THE OPEN UNIVERSITY OF SRI LANKA

EEY4189 - Software Design in Group

Project Progress Report

iFood Online Ordering System

Group Alpha

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Supervisor's Approval:

Name of the Supervisor: **Prof. Uditha Ratnayake**

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Introduction

The iFood Online Ordering System project was considered in response to the increasing demand for digital convenience within the food and beverage industry. As technology continues to change, customer expectations have moved, with online ordering becoming an essential service for modern restaurants. This shift has been accelerated by the common adoption of smartphones and the growing need for contactless transactions.

Objective

The primary aim of the iFood system is to provide a continuous and user-friendly platform that enables customers to browse restaurant menus, place orders, and track deliveries in real-time. The platform is designed to improve the overall consuming experience by simplifying the ordering process, improving delivery logistics, and ensuring secure payment processing.

Background:

The necessity for this system arises from several faults identified in existing online food ordering solutions. Common issues include communication errors between customers, restaurants, and delivery personnel, leading to incorrect or delayed orders. Additionally, many systems suffer from inefficiencies in delivery address verification and payment processing, which can result in customer dissatisfaction.

By leveraging modern web technologies, such as HTML, CSS, JavaScript for the frontend and PHP for the backend, beside a strong MySQL database, the iFood project aims to address these issues. The project focuses on both customer satisfaction and operational efficiency for restaurant management. The integration of real-time tracking, secure payment gateways, and user-friendly design principles are central to achieving these goals.

Problem statement

Existing online food ordering systems face several operational inefficiencies and issues that lead to customer dissatisfaction, including:

- **Delayed Deliveries**: Customers frequently experience delays in receiving their orders due to network issues or logistical challenges, negatively impacting their overall satisfaction.
- **Communication Errors**: Miscommunication between customers, restaurants, and delivery personnel can result in incorrect orders or missed deliveries, causing frustration.
- **Address Identification**: Delivery drivers often struggle to accurately locate delivery addresses, leading to delays, failed deliveries, and customer dissatisfaction.
- **Payment Processing Issues**: Complications in payment processing, including transaction failures or delays in confirmation, disrupt the ordering process and frustrate customers.
- **Lack of Order Visual Confirmation**: Customers lack visual confirmation that their order has been accurately placed, causing uncertainty and potential dissatisfaction.
- **Cost Concerns**: Rising costs associated with online food ordering, including delivery fees and service charges, contribute to customer dissatisfaction and affect affordability.
- **Operational Inefficiencies**: Internal inefficiencies within restaurants, such as delays in order processing or poor inventory management, further exacerbate customer dissatisfaction and create challenges for restaurant management.

Project Objectives

- **Improve Order Accuracy**: Develop robust order management systems to enhance accuracy and minimize communication errors, ensuring correct order fulfillment.
- **Enhance Address Verification**: Improve address verification mechanisms to reduce failed deliveries and increase accuracy in locating delivery addresses.
- **Streamline Payment Processing**: Simplify payment procedures to reduce errors and delays while ensuring secure and efficient transaction processing.
- **Provide Visual Order Confirmation**: Offer customers real-time visual confirmation of their orders to increase confidence and reduce uncertainty.
- **Budget Friendly:** Minimize delivery fees and service charges to make online food ordering more affordable.

- **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, secure payment processing, and optimized delivery logistics. The main use case diagram below illustrates the core functionalities of the system and the interactions between different actors and the system components.

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.

Project Progress

Activities	Completed	Current stage	Next step
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			✓

Project Timeline

| Activities	03rd Feb 2024	31st March 2024	8th May 2024	22nd June 2024	30th June 2024	30th July 2024	30th July 2024	3rd, 5th, 7th August 2024	22nd Nov 2024	25th Nov 2024
Milestone 0: Preparation for the course	■									
Milestone 1: Form Groups		■								
Milestone 2: Assignment of Mentors			■							
Milestone 3: Project Proposal Report Submission				■						
Milestone 4: Submission of SRS					■					
Milestone 5: Progress Review Presentation						■				
Milestone 6: Project Progress Report Submission							■			
Project Progress Review Presentation								■		
Milestone 7: Final Report Submission									■	
Milestone 8: Final Presentation										■

Conclusion

The iFood Online Ordering System project is progressing smoothly, with significant milestones already achieved in requirements gathering, design, and technology planning. The development phase is actively underway, focusing on building robust backend functionalities and an intuitive frontend interface. The project remains on track with the established timeline, and the upcoming phases of testing, deployment, and post-launch support are well planned.

The proposed system aims to address the critical issues identified in existing online food ordering platforms by enhancing order accuracy, optimizing delivery processes, and providing a seamless user experience. The careful selection of technologies and adherence to a structured timeline will ensure the delivery of a high-quality system that meets both user needs and operational goals.

With a focus on continuous development, rigorous testing, and effective stakeholder collaboration, the project is positioned to set new standards for reliability, affordability, and operational efficiency in the online food ordering industry. Successful completion of the project will enhance customer satisfaction, streamline restaurant operations, and provide a valuable solution in the digital food service market.

Appendix

- **SRS Report :**
  https://drive.google.com/file/d/1EyH2BYVwicewkE--kT7ZfnN_MXtfsMn8/view?usp=sharing

- **Monthly Retrospective:**
  https://drive.google.com/drive/folders/1tIl2FUF18t4hH8QXnyJ2WrjYacdGM0pN?usp=sharing

- **Evidence for the use of Project governance tool**
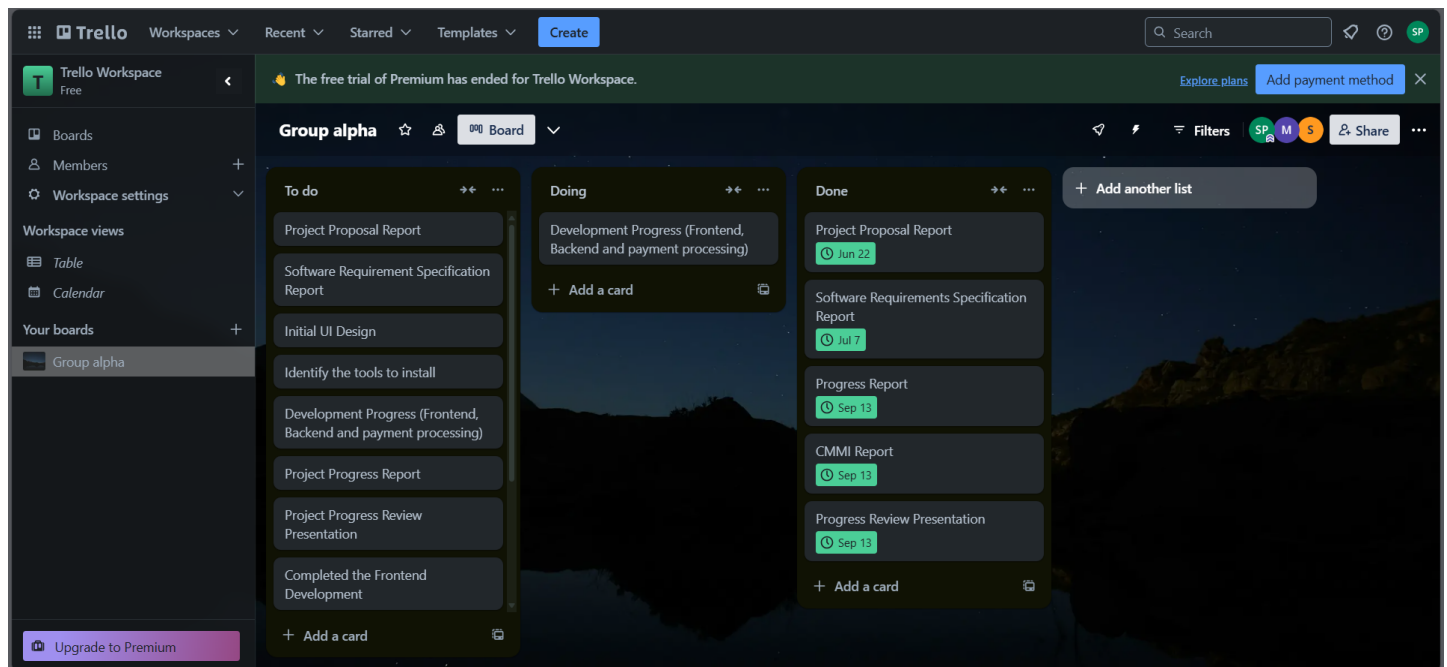
- **Git hub account**:
  Group-Alpha-Project/Group-Project-iFood-Online-Ordering-System (github.com)

- **CMMI meeting minutes:**
  https://drive.google.com/drive/folders/1C7okK3VebEm089ktMEY9kyuJBpibtlpN?usp=sharing

Thank You