Multi Featured Food Ordering App

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Abstract: Customers today demand convenience, speed, and ease when ordering food. The Food Ordering App is a popular service adopted by many hotels and restaurants in the Western world. This method allows customers to order food online and have it delivered to their door, reducing labour costs and expanding the scope of business. The app connects customers with different restaurants, providing them with a choice of options. Designed primarily for the food delivery industry, this system will enable hotels and restaurants to expand their online food ordering capabilities. Customers can select their favourite dish from the menu in just a few minutes, and the app makes it easy to deliver food quickly and conveniently. The primary objective of this project is to create a secure, user-friendly, and unique app that will meet the demands of millions of users looking for a food ordering app. The Food Ordering App will be built using React Native, with the assistance of react native elements, native navigation, react hooks, and Firebase for database management.

Keywords: food ordering, dish, restaurant, user.

1. INTRODUCTION

In today's fast-paced world, many restaurants prioritize quick preparation and speedy delivery of orders over a rich dining experience. Despite the availability of numerous grocery and food delivery apps, people still prefer to call the nearest restaurant and wait for the food delivery person to ring their doorbell. However, the advantages of food ordering apps have become well-established in people's perceptions, including the convenience of multiple payment methods, appealing discounts, and competitive pricing. According to statistics, in India, 74% of traffic is on mobile apps, with only 26% spent on the browser. Due to the spread of diseases like COVID-19, contactless services have become more prevalent, and food delivery apps have become essential for all large food businesses.

Online food ordering is the most convenient way to avoid cooking one's own food. According to recent studies, approximately 25% of customers utilize mobile food ordering applications. The impact of online food delivery has transformed the worldwide food sector, starting with metropolitan areas and currently expanding to smaller towns. This expansion is propelled by the fast-paced, corporate-oriented environment where time is a valuable commodity, and home-delivered meals are a lucrative solution. Those who reside far from home, including working professionals, students, and employees, frequently encounter challenges in locating nutritious and clean meals.

Individuals are continuously seeking out novel food choices, delectable cuisines, and appetizing dishes. Online food delivery provides them with the chance to have their preferred cuisine delivered right to their doorstep. Food is acknowledged for creating bonds between people and providing them with a diverse array of flavours to satisfy their taste buds.

2. PROBLEM STATEMENT

The food delivery sector is currently undergoing substantial expansion and is anticipated to attain a worth of $320 billion by 2029. The COVID-19 pandemic has contributed to the industry's largest growth in five years, and as of 2020, there are 201.8 million users in India, with an expected increase to 268.2 million this year. As the user base rapidly expands, customers are demanding new features and an easier food ordering experience. Some frequent users desire additional exciting features beyond what current apps like Swiggy and Zomato offer. To meet these demands, our app will incorporate innovative features that are not currently available in existing food delivery systems.

3. LITERATURE SURVEY

In the world of fast food and takeout, many restaurants have prioritized quick preparation and speedy delivery over offering a rich dining experience. While there are many grocery and food delivery apps, people are still placing calls to the nearest restaurant and eagerly waiting for the food delivery person to arrive. To meet this demand, food ordering apps have created a strong image in people's minds about the benefits of this system, such as multiple payment options, attractive offers, and comparable prices.

In May 2022, Kondra Revathi Satya, Ch Teja, Ashish Shrivastava published a research paper titled "The Online Food Ordering System", in which they introduce a food ordering system designed for small restaurants to offer online ordering without the need for costly custom software. The system allows building staff to manage site content, particularly the menu, through an intuitive graphical interface.

Another research paper, "Chatbot using API - Human to Machine Conversation," was published in October 2019 by Prof. Sunil Punjabi, Prof. Vighnesh Sethuram, and Prof. Vighnesh Ramachandran. They utilized machine learning, Dialogflow, and an API to create a rail chatbot that was more reliable and faster than the MMT chatbot and completely automated.

In October 2020, Prof. Subhash S, Prof. Prajwal Srivastava, Prof. Siddesh S, Prof. Ullas A, and Prof. Santhosh B published a research paper titled "Artificial Intelligence – Based Voice Assistant." In their work, they developed an Intelligent Personal Assistant (IPA) that can perform basic tasks like playing YouTube, searching Google, and opening maps using AI and Google text-to-speech (GTTS).

In December 2019, Md Altab Hossin, Yinping Mu, Jiaming Fang published a paper titled "Influence of Picture presence in reviews on online seller product rating: Moderation role approach". This study analyzed the impact of pictured reviews on online seller ratings, with moderating effects of price, brand type, goods type, and brand familiarity. The results indicated that picture reviews generally improved online seller ratings.

4. PROPOSED METHODOLOGY

The simulation begins with the customer logging in with their name, ID, and password. After successful verification, the customer can proceed to order by indicating the desired quantity of food. A new window then displays the order number, customer ID, food name, price, and quantity. Upon finalizing the order, the customer is directed to the payment section, where the total cost is displayed, and the customer can select their preferred payment method. A confirmation message is sent to the customer upon completion of the order. In addition to this, new advanced features in our app are:

1. **Never Show Again**

Options are always welcomed on recommender apps. But there are some restaurants, a vegetarian may never order from like KFC. How about a feature that lets you hide restaurants which would otherwise show up on your 'Nearby' list every time you fire up the app. Never Show Again is a feature that allows the user to hide any restaurant from the restaurant list and unhide it from the Hidden list by just hitting the 'Eye' icon.

Clicking the hide button sends a request to the backend with the restaurant's ID, which adds it to the user's hidden list collection. The system filters out hidden restaurants, but users can unhide them from the hidden list menu. This feature can be useful for users who have dietary restrictions or preferences and want to filter out certain restaurants from their view. It allows users to personalize their experience and see only the

restaurants that meet their needs.

2. The Dish Wishlist

Yes, Swiggy has a 'favorites' feature. But users will really like is a wish list for dishes. At times, when browsing, we very often come across interesting dishes we want to eat LATER. For example, I've fired up the app to place my order for Chinese, but I happen to see a rather inviting looking pizza. And I'd like to save that to come back to another day. Dish wishlist is a feature that allows the user to wishlist or save any dish from any restaurant which he likes or want to order anytime in future.

Users can add dishes to their wishlist while browsing a restaurant's menu by clicking on the "add to wishlist" button. This sends a request to the backend with the unique ID of the dish. The backend adds the dish to the user's Dish Wishlist collection, which is accessible from the wishlist menu. Users can remove dishes from their wishlist by clicking on the "remove from wishlist" button. This feature enables users to keep track of dishes they want to try or have enjoyed, and personalize their experience. However, it's crucial to note that adding a dish to the wishlist doesn't guarantee its availability, and users should confirm with the restaurant before placing an order.

3. Interactive Reactions

Offering users, the ability to react to dishes they try can make for an interesting and interactive experience. With the "Reactions" feature, users can like or dislike dishes from a restaurant. When a user visits a restaurant's page, they can see all available dishes. Clicking on the like button allows users to show their appreciation for a particular dish, and previously liked dishes will be highlighted in red. The number of likes for each dish is also displayed, enabling users to track its popularity.

This feature is beneficial for users who want to keep a record of their favorite dishes or share their opinions on specific dishes with others. It can also help restaurants to gauge which dishes are popular among their customers and adjust their menus accordingly. However, it's crucial to note that a like or dislike doesn't necessarily reflect the dish or restaurant's quality, and users should provide detailed feedback to share their experience with others.

4. Calorie Burner Alert

Wouldn't it be great if an app could tell you exactly how many kilometers you needed to run and burn off that Paneer Butter Masala? Or how many laps will undo that Chocolate Ice cream? Calorie Burner Alert is a feature which appears in a shopping cart where users can see the total number of calories of the items they have added and how to burn them. This could potentially be a helpful tool for users who are conscious about their calorie intake and want to maintain a healthy lifestyle.

The Calorie Burner Alert is a feature that displays the total number of calories of the items added to a shopping cart and suggests how to burn them. To implement this feature, a calorie tracking system needs to be integrated, which can calculate the calories of each dish based on its ingredients and portion size. The system can then suggest physical activities that can help burn those calories, or integrate with fitness tracking apps. It's important to ensure that the calorie information provided is accurate and up-to-date to avoid any harm.

5. Image Review Section

With the value of images rapidly increasing, images as part of ratings and reviews is also increasing. Images allow users to visually connect with the food product. It helps users visualize how tempting and how much quantity that dish exactly consist of. Image Review Section is a feature that allows users to post their feedback with an image which can be useful for other users.

Users can view feedback provided by other users for a particular restaurant by visiting its screen. If they wish to add their feedback, they can click on the "add review" button, which opens up a form with a text box and an option to upload an image. Upon submission, the backend saves the feedback and associates it with the user's unique ID. To support image upload, the backend utilizes the Multer library. This feature enables users to provide a more detailed account of their experience and offer visual evidence to support their feedback. It can be helpful for those who wish to share their experience with others and assist them in deciding whether to visit a restaurant or not.
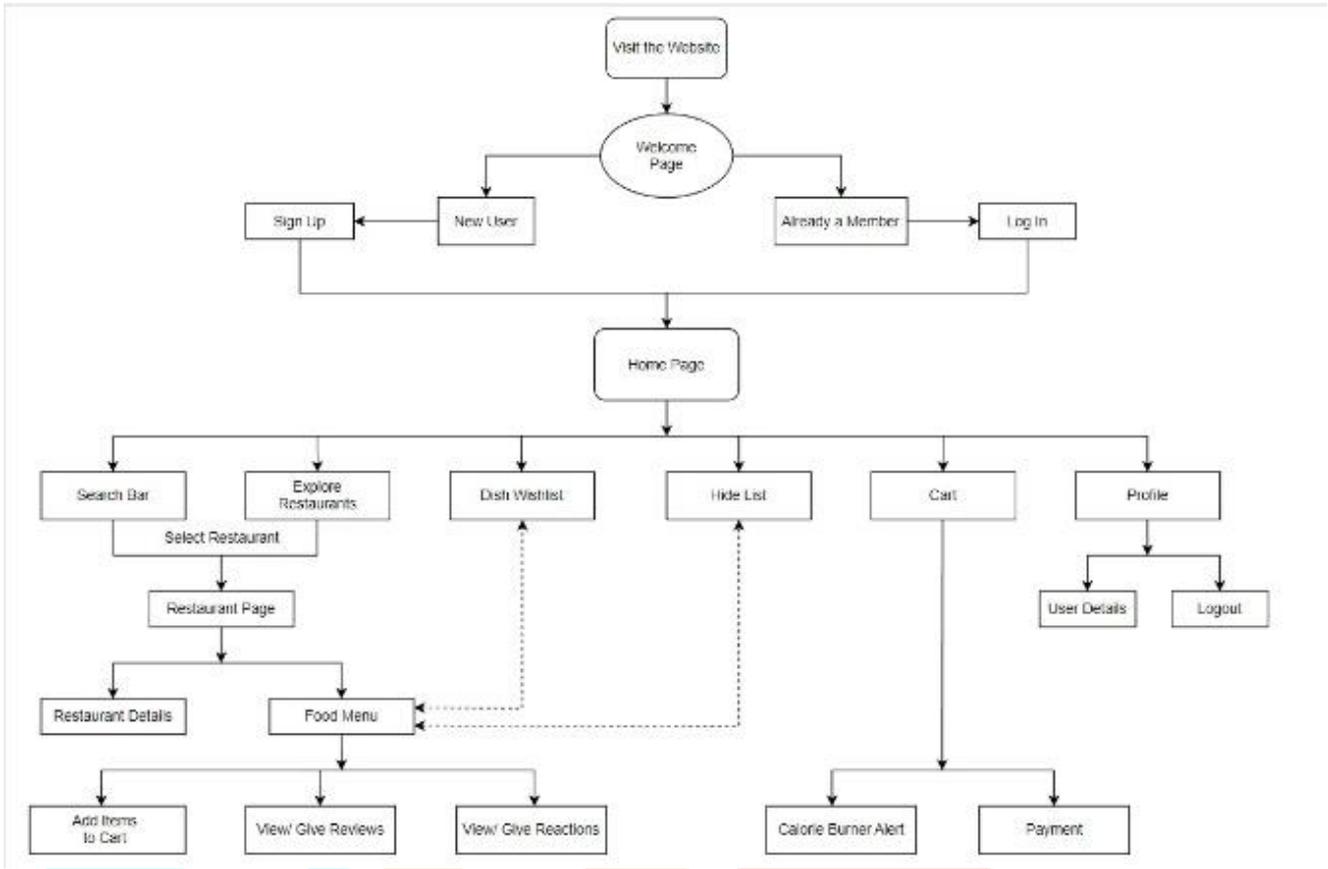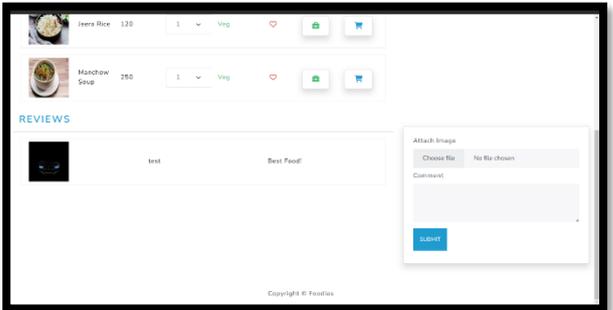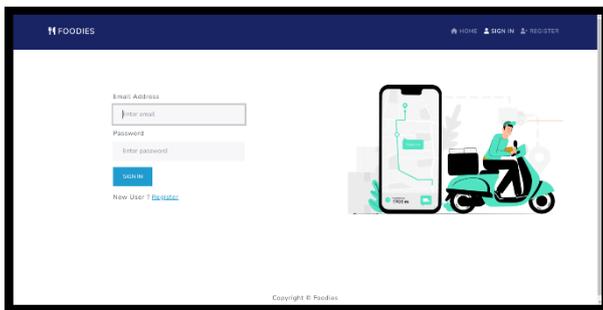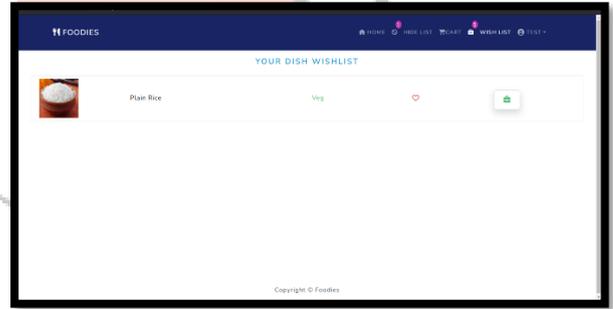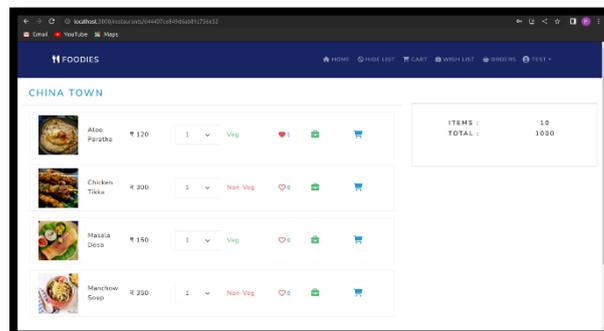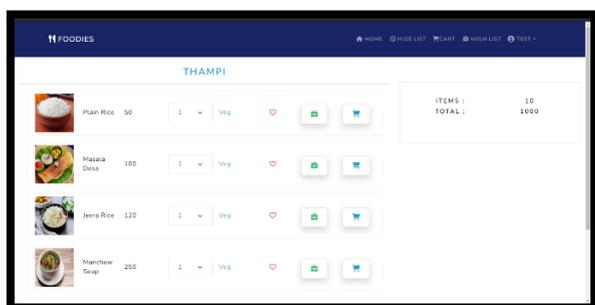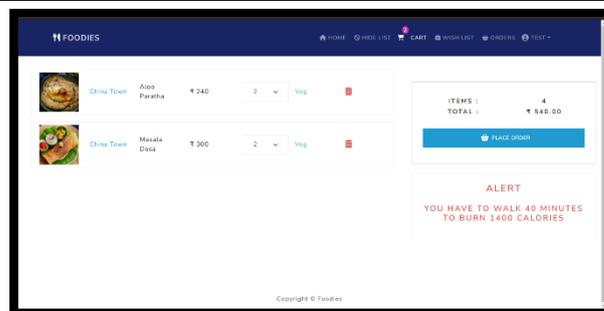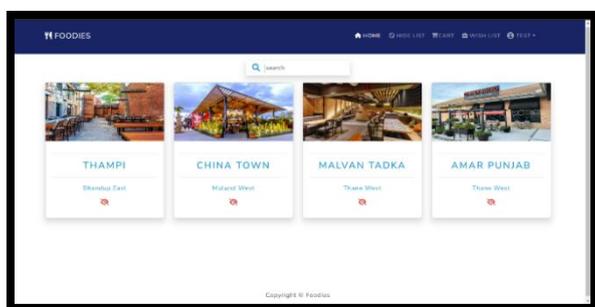
5. SYSTEM ARCHITECTURE

Fig. 5.1 : System Flow Diagram

6. IMPLEMENTATION SNAPSHOTS
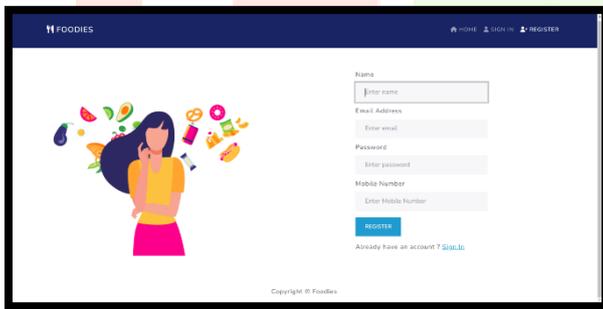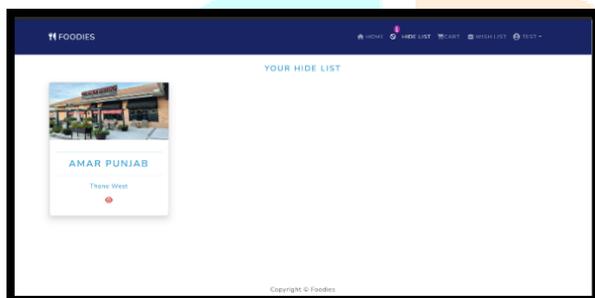
7. CONCLUSION

In today's fast-paced world, people are increasingly turning to online platforms to order food. To stand out in this competitive landscape, food ordering websites need to have unique features that set them apart from the rest. Unique features can provide customers with a seamless and enjoyable ordering experience, which can help to increase customer retention and loyalty. This research is to design a functional food delivery application that caters to current customer requirements and resolves all the present usability challenges in these systems.

Keeping user's requirements and their expectations in mind, we have made a small research on all new technologies that can be added to a food delivery app to make it more exciting and interactive. Overall, implementing unique and demanding features in food ordering systems can provide added benefits to customers and differentiate the system from its competitors. These features can increase convenience, personalization, and satisfaction for customers, helping to build loyalty and increase sales for the restaurant.

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