Distributed Food Ordering System Using Python with Django And Machine Learning

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ABSTRACT- Online food ordering system is a website through which everyone can place an order within a few minutes with a few clicks. In the fast-paced time of today, customers can get their food without wasting their time by just going through this online food ordering system. This system increases the scope of business by reducing the labor cost involved. Online food ordering systems have a lot of scope, and anyone can order food from anywhere in the city within a few clicks. Nowadays everyone is connected to the internet and having smartphones in pockets. With the help of this project, anyone who is hungry can directly connect to the restaurant and order different choices of dishes. Also, customers can easily track the orders with the menu. The management can improve food delivery, food ordering service and the customer database. The main motivation to develop the system is to save time.

The food industry has always been a profitable and cost-effective industry. Online food ordering system allows customers to browse restaurants and search for dishes they may not have been familiar with before. By using an online food ordering system, customers can get more food options. In a similar way, customers may discover menu options by browsing a digital menu complete with high quality food photos with their price. Eating is fun and adventurous if one can order without wasting time. Rushing can also be overcome by using an online food ordering system.

***Keywords*: order food, online, payment, food delivery service.**

I.INTRODUCTION

It is known globally that, in today's market, it is very difficult to start a new small-scale business and make it profitable, to compete with others who have already been well-settled in business. Today's world is very fast and busy, no one has much time to spend, everyone is busy in their own schedule work and daily routine. In this busy world, the online network platform is one of the best ways to make our work easy, fast and secured. For business purpose, lots of businesses are starting to use this online platform, and our online food ordering system is a part of it. We developed an online food ordering system website where the customer simply goes through our official website where they can register themselves and login to place their food order from the restaurant they want.

In the website we are providing customers with all the details to place the order, it is very convenient to see the items offered, prices and the latest dishes. It helps customers to choose delicious and favorite dishes from the restaurant. An online food delivery service menu is setup by the proposed food ordering system so that customers can easily place their order. The menu admin management improves food delivery service and stored/received customers database according to the convenience of the restaurant management system. To get the services efficiently, the admin management adds various new facilities to attract customers like restaurants as well as mess facility to the bachelor and many college students who have recently shifted to new cities, and this can motivate to keep updated our system as 'customers satisfaction' is the most important factor.

Another encouragement could be considered as the use of computer/laptop and smarts devices increases rapidly. Everyone has their own smart devices, and this will make an easy way to reach people anytime anywhere, and the best part of our services is customers have no need to go outside. An online food ordering system delivered cooked meals to their doorstep by just placing an order from their devices. Technology has played a key role in

revolutionizing the food delivery services, has contributed a big change in customer performance. The society of online food ordering and delivering services is continuously growing expectations of the users. They gave good responses to order food online. The food ordering system has lots of scopes, and anyone can order food from anywhere in the city within a few clicks.

II. LITRATURE REVIEW

[1] The consumer perception about an online food delivery system is different from person to person. The perception could be developed by consumer opinion. Mostly, the young generation is more attracted towards online food ordering services as compared to the old one. This is because of less awareness about the technology. Also, many consumers are attracted to heavy discounts and cash-back offers. The use of smartphones is increasing day by day, a customer using a Smartphone Could be taken as a basic assumption for online food ordering system as they can order from anywhere. When the customer approaches the restaurant, their saved order could be confirmed by just one click on a smartphone.

[2] E-commerce is an aggregator, and it is necessary to focus more on service quality which depends upon 'customers satisfaction'. For future consideration, e-commerce will be the most important and major platform for the potential and to start the business of food delivery service which is the connection between a restaurant and the customer.

[3] Online food ordering is playing a very vital role in ordering the food, also includes customers satisfaction and a good relationship between the restaurant and the customer. Due to the technological moment, the food ordering system wants to ensure that ordered food must be delivered at the right time and to the right person who had order the food as sometimes they may have to face such problems because of some misunderstanding.

[4] It allows restaurant owners to set up the system, update dishes as well as prices in a wireless environment, this is where the true opportunity lies. Online food delivery firms have completely changed the way restaurants do the business. Also, packaging cost will always be a crucial part of the low price and high price of ordered food as online food serving is also the best option for daily consumed food. Due to small families and heavy work load in urban cities, people do not have enough time to cook food at home, hence there are opportunities.

III. PROPOSED SYSTEM

The rapid increase of mobile technology and the internet has changed and developed online food ordering system. In the wireless environment, the android devices have gained popularity to do automatic routine tasks. From devices like smartphones, laptops, customers can place an order. As a general objective, the study is to develop an easy, reliable, convenient and exactly perfect Food Ordering system. It could be considered an objective, an online food ordering system will surely satisfy the customer service will be considered. To design a system that can accommodate a huge number of orders at a time and automatically compute the bill without any error is one of the key goals. One of the important aim tests the performance and acceptability of online food ordering system in terms of security, user-friendliness, accuracy and it is highly reliable in terms of ordering the food from a mobile device. One of the important objective is to improve the communication between the restaurants and customers.

The Fig.1 shows the system architecture of the proposed system:

Fig.1: System Architecture

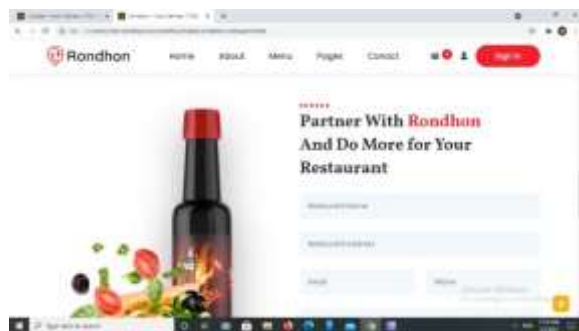• Overview of online food ordering system:

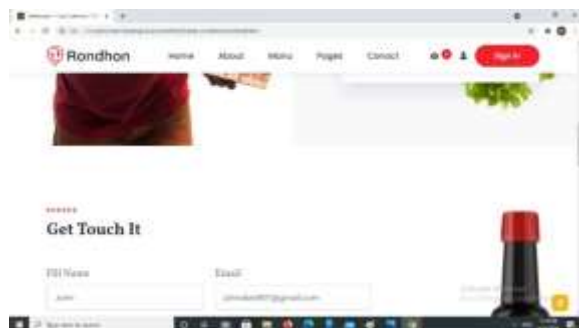Fig.2(a): Homepage

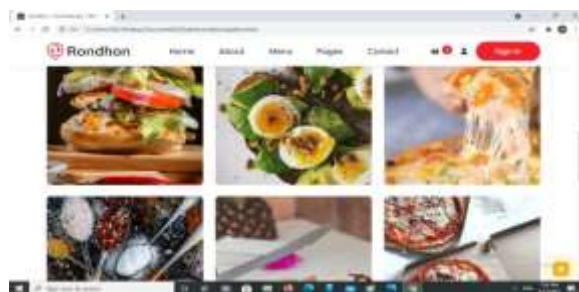
Fig.2(b): Registration Page

Fig. 2(c): Login Page

Fig.2(d): Menu List

IV. TECHNOLOGY USED

Hardware Requirements:-

1.Android Smartphone

2.PC with 250GB or more Hard disc

3.PC with 2GB or more RAM

Software Requirements:-

1.Operating system required is Windows XP/Windows.

2.Database by SQLite.

3.Browser required is Google Chrome.

4.language:Python,Django,machine learning, HTML,CSS.

PYTHON: Python is a high-level programming language with dynamic semantics, programming community, excellent online documentation, endless libraries and packages. It's a great first language because it's concise and easy to read. From web development to machine learning to data science with the help of Python is possible, which make it very attractive to Rapid Application Development and as well as for use as a glue language to connect together the existing components.

DJANGO: It is high level python web framework that enables launch of web application from concept within an hours. Django take care of much of the hassle of web development, so one can focus on writing app without needing to reinvent the wheel. It's free and open source.

MACHINE LEARNING: It is the study of computer algorithms that improve automatically through experience and by the use of data.

HTML: HTML is Hyper Text Markup Language is the standard markup language used to design documents and could be displayed in a web browser.

CSS: It enables to make separation of presentation and content which also includes layout, colors, and fonts. This separation can improve content accessibility, which also provides more flexibility and control in the specification of presentation characteristics.

V. ADVANTAGES

1) Consume less time to place an order: before, people had to make calls to place orders and need to

contact the details of restaurants, or they need to drive to the restaurants for take-out, then wait for the food to be ready and delivered. Placing an order from the phone saves time, especially for people with busy lifestyles. Thus, ordering food via the website is less time-consuming as customers have many options to place an order as customers can also create their account and can login from anywhere when they need food.

2) Efficient customer and order management: The online food ordering system is very efficient and conveniently manages the orders of customers. It also includes CRM, i.e., customer relationship management in this subject where the bond is enhanced between a customer and a restaurant. It provides detail information about the order history. Again, the best feature of this system is restaurants as well as customers can check order history and manage daily spends for a lifetime.

3) Easy to use: If people know how to use the android smart phone, a lot of people can use the online food ordering system, and thus they can order their food. This system will solve problems of many bachelor people who don't have time to cook and who are facing unavailability of mess or tiffin services. To help and resolve important food-related issues, the implementation of the Online Food Ordering system is done.

4) Easy Payment: Many people avoid using online services mainly because they do not want to get confused as well as entangled in the conundrum of payments but also because hassle-free payments are required. This system introducing different modes of payment has led to getting people's trust and thus enhancing the business of a lot of companies. Methods such as cash on delivery, online payment by debit and credit cards etc. Help in removing the hassle of payments and avoiding rush, which leads to giving ease to the consumer.

VI. LIMITATIONS

The Online Food Ordering System has some limitations, they are as follows:

1) Unsuccessful payment resulting in delayed food delivery.

2) Quality and quantity of food may be compromised due to a huge number of food delivery requests.

VII. FUTURE ENHANCEMENT

1) Drive Sales with Social Media: Increase use of the internet and the usage of social media platforms using smartphones is known to the world. So, the restaurants use online platform to increase the sales, and it must not be a surprise that food chains are now including provisions of using their mobile website for ordering to increase their business by increasing their advertisement in social media.

2) Mobility and ease: Ordering food using a restaurant-based website has become easier these days as there is an online payment feature available. Also, there is no need to make use of cash as one can order food online using online payment modes right from the restaurant ordering website. Customers can also save up payment-related information in their profiles and create their account, login when they need to order food. Hence, continuous order is also hassle-free and rushing can also be overcome by using an online food ordering system. Also, there is no need to add their account details, again and again with a single button, one can order food online and pay via different payment modes.

3) Increase in Home Deliveries: Increasing population leads to increase in the purchasing power. With their increase purchasing power, the more situations of online food ordering occur. Home deliveries are added to the online food ordering system, and it is an important matter for every restaurant, big or small in the town. In areas where the population is dense, customers prefer having food within the comforts of their home within less time. The online ordering system using the website also access this feature of home delivery.

4) Price Drops: More and more restaurants started using mobile websites for food ordering as this increases their profit rate. Also, it involves chances of competition are high in the market. As a result, the price of food becomes less because of tough competition among them, it is a blessing for the customers. One engages customers online, offers promotions, rebates, and discounts, and these make sure the customer is loyal to the restaurant, and the order rate can increase by this. The history of order save in it; therefore, the restaurant owners can know a lot about the ordering trend of customers. Ordering food and other things online will be the upcoming habit of people as everyone wants to save time. If we speak about more futuristic ways of food delivery

website, then we must talk about something called the human-less delivery that will make a buzz in the food industry.

VIII. CONCLUSION

The online food ordering system is a website that enables users to place an order as per their need. Placing an order from the phone saves time. All issues related to all users are developed by using this system as it provides different features. If people know how to operate the android smart phone, a wide variety of people can use the online food ordering system, and thus they can order their food easily and receive it with a few clicks within a few minutes. This system will solve the various issues related to Mess/Tiffin service, placing an order, delivery of food. It can be concluded that, based on the online food ordering system, orders are made easily by this system. Information is needed in making the order and delivering it. Receiving orders and modifying its data is possible through the website, and it also helps the admin in controlling all the food system and storing the history of orders.

The online Food Ordering system is developed to help and solve one of the important problems of customers related to ordering food. As a large number of customers can use the internet and the phone. Thus, this will help a lot to make it large in the food industry. Different issues related to the Mess/Tiffin Service will be resolved by using an online food ordering system. Thus, the implementation of the Online Food Ordering system is done to help and customers as well as restaurants. It helps customers in making an order easily and gives information needed in making the order to the customer place.

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