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ONLINE FOOD ORDERING SYSTEM

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ABSTRACT:
The Online Food Ordering System's goal is to automate the current manual system with the aid of sophisticated computer software and equipment, meeting their needs and enabling the storage of their important data and information for an extended amount of time with simple manipulation and access. The necessary gear and software are readily available and simple to use. The primary goal of the online food ordering system is to keep track of data, including shopping cart, item category, food, delivery address, and order. It records data on the Customer, the Shopping Cart, the Item Category, and the Item Category. Since the project is entirely developed at the administrative level, only the administrator has access to it. The goal of the initiative is to advance.

Keywords:
Food, Online, MySQL, Use Case Diagram, Entity Relationship Diagram, Flowchart.

I. INTRODUCTION

Online food ordering is the process of ordering food from a website. The product can either be food that has been specially prepared for direct consumption (such as vegetables straight from a farm or garden, frozen meats, etc.) or food that has not been (such as direct from a certified home-kitchen, restaurant). The effort to create an online food ordering system aims to replace the manualmethod of taking orders with a digital one. The ability to rapidly and correctly create order summary reports whenever necessary is a key factor in the development of this project. The potential of an online food ordering system is enormous. Any restaurant or fast food chain can use this project to keep track of customer orders. This project is simple, quick, and precise. There is less disk space needed. MYSQL Server is used as the backbone by the online food ordering system, eliminating the risk of data loss and ensuring data security. Customers have the option of either having the food delivered or picked up. A customer starts by selecting the restaurant of their choice, then scans the menu, picks an item, and then decides whether they wantit delivered or picked up. Then, when picking up the food, you can pay with cash at the restaurantor with a credit card or debit card using the app or website. The customer is informed by the website and app about the food's quality, how long it takes to prepare, and when it will be ready for pick-up or delivery.

II. LITERATURE REVIEW

In a wireless meal ordering system was designed and implemented together with consumer feedback for a restaurant.It makes it simple for restaurant operators to change menu presentations and set up the system in a WiFi setting. The configurable wireless meal ordering system has linked a smart phone with real-time customer feedback implementation to enable real-time contact between patrons of restaurants and business owners [1].
The goal was investigating the variables that affect internet users' perceptions of online food ordering among university students in Turkey. Davis' Technology Acceptance Model (TAM), which he created in 1986, was used to analyze how the Web environment for ordering food was adopted. Along with TAM, three additional primary factors—Trust, Innovation, and External Influences—are included to

the paradigm [2].

The research project intends to automate the restaurant meal ordering procedure and enhance the patrons' dining experience. In this study, the design and implementation of a restaurant food ordering system were covered. The wireless data access to servers is implemented by this system.All the menu information will be available on the user's mobile Android application. Wirelessly, the kitchen and cashier receive the order information from the customer's mobile device. The central database is updated with these order specifics. The proprietor of the restaurant can quicklyhandle menu changes [3].

This research examines the initiatives made by restaurant owners to implement ICTs—such as PDAs, wireless LANs, and pricey multi-touch screens—to improve the dining experience. In orderto address some of the drawbacks of the traditional paper-based and PDA-based food ordering systems, a low-cost touch screen-based restaurant management system that uses an Android smartphone or tablet is suggested in this study [4].

The study's objective was to determine whether the application is user-centered and based on user requirements. This system developed all problems pertaining to every user that it includes. Almost anyone may use the program if they know how to use an Android smart phone. The various problems with Mess service will be resolved by this system. The implementation of an online foodordering system is done to assist and resolve significant issues for consumers. Based on the application, it can be said that: This system makes placing orders simple; it gives customers the information they need to place orders. Through the program, it is able to receive orders and changetheir data, and it also aids the administrator in managing all the Food system [5].

III. PROPOSED SYSTEM

The simulation first starts with the admin entering his/her credentials (ID and password). Once that has been verified, the admin can access the main admin panel where he/she can edit the categories, the food items as well can view the orders placed and reservations made. Now we get a window that displays the order number, customer ID, food name, price and quantity. Once the customer finalizes his/her order, they are asked to enter their name, address and other contact details where the total price is displayed and the customer can click the 'order now' button to get a message of confirmation of order. Once you enter the admin portal, you get the option of adding food, deleting food or updating food. Any option of choice leads you to the food menu. Once the selected operation is carried out, the end result, i.e, the added food or the updated food list is displayed and if you have deleted a food, that particular food disappears from the main menu on the website which will be visible to the customer.

IV. DESIGN AND IMPLEMENTATION

The implementation of the website is done in HTML, CSS, JAVA SCRIPT, Django and the datasets are stored in the SQL database as well as in the Admin Panel which can only be accessed by the registered Admin. We have developed a web-based data management system. A PC or laptop with a browser and internet connection is required for our website. Implementation of our system consists of a real time feedback system where once the customer places an order or makes a reservation at a home restaurant, the admin will be able to see the order or reservation that the customer has made on the food ordering website and can manage them easily. The entire programming of the website is done on Sublime Text Editor and Microsoft Visual Studio Code, and for that we have used Google Chrome as the browser of choice.

Admin can add new products into the existing system with all its details including an image. Administrator can delete the products based on the stock of that particular product. The admin will have a list view of all the users registered in the system.

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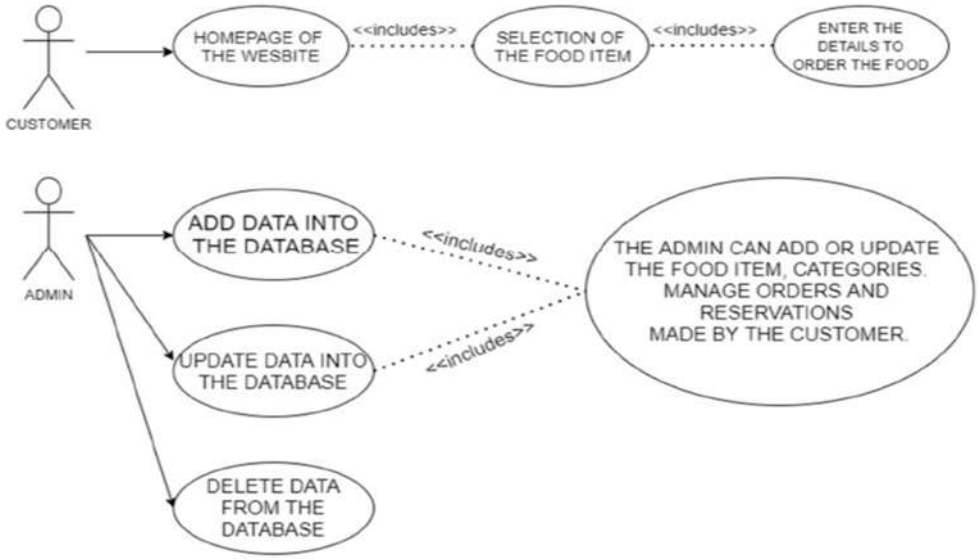

Fig. 3.1: Use Case Diagram

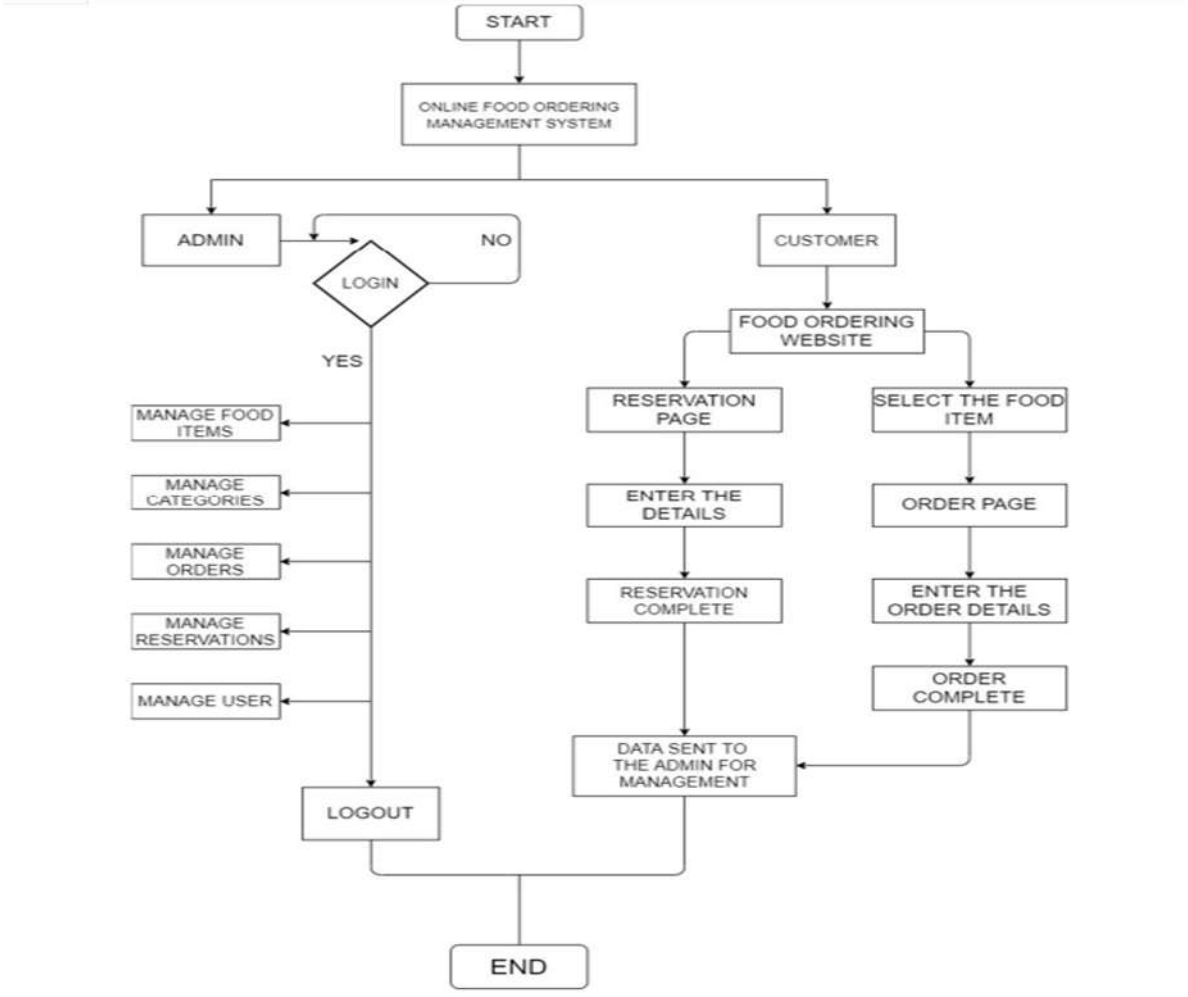

Fig. 3.2: Flow Chart

V. SCOPE AND FEATURES

- The suggested method allows people to properly order meals.
- There will be fewer employees needed at the rear desk.

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- The method will aid in the reduction of labour costs as well as the space necessary to set up cafeterias in the restricted region.
- Mistakes are less probable to occur since it is an admin-controlled system.
- Customers can prevent long lines at the counter by executing tasks at an acceptable speed and throughput.

VI. RESULTS

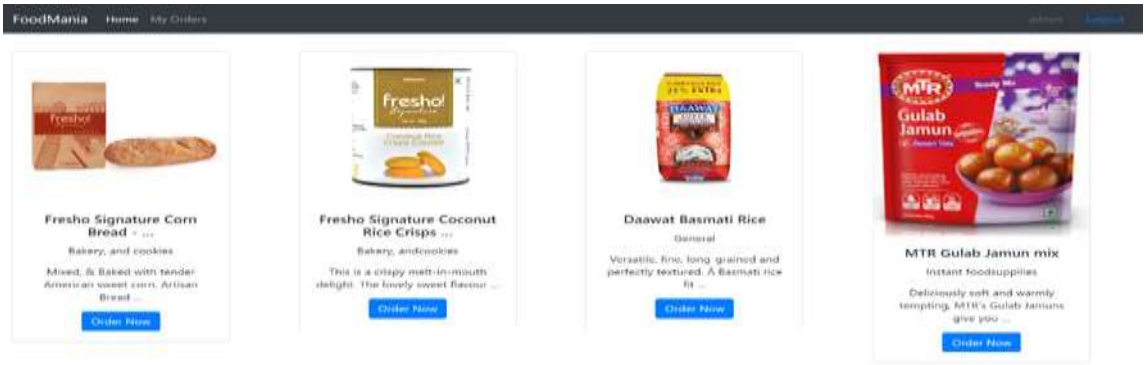

Fig 6.1: Homepage

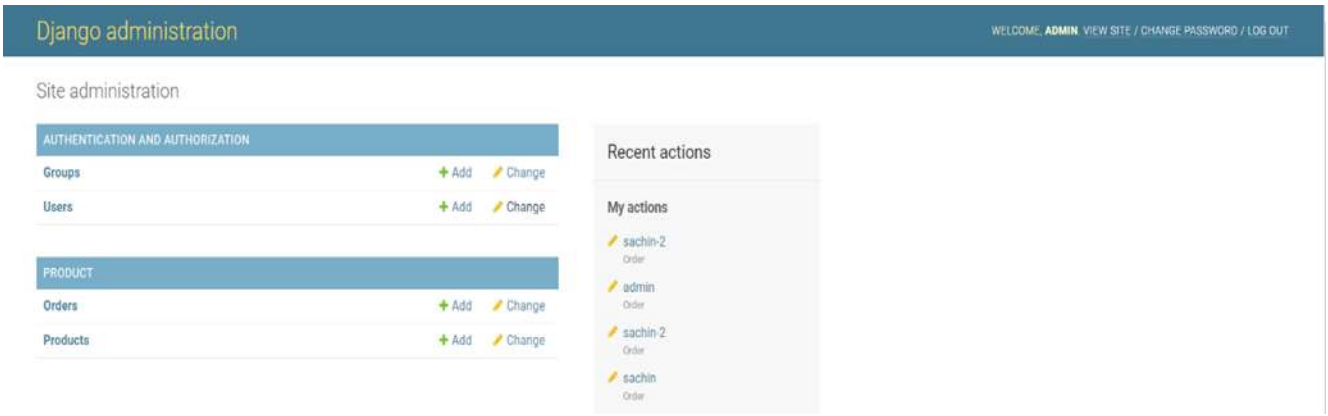

Fig 6.2: Admin Panel

VII. SCOPE FOR FUTURE WORK

The e-commerce market will account for 2.5 per cent of the India's GDP by 2030, growing 15 times and reaching USD 300 billion, a report said today. The current market size of e-commerce is USD 20 billion. The report by Goldman Sachs cited the "hyper growth in affordable smartphones, improving infrastructure, and a propensity to transact online," as key growth factors. There are several reports that suggest the e-Grocery market in the US alone could grow five folds over the next decade, where consumers are expected to spend upwards of $100 billion. This is a promising forecast and the same is expected to be witnessed all across the globe. Further, India's attractive demographics - the youngest population in the world - should lead to over 300 million new online shoppers in the next 15 years, making e-tailing the largest online segment," it said. The report identified e-retailing, online travel, digital advertising market and electronic payments as segments that could "potentially catalyze domestic companies into multi-billion-dollar businesses". India will have the second-largest digital population in the world with 1 billion users by 2030, powered by online mobile penetration, it added. "India has enough spectrum and telecom infrastructure to provide 3G data coverage to 25- 30 per cent of the population," it said, adding that "further, 3G-enabled smart phones are available for USD 40 with more than 900 phones launches last year". The payment landscape is also evolving fast with the launch of digital wallets and payment banks, despite 60 per cent of e-commerce transactions in cash-

on-delivery mode, the report pointed out. "Logistics and infrastructure are bottlenecks, but also indirect drivers for online adoption," it added. Over USD 6 billion of private funding has come into India in 2014 and "significant funds are still waiting, implying a potent eco-system is in place," according to the report.

VIII. CONCLUSIONS

In the next few years, we will see a reduced number of people in the offline stores as most of the shopping will move online. Improved delivery methods like drones and robust logistics will further add to the future of online grocery delivery services. This project helped us in gaining valuable information and practical knowledge on several topics like designing web pages using html & CSS, usage of responsive templates, designing of web applications, and management of database using MySQL. The entire system is secured. Also, the project helped us understanding about the development phases of a project and software development life cycle. online shopping has opened up doors to many small retailers that would never be in business if they had to incur the high cost of owning a brick-and-mortar store. At the end, it has been a win-win situation for both consumer and sellers.

REFERENCES:

[1]Kirti Bhandge, Tejas Shinde, Dheeraj Ingale, Neeraj Solanki, Reshma Totare,"A Proposed System for Touchpad Based Food Ordering System Using Android Application", International Journal of Advanced Research in Computer Science Technology (IJARCST 2015).

[2]Varsha Chavan, Priya Jadhav,Snehal Korade,Priyanka Teli, "Implementing Customizable Online Food Ordering System Using Web Based Application", International Journal of InnovativeScience, Engineering Technology(IJISET) 2015.

[3]Resham Shinde, Priyanka Thakare, Neha Dhomne, Sushmita Sarkar, "Design and Implementation of Digital dining in Restaurants using Android", International Journal of Advance Research in Computer Science and Management Studies 2014.

[4]Ashutosh Bhargave, Niranjan Jadhav, Apurva Joshi, Prachi Oke, S. R Lahane, "Digital Ordering System for Restaurant Using Android", International Journal of Scientific and ResearchPublications 2013.

[5]Khairunnisa K., Ayob J., Mohd. Helmy A. Wahab, M. Erdi Ayob, M. Izwan Ayob, M. Afif Ayob, "The Application of Wireless Food Ordering System" MASAUM Journal of Computing 2009.

[6]Abhishek Chilka & Sandeep Chauhan, "Study on Recent Trends in Online Shopping in India", International Journal of Scientific & Engineering Research, Volume 9, Issue 2, February 2018, Pp – 30- 33.