**University of Macau**

**Faculty of Science and Technology**

**Department of Computer and Information Science图片包含 徽标

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**CISC3003 -- Web Programming**

**Project Proposal**

**Food-Order System**

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**Project Background**

The project involves developing a web-based food-order system for a university or educational institution. The existing manual food-order processes are time-consuming, inefficient, and prone to errors. This project aims to streamline and automate these processes to improve operational efficiency, enhance user experience, and simplify food ordering within the university campus.

**Problem Statement**

The current manual food-order processes present various challenges and drawbacks. These include long waiting times, order errors, ineffective communication between users and vendors, and difficulties in managing payments. These issues impact the university community, including students, faculty, staff, and vendors, hindering the overall food ordering experience.

**Goals and Objectives**

Overall Goal: The goal of the project is to develop a comprehensive food-order system that automates key processes, improves efficiency, and enhances user experience.

**Specific Objectives**

⚫ Develop a user-friendly interface for users (students, faculty, and staff) to browse menus, place orders, and track order status.

⚫ Implement a centralized database to store and manage food items, menus, user profiles, and order information securely.

⚫ The system will include:

➢ Menu Management: Vendors can update and customize their menus.

➢ Ordering and Payment: Users can select items, customize orders, and make payments securely.

➢ Order Tracking: Users can track the status of their orders in real-time.

➢ Feedback and Ratings: Users can provide feedback and ratings for vendors and their food items.

⚫ Provide seamless communication between users and vendors to ensure accurate order fulfillment and timely delivery.

⚫ Integrate a secure payment gateway to facilitate online transactions.

**Approach and Solution**

The project will involve the following approach and solutions:

⚫ Conduct a thorough analysis of the existing food-order processes and gather requirements.

⚫ Design and develop a web-based application using a suitable programming language (e.g., PHP) and a database management system.

⚫ Utilize modern web technologies and frameworks to create an intuitive and responsive user interface.

⚫ Implement authentication and authorization mechanisms to ensure data security and privacy.

⚫ Integrate automated workflows for order placement, processing, and delivery management.

⚫ Adopt agile project management methods for iterative development and continuous improvement.

Resources and Technologies

⚫ Programming language: PHP for server-side development.

⚫ Database management system: MySQL for data storage and retrieval.

⚫ Web technologies: HTML, CSS, and JavaScript for front-end development.

⚫ Payment gateway integration: Secure and reliable payment gateway service provider.

**Project Scope**

**The project will include the following components:**

Development of a web-based food-order system.

User interface for users (students, faculty, and staff) and vendors.

Database design and implementation for storing food items, menus, user profiles, and order information.

Integration of an automated order processing workflow, including order placement, payment processing, and delivery management.

**Project Phases**

Phase 1: Requirements Gathering and Analysis

Phase 2: System Design and Database Development

Phase 3: Front-end and Back-end Development

Phase 4: Testing and Debugging

Phase 5: Deployment and Launch

**Expected Results and Benefits**

Upon successful completion of the project, the following results and benefits are expected:

⚫ Streamlined food-order processes, reducing waiting times and order errors.

⚫ Enhanced user experience through a user-friendly interface and real-time order tracking.

⚫ Improved communication between users and vendors, leading to efficient order fulfillment.

⚫ Increased vendor visibility and customer engagement through feedback and ratings.

⚫ Simplified payment process, ensuring secure and hassle-free online transactions.

**Stakeholders**

**The stakeholders of the project include:**

⚫ Students, faculty, and staff: The primary users of the food-order system.

⚫ Vendors: Responsible for managing menus, order fulfillment, and delivery.

⚫ Administrators: Overseeing the project and responsible for overall system management.

⚫ IT Department: Responsible for system deployment, maintenance, and technical support.

**Evaluation and Tracking**

**The progress and success of the project will be evaluated through the following measures:**

⚫ User feedback and satisfaction surveys.

⚫ Tracking key metrics, such as order processing time, user adoption rates, and vendor ratings.

⚫ Comparison of system performance against predefined objectives and benchmarks.

⚫ Regular monitoring of system uptime and reliability.