

UNIVERSITY OF CAPE COAST

COLLEGE OF AGRICULTURE AND NATURAL SCIENCES

SCHOOL OF PHYSICAL SCIENCE

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

INF307: SOFTWARE ENGINEERING

GROUP PROJECT WORK

- FOOD DELIVERY APPLICATION -

BASED ON THE WEB

GROUP MEMBERS

Introduction

A food delivery web application is a digital platform that allows users to order food online from restaurants and have it delivered to their desired location. The application typically features a database of restaurants, menus, and prices, as well as a user-friendly interface that allows customers to browse and select their desired food items, track their orders in real-time, and make payments securely. Food delivery web applications are becoming increasingly popular due to their convenience and ease of use, as they allow users to order food from the comfort of their own homes or offices without the need to physically visit a restaurant. This has led to the growth of the food delivery industry, with many restaurants now partnering with food delivery applications to expand their customer base and increase revenue.

REQUIREMENTS

This section contains a complete description of the system and its users. It also indicates the

functional and non-functional requirements that have been met through discussions and analysis

among group members.

Business Requirements

• The main goal of a food delivery application is to generate revenue by connecting customers with the restaurant.

• The application should help the restaurant build their brand by exposing their brand to new customers and promoting their menu items

• The application should help restaurant expand their reach by connecting them with a wider customer base.

* The application should provide a seamless and user-friendly experience, which can help retain customers and encourage repeat orders.
* The application should offer unique features and benefits to stand out from competitors and attract customers

Administrator / Restaurant

The application should allow administrators to manage user accounts, including registration, login, and profile information.

The application should allow administrators to manage restaurant accounts, including menu items, prices, and promotion options.

The application should allow administrators to manage orders, including order tracking, cancellation, and refunds.

The application should allow administrators to manage payments, including payment gateway integration, refunds, and chargebacks.

The application should allow administrators to manage delivery operations, including delivery partners, delivery zones, and delivery fees.

The application should provide analytics and reporting tools for administrators to track key performance indicators (KPIs), such as order volume, revenue, and customer satisfaction.

The application should allow administrators to manage website content, including text, images, and promotional banners.

The application should have strong security measures in place to protect user data and prevent unauthorized access.

The application should have a maintenance plan to ensure the system is up-to-date, stable, and functioning properly.

Customers

The application should have a user-friendly interface that is easy to navigate and use.

The application should provide a list of restaurants, along with their menus, ratings, and reviews.

The application should display the restaurant menu with detailed descriptions, prices, and images.

The application should allow customers to browse menus, add items to their cart, and place orders.

The application should offer two payment options, including Paypal and cash on delivery.

The application should provide real-time updates on the status of the order, including estimated delivery time.

The application should provide customer support through various channels, such as email or chat support.

Ratings and Reviews: The application should allow customers to rate and review restaurants and delivery partners.

The application should offer personalized recommendations based on the customer's browsing and ordering history.

Functional Requirements

* User registration and login:

The app should allow users to register and create an account with a username and password.

* Order placement and customization:

The app should allow users to place orders for food items from the restaurant's menu. Users should be able to add multiple items to their order and view a summary of their order before submitting it.

* Payment and checkout:

The app should allow users to pay for their orders using a variety of payment methods, such as credit cards, PayPal, or cash on delivery.

Non-Functional Requirements

* Performance:

The system should be able to handle a large number of concurrent users without crashing or slowing down

* Security

The system shall implement strong security measures to protect users' personal and payment information and should use encryption and other technologies to prevent unauthorized access or data breaches.

* Availability

The shall would be available 24/7, with minimal downtime or maintenance windows and should be able to handle spikes in traffic and demand during peak hours or special events.

* User Friendly

The system has a friendly user interface and the system is very interactive.

Use Case Diagram

There are three main users for the system; these are Admin, instructor and student. Each user can

perform several different functions during the use of the system. These functions were determined

according to the design of the system and a user-friendly function to make the system more

effective and efficient.

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ACTORS FUNCTION

Administrator

* Update user profiles,
* Reset passwords, and deactivate or suspend accounts as needed.
* Manage the content of the app, such as updating menus and modifying app settings and configurations
* Monitor and analyze app performance and user behavior, such as tracking order volume and frequency.
* Monitoring user engagement and retention, and identifying areas for improvement or optimization.
* Provide technical support and maintenance for the app, such as monitoring system performance and uptime, identifying and resolving issues or bugs, and performing regular updates and maintenance tasks.
* Manage the process and tracking their performance and delivery times.
* Integrate with third-party payment processors and ensure compliance with relevant financial regulations and standards

Customer

* Create an account in the app, which allows them to save their personal information, such as delivery address and payment method.
* View their order history, track the status of their current orders, and rate or review the app and food.
* Place orders in the app, selecting menu items and specifying delivery options, such as delivery time and address.
* View the total cost of their order, including taxes, fees, and choose whether to pay by credit card, PayPal, or other methods.
* Provide feedback on their orders, such as rating the food quality, delivery speed, and overall experience, and leaving comments or suggestions for improvement.
* Manage their account security and privacy settings, such as changing their password, enabling two-factor authentication, and controlling their personal data and privacy preferences.
* They can also report any suspicious or fraudulent activity in the app, such as unauthorized charges or account hacking.

Use Case Specification

Number 1

Name Log in

Summary User log in to his or her account

Priority 5

Precondition User has to be registered on the system

Postcondition User must see account dashboard

Primary actor : Customer

Secondary actor: Administrator

Trigger User has to enter the log in page URL

Main scenario Step Action

1 Browser displays log in page

2 User enter id or email and password

3 User click log in button

4 User dashboard displays

Extensions Step Branching Action

3a Incorrect password

3b User click on forget password link and exit the log in

page

3c User reset password

3d User goes back the login page

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System Design

System database design