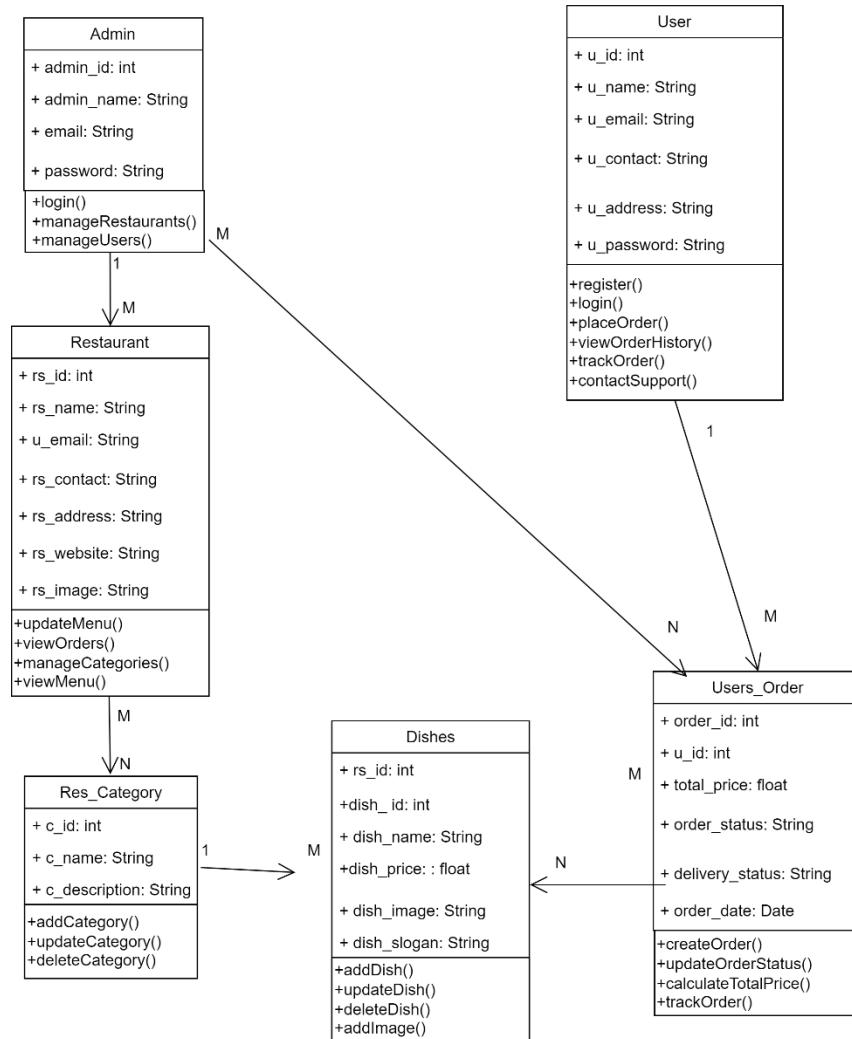
- **Balsamiq:** A wireframing tool for creating low-fidelity wireframes, allowing early visualization of the application layout.
- **Figma:** A design tool supporting real-time collaboration for consistent and user-friendly interface design.

2. Frontend Development

- **HTML5:** The standard markup language for structuring web content.
- **CSS3:** A styling language for creating visually appealing and responsive designs.
- **JavaScript:** A scripting language for dynamic and interactive user experiences, handling client-side logic and asynchronous operations.
- **Bootstrap:** A powerful frontend framework offering pre-designed components and a responsive grid system. Bootstrap accelerates development with ready-made styles and interactive elements, ensuring consistent, mobile-first web pages.

Design Document

- Class Diagram



- ER Diagram

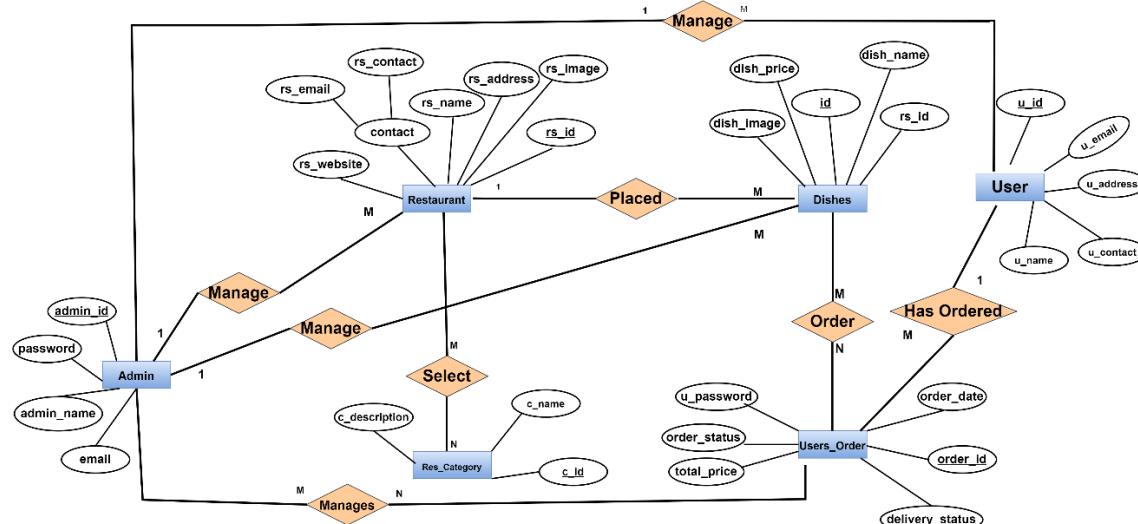


Figure 04: Er Diagram

- **Activity Diagram**

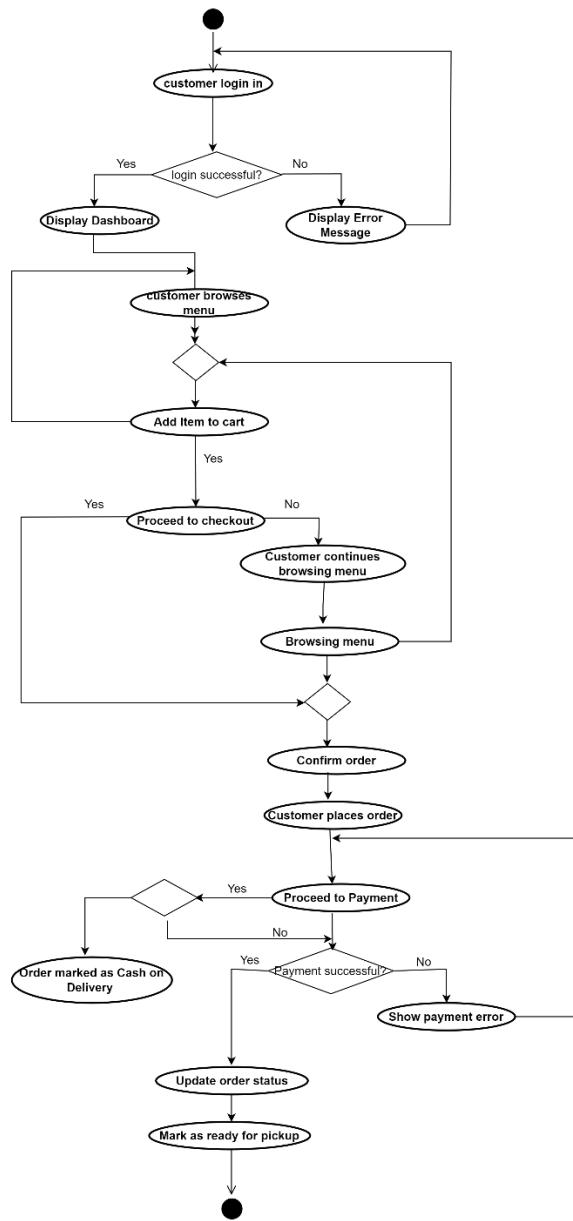
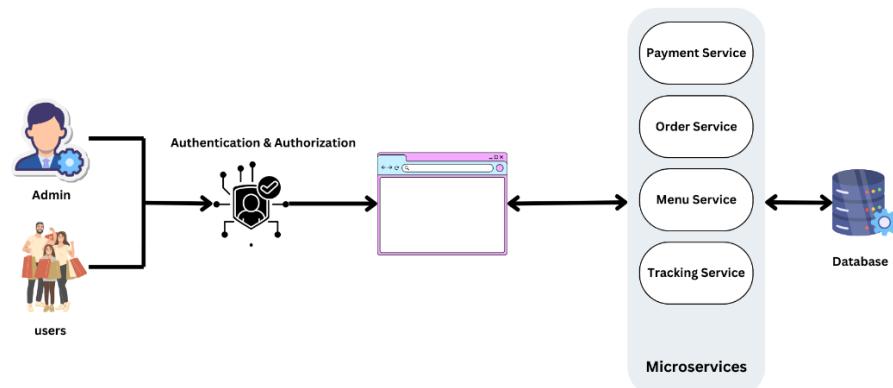


Figure 03: Activity Diagram

- **Overall architecture-block diagram**



Test Case Document and Test results

Test Case ID	Test Case Description	Pre-Conditions	Test Steps	Expected Result	Actual Result	Test Result
#001	Verify the "User Login" Page	The system is up and running.	Open login page. Enter valid login credentials. Click "Login" button.	The user is logged in successfully, and the home page is displayed.	The user login was successful, and the home page was displayed.	Pass
#002	User View each restaurant menu items	The system is up and running.	Navigate to the "Restaurant menu items" section.	The User can view each all-Restaurant menu items.	The user is presented with each all-Restaurant menu items.	Pass
#003	Validate that users can add items to their cart.	The system is up and running.	Browse the menu. Select an item and click "Add to Cart." Verify the cart is updated.	Selected item appears in the cart.	cart updated correctly	Pass
#004	Confirm users can place orders successfully.	The system is up and running.	Add items to the cart. Proceed to check out. Complete payment.	Order confirmation page is displayed	Order placed successfully	Pass
#005	Verify that order details are correctly displayed in the "My Order" table.	The system is up and running.	Navigate to the "My Orders" section. Verify that the table displays the correct order details.	The "My Order" table accurately displays all order details with the correct data	The my orders table displayed all order details as expected, including item name, quantity, price, status, date, and action options	Pass
#006	Verify the "Admin Login" Page	The system is up and running.	Open login page. Enter valid login credentials. Click "Login" button.	The admin is logged in successfully, and the home page is displayed.	The admin login was successful, and the home page was displayed.	Pass
#007	Verify that the admin can edit restaurant details.	The system is up and running.	Navigate to the "Restaurants" section. Select all restaurants and click the "Edit" button. Modify details. Save changes.	The admin can edit restaurant information.	The admin edited restaurant information.	Pass
#008	Verify that the admin can add a restaurant category.	The system is up and running.	Navigate to the "Restaurants" section. Select add category. Enter category details and save.	New category appears in the list.	Category added successfully	Pass
#009	Verify that the admin can edit a restaurant category.	The system is up and running.	Navigate to the "Restaurants" section. Select add category, and click the "edit" button. Modify details. Save changes.	The admin can edit restaurant category information.	The admin edited restaurant category information.	Pass
#010	Verify that the admin can add a new restaurant	The system is up and running.	Navigate to the "Restaurants" section. Select add Restaurant Enter category details and save.	New restaurant appears in the list.	Restaurant added successfully.	Pass
#011	Verify that the admin can edit menu details	The system is up and running.	Navigate to the "Manage Menus" section. Select a menu item. Modify details. Save changes.	Updated menu details are saved and displayed correctly.	Menu details updated successfully.	Pass
#012	Verify that the admin can add a new menu item	The system is up and running.	Navigate to the "Manage Menu" section. Click "Add Menu." Enter menu item details and save.	New menu items appear in the list.	menu item added successfully.	Pass
#013	Verify that the admin can update the order status	The system is up and running.	Navigate to the "Orders" section. Change the status to one of the predefined options. Save changes.	Updated status is displayed in the order list and reflected for the customer.	Order status updated successfully.	Pass

Project limitations

- **Lack of Multi-Language Support:**

The system currently supports only a single language, limiting its accessibility for a diverse user base in multi-lingual regions.

- **Limited Payment Options:**

The platform only supports basic payment methods (e.g., cash on delivery). Integration with advanced payment gateways (e.g., digital wallets, credit cards) is unavailable, restricting user convenience.

- **No Customer Support Messaging System:**

The absence of a live chat or messaging feature limits immediate resolution of customer inquiries or complaints.

- **No Offline Functionality:**

The system does not support offline operations, making it entirely dependent on active internet connectivity.

Conclusion

The iFood Online Ordering System is a modern solution designed to improve the online food ordering experience. It addresses common issues like delayed deliveries, payment processing challenges, and order tracking inefficiencies. The system offers real-time order tracking, secure payments, and a user-friendly interface, making the process simpler and more efficient for both customers and restaurants.

The project was completed on schedule, with the backend and frontend built to ensure reliability and performance. Although the system currently has some limitations, such as no multi-language support and basic payment options, these areas can be enhanced in future updates to expand functionality.

Overall, the iFood Online Ordering System achieves its goal of creating a reliable and efficient platform for online food orders. It is well-positioned to adapt to future needs and contribute to the evolving digital food service industry.

Project Demonstration

In project demonstration, Interface design process is very important phase of the project. Because user interact with the system using the interface. If interfaces are not good user are not likes to work with it. Poor user interface design is risk to failure system. Good interface design is the reason to success the project. In user interface design use possible eye friendly colors, icons and keep design is simple. Because interface is complex users hard to learn.

In the user interface show to user where user in now in the system. Provide different ways to do the same thing to user.

Login Page

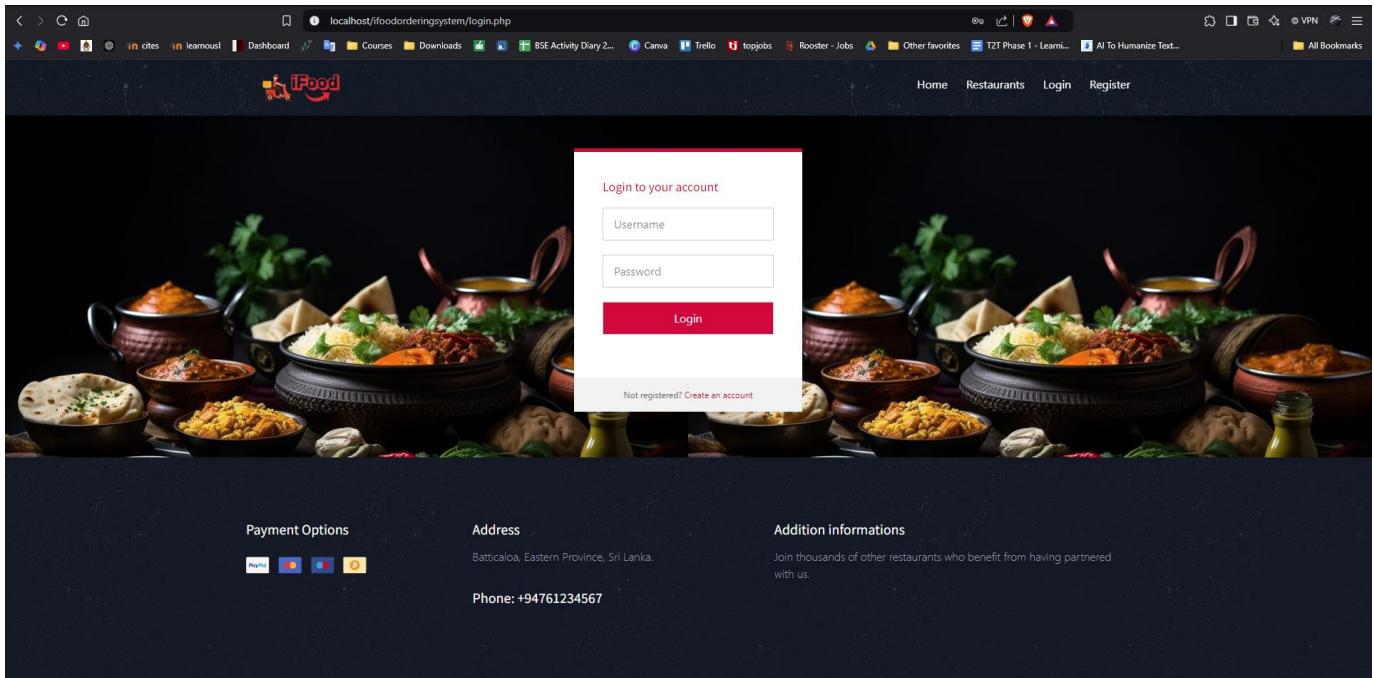


Figure 06: Login Page

Figure 06 shows the Login Page. These login details are fetching from MySQL database. If user enter details, it will verify with database.

Registration Page

The screenshot shows the registration page for the iFood platform. The page has a white form area centered over a dark background image of Indian cuisine. The form includes fields for User-Name, First Name, Last Name, Email Address, Phone number, Password, Confirm password, and Delivery Address. A red 'Register' button is located at the bottom left of the form. At the top right, there are links for Home, Restaurants, Login, and Register. Below the form, there are sections for Payment Options (with icons for PayPal, Credit Card, etc.), Address (listing Batticaloa, Eastern Province, Sri Lanka), and Additional Information (a link to join other restaurants). The overall design is clean and professional.

Figure 07: Register Page

Figure 07 shows the Register Page. The registration page enables a new user to register to the system.

Home Page

The screenshot displays the homepage of a food ordering system. At the top, there's a navigation bar with links for Home, Restaurants, Login, and Register. Below the header is a large, atmospheric banner featuring various Indian dishes like biryani, curries, and rice. The text "Order Delivery & Take-Out" is prominently displayed, followed by a three-step process: 1. Choose Restaurant (with a building icon), 2. Order Food (with a plate icon), and 3. Delivery or take out (with a delivery truck icon). A sub-section titled "Popular Dishes of the Month" shows six featured dishes with their names, descriptions, prices, and "Order Now" buttons:

Dish Name	Description	Price	Action
Gama Gama Special Fried rice	This easy fried rice recipe only takes 15 minutes to make, it's easy to customize with your favorite add-ins, and it's SO delicious!	Rs.3600.00	Order Now
Nasi goreng	A traditional recipe for Nasi Goreng, Indonesian / Bali fried rice. Easy and fast to make, and no hunting down unusual ingredients!	Rs.1350.00	Order Now
Gama Gama Special chicken biryani	Chicken biryani recipe - Learn to make the best biryani at home with this detailed step-by-step recipe. Easy to make, fragrant & delicious!	Rs.2100.00	Order Now
Gama Gama Special mutton biryani	Mutton biryani is a delicious dish made of meat, spices, herbs & yogurt. Learn to make the best at home with step by step photos.	Rs.3300.00	Order Now
Thosai and sambol	A dosa, dose, dosai, or dosha is a thin, savoury batter in Indian cuisine made from a fermented batter of ground black gram and rice.	Rs.130.00	Order Now
Idli and Vadai	Idli vada a south Indian breakfast recipe includes idli, sambar, vada ,chutney, paal paniyaram etc. Idli vada with sambar and chutney.	Rs.150.00	Order Now

Below this section is a "Easy to Order" diagram illustrating the ordering process:

- Choose a restaurant (Icon: building)
- Choose a dish (Icon: plate)
- Pick up or Delivery (Icon: delivery truck)

Text below the diagram indicates: "We've got your covered with menus from a variety of delivery restaurants online." and "We've got your covered with a variety of delivery restaurants online." There is also a "Cash on Delivery" option mentioned.

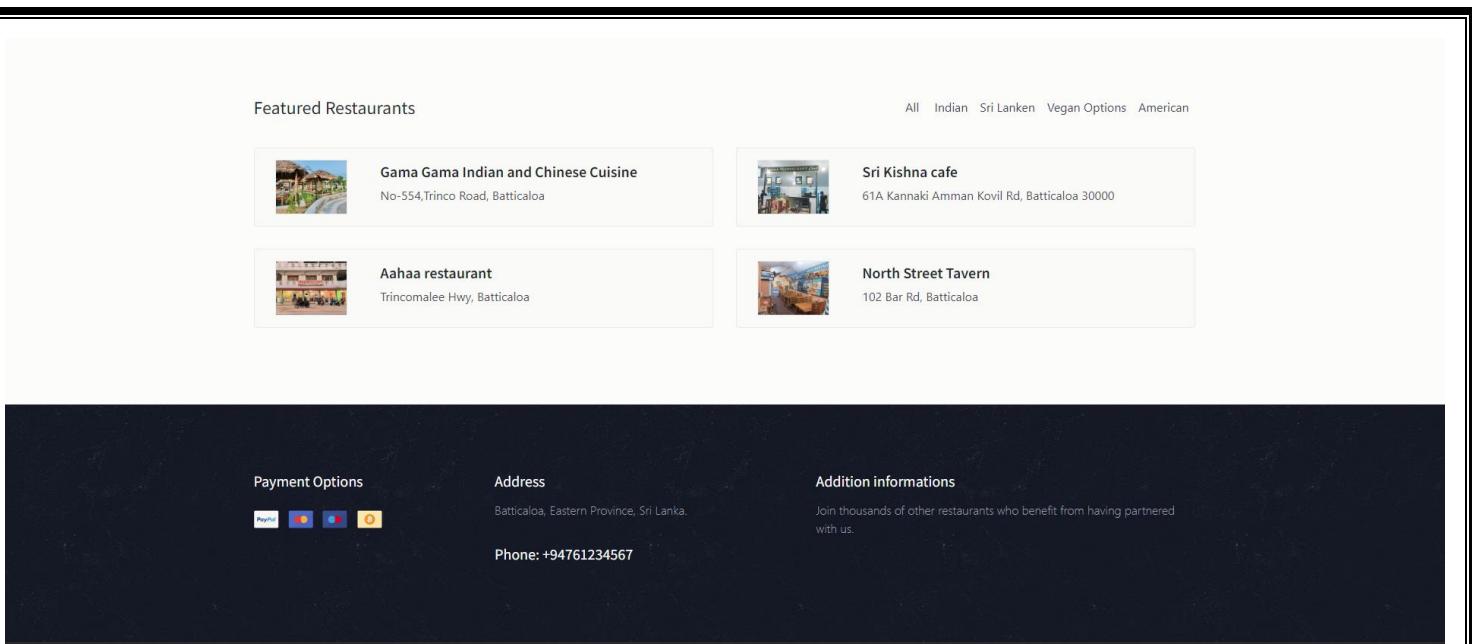


Figure 08: iFood Dashboard

Figure 08 shows after the successful login, user will get the interface(dashboard). here somefunctionalities are provided such as user can view the foods, order details and place orders.

Restaurants details page

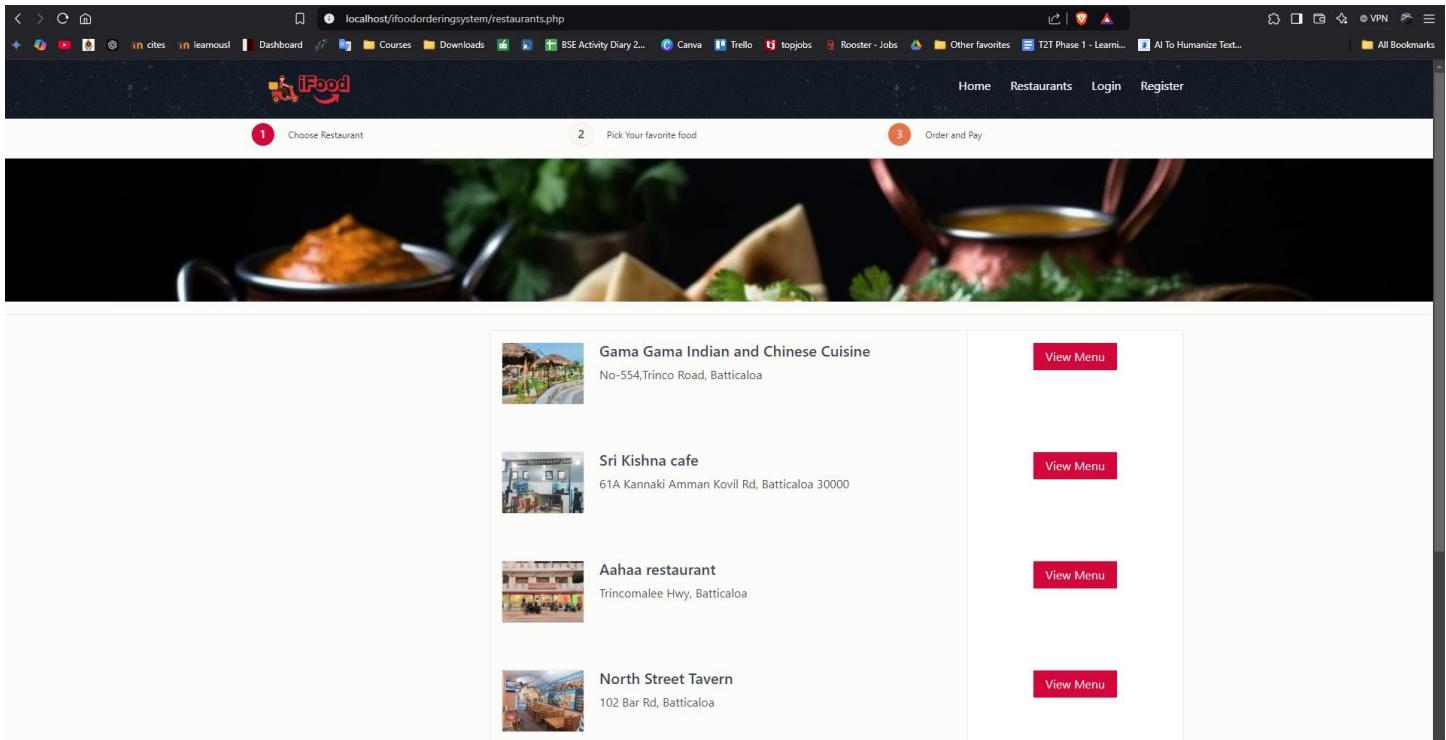


Figure 09: Restaurant Details page

Figure 09 shows the Restaurant Details page. Users can select their desired restaurant.

Food Details Page

The screenshot shows the Food Details page of the iFood ordering system. At the top, there's a navigation bar with links for Home, Restaurants, Login, and Register. Below the header, there are three numbered steps: 1. Choose Restaurant, 2. Pick Your favorite food, and 3. Order and Pay.

The main content area features a large image of a dish (spaghetti) on the right and a smaller image of a restaurant's exterior on the left. The restaurant's name is "Gama Gama Indian and Chinese Cuisine" and its address is "No-554, Trinco Road, Batticaloa".

On the left side, there's a "Your Cart" section showing a total of "Rs.0" and a "Checkout" button. The "Free Delivery!" message is also visible here.

The central part of the page is the "MENU" section, which lists four dishes:

- Gama Gama Special Fried rice**: Rs.3600.00 | Add to Cart
- Nasi goreng**: Rs.1350.00 | Add To Cart
- Gama Gama Special chicken biriyani**: Rs.2100.00 | Add To Cart
- Gama Gama Special mutton biriyani**: Rs.3300.00 | Add To Cart

At the bottom, there are sections for "Payment Options" (with icons for PayPal, Mastercard, Visa, and others), "Address" (Batticaloa, Eastern Province, Sri Lanka), and "Addition informations" (Join thousands of other restaurants who benefit from having partnered with us). A phone number, +94761234567, is also listed.

Figure 10: Food Details page

Figure 10 shows the Food Details page. users can select their desired food in the restaurant of their choice.

Payment page

The screenshot shows the payment page of the iFood ordering system. At the top, there are three steps: 1. Choose Restaurant, 2. Pick Your favorite food, and 3. Order and Pay. Step 3 is highlighted with a red circle containing the number '3'. The main section is titled 'Cart Summary' and displays the following details:

Cart Subtotal	Rs.3600
Delivery Charges	Free
Total	Rs.3600

Below this, there are two payment method options: 'Cash on Delivery' (selected) and 'Paypal'. A green button labeled 'Order Now' is at the bottom.

At the bottom of the page, there are sections for 'Payment Options' (Paypal, Credit Card, Debit Card, etc.), 'Address' (Batticaloa, Eastern Province, Sri Lanka), and 'Addition informations' (Join thousands of other restaurants who benefit from having partnered with us. Phone: +94761234567).

Figure 11: Payment page

Figure 11 shows the Payment page. users can pay for their food through Cash on delivery.

List of items page

The screenshot shows the list of items page of the iFood ordering system. At the top, there are three steps: 1. Choose Restaurant, 2. Pick Your favorite food, and 3. Order and Pay. Step 3 is highlighted with a red circle containing the number '3'. The main section features a large image of various dishes.

Item	Quantity	Price	Status	Date	Action
Gama Gama Special Fried rice	1	Rs.3600.00	Dispatch	2024-12-26 09:51:40	
Rice and curry	1	Rs.300.00	Dispatch	2024-12-26 09:52:01	

At the bottom of the page, there are sections for 'Payment Options' (Paypal, Credit Card, Debit Card, etc.), 'Address' (Batticaloa, Eastern Province, Sri Lanka), and 'Addition informations' (Join thousands of other restaurants who benefit from having partnered with us. Phone: +94761234567).

Figure 12: List of items page

Figure 12 shows the List of items page. users can see the details of Item, Quantity, Price, status, date and action of the food ordered by them.

Admin Login

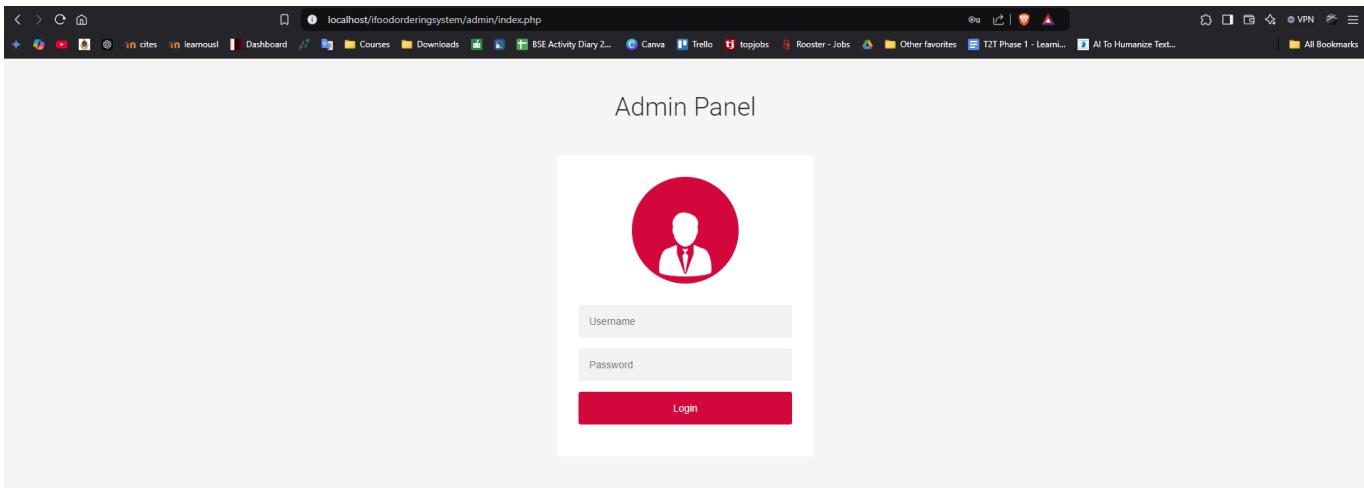


Figure 13: Admin Login

Figure 13 shows the admin login. If admin enters the user's name and password it will verify through the database and the admin dashboard page will be opened or otherwise system will produce error message.

System Admin Page

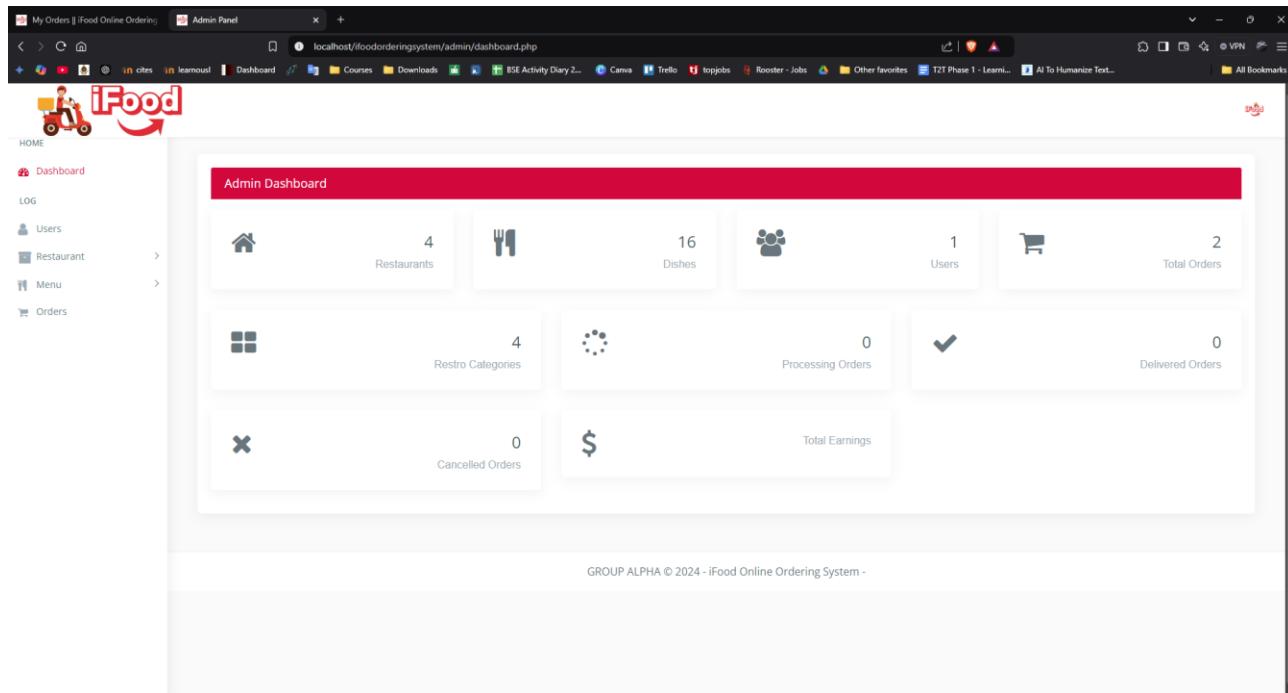


Figure 14: System Admin Page

Figure 14 shows after the successful login, admin will get the System Admin Page. Admins can add/remove Restaurants details, Menu details on this website. and manage orders. And restaurants owners can perform add/remove operations on food menu details

Manage Users Page

The screenshot shows a web browser window for the iFood ordering system's admin panel. The URL is localhost/foodorderingsystem/admin/all_users.php. The page title is "All Users". On the left, there is a sidebar with navigation links: HOME, Dashboard, LOG, Users (selected), Restaurant, Menu, and Orders. The main content area displays a table with columns: Username, FirstName, LastName, Email, Phone, Address, Reg-Date, and Action. One row is visible, showing "iFood user" as the Username, "iFood" as the FirstName, "user" as the LastName, "ifooduser@gmail.com" as the Email, "94761234567" as the Phone, and "2024-12-26 13:56:23" as the Reg-Date. The Action column contains two icons: a pencil for edit and a delete.

Figure 15: Manage users Page

Figure 15 shows manage users page. Admin can edit / remove users details.

Edit / Delete Restaurant Page

The screenshot shows a web browser window for the iFood ordering system's admin panel. The URL is localhost/foodorderingsystem/admin/all_restaurant.php. The page title is "All Restaurant". On the left, there is a sidebar with navigation links: HOME, Dashboard, LOG, Users, Restaurants (selected), All Restaurant, Add Category, Add Restaurant, Menu, and Orders. The main content area displays a table with columns: Category, Name, Email, Phone, Url, Open Hrs, Close Hrs, Open Days, Address, Image, Date, and Action. Four rows of data are listed:

Category	Name	Email	Phone	Url	Open Hrs	Close Hrs	Open Days	Address	Image	Date	Action
American	North Street Tavern	appierestaurant@mail.com	0652 229 900	https://www.facebook.com/Viji.p.haran/	8am	10pm	mon-sat	102 Bar Rd, Batticaloa		2024-05-27 13:40:35	
Vegan options	Aaha restaurant	aahaarestaurant@mail.com	070 522 6740	https://www.facebook.com/p/Aaha- Restaurant-61558532493267/	8am	10pm	mon-sat	Trincomalee Hwy, Batticaloa		2024-05-27 13:40:35	
Sri Lankan	Sri Kishna cafe	srikrishnacafe@gmail.com	0652 228 900	https://www.facebook.com/SRI.KISHNA.CAFE/	8am	10pm	mon-sat	61A Kannaki Rd, Amman Kovil Batticaloa 30000		2024-05-27 13:40:35	
Indian	Gama Gama Indian and Chinese Cuisine	gamagama@gmail.com	077 668 0733	https://www.facebook.com/GamaGamaBiryani/	8am	10pm	mon-sun	No-554, Trinco Road, Batticaloa		2024-05-27 13:40:35	

Figure 16: Edit/Delete restaurant Page

Figure 16 shows Edit/Delete restaurant page. Admin can Edit / Delete Restaurant Details.

Add/Edit/Delete Category Page

The screenshot shows a web browser window for the 'iFood' ordering system. The URL is 'localhost/ifoodorderingsystem/admin/add_category.php'. The left sidebar has a 'Restaurant' section with 'Add Category' selected. The main content area has a red header bar with 'Add Restaurant Category'. Below it is a form with a 'Category' input field containing a placeholder 'Category'. At the bottom of the form are 'Save' and 'Cancel' buttons. Below the form is a table titled 'Listed Categories' with columns 'ID', 'Category Name', 'Date', and 'Action'. The table contains four rows with data: ID 4 (American), ID 3 (Vegan options), ID 2 (Sri Lanken), and ID 1 (indian). Each row has a 'Edit' and a 'Delete' button in the 'Action' column. At the bottom of the page is a footer with the text 'GROUP ALPHA © 2024 - iFood Online Ordering System -'.

Figure 17: Add/Edit/Delete Category Page

Figure 17 shows Add/Edit/Delete category page. Admin can add/edit/delete restaurant categories

Add Restaurant Page

The screenshot shows a web browser window for the 'iFood' ordering system. The URL is 'localhost/ifoodorderingsystem/admin/add_restaurant.php'. The left sidebar has a 'Restaurant' section with 'Add Restaurant' selected. The main content area has a red header bar with 'Add Restaurant'. Below it is a form with fields for 'Restaurant Name' (with a placeholder 'Restaurant Name'), 'Bussiness E-mail' (with a placeholder 'Bussiness E-mail'), 'Phone' (with a placeholder 'Phone'), 'Website URL' (with a placeholder 'Website URL'), 'Open Hours' (with a placeholder 'Open Hours'), 'Close Hours' (with a placeholder 'Close Hours'), 'Open Days' (with a placeholder 'Open Days'), 'Image' (with a 'Choose File' button and placeholder 'No file chosen'), 'Select Category' (with a placeholder 'Select Category'), 'Restaurant Address' (with a large text input field), and a 'Submit' button at the bottom right.

Figure 18: Add Restaurant Page

Figure 18 shows Add Restaurant page. Admin can add restaurants and their details.

Edit/Delete Menu Page

The screenshot shows the 'All Menu' page of the iFood Admin Panel. The left sidebar includes links for Dashboard, LOG, Users, Restaurant, Menu (selected), All Menus, Add Menu, and Orders. The main content area has a red header bar labeled 'All Menu'. Below it is a table with columns: Restaurant, Dish, Description, Price, Image, and Action. The table lists various menu items from different restaurants, each with a small image and edit/delete icons.

Restaurant	Dish	Description	Price	Image	Action
North Street Tavern	Rice and curry	Rice and curry is a popular dish in Sri Lanka, as well as in other parts of the Indian subcontinent. Rice and curry. A rice and curry dish from Sri Lanka.	\$300.00		
North Street Tavern	Chinese Soups	The asian soup broth of this Chinese Noodle Soup is so good, you'd swear it's from a Chinese restaraunt	\$150.00		
North Street Tavern	Kothu	Kothu parotta is a popular South Indian street food where flaky shredded parottas are cooked in a spicy masala & salsa or kurma.	\$720.00		
North Street Tavern	Fried Rice	This easy fried rice recipe only takes 15 minutes to make, it's easy to customize with your favorite add-ins, and it's SO delicious!	\$600.00		
Aahaa restaurant	Chicken Nasi Goreng	This Chicken Nasi Goreng recipe, also known as Indonesian chicken fried rice, is made with tender chicken, fresh veggies and fried eggs.	\$870.00		
Aahaa restaurant	Beef Nasi Goreng	This famous Indonesian fried rice is bursting with umami goodness, and the addition of beef mince keeps the prep and cook time to a minimum.	\$1200.00		
Aahaa restaurant	Fish Nasigoreng	A traditional recipe for Nasi Goreng, Indonesian / Bali fried rice. Easy and fast to make, and no hunting down unusual ingredients!	\$1000.00		

Figure 19: Edit/Delete Menu Page

Figure 19 shows Edit/Delete Menu page. Admin can edit/delete restaurants menus and their details.

Add Menu Page

The screenshot shows the 'Add Menu' page of the iFood Admin Panel. The left sidebar includes links for Dashboard, LOG, Users, Restaurant, Menu (selected), All Menus, Add Menu, and Orders. The main content area has a red header bar labeled 'Add Menu'. It contains fields for 'Dish Name' (with a text input), 'Description' (with a text input), 'Price' (with a text input containing '\$'), 'Image' (with a 'Choose File' button and a placeholder 'No file chosen'), 'Select Restaurant' (with a dropdown menu showing '--Select Restaurant--'), and two buttons at the bottom: 'Save' and 'Cancel'. At the bottom of the page, there is a footer note: 'GROUP ALPHA © 2024 - iFood Online Ordering System -'

Figure 20: Add menu Page

Figure 20 shows Add menu page. Admin can add menus and their details.

Manage orders Page

The screenshot shows a web browser window titled "localhost/ifoodorderingsystem/admin/all_orders.php". The page has a header with the iFood logo and navigation links for HOME, Dashboard, LOG, Users, Restaurant, Menu, and Orders. The main content area is titled "All Orders" and displays a table with two rows of order data:

User	Title	Quantity	Price	Address	Status	Reg-Date	Action
Pietersz	Gama Gama Special Fried rice	1	\$3600.00		Dispatch	2024-12-26 09:51:40	
Pietersz	Rice and curry	1	\$300.00		Dispatch	2024-12-26 09:52:01	

Figure 21: Manage orders Page

The screenshot shows a modal window titled "Order Update - Brave" with the URL "localhost/ifoodOrderingSystem/admin/order_update.php?form_id=28". The form contains fields for "Form Number" (28), "Status" (with a dropdown menu showing "Select Status", "On the way", "Delivered", and "Cancelled"), "Message" (a text area), and "Action" (with "Submit" and "Close this window" buttons). To the right of the modal, there is a portion of the main page showing a red header bar and some other UI elements.

Figure 22: Manage orders Page

Figure 21 and 22 shows Manage orders page. Admin can update the order status such as Dispatch, On the way and cancelled details.

Appendix

- SRS Report :**

1. Introduction

The rapid advancement of technology has transformed the food industry, leading to the development of iFood ordering systems. These systems enhance the dining experience by offering a convenient way for customers to browse menus, place orders, and make payments via their devices. Features such as personalized recommendations, loyalty programs, and customer reviews boost engagement and satisfaction, while data analytics help restaurant owners improve operations, manage inventory, and enhance customer service. The iFood system meets the growing demand for digital convenience, benefiting both customers and restaurant management by efficiently handling orders, menus, and deliveries.

1.1 Purpose

The iFood online ordering system aims to revolutionize the food and beverage industry by providing a seamless and user-friendly platform. It enhances the dining experience with features like real-time order tracking, personalized recommendations, and multiple payment options. For restaurant owners, it offers data analytics for better inventory management, targeted marketing, and informed decision-making, ultimately increasing efficiency and profitability.

1.2 Summary

The iFood system offers a cutting-edge solution for digital convenience in the food and beverage industry. It provides customers with an efficient way to browse menus, place orders, and make payments, enhancing the dining experience with a user-friendly interface and real-time order tracking. For restaurant owners, it offers valuable data analytics to improve operations and manage inventory effectively. The system streamlines order processing and improves delivery logistics, leading to higher efficiency and profitability.

1.3 Company Overview

iFood is a pioneering company dedicated to transforming the dining experience with advanced online ordering systems. Its platform offers customers a convenient way to browse menus, place orders, and make payments. For restaurant owners, iFood provides tools and data analytics to optimize operations and manage inventory, leading to increased efficiency and profitability. iFood stands at the forefront of digital transformation in the food and beverage industry.

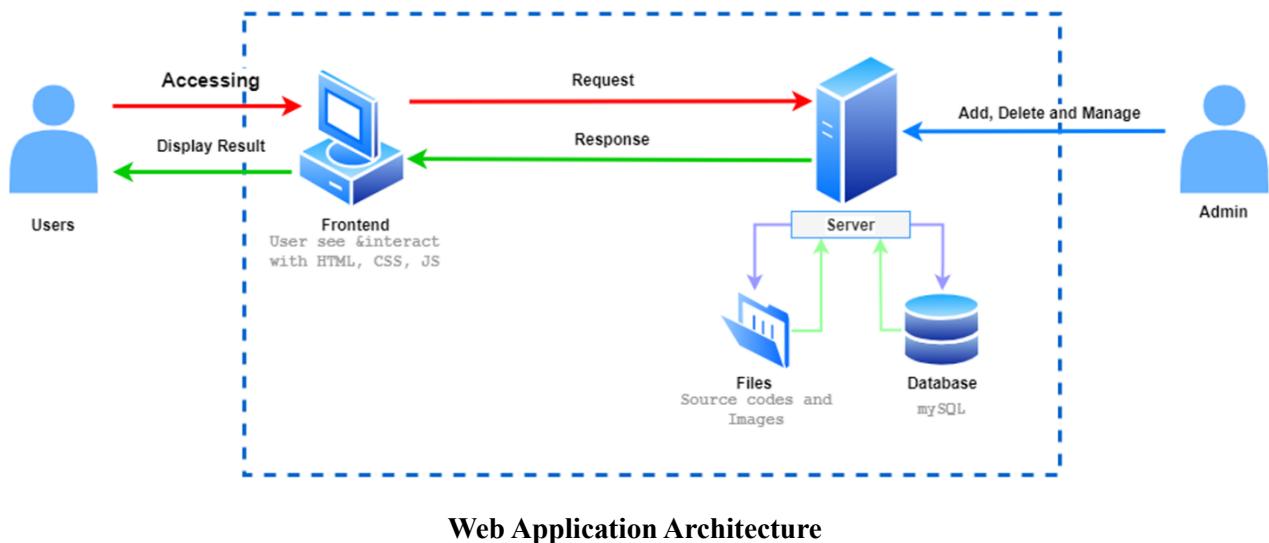
1.4 Project Overview

The iFood online ordering system project aims to revolutionize the food and beverage industry by providing a seamless platform for customers and restaurant management. The system enhances the dining experience with a user-friendly interface, real-time order tracking, and various payment options.

For restaurant owners, it offers data analytics for better operational decisions, improved inventory management, and enhanced customer service. The iFood system addresses the growing need for digital convenience, effectively managing orders, menus, and deliveries, and supporting the industry's digital transformation.

1.5 Scope

This document outlines the requirements for the iFood Online Ordering System project. It includes the detailed functionalities, design, and implementation strategies for developing a comprehensive online food ordering platform. The scope contains the entire lifecycle of the project, from initial requirement analysis to the final deployment and maintenance. This document is associated with the iFood Online Ordering System project and influences all stakeholders involved, including developers, designers, testers, and end-users (customers and restaurant staff)



1.6 Assumptions

The following assumptions were made during the requirement analysis and functional specification:

- Customers have access to the Internet and a compatible device to use the online ordering system.
- Restaurants participating in the system are equipped with the necessary technology to receive and process orders.
- Secure payment gateways are available for integration to handle online transactions.
- All participants will follow to the proposed project timeline and milestones.
- The system will be developed for web platforms.
- Internet access is required for system functionality.
- Users have basic computer knowledge.

1.7 Definitions, Acronyms and Terminology

- **iFood:** The name of the proposed online food ordering system.
- **UX:** User Experience.
- **API:** Application Programming Interface.
- **Customer:** User placing food orders.
- **Restaurant:** Seller providing food services.
- **Admin:** System administrator managing overall operations.
- **Order:** Customer request for food delivery.
- **RDBMS (Relational Database Management System):** A type of database management system that stores data in a structured format using rows and columns.
- **UI (User Interface):** The space where interactions between humans and machines happen.
- **HTML (HyperText Markup Language):** The standard language for creating web pages.
- **CSS (Cascading Style Sheets):** A style sheet language used for describing the presentation of a document written in HTML or XML.
- **PHP (Hypertext Preprocessor):** A server-side scripting language designed for web development.
- **MySQL:** An open-source relational database management system.
- **React.js:** A JavaScript library for building user interfaces.

2. Project Scope and Impact

The iFood online ordering system aims to accomplish several objectives to enhance system performance, customer service, and task effectiveness. These improvements include increased order accuracy, faster and more reliable delivery times, secure payment processing, and a user-friendly interface. The system will update the food ordering process, minimize errors, and improve overall customer satisfaction.

2.1 Scope Inclusion

The iFood Online Ordering System aims to address the following features, functionalities, and issues present in the current system:

Features and Functionality

1. User Registration and Authentication

- Allow customers to create accounts and securely log in.
- Enable password recovery and account management.

2. Menu Browsing and Food Ordering

- Display a complete menu with categories, descriptions, and prices.
- Ease the addition of items to the cart and customization of orders.
- Enable the review and submission of orders.

3. Order Tracking and History

- Provide real-time tracking of orders from preparation to delivery.
- Maintain a history of past orders for easy reordering and reference.

4. Payment Gateway Integration

- With secure payment gateways for all transactions.
- Support payment methods, Cash on Delivery.

5. Customer Support Chat System

- Implement a live chat system for customer inquiries and support.
- Provide automated responses for common queries and intensify complex issues to human representatives.

6. Notifications (SMS, Email)

- Send real-time notifications for order status updates, promotions, and offers.
- Allow customers to customize their notification preferences.

Issues Addressed

1. **Delayed Deliveries:** Implement improved logistics and real-time tracking to minimize delivery delays.
2. **Communication Errors:** Improve communication between customers, restaurants, and delivery personnel to ensure order accuracy.
3. **Address Identification:** Improve address verification and mapping to reduce delivery failures and delays.
4. **Payment Processing Issues:** Ensure reliable and secure payment processing to prevent transaction failures and delays.
5. **Lack of Order Visual Confirmation:** Provide visual confirmation of order placement to support customers.
6. **Cost Concerns:** Optimize delivery fees and service charges to enhance affordability without sacrificing service quality.
7. **Operational Inefficiencies:** Simplify internal restaurant operations to improve order processing and supply management.

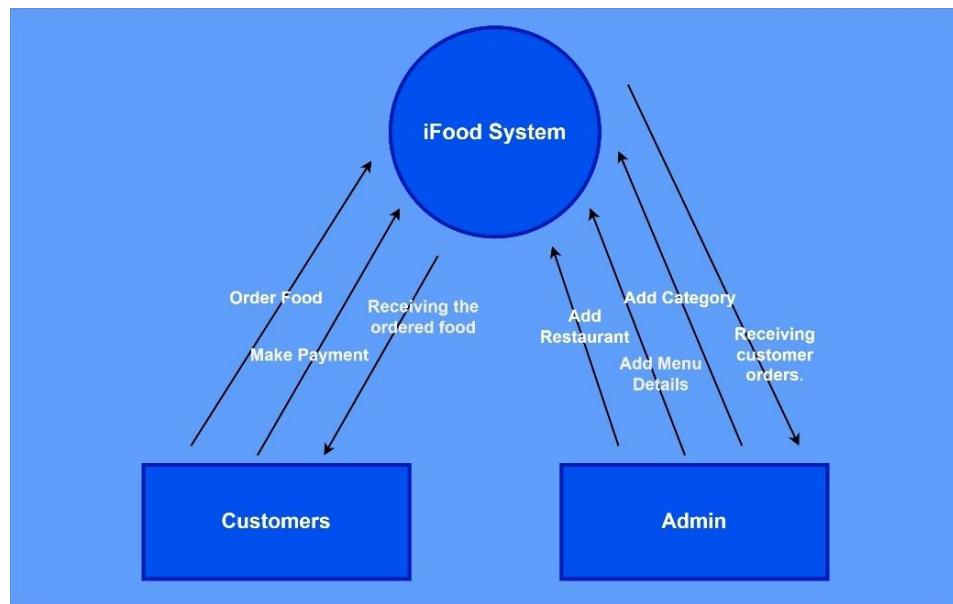
2.2 Scope Exclusions

Features and Functionality

1. **Hardware Providing for Delivery Persons:** The project will not supply or manage the hardware devices used by delivery personnel.
2. **Offline Order Processing:** The system will not handle orders that are placed offline, such as phone orders or walk-in orders.
3. **Marketing Movements and Promotions:** The project will not include the development or management of marketing works and promotional activities.
4. **Advanced Analytics and Reporting:** The project will not focus on implementing complex data analytics or generating detailed business reports.
5. **Third-Party Delivery Integrations:** This project does not include mixing with third-party logistics providers or external delivery services.
6. **In-house Dining Management:** The system will not manage in-house dining reservations or seating arrangements.
7. **Complete Restaurant Management:** Full-scale restaurant management features such as detailed inventory management, staff scheduling, and payroll processing will not be included.

Issues

1. **Customer Reliability Programs:** This system will not implement or manage customer reliability or rewards programs.
2. **In-Depth Customer Feedback Analysis:** The system will not include advanced features for analyzing customer feedback beyond basic ratings and reviews.
3. **Internationalization and Multi-language Support:** The system will not support multiple languages or accommodate to internationalization requirements



Context Diagram

2.3 Impact on other system

2.3.1 Affected by Other systems

Third-Party Payment Gateways

- Integration with payment gateways like Stripe, PayPal, etc., will be required for processing payments.

Third-Party Delivery Services

- Integration with delivery services such as Uber Eats, DoorDash, etc., to handle the logistics of delivering orders to customers.

External API Services

- Dependencies on external APIs for functionalities like geolocation, SMS notifications, and email services.

2.3.2 Affects on Other System

Restaurant POS Systems

- Potential integration with existing POS systems could streamline operations and improve efficiency in order processing and inventory management.

Accounting Systems

- The integration with accounting systems can enhance the accuracy of financial records and ease the process of financial audits.

Customer Relationship Management (CRM) Systems

- Feeding customer data into CRM systems can improve marketing strategies and personalize customer experiences, leading to better customer satisfaction and loyalty.

3. Functional Requirements

3.1 Functions 01

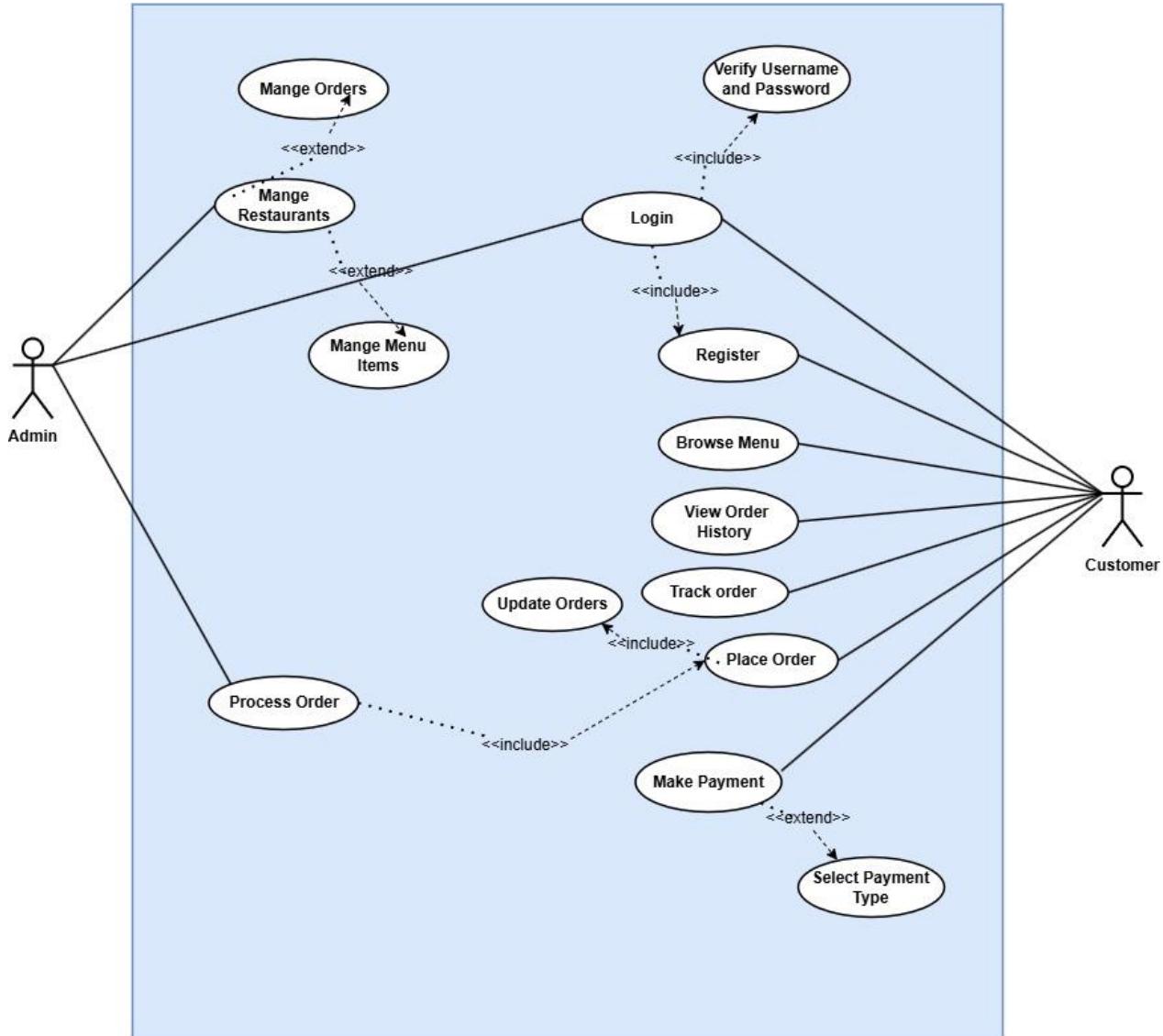
1. System Administration

- **Manage Restaurants:** The admin can log in, navigate to 'Manage Restaurants', and add, update, or remove restaurant information, then save the changes.
- **Manage Menu Items:** The admin can log in, navigate to 'Manage Menu Items', and manage the menu items for each restaurant by adding, updating, or removing items, then save the changes.
- **Manage Orders:** The admin and the system can manage customer orders by logging in, navigating to 'Manage Orders', viewing, processing, or updating the order status, and then saving the changes.
- **Manage Site Content:** The admin can log in, navigate to 'Manage Site Content', and update site content, including banners, promotions, and informational pages, then save the changes.

2. Customer Functions

- **Login:** Customers can log in to access their account and various functionalities.
- **Register:** Customers can navigate to 'Register', fill in the registration form, submit it, and the system will create their account.

- **Browse Menu:** Customers can log in, navigate to 'Browse Menu', select a restaurant, and view its menu items.
- **Place Order:** Customers can select menu items, add them to the cart, proceed to checkout, confirm the order, and make the payment.
- **View Order History:** Customers can log in, navigate to 'View Order History', and view a list of their past orders.
- **Track Order:** Customers can log in, navigate to 'Track Order', and view the real-time status of their current order.
- **Make Payment:** Customers can proceed to payment during checkout, select a payment method, enter payment details, and confirm the payment.
- **Contact Support:** Customers can navigate to 'Contact Support', fill in the contact form or use live chat, and submit their request for help.



Use Case Diagram

3.2 Data Archival and Retention

This section outlines how long data is maintained and the process for archiving and retrieving it within the iFood Online Ordering System.

Process Flow:

1. **Define Retention Policies:**
 - **Retention Period:** Determine the retention period for different types of data (e.g., orders, customer information, transaction records).
 - **Archival Conditions:** Specify the conditions under which data will be archived.
2. **Archival Process:**
 - **Policy Check:** Periodically check data against holding strategies.
 - **Data Archival:** Move data that exceeds the retention period to an archival storage system.
 - **Security:** Ensure archival storage is secure and accessible only by authorized users.
3. **Retrieval of Archived Data:**
 - **Access Request:** Admin can request access to archived data.
 - **Data Retrieval:** System retrieves the requested data from the archive.
 - **Data Restoration:** Archived data can be restored to the main database if needed.

Security Measures:

- **Encryption:** Ensure all archived data is encrypted both in transit and at rest.
- **Access Control:** Implement strict role-based access controls to manage who can archive, retrieve, or restore data.
- **Audit Logs:** Maintain detailed audit logs of all archival, retrieval, and restoration activities for compliance and monitoring purposes

3.3 User Roles and Access Levels

1. Admin

Role Description:

Admins have the highest level of access within the system. They are responsible for managing system configurations, user accounts, content, and overall system operations.

Access Levels and Privileges:

- **User Management:** Admins can create, update, and delete user accounts. They can also assign roles to users.
- **Restaurant Management:** Admins have the ability to add, update, and remove restaurant profiles. They manage restaurant details and operational status.
- **Menu Management:** Admins are able to create, update, and delete menu items for any restaurant.
- **Order Management:** Admins can view, update, and manage all orders within the system. They also handle order disputes and refunds.
- **Site Content Management:** Admins manage static and dynamic content on the site. They update system-wide notifications and announcements.
- **System Configuration:** Admins configure system settings and preferences. They also manage payment gateways and integration settings.
- **Reporting:** Admins generate and view reports on orders, user activity, and financials. They can export reports in various formats, such as PDF and CSV.

2. Customers

Role Description:

Customers use the system to browse menus, place orders, and manage their personal profiles. Their access is limited to functionalities that enhance their ordering and dining experience.

Access Levels and Privileges:

- **Profile Management:** Customers can register and create a personal profile. They can also update personal details and contact information.
- **Order Placement:** Customers can browse restaurant menus. They can place orders for delivery or pickup. Additionally, they can apply discounts or promo codes during checkout.
- **Order Tracking:** Customers can track the status of their orders in real-time. They can also view order history and past transactions.
- **Payment:** Customers can make secure payments for their orders. They can save payment methods for future use.

- **Support:** Customers can contact customer support for assistance with orders. They can also provide feedback and rate their dining experience.

3.4 Reporting Requirements

This section outlines the reporting requirements necessary for managing the iFood Online Ordering System.

1. Sales Report:

- **Overview:**
 - Summarize sales data over a chosen period.
 - Display total income, total number of orders, and average order value.
- **Filters:**
 - Allow filtering by date range, specific restaurant, or product category.
- **Visuals:**
 - Include bar charts showing sales trends over time.
 - Pie charts displaying revenue distribution among different products.

2. Order Report:

- **Details:**
 - List all orders with detailed information.
 - Include order number, date, items ordered, customer details, and status (e.g., pending, completed, cancelled).
- **Filters:**
 - Allow filtering by date range, customer, order status, or restaurant.
- **Visuals:**
 - Provide trend analysis graphs for order volumes over time.

3. User Activity Report:

- **Summary:**
 - Summarize user activities such as login times, pages visited, and actions taken (e.g., placing an order, providing feedback).
- **Filters:**
 - Allow filtering by user, activity type, or date range.
- **Visuals:**
 - Include line charts for login activities over time.
 - Bar charts for the most visited pages.

4. Non – Functional Requirements

4.1 Performance and Load Requirements

The iFood ordering system should function seamlessly across most platforms and be compatible with a range of devices. The system should ensure optimal performance during peak usage times without degrading the quality of service.

The application should be able to operate on all major web-browsers with all of its fundamental functions. It should not slow-down the system even at peak hours without affecting the quality of service of the system.

Current User Load	This system is not yet developed
Expected Growth	50– 80 new Users
Number of concurrent users	20 to 50 users concurrently
Transaction Size (files sizes etc.)	5MB to 10MB
Maximum Average Transaction Time Acceptable	5 Seconds to 10 Seconds

4.2 Compatibility Requirements

The iFood ordering system will be developed to support the latest and most functional hardware, software, and operating systems in use.

HTML Versions to be supported	HTML5
Browser Versions to be supported	Latest versions of Chrome, Firefox, Safari and Edge.
Database Versions to be supported	MySQL 8.0 or later
Communication Protocol	HTTPS for secure communication
Platform Version to be supported	Windows 10 and 11, macOS 10.15 and later,
Any other external systems or standards	Integration with popular payment gateways and delivery services.

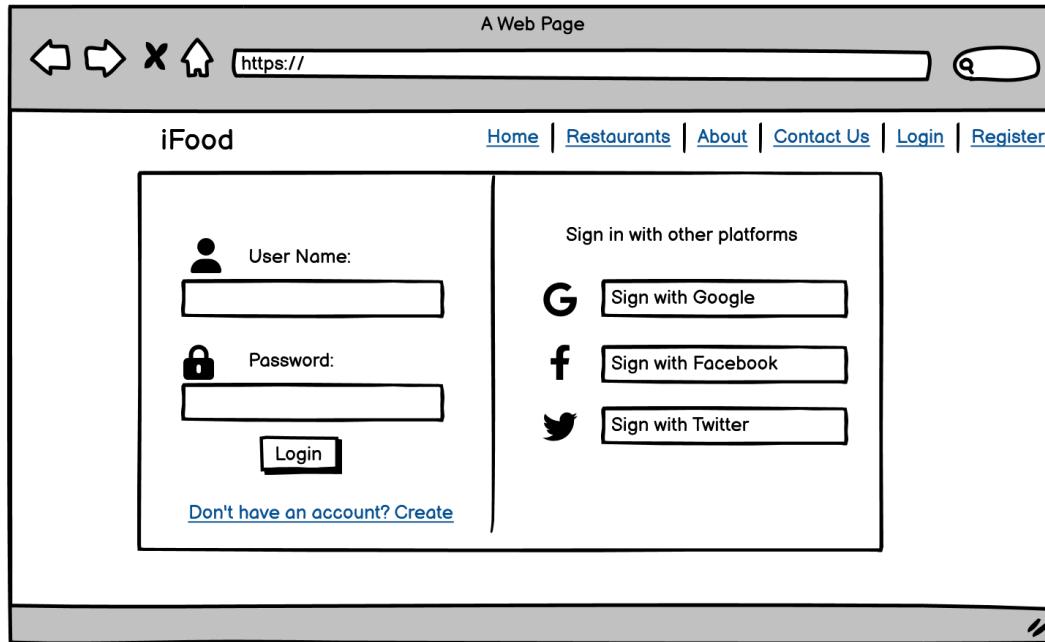
4.3 External Interface Requirements

Interfaces for the iFood ordering system will support various learning and interaction modes, providing users with an intuitive and effective ordering experience.

4.3.1 User Interface

Login Page

The login interface enables you to integrate user login with the content of our website. The system offers protection by storing passwords in encrypted form



A Web Page

https://

iFood

Home | Restaurants | About | Contact Us | [Login](#) | [Register](#)

User Name:

Password:

[Don't have an account? Create](#)

Sign in with other platforms

G Sign with Google

f Sign with Facebook

t Sign with Twitter

Registration Page

The registration interface enables a new user to register to the system. Customers can also create their account with Google, Twitter and Facebook accounts.



A Web Page

https://

iFood

Home | Restaurants | About | Contact Us | [Login](#) | [Register](#)

Sign in with other platforms

G Sign with Google

f Sign with Facebook

t Sign with Twitter

Sign up

User Name:

Password:

Confirm Password:

Email ID:

Delivery Address:

Home Page

Customers will see their welcome page after their initial login. This will show their name. And Also, they can know order details and place orders.

The wireframe illustrates the layout of the iFood Home Page:

- Header:** A Web Page, https://iFood
- Navigation:** Home | Restaurants | About | Contact Us | Login | Register
- Section 1: Online Restaurants**
 - Top restaurants and specials in town
 - Search bar: search
 - Search button: Search Food
- Section 2: Popular Dishes of the Month**
 - Easiest way to order your favourite food among these top 6 dishes
 - Dish 1:** Fish ambul thiyal (Rs.1200.00) Order Now
 - Dish 2:** Kottu (also, kottu roti) (Rs.1200.00) Order Now
 - Dish 3:** Kukul mas curry (chicken curry) (Rs.1200.00) Order Now
 - Dish 4:** Parippu (dal curry) (Rs.1200.00) Order Now
 - Dish 5:** Lamprais (Rs.1200.00) Order Now
 - Dish 6:** Hoppers (appa or appam) (Rs.1200.00) Order Now
- Section 3: Easy to Order**
 - Flow: Choose a restaurant → Choose a dish → Pick up or Delivery
- Section 4: Featured Restaurants**
 - All | Continental | Italian | Chinese | American
 - Restaurant 1:** Ministry of Crab
 - Restaurant 2:** The Lagoon
 - Restaurant 3:** REST in WHITE HOUSE
 - Restaurant 4:** Palmyrah Restaurant

Restaurants details page

In this, customers can select their desired restaurant.

A Web Page

The diagram illustrates a web browser window with the following elements:

- Header:** A navigation bar with icons for back, forward, stop, and home, and a URL bar containing "https://".
- Title:** "iFood" displayed prominently.
- Navigation:** A horizontal menu bar with links: Home | Restaurants | About | Contact Us | Login | Register.
- Process Steps:** Three numbered steps: 1 Choose Restaurant, 2 Pick Your Favourite food, and 3 Order and Pay.
- Restaurant Listings:** Four restaurant entries, each consisting of a placeholder box, the restaurant name, and a "View Menu" button.
 - Ministry of Crab**
 - The Lagoon**
 - REST in WHITE HOUSE**
 - Palmyrah Restaurant**
- Footer:** A grey footer bar with a small logo in the bottom right corner.

Food Details Page

In this, customers can select their desired food in the restaurant of their choice.

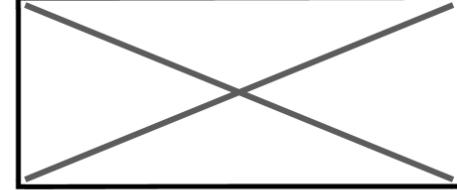
A Web Page

https://

iFood

Home | Restaurants | About | Contact Us | Login | Register

1 Choose Restaurant 2 Pick Your Favourite food 3 Order and Pay



Ministry of Crab
Old Dutch Hospital Complex, 04 Hospital St, Colombo 00100

Menu

Your Cart		
TOTAL		
Rs3600.00		
Free Delivery		
Checkout		

	Fish ambul thiyal	Rs.1200.00	<input type="button" value="1"/> <input type="button" value="▼"/>	<input type="button" value="Add to Cart"/>
	Kottu (also, kottu roti)	Rs.1200.00	<input type="button" value="1"/> <input type="button" value="▼"/>	<input type="button" value="Add to Cart"/>
	Kukul mas curry (chicken curry)	Rs.1200.00	<input type="button" value="1"/> <input type="button" value="▼"/>	<input type="button" value="Add to Cart"/>

Payment page

In this, customers can pay for their food through Cash on delivery.

A Web Page

https://

iFood

Home | Restaurants | About | Contact Us | Login | Register

1 Choose Restaurant 2 Pick Your Favourite food 3 Order and Pay

Cart Summary

Cart Subtotal	Rs3600.00
Delivery Charges	Free
Total	Rs3600.00

Cash on Delivery

Order Now

List of items page

In this, customers can see the details of Item, Quantity, Price, status, date and action of the food ordered by them.

A Web Page

https://

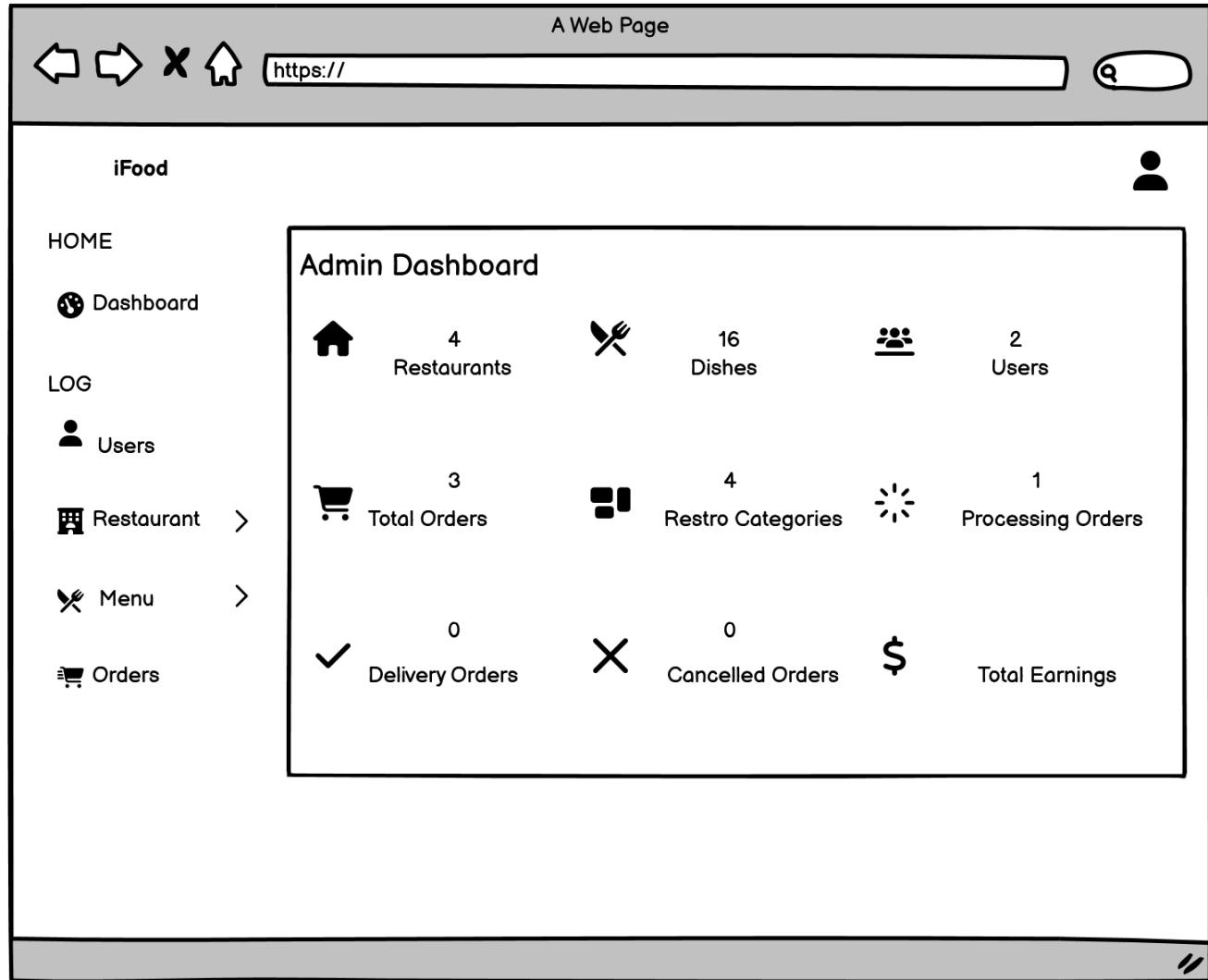
iFood

Home | Restaurants | About | Contact Us | Login | Register

Item	Quantity	Price	Status	Date	Action
Fish ambul thiyal	1	Rs.1200.00	Dispatch	2024-06-27 21.00.00	trash
Kottu (also, kottu roti)	1	Rs.1200.00	On the Way	2024-06-27 21.00.00	trash
Kukul mas curry (chicken curry)	1	Rs.1200.00	Dispatch	2024-06-27 21.00.00	trash

System Admin Page

Admins can add/remove Restaurants details, Menu details on this website. and manage orders. And restaurants owners can perform add/remove operations on food menu details.



4.3.2 Hardware Interface

- **Internet Connection:** A minimum internet speed of 1 Mbps is required to ensure smooth operation.
- **Recent Computer:** The system should run on computers with sufficient memory and hard drive space. While there are no specific requirements for RAM or CPU speed, a processor equivalent to or better than a post-2000 processor (e.g., Pentium IV or Celeron II) and at least 512MB of memory is recommended. Most computers purchased within the last 7-8 years should meet these requirements.
- **Monitor:** A screen size of 15 inches or larger is recommended for optimal viewing and interaction with the iFood ordering system.

4.3.3 Software Interface

- **Operating System:** The system should be compatible with up-to-date operating systems such as Windows 10, Windows 11, and macOS.
- **Email Address:** Users will need an email address for account setup and communication. Common email services like Gmail, Yahoo, or Hotmail are acceptable.
- **Payment Gateways:** We have used only cash on the delivery system to handle transactions safely and efficiently.
- **Database:** MySQL 8.0 or higher for data storage and management.

4.3.4 Communication Interface

- **Local Area Networks (LAN) and Wi-Fi:** The system should be able to operate over standard LAN and Wi-Fi configurations.
- **Protocols:** HTTPS for secure web communication, SSL/TLS for data encryption.

4.4 Security and Authentication Requirements

➤ Data Storage Security:

The server hosting the iFood ordering system must have security measures to prevent unauthorized access. Secure login mechanisms should be implemented to ensure that only authorized users can access the system. User credentials must be kept confidential.

➤ Data Communication Security:

Ensure end-to-end encryption of data in transit with an SSL certificate. A Secure Socket Layer certificate refers to small digital files that encrypt plain text to be transmitted into ciphertext using public-key cryptography. SSL certificates are of three types, depending on the level of validation chosen.

4.5 Quality Assurance Requirements

4.5.1 QA Test Scope

➤ Testing Levels:

- Unit Testing
- Integration Testing
- System Testing
- Performance Testing
- User Acceptance Testing (UAT)

➤ Performance Metrics:

- Measure response times
- Transaction processing times
- System throughput

4.5.2 QA Environment

➤ QA Tools:

- Selenium for automated testing
- JMeter for performance testing

➤ Hardware Requirements:

- QA testing should be conducted on a range of devices, including:
 - Desktops
 - Laptops
 - Mobile devices (both Android and iOS)

4.6 Development Requirements

4.6.1 Development Environments

The development environment for the iFood ordering system will include modern Integrated Development Environments (IDEs) such as Visual Studio Code for coding efficiency and ease of use. The database system used will be MySQL to manage and store data efficiently. Version control will be handled using Git to ensure smooth collaboration and version tracking. Developers will require computers with at least 8GB of RAM and 50GB of free disk space to ensure optimal performance and smooth development processes.

4.6.2 Development Data

The development of the iFood ordering system will utilize various data sources, including menu items, user data, order history, and transaction logs. Tools like Faker will be used to generate test data, ensuring that the development environment is populated with realistic and diverse datasets for thorough testing and validation.

4.6.3 Coding Standards

Among the coatings we expect for this system PHP in MySQL are considered essential apart from this some coding stack is also expected for front-end development and back-end development.

Frontend Development: HTML5, CSS, JavaScript

Backend Development: PHP,

Database: MySQL

4.6.4 Implementation Packages Requirements

As this system is under development currently the package, we expect is MyPhp database. It's used for username and password, Restaurant details, Menu items, and order details will be recorded.

4.7 Deployment Requirements

4.7.1 Installation Packages Requirements

After our iFood ordering system is fully developed, the source code file and database file of the website will be fully developed. After adding them to the local disk of our PC or laptop, the user can access this website through the local host section of the browser.

In the future, if possible, our team will try to get a unique domain for this website and run it through a separate URL.

4.7.2 Deployment Requirements

Users and administrators will have secure access to the system with their unique usernames and passwords. Database access will be managed securely.

4.7.3 Documentation Requirements

As part of our project development process, we received a request for an onsite meeting from iFood organization, seeking comprehensive documentation for the newly developed iFood app. The meeting outlined the need for detailed information on various aspects of the app to ensure its success and maintain high standards of quality and performance.

4.8 Special Documentation Requirements

The iFood ordering system is proprietary, with unique source code and design. A unique logo will be designed to avoid compliance issues.

4.9 Applicable Standards

Standards: The system's benchmarks include user satisfaction, ease of use, cost-effectiveness, and positive feedback from users.

4.10 Online User Documentation and Help System Requirements

Basically, our platform is very easy to understand. We mainly focus on our user interface and user experience components. I think that our iFood ordering system will easily meet the needs of customers.

4.11 Usability Requirements

- We will describe our user interface part in the previous part as well.
- Our platform is a website, so user can access the platform through the pc or laptop as well and The user interface should be compatible with major browsers (Chrome, Firefox, Edge, Safari).
- If they wish to use in tablets, they can but pc or laptop is the good option for feel the better quality.
- Focus on a responsive design that provides a consistent experience across devices.

5. Functional Requirements

1. **Enhanced AI and Machine Learning Capabilities:** The system will feature predictive analytics with advanced algorithms to anticipate customer preferences and trends, enabling more accurate personalized recommendations and improved inventory management. Additionally, natural language processing (NLP) will facilitate more intuitive interactions through voice assistants and chatbots, allowing customers to place orders and receive support through natural conversation.
2. **Integration with Emerging Technologies:** The system will incorporate augmented reality (AR) to allow customers to visualize dishes in 3D before ordering. Blockchain technology will be used for secure transactions and transparent supply chain management, while the Internet of Things (IoT) will connect kitchen appliances and inventory systems for real-time monitoring and automation.
3. **Improved User Experience:** User interface (UI) enhancements will make the system more intuitive and visually appealing, improving ease of use. Multi-platform support will ensure seamless experiences across various devices, including smartphones, tablets, smartwatches, and smart TVs.
4. **Advanced Delivery Systems:** Autonomous delivery methods, such as drones and robots, will be employed for faster and more efficient deliveries. Enhanced GPS tracking systems will provide customers with accurate delivery times and live updates.
5. **Sustainability and Eco-friendliness:** The system will encourage and facilitate the use of eco-friendly packaging materials. Additionally, waste reduction systems will be implemented to minimize food waste through better inventory and supply chain management.

6. Appendix

A. Glossary of Terms

- **iFood Ordering Systems:** Digital platforms that allow customers to browse menus, place orders, and make payments through their devices.
- **Personalized Recommendations:** Suggestions for dishes based on a customer's previous orders and preferences.
- **Loyalty Programs:** Systems where customers earn points or rewards for their purchases to encourage repeat business.
- **Customer Reviews:** Feedback provided by customers that help others make informed decisions and provide insights to restaurant owners.
- **Data Analytics:** The process of analyzing data to extract useful information that can help improve business operations.
- **Augmented Reality (AR):** A technology that overlays digital information (such as 3D images) onto the real world, viewed through devices like smartphones or AR glasses.
- **Internet of Things (IoT):** A network of interconnected devices that can collect and exchange data.
- **Natural Language Processing (NLP):** A field of AI that focuses on the interaction between computers and humans through natural language.

B. Project Objectives

1. Enhance customer dining experience through digital convenience.
2. Increase customer engagement and satisfaction with personalized features.
3. Improve restaurant operations, inventory management, and customer service with data analytics.
4. Meet the growing demand for efficient order handling, menu management, and delivery systems.

C. System Architecture

1. **Front-End Interface:** User-friendly interface for customers to browse menus, place orders, and make payments.
 - Mobile App
 - Website
 - Integration with Smart Devices (e.g., smartwatches)
2. **Back-End Infrastructure:** Robust system to handle data processing, storage, and analytics.
 - Cloud-based Servers
 - Database Management Systems
 - Data Analytics Engines
3. **Integration Modules:**
 - Payment Gateway Integration
 - Delivery Management Systems
 - Customer Relationship Management (CRM) Systems

D. Functional Requirements

1. **User Registration and Authentication:** Secure methods for customers to create accounts and log in.
2. **Menu Browsing:** Dynamic and interactive menus that display up-to-date information.
3. **Order Placement:** Simple and efficient order placement process.
4. **Payment Processing:** Secure and varied payment options (credit card, mobile payments, etc.).
5. **Review and Feedback:** Easy-to-use interface for customers to leave reviews and feedback.
6. **Loyalty Programs:** Integrated system to manage and track customer loyalty points and rewards.

7. Data Analytics Dashboard: Tools for restaurant owners to access and analyze operational data.

E. Non-Functional Requirements

1. **Scalability:** Ability to handle increasing numbers of users and transactions.
2. **Security:** Strong measures to protect customer data and transaction security.
3. **Performance:** Fast response times and minimal downtime.
4. **Usability:** Intuitive design for ease of use by both customers and restaurant staff.
5. **Reliability:** Consistent and dependable service.

- **Monthly Retrospective:**

<https://drive.google.com/drive/folders/1tIl2FUF18t4hH8QXnyJ2WrjYacdGM0pN?usp=sharing>

- **Evidence for the use of Project governance tool**

The screenshot shows a Trello workspace titled "Group alpha". The workspace has three boards: "To do", "Doing", and "Done".

- To do:**
 - Project Proposal Report
 - Software Requirement Specification Report
 - Initial UI Design
 - Identify the tools to install
 - Development Progress (Frontend, Backend and payment processing)
 - Project Progress Report
 - Project Progress Review Presentation
 - Completed the Frontend Development
 - Integrate of frontend and backend components.
 - Testing and Quality Assurance
 - Final Report
 - Final Presentation
- Doing:**
 - Development Progress (Frontend, Backend and payment processing)
- Done:**
 - Software Requirements Specification Report (Due Jul 7)
 - Progress Report (Due Sep 15)
 - CMMI Report (Due Sep 15)
 - Progress Review Presentation (Due Sep 15)
 - Completed the Frontend Development (Due Dec 20)
 - Integrate of frontend and backend components. (Due Dec 21)
 - Testing and Quality Assurance (Due Dec 23)
 - Final Report (Due Dec 27)

- **Git hub account:**

[Group-Alpha-Project/Group-Project-iFood-Online-Ordering-System \(github.com\)](https://github.com/Group-Alpha-Project/Group-Project-iFood-Online-Ordering-System)

The screenshot shows the GitHub organization settings for 'Group-Alpha-Project'. The 'People' tab is selected, displaying four members:

- Kishor Jahan Mohamed Badurdeen**: Owner, Member, 0 teams, 0 roles
- Sarujan-03**: Member, 0 teams, 0 roles
- Stefenis**: Owner, Member, 0 teams, 0 roles
- Vijenthuja**: Member, 0 teams, 0 roles

A sidebar on the left lists organization permissions: Members (4), Outside collaborators, Pending collaborators, Invitations, Failed invitations (2), and Security Managers.

- CMMI meeting minutes:
 - Meeting 1

Meeting-Heading

Meeting Information			
Meeting Date/Time	12 th June 2024 / 6pm		
Participants	Supervisor Prof Udittha Ratnayake	Team Members M.S.Pietersz, J.Saruian, M.B.Kishor Jahan, V. Vijenthuja (
Estimated Time	30 Minutes	Actual Time	40 Minutes
Special Notes	Discussion on project milestones		
Call/Location Information	Zoom Meeting: Link: https://learn.zoom.us/j/69896967369?pwd=NGI3dCt6RIU2RDh0WW1FWmxWc3IDQT09		
Supported Documents	Project Proposal		

Agenda:

- Share and explain the Proposal
- Obtain supervisor's feedback on current work.
- Discuss upcoming deadlines and tasks.

Notes/Clarifications:

- The supervisor rejects the project proposal (because of small project for four person).

Meeting Minutes:

- **Share and explain the Proposal:** Each team member presented updates on their assigned tasks. The team has completed the initial design phase and is working on refining the implementation.
- **Upcoming Deadlines:** New deadlines were set for the next phase of work, focusing on completing key deliverables by the end of the month.
- **Supervisor's Feedback:** The supervisor did not approve the Project Proposal

Action Items:

Action item	Decision made by
Schedule monthly progress meetings	Supervisor
Finalize project deliverables for next milestone	Team Leader

- Meeting 2

Meeting-Heading

Meeting Information			
Meeting Date/Time	20 th June 2024 / 8.45 pm		
Participants	Supervisor Prof.Uditha Ratnayake	Team Members M.S.Pietersz, J.Sarvian, M.B.Kishor Jahan, V. Vijenthuija (
Estimated Time	1 Hour	Actual Time	40 Minutes
Special Notes	Discussion on project milestones		
Call/Location Information	Zoom Meeting: Link: https://learn.zoom.us/j/69896967369?pwd=NGI3dCt6RIU2RDh0WW1FWmxWc3IDQT09		
Supported Documents	Project Proposal		

Agenda:

- Review of project progress.
- Identify challenges and possible solutions.
- Discussion feedback about additional points (Current status and Current Milestone)
- Obtain supervisor's feedback on current work.

Notes/Clarifications:

- supervisor suggested creating a Git repository to collaborate on the project review with team members and the supervisor.
- The supervisor advises make correct arrow mark in use case diagram.

Meeting Minutes:

- **Review of project progress:** Each team member presented updates on their assigned tasks. The team has completed the initial design phase and is working on refining the implementation.
- **Upcoming Deadlines:** New deadlines were set for the next phase of work, focusing on completing key deliverables by the end of the month.
- **Supervisor's Feedback:** The supervisor approved the current progress but emphasized the importance of staying on track with upcoming deadlines.

 **Action Items:**

Action item	Decision made by
Schedule monthly progress meetings	Supervisor
Finalize project deliverables for next milestone	Team Leader

- Meeting 3

Meeting-Heading



Meeting Information			
Meeting Date/Time	5 th September 2024 / 8.30 pm		
Participants	Supervisor <u>Prof Udittha Ratnayake</u>		Team Members <u>M.S Pietersz</u> , <u>J.Sarujan</u> , <u>M.B.Kishor Jahan</u> , <u>V.Vijenthuia</u> ()
Estimated Time	1 Hour	Actual Time	40 Minutes
Special Notes	Discussion on Project Progress Report and Project progress presentation		
Call/Location Information	Zoom Meeting: Link: https://learn.zoom.us/j/69896967369?pwd=NGI3dCt6RIU2RDh0WW1FWmxWc3IDQT09		
Supported Documents	Final Project Report		



Agenda:

- Share and explain the Proposal
- Review of project progress report and project progress presentation.
- Discussion feedback about additional points (Current status and Current Milestone)
- Obtain supervisor's feedback on current work.
- Discuss upcoming deadlines and tasks.

Notes/Clarifications:

- She suggested making some changes to the use case diagram.
- She also suggested making some changes to the problem statement and project objectives.

Meeting Minutes:

- **Review of project progress:** Each team member presented updates on their assigned tasks. The Supervisor reviewing the project progress report and project progress presentation.
- **Upcoming Deadlines:** We discussed the upcoming deadlines like final project progress report. And we discussed getting it signature by the supervisor before the last day.
- **Supervisor's Feedback:** The supervisor suggested some changes to the project progress report and asked us to prepare the progress presentation and send it to her. She mentioned that she would let us know if any further changes were needed.

Action item	Decision made by
Prepare for the project progress presentation.	Supervisor

- Meeting 4

Meeting-Heading

Meeting Information		
Meeting Date/Time	23 rd February 2025 / 1.30 pm	
Participants	Supervisor Prof Uditha Ratnayake	Team Members M.S.Pietersz, J.Saruian, V.Vijenthuijs (
Estimated Time	1 Hour	Actual Time 40 Minutes
Special Notes	Discussion on Final Project Report and Final presentation	
Call/Location Information	Zoom Meeting: Link: https://learn.zoom.us/j/69896967369?pwd=NGI3dCt6RIU2RDh0WW1FWmxWc3IDQT09	
Supported Documents	Final Project Report	

Agenda:

- Group leader demonstrates the entire system
- She asked about who had done each part of the system.
- Review of Final project report.
- Discussion feedback about additional points (Current status and Current Milestone)
- Obtain supervisor's feedback on current work.

Notes/Clarifications:

- The supervisor suggested that the 'Invalid username / password' be removed from the use case.
- She also suggested making some changes to the test case.
- She suggested adding the SRS and CMMI meeting details to the Appendix section.

Meeting Minutes:

- **Review of project progress:** Group leader demonstrates the entire system. The team has completed the development phase. Supervisor reviewing the Final project report.
- **Upcoming Deadlines:** We discussed the upcoming deadlines like final project report and final project presentation. And we discussed getting it signature by the supervisor before the last day.
- **Supervisor's Feedback:** The supervisor suggested some changes to the final report and asked us to prepare the final presentation and send it to her. She mentioned that she would let us know if any further changes were needed.

Action item	Decision made by
Prepare for the final presentation and review the coding section carefully.	Supervisor