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RESEARCH ARTICLE OPEN ACCESS

Online Food Delivery App: MEALO

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ABSTRACT
MEALO is a website designed primarily for use in the food delivery sector. It aims to unite all the Cloud Kitchens / Home kitchens of the area and provide a platform to increase their scope of business. Only for customer orders or delivery, Cloud Kitchen is a business establishment equipped with a food processing area. Known under various names, including shared kitchen, virtual kitchen, ghost kitchen, and satellite kitchen. A cloud kitchen simply produces food in a commercial kitchen for takeaway or delivery; dine-in customers do not exist there. The system also allows for quick and easy management of an online menu that customers can browse and use to place orders with just a few clicks. This website was designed with the motive of helping home cooks so that not having a hotel/restaurant won't limit their business. Furthermore, having Fresh home Food will help a lot of bachelor's and students living outside their homes to manage their food expenses and also maintain a healthy lifestyle.

KEYWORDS:
Cloud Kitchen, MySql, Delivery, Kitchen, Restaurant, Bachelors, Food, Student.

I. INTRODUCTION:

The purpose of this thesis is to build an online food-ordering application named MEALO. With the increase in demand for smartphones and the efficiency of wireless networks, the demand for mobile applications has increased incredibly. Our project "MEALO" is an android application that helps the user to order the desired food from the restaurants. This project gives the user an easier way to order their desired food from home/workplace. The most fascinating aspect of our project is that we will employ cloud kitchen owners/homemade food distributors to deliver affordable, homemade food to our customer's doors[1-3]. Most cloud kitchen initiatives make use of social media networks. Social media usage has increased, which has given Cloud Kitchen and its clientele room to expand. Some of the reasons why people come to Cloud Kitchen include its distinctive goods, food quality and taste, speedy food options, and convenient doorstep delivery[4-8]. The cloud kitchen idea is less expensive, efficient, and hassle-free, and will be used for takeaway and home delivery of meals in the future. Businesses like Cloud Kitchen use social media marketing to advertise, which is less expensive than large hoarding and billboards. Moreover, our target audience is generally students and bachelors who are fed up with eating low-grade food from their PG/hostels and also are financially unable to buy food daily from restaurants. We will also be incorporating a special feature that will algorithmically show the kitchens that are within a 5km radius of the user's locations[9-13]. The user can register and log in to the app/website by providing their details. They can order their desirable food and it will be delivered to them within a limited amount of time. Payment can be done with several methods -UPI, Cash On Delivery, or Credit/Debit card.

II. BACKGROUND

Being financially dependent students, we have to manage our expenses regularly and keep a check on our monthly allowances. Living the student life is quite hectic when you have to stay away from your home for higher studies and choose hostels/PG. It gives us a sense of freedom for some time but missing home and family stays constant. The main problem is

food. Food being the most important part of our daily life, can't be neglected. But the food that is generally provided by the hostel/PG mess cannot be regarded as food. Low-quality products, less amount of masalas, and over/less cooking are a few of the reasons students lose their health and get sick periodically. Buying food regularly is not feasible. This forces the students and bachelors to eat the food provided by hostels which later leads to various problems and medical conditions. An upset stomach, Diarrhoea, and other gastric problems decrease the productivity of a person which later affects their work or academic life.

In the current system, people must visit eateries to learn about food products before placing an order and paying in advance. This procedure necessitates both time and manual labor. Maintaining vital information in files and manuals is a risky and time-consuming task. End users can use this web application to register, select food from the e-menu card, read the E-menu card, and order meals online. Simply by selecting the food that the user desires. The outcomes of picking food from the E-menu card will appear straight in the restaurant admin's screen. The Waiter's workload is lowered and, in some cases, eliminated by using this program. The advantage of this is that if there is a rush at the restaurant, the waiters may be unavailable, and users can directly order food from the chef online by utilizing this program. The user will be assigned a username and password.

PROBLEM STATEMENT

This Case study looks at the issue of having physical restaurants, limitations of home kitchens, and also the tendency of students/bachelors to order food delivery. In the existing system there are a few problems:

- For placing any orders in a physical restaurant/hotel, customers have to visit it to know about the menu and their order food. In this method time and manual work is required.
- While placing an order over the phone, customers lack the physical copy of the menu item, lack of visual confirmation that the order was placed correctly which often leads to scamming.
- In today's market, labor rates are increasing day by day making it difficult to find employees when needed to run a restaurant. Employees are needed to take the order over the phone or in person, to offer a rich dining experience and process the payment.
- Existing food delivery apps like Zomato, Swiggy, Uber Eats, etc do not accept Home Kitchens as their primary sellers. Not having a physical restaurant or hotel limits small businesses to sell their products.
- People often find it difficult to order from small local kitchens that have their own websites or who take orders from Instagram or WhatsApp.
- There is no such platform where all small home kitchens are registered altogether.
- Students and Bachelors who live far from home, find it hard to order food delivery regularly from a restaurant as it is expensive.

PROBLEM SOLUTION

There might not be a permanent solution to the problems listed above, but our team has come up with a way to lessen the difficulties of the students and bachelors facing it. There are a huge number of small-scale kitchens that provide homemade food to a very marginalized amount of people. The mode of communication is via call or WhatsApp. These are often referred to as cloud kitchens. Our app will be providing food from various underrated cloud kitchens, especially near the user's locality, within 5Km radius. The system can implement a feature which is real-time notification from the mobile phone application to the service desk.

- The system will help to reduce the labor cost involved and will be less likely to make mistakes since it's a machine.
- This will avoid long queues at the counter due to the speed of execution and the number of optimum screens to accommodate the maximum throughput.
- Small Kitchens / Cloud kitchens will finally get a platform to register themselves and increase their scope of business.
- Students and Bachelors can order daily meals without having to make a run for money and manage their expenses better through this system.
- At physical restaurants, this will minimize the number of employees at the back of the counter.

III. RESULT

The output results are depicted in the below figures. For testing purposes, the authors used some survey results which are directly used for the website development.[14]

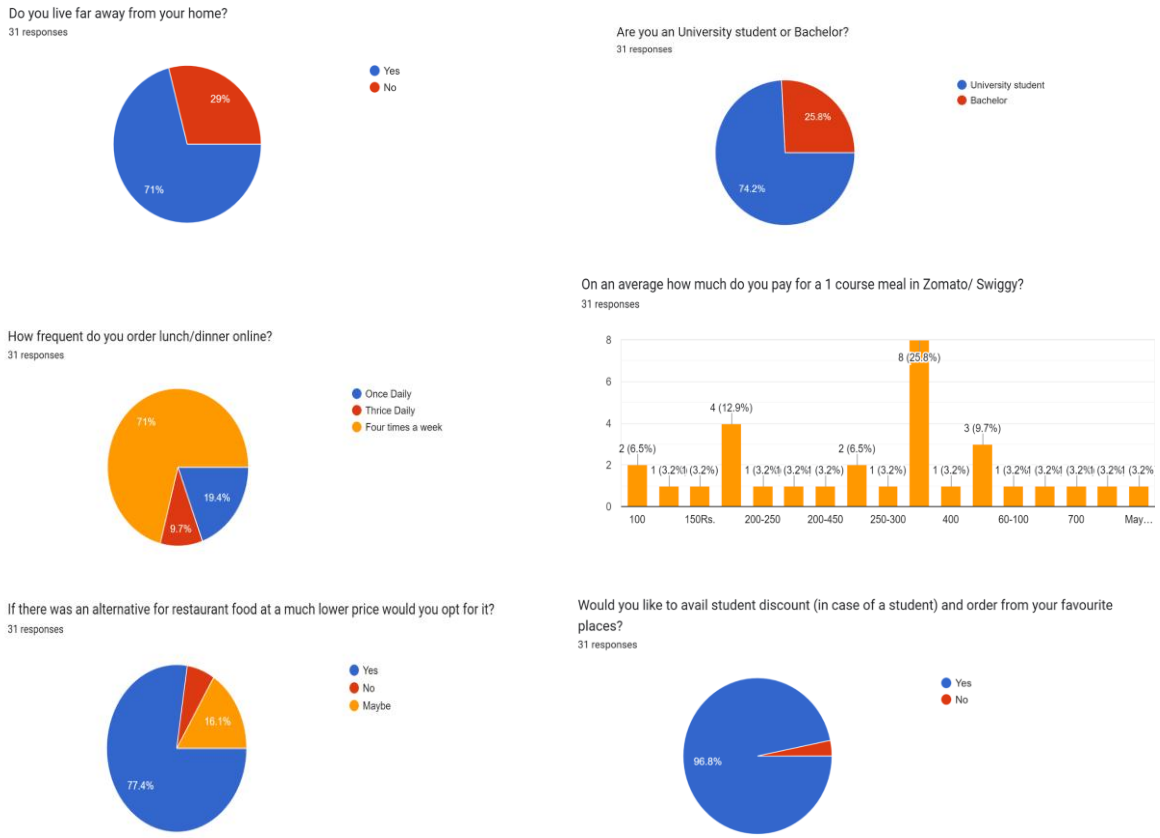

Fig 0.1: Suvey Reports

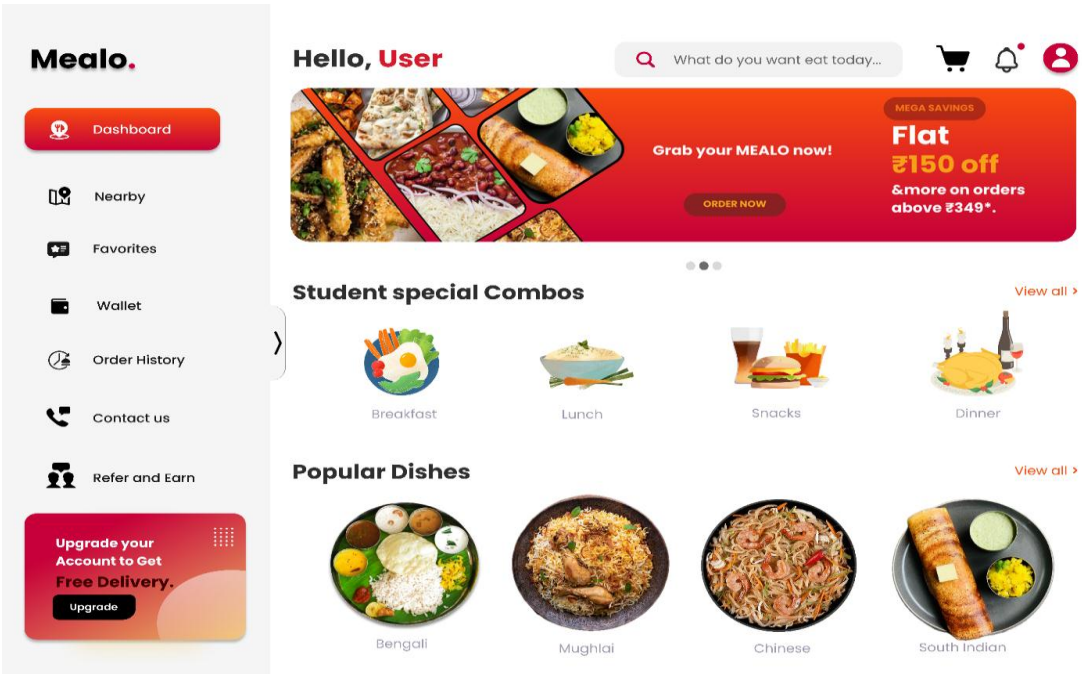

Fig 0.2 : Home page

FUTURE SCOPE

The Online Food Ordering System offers a wide range of applications. This PHP code can be used by any restaurant or fast food chain to keep track of its clients' orders. This project is simple, quick, and precise. It takes up less disc space. Because the Online Food Ordering System employs a MYSQL Server as its backbone, there is no risk of data loss or security. As the way people eat continues to evolve, new revenue pools are emerging. The following revenue models are among the most promising:

• MENU ENGINEERING :Using the data generated through delivery platforms, restaurants can build custom menus for each consumer, increasing opportunistic sales, total order value, and conversion rates. End-to-end customization helps ensure that customer preferences, such as food allergies, are taken into account for every meal and that food recommendations are more accurate.

• VIRTUAL BRANDS :Virtual brands can help attract new customers, improve labor efficiency, and optimise order stacking for delivery platforms. YouTuber Jimmy Donaldson (known as MrBeast) parlayed his popularity into MrBeast Burger, a virtual brand whose menu items are prepared in existing restaurant kitchens across the United States and in the United Kingdom.

• VIRTUAL CONCIERGE :Drivers and consumers alike stand to gain from efficiencies achieved when multiple deliveries are consolidated, or "stacked." Virtual concierge services make this possible—for example, by having a driver pick up a customer's dry cleaning or groceries in addition to their restaurant order. These services can also stack orders from different customers who live in the same apartment building or neighbourhood.

IV. CONCLUSION

Though a great number of restaurants have suffered and even closed during the COVID-19 pandemic, the surge in tech-enabled delivery has been a meaningful silver lining for many. Going forward, the food-delivery space is poised for further expansion and evolution as the "next normal" takes shape. Delivery platforms will need to evolve how they leverage customer data to improve the user experience 8 and find innovative ways to reduce the costs associated with delivery. As these changes in the way the world eats take hold, the implications for new and established businesses, as well as for consumers, will continue to take shape. Unlocking the opportunities inherent in these shifts will require a sophisticated understanding of where the market is heading and the powerful forces shaping its trajectory.

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