

1.INTRODUCTION:

In today's world, more people are using the internet to buy food. Our project is an online food shop that focuses on fast food, meals, drinks, and desserts. This shop is not just a place to order food, but a community where customers can post and read reviews from other buyers. We have built this online shop using JavaFX, which is a tool that helps us create a good-looking and easy-to-use website.

JavaFX allows us to add features like styling, animation, and videos, making our online shop enjoyable and simple to navigate. Customers can quickly find what they want, order it, and get it delivered to their home without hassle.

Besides ordering food, our customers can also post video blogs (vlogs) and write reviews about the food they try. This helps everyone make better choices by learning from others' experiences. By doing this, we hope to make buying food online not just convenient but also fun and engaging. We aim to improve how people experience food shopping on the internet with our project.

Purpose:

The purpose of this project is to develop an online food shop that specializes in selling fast food, meals, drinks, and desserts, using JavaFX. This platform is designed not just for ordering food but also as a vibrant community space where users can interact through video blogs (vlogs), written reviews, and a real-time chat feature for customer support and community engagement.

Objective:

The primary objectives of our online food shop project using JavaFX are outlined as follows:

❖ **Enhance User Experience:**

To create an intuitive and engaging platform that simplifies the process of ordering fast food, meals, drinks, and desserts. The interface will be designed to ensure ease of navigation and accessibility, making the ordering process straightforward and pleasurable.

❖ **Integrate Interactive Features:**

To incorporate features such as video blogs (vlogs), user reviews, and real-time chat. This integration aims to build a community atmosphere, encouraging users to engage more deeply with the platform and each other.

❖ **Promote Customer Interaction and Feedback:**

To provide mechanisms for direct customer feedback and support through the integration of a live chat feature. This will help in promptly addressing customer inquiries and problems, thus enhancing user satisfaction and trust in the service.

❖ **Drive Engagement and Satisfaction:**

To ensure the platform not only meets the basic needs of food ordering but also enriches the user experience with additional content and interaction capabilities, which are expected to increase user retention and overall satisfaction with the service.

Motivation:

The motivation behind this project stems from the evolving needs of modern consumers who seek convenience, variety, and a connected experience when it comes to dining. With the rise of digital solutions in everyday life, there is a significant demand for platforms that not only simplify tasks but also enrich the user's experience. Utilizing JavaFX allows us to leverage its capabilities to create an aesthetically pleasing and functional interface that can handle dynamic content and interactive features efficiently. This project is driven by the desire to merge traditional fast food shopping with innovative digital features, creating a unique and comprehensive online food service.

By integrating these elements, we aim to address the typical challenges faced by online food shoppers, such as lack of direct interaction and limited information on food quality, while also providing a platform that is both entertaining and practical. The inclusion of real-time chat further ensures that users can receive immediate assistance and fosters a more responsive and customer-oriented service environment. This project reflects our commitment to enhancing the online food shopping experience by adapting to and incorporating modern technological advancements.

2. DESCRIPTION OF PROJECT:

This online food shop project incorporates a range of features tailored to three distinct user types: general users (customers), restaurant accounts, and the administrative panel. Each user type has a specific set of functionalities designed to streamline operations and enhance user experience

across the platform. The online food shop project is designed to cater to the specific needs of users, restaurants, and an administrator. Below are the detailed features categorized by user type:

List of Features:

We use various of features to make the system user friendly. Such as:

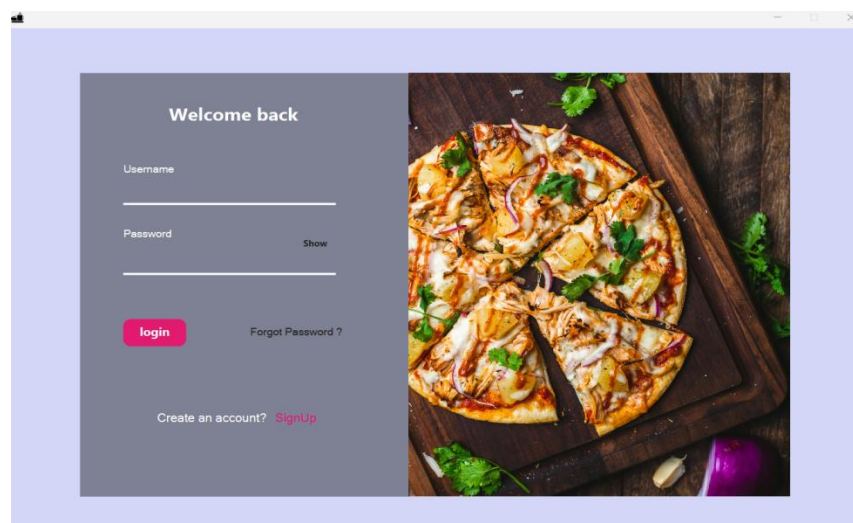
- I. Log In and Sign Up page
- II. User Account
- III. Restaurant Account
- IV. Admin Panel

I. Log In and Sign Up page:

The login page provides a simple and secure gateway for customers who already have an account. Users can enter their registered email and password to access their accounts, making the process straightforward and efficient.

The signup page is designed for new users to create their accounts easily. It requires basic information such as name, email, and desired password. The process is designed to be user-friendly, guiding the user through each step to ensure that all necessary details are provided.

If customers forget their password, the system supports a password recovery mechanism. By selecting the "Forgot Password" option, users initiate a process where a verification code is sent to their registered Gmail account. This code can be used to set a new password, ensuring that account access is regained securely and conveniently.



II. User Account (Customers):

☐ **Home Page Dashboard:**

Upon logging in, customers are greeted by a home page that acts as a central hub for navigating to various features such as ordering, account management, and communications.

☐ **Menu and Ordering:**

The menu page allows customers to browse available food items, which can be searched by name or filtered by categories such as discounts or specific restaurants. Customers can add items to cart and proceed to checkout for purchase.

☐ **Top Up Balance:**

This feature enables customers to recharge their account balance, ensuring they have sufficient funds to make purchases anytime.

☐ **Global Messaging System:**

Customers can communicate globally with other users or direct queries to customer service, facilitating real-time engagement and support.

☐ **Review and Feedback:**

Users can view and post reviews about their food experiences, providing valuable feedback to restaurants and guidance to other customers.

☐ **Order History:**

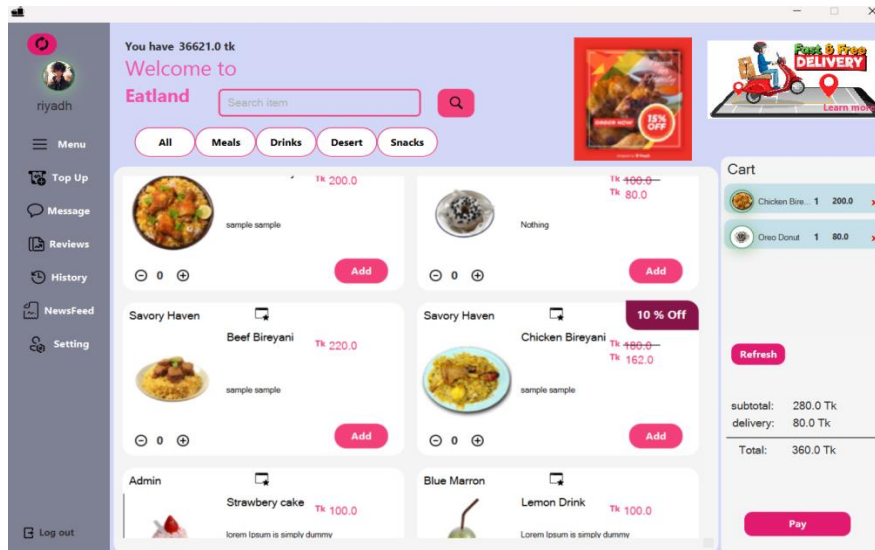
A comprehensive log of all past purchases is available for customers to view, helping them track spending and reorder favorite items easily.

☐ **Newsfeed Interaction:**

The newsfeed keeps customers informed about the latest offers, new menu items, and news from restaurants, enriching the community feeling.

☐ **Settings and Personalization:**

Customers can update their personal settings, such as name and password, enhancing security and personalization of their accounts.



III. Restaurant Account:

□ Restaurant Dashboard:

Upon logging into their account, restaurant operators are directed to a comprehensive dashboard designed to provide a snapshot of their business's performance. The dashboard displays key metrics including:

- **Total Customers:** The total number of unique customers who have ordered from the restaurant.
- **Today's Sales:** A count of the sales made during the current day, providing immediate feedback on daily operations.
- **Total Sales:** Cumulative sales data, offering insights into overall business performance.
- **Number of Products Sold:** Displays how many units of each item have been sold, helping in inventory forecasting.
- **Graphical Charts:** Two primary charts enhance the visual representation of data:
 - **Total Sales Chart:** Tracks sales performance over time, allowing for trend analysis.
 - **Customer Chart:** Shows customer growth and retention metrics, essential for understanding market penetration and customer loyalty.

□ **Inventory Management:**

Accessible via the "Inventory" button, this feature enables restaurants to effectively manage their menu items. In the inventory management interface, restaurants can:

- **Add New Items:** Introduce new offerings to the menu, attracting customers with more variety.
- **Update Existing Items:** Modify details of existing menu items, such as prices, descriptions, and availability, ensuring the menu remains up-to-date.
- **View Inventory List:** A detailed list of all menu items, along with their status and stock levels, helps in maintaining sufficient supply to meet demand.

□ **Customer Reviews:**

The "Review" button leads to a dedicated page where restaurants can access and read reviews left by customers. This section is crucial for:

- **Monitoring Customer Feedback:** Understand how customers perceive their food and service.
- **Responding to Reviews:** Engage directly with customers by responding to their feedback, which can help improve the restaurant's reputation and customer satisfaction.

□ **Promotional Posting:**

Through the "Newsfeed" button, restaurants gain access to a powerful tool for direct communication with their customer base. This feature allows restaurants to:

- **Post Updates and Promotions:** Share information about special offers, discounts, or new menu items.
- **Engage with Community:** By posting on the newsfeed, restaurants can keep the customer community engaged and informed, thereby enhancing their visibility and attractiveness to potential customers.



IV. Admin Panel:

The Admin Control Panel serves as the command center for administrators, providing them with a comprehensive overview of platform operations, similar to the restaurant dashboard but with expanded capabilities. This panel includes access to critical data such as sales metrics, user activity, and system-wide inventory levels, allowing admins to monitor and manage the platform effectively.

☐ User and Restaurant Oversight:

Admins have extensive control over user accounts through the "Userinfo" section, where they can perform several crucial functions:

- **Account Creation:** Admins can create accounts for restaurants and delivery personnel, facilitating the expansion and coordination of the platform's service network.
- **Account Management:** Includes the ability to suspend or delete accounts. This control is vital for maintaining the integrity and safety of the platform.
- **Detailed Viewing:** Admins can view detailed profiles of users, restaurants, and delivery personnel, which includes transaction histories and activity logs. This information helps in making informed decisions regarding account management.

□ Messaging and Reviews Management:

Through the admin panel, administrators can access and participate in the global messaging system, enabling direct communication with users and restaurant owners. Additionally, they oversee all user and restaurant reviews, ensuring that feedback remains constructive and appropriate. This dual role helps maintain a positive and professional environment on the platform.

□ Newsfeed and Inventory Oversight:

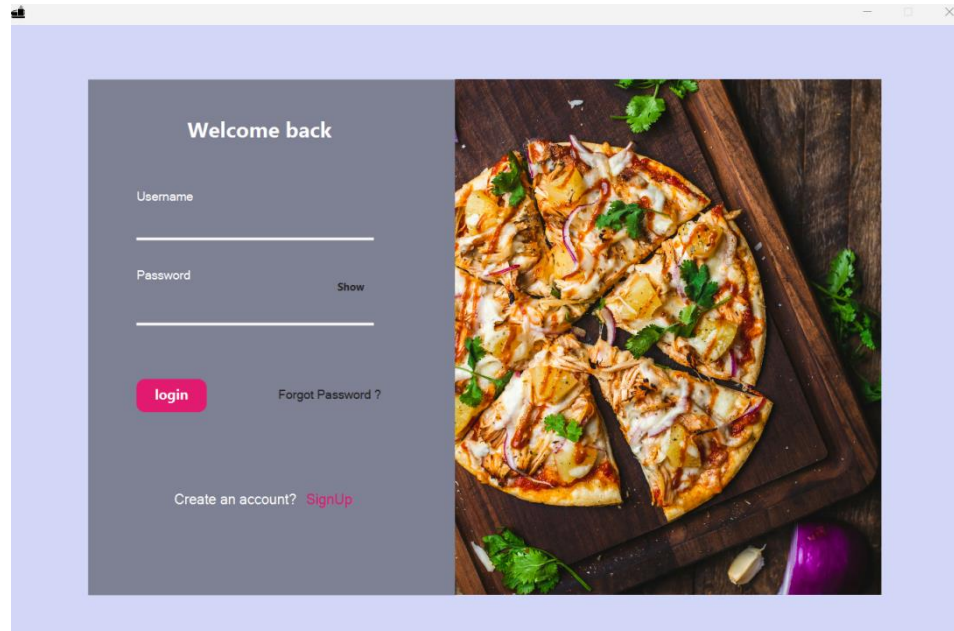
- **Newsfeed Management:** Admins can post important updates, notifications, and promotional content directly in the newsfeed, ensuring that all platform users stay informed about significant developments or changes.
- **Inventory Control:** Unlike restaurants that manage their specific inventory, admins have the ability to oversee and manage inventory listings across the entire platform. This includes adding new food items to the system or adjusting existing listings to ensure that the information presented to users is accurate and up-to-date.

The screenshot displays the Admin Panel interface. On the left is a sidebar with a 'Welcome admin' header and a list of navigation items: Overview, Inventory, Message, Reviews, History, NewsFeed, User Info, and Log out. The main content area features three panels. The first panel, 'Create Account for', has radio buttons for 'Resturent' and 'Deliveryman', followed by input fields for 'Enter fullname', 'Enter Username', 'Enter email', and 'Enter password', and a 'Create Account' button. The second panel, 'Delete Account from', has radio buttons for 'User', 'Resturent', and 'Deliveryman', an input field for 'Username' with the placeholder 'enter username to delete', and a 'Delete' button. The third panel, 'Block Resturent', has an input field for 'enter resturent username', a 'select' dropdown menu, and a 'Block' button. Above the 'Create Account for' panel are two red buttons labeled 'Users' and 'Others'.

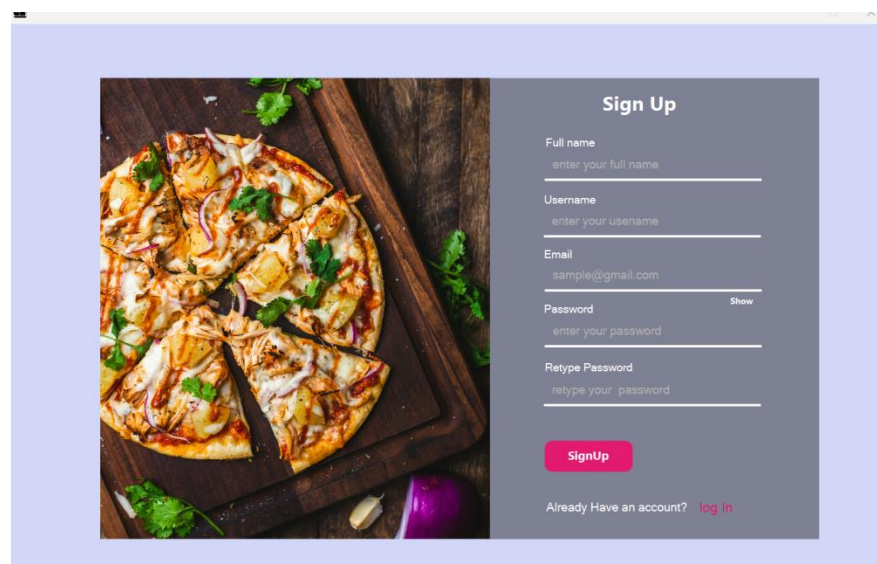
3.PROJECT PAGES IMAGES:

LogIn and SignUp Perspective

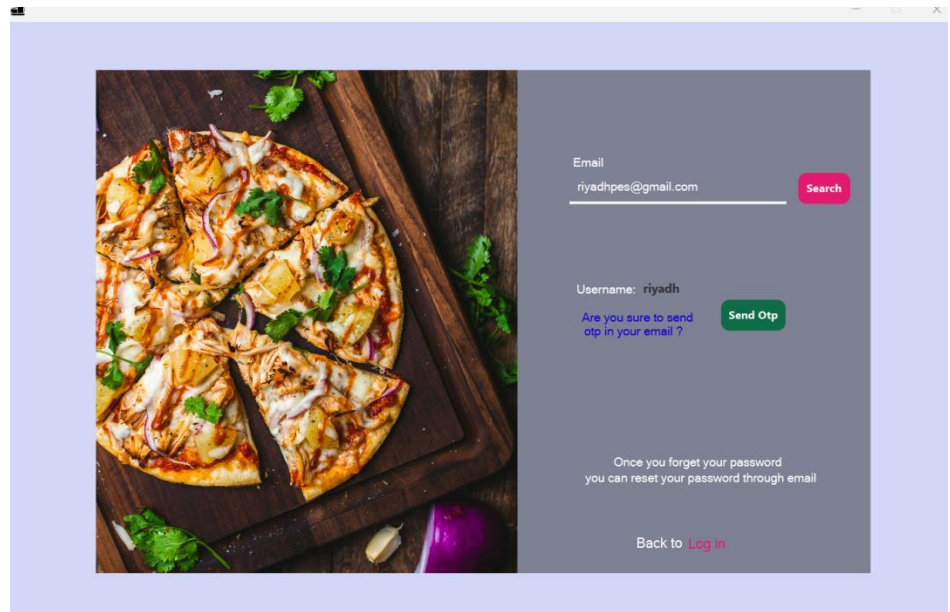
- **Log In Page:**



- **Sign UP:**

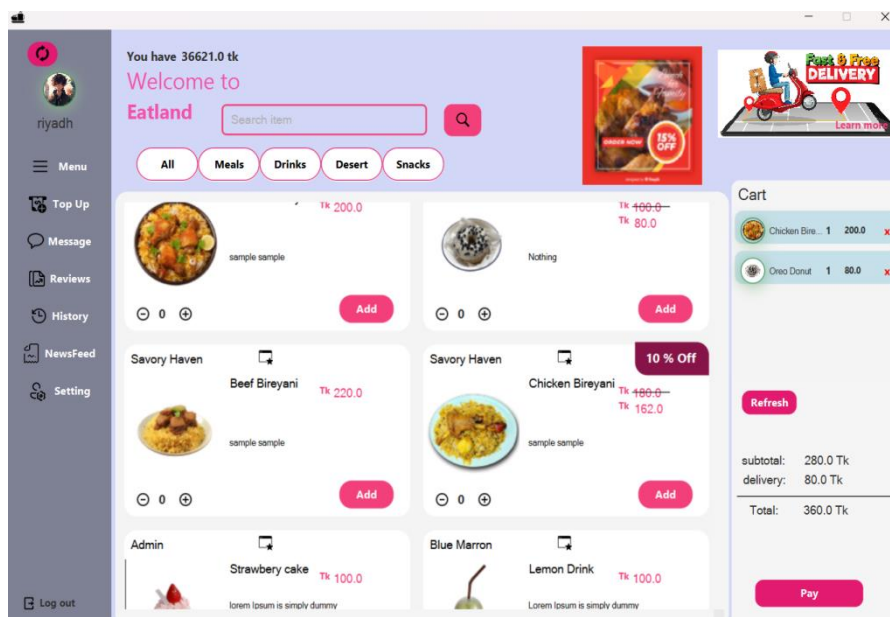


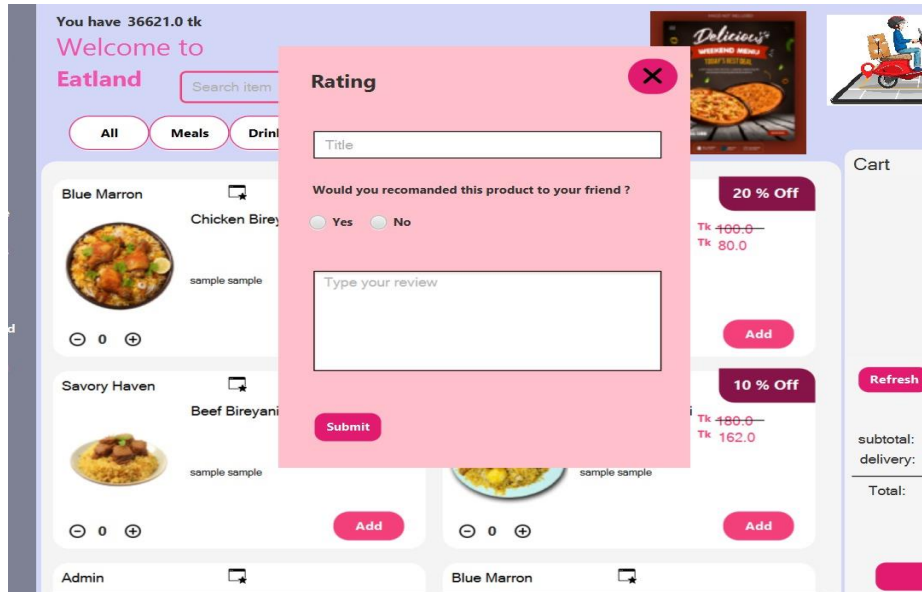
- **Forgot Password:**



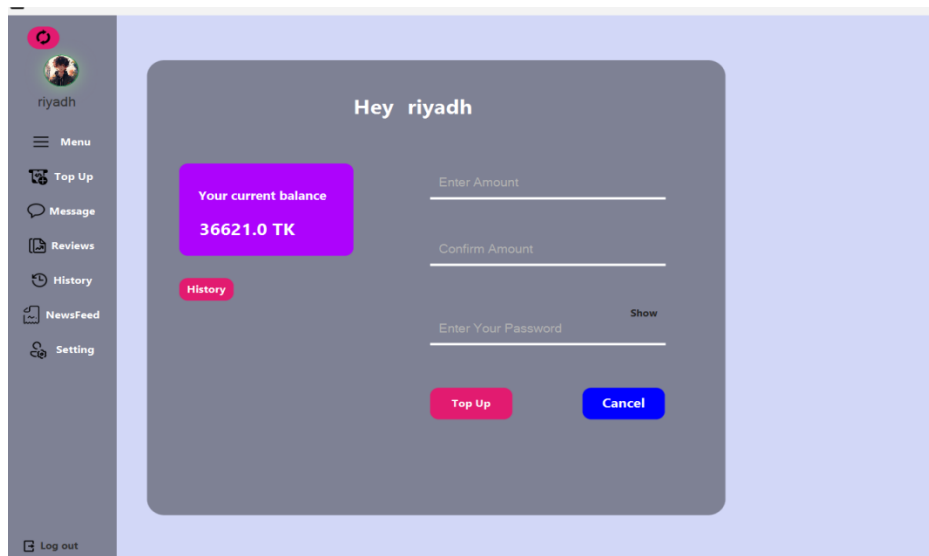
User Account Perspective

- **Menu Page:**

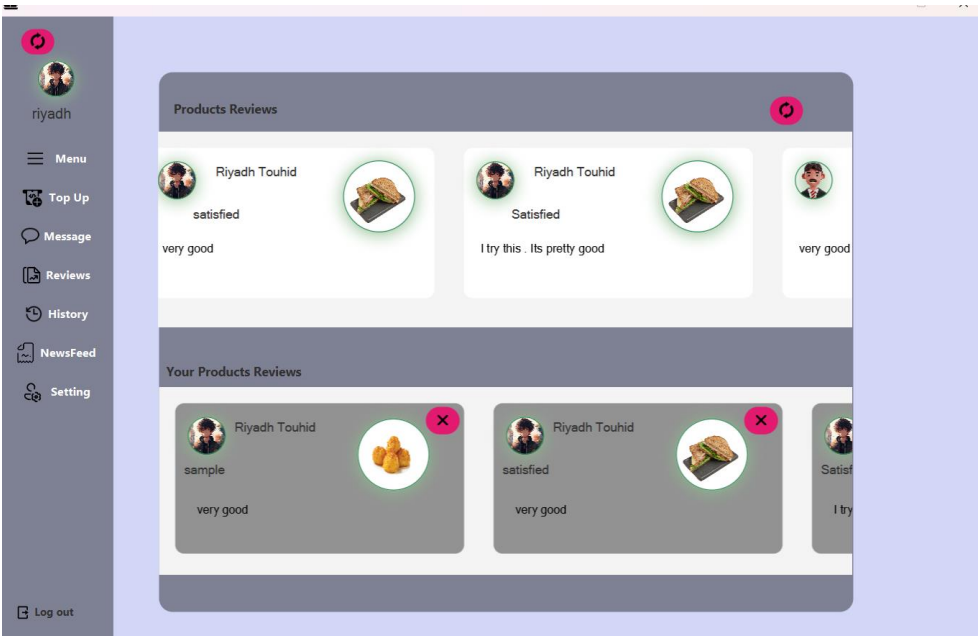




- **Top Up Page:**



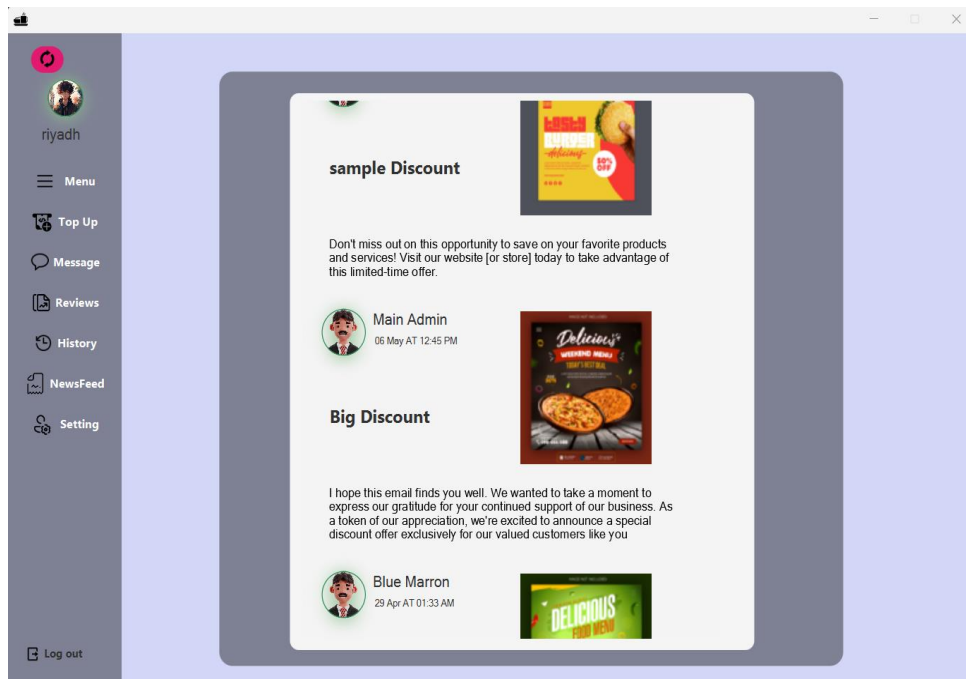
• Review page:



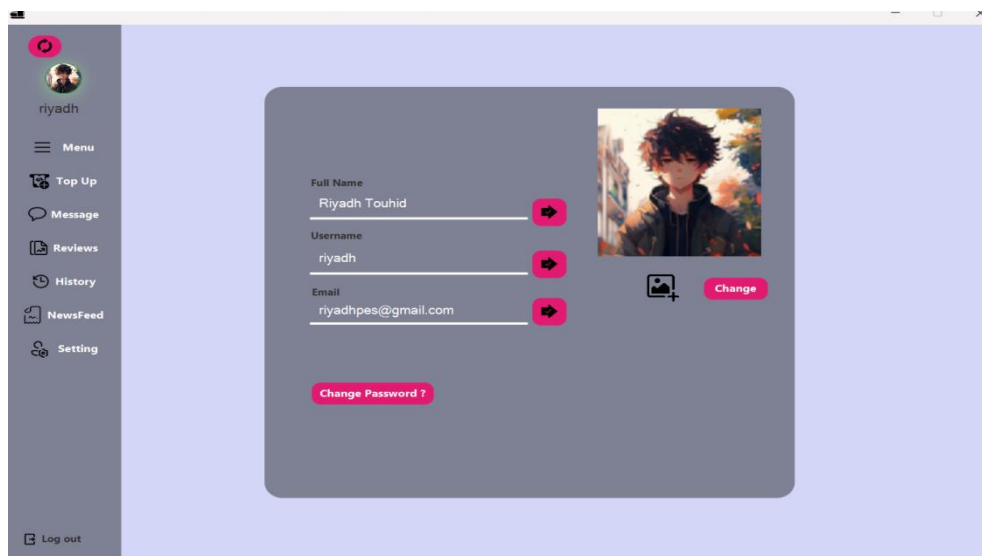
• History Page:

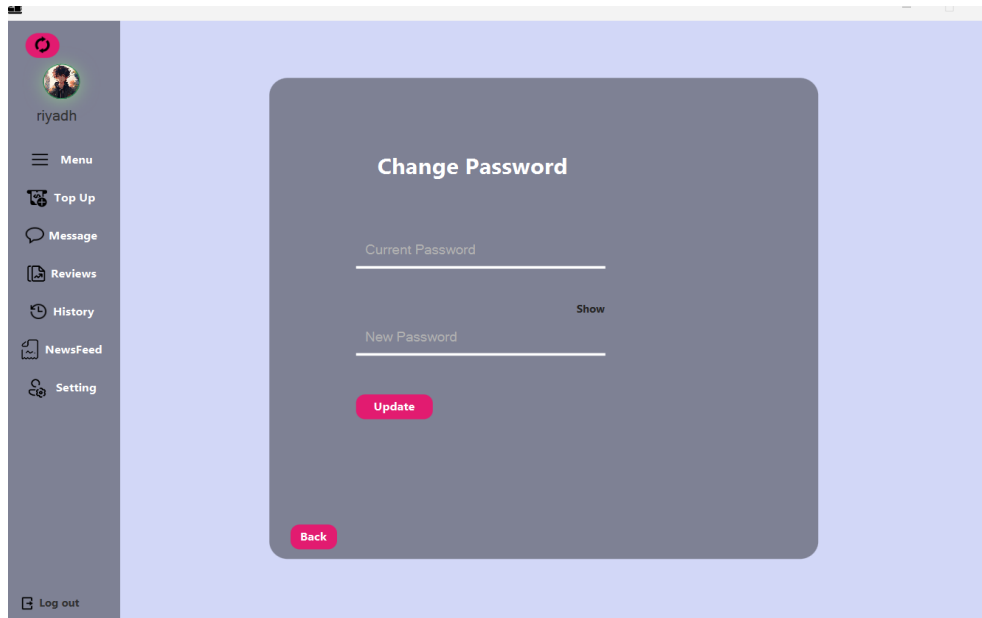
Your purchase history			
Total	Time	Date	Products
1466.0	09:02 PM	2024-04-10	[P:French Fries,Q:2][P:Pizza,Q:2]
2450.0	01:24 PM	2024-04-13	[P:French Fries,Q:3][P:Pane Cake,Q:1][P:Sweet Cake,Q:2]
1850.0	03:58 PM	2024-04-21	[P:French Fries,Q:5]
2018.0	04:38 PM	2024-04-23	[P:lemon juice,Q:2][P:sample2,Q:2]
1616.0	06:37 PM	2024-04-24	[P:lemon juice,Q:4]
300.0	06:13 PM	2024-04-28	[P:hhhhhhh,Q:1]
400.0	07:02 PM	2024-04-28	[P:hhhhhhh,Q:1]
605.0	07:24 PM	2024-04-28	[P:nacos,Q:1]
300.0	01:01 AM	2024-04-29	[P:Lemon Drink,Q:2]
1515.0	01:08 AM	2024-05-02	[P:lemon juice,Q:2][P:nacos,Q:1]
2100.0	12:01 PM	2024-05-02	[P:lemon juice,Q:4]
380.0	06:39 PM	2024-05-05	[P:hhhhhhh,Q:1]
585.0	06:40 PM	2024-05-05	[P:nacos,Q:1]
180.0	11:52 AM	2024-05-06	[P:Strawbery cake,Q:1]

- **News Feed Page:**



- **Settings:**





Restaurant Account Perspective

- Overview page:



- **Inventory Page:**

Product ID	Product Name	Type	Stock	Price	Status	Date	Discount	Off (%)
dd420	hhhhhh	Meals	26	300.0	Available	2024-04-20	Off	0
dd34	lemon juice	Drinks	44	505.0	Available	2024-04-21	On	20
dd34wv	nacos	Snacks	44	505.0	Available	2024-04-25	Off	0
SS2	Sandwich	Snacks	46	100.0	Available	2024-04-25	Off	0
vv4	Lemon Drink	Drinks	6	100.0	Available	2024-04-25	Off	0
BB2	Chicken Bireyani	Meals	25	200.0	Available	2024-05-07	Off	0

+

 Add

Update

Delete

Product ID: BB2

Stock: 25

P. Name: Chicken Bireyani

Price: 200.0

P Details: sample sample


Status:

Type:

Discount:

percent ? 0

Clear



select item

- **Review page:**

blue

Overview

Inventory

Message

Reviews


History

Setting

NewsFeed


Log out


Your Products Reviews

 Riyadh Touhid

Satisfied


The butter chicken was rich and creamy, with tender pieces of chicken simmered in a velvety tomato-based sauce infused.




 Riyadh Touhid

sample


very good



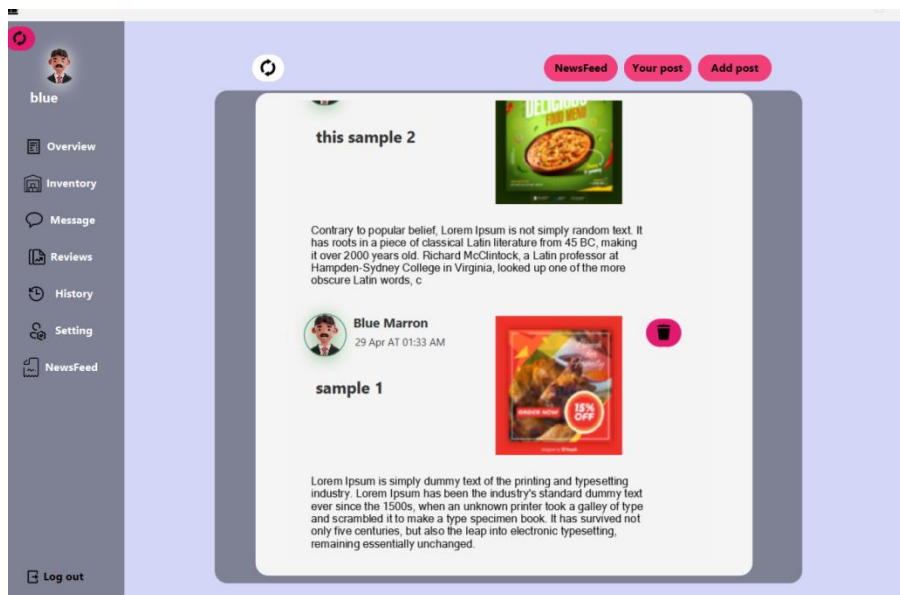
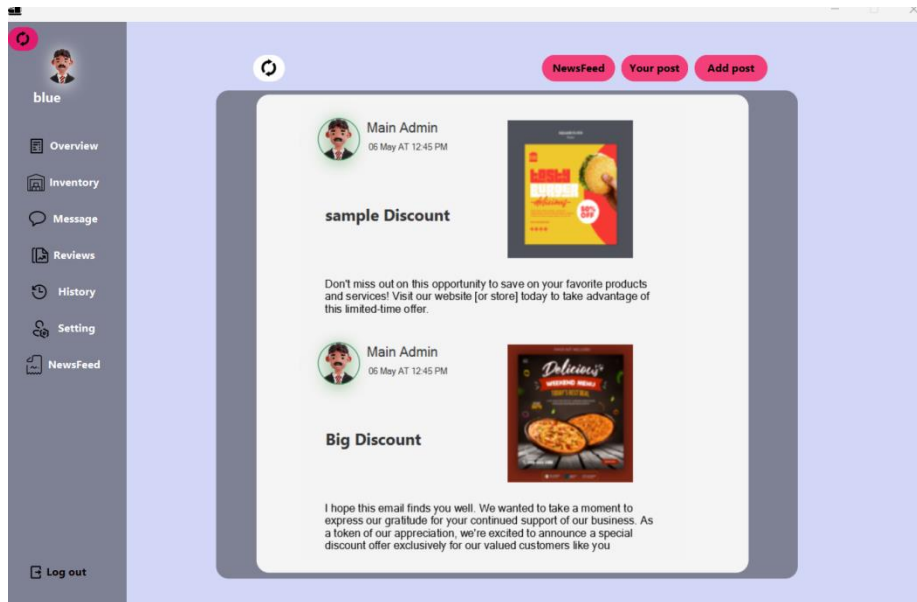
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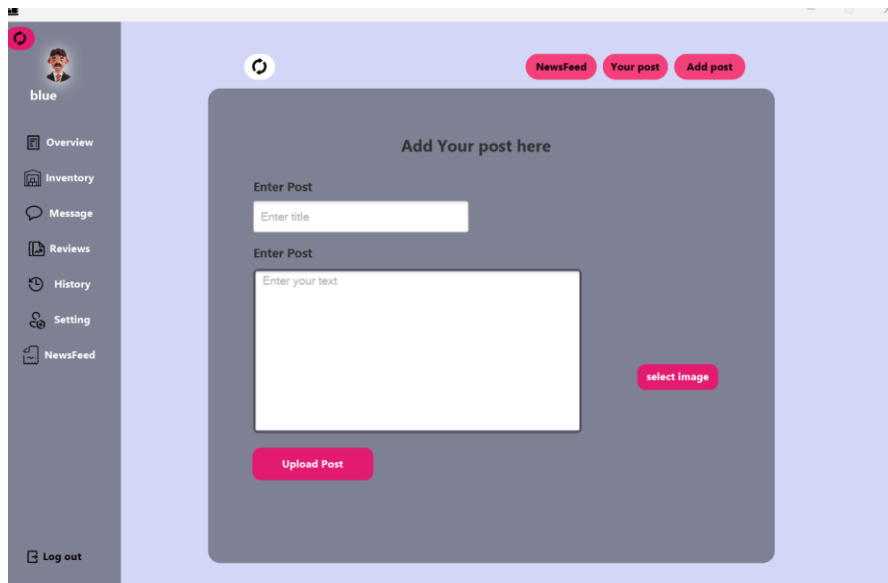
satisfied

very good



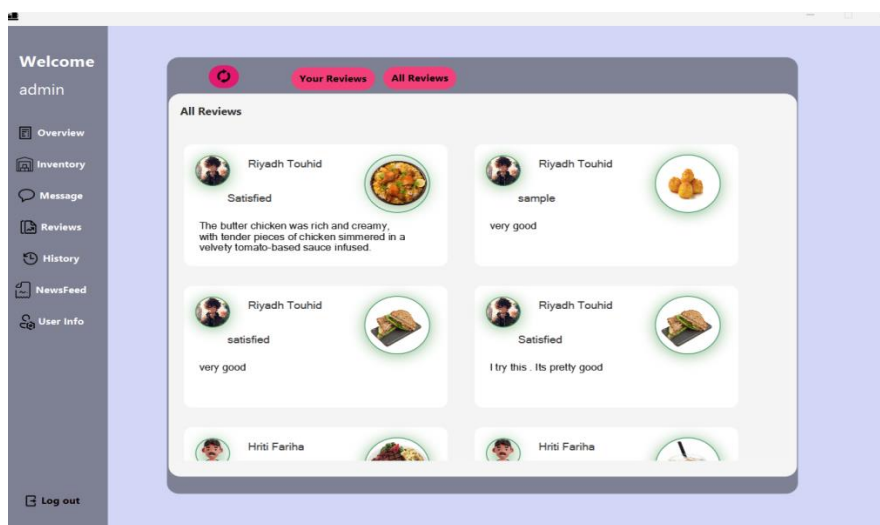
- News Feed:





Admin Panel Perspective

- **Review:**



- **User Info:**

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3. FUTURE WORKS:

The continuous improvement and expansion of the online food shop project are crucial for maintaining its competitiveness and enhancing user satisfaction. The following are proposed enhancements and additions to further enrich the platform:

□ Integration of Delivery Tracking with Google Maps:

- **Real-Time Tracking:** Incorporate Google Maps to enable real-time tracking of deliveries. This feature would allow users to see the exact location of their delivery in real-time, enhancing transparency and customer satisfaction.
- **Route Optimization for Delivery Personnel:** Utilize Google Maps to help delivery personnel find the most efficient routes. This will not only speed up delivery times but also reduce fuel consumption and overall operational costs.

□ Dedicated Interface for Delivery Personnel:

- **Mobile App Development:** Develop a specialized mobile app for delivery personnel that includes features such as order management, route navigation, and delivery status updates. This app would centralize all necessary information, making it easier for delivery drivers to manage their tasks efficiently.
- **In-app Communication Tools:** Implement communication tools within the delivery app that allow drivers to quickly contact customers or the restaurant for delivery-specific inquiries or updates.

□ Enhanced Analytical Tools for Predictive Analysis:

- **Demand Forecasting:** Implement advanced analytics to forecast demand based on historical sales data, local events, and other relevant factors. This would help restaurants prepare adequately, ensuring they are neither overstocked nor understocked.
- **Customer Behavior Insights:** Use machine learning algorithms to analyze customer purchasing patterns and preferences. This data can be used to personalize the user experience and to provide targeted promotions that are more likely to convert.

□ Expansion of Payment Options:

- **Digital Wallets and Cryptocurrency Payments:** Integrate additional payment methods including popular digital wallets and cryptocurrencies. This would cater to a broader audience, ensuring that the platform remains accessible and convenient for all user demographics.

□ **Implementation of a Loyalty Program:**

- **Rewards and Incentives:** Develop a loyalty program that rewards customers based on their purchasing behavior. Such incentives could include discounts, special offers, and early access to new products or events, encouraging repeated business and enhancing customer loyalty.

These future developments are aimed at enhancing the functionality and user experience of the online food shop, promoting greater operational efficiency, and improving customer engagement through innovative technologies and features.