

Online Food Ordering System

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ABSTRACT

Our proposed system is an online food ordering system that enables ease for the customers. It overcomes the disadvantages of the traditional queueing system. Our proposed system is a medium to order online food hassle free from restaurants as well as mess service. This system improves the method of taking the order from customer. The online food ordering system sets up a food menu online and customers can easily place the order as per their wish. Also with a food menu, customers can easily track the orders. This system also provides a feedback system in which user can rate the food items. Also, the proposed system can recommend hotels, food, based on the ratings given by the user, the hotel staff will be informed for the improvements along with the quality. The payment can be made online or pay-on-delivery system. For more secured ordering separate accounts are maintained for each user by providing them an ID and a password.

General Terms

Cloud Computing, Wi-Fi

Keywords

Automated Food Ordering System, Dynamic Database Management, Internet of Things, Smart Phone

1. INTRODUCTION

The online food ordering system sets up a food menu online and customers can easily place the order as per they like. Also with a food menu, online customers can easily track the orders. The management maintains customers database, and improve food delivery service. The Restaurant management systems motivates us to develop the system. There are various facilities provided so that the users of the system will get service effectively. Also, the system considers Restaurants as well as Mess facility to the customers. Again, the idea comes that mostly mess users are person who are shifted for various reason in new cities. So, they are interrelated. Increasing use of smart phones is also considered as a motivation, so that any users of this system get all service on single click. Another motivation can be considered as the system will be designed to avoid users doing fatal errors, users can change their own profile, users can track their food items through GPS, users can provide feedback and recommendations and can give

ratings, it will give appropriate feedbacks to Restaurants / Mess service providers.

Due to lack of a full fledge application that can fulfill the customer requirements by providing him food from restaurants as well as from mess service, there is a need for the system. This proposed system will be used by the people who keep shifting from cities to cities. As well as, it will be useful for the students studying in different cities.

The proposed system will provide the flexibility to the Customers/Users to order from either Restaurants or Mess. It will also provide Recommendations to the customers from the restaurants/mess owners uploaded on a daily basis. In the proposed system, there will be no limitation on the amount of order the customer wants. Also, same application can be used as a Startup Business for the developers. It will provide real time customers feedback and ratings along with the comments to the restaurants/mess owner. It gives appropriate feedbacks to users, so if there is any error happened, then there will be a feedback dialog toward users.

The proposed system is designed to avoid users doing fatal errors and inappropriate action. Scope of proposed system is justifiable because in large amount peoples are shifting to different cities so wide range of people can make a use of proposed system. The system/interface will take input from the user. The major attributes that will give input to the dataset are: name, address, email-Id, mobile no, other personal related values, etc. The output will include user/customer's Order, Bill, Feedback and Payment options. Initially there will be 10 to 12 restaurants and mess services considered inside 2 to 3 areas.

The reason why to choose this project is the idea behind project that is to solve problem of people which they are facing when they shift to different city. The system is not only for user but also for provider who provides food service. This system is for making efficient communication between consumer and producer of the food system which will then leads to the ideal and effective system.

2. PROBLEM STATEMENT

The online food ordering system sets up a food menu online and customers can easily place the order as per they like. Also, the online customers can easily track their orders. The

management maintains customer's database, and improve food delivery service.

This system also provides a feedback system in which user can rate the food items. Also, the proposed system can recommend hotels, food, based on the ratings given by the user, the hotel staff will be informed for the improvements along with the quality. The payment can be made online or cash or pay-on-delivery system. For more secured ordering separate accounts are maintained for each user by providing them an ID and a password.

3. LITERATURE REVIEW

In [1] an automated food ordering system is proposed which will keep track of user orders smartly. Basically, they implemented a food ordering system for different type of restaurants in which user will make order or make custom food by one click only. By means of android application for Tablet PCs this system was implemented. The front end was developed using JAVA, Android and at the backend MySQL database was used.

In [2] Customer using a Smartphone is considered as a basic assumption for the system. When the customer approach to the restaurant, the saved order can be confirmed by touching the Smartphone. The list of selected preordered items shall be shown on the kitchen screen, and when confirmed, order slip shall be printed for further order processing. The solution provides easy and convenient way to select pre-order transaction form customers.

In [3] there was an attempt to design and implementation of digital dining in restaurants using android technology. This system was a basic dynamic database utility system which fetches all information from a centralized database. Efficiency and accuracy of restaurants as well as human errors were improved by this user-friendly application. Earlier drawbacks of automated food ordering systems were overcome by this system and it requires a onetime investment for gadgets.

In [4] an application of integration of hotel management systems by web services technology is presented. Ordering System Kitchen Order Ticket (KOT), Billing System, Customer Relationship Management system (CRM) are held together by the Digital Hotel Management. Add or expand of hotel software system in any size of hotel chains environment was possible with this solution.

In [5] research work aims to design and develop a wireless food ordering system in the restaurant. Technical operations of Wireless Ordering System (WOS) including systems architecture, function, limitations and recommendations were presented in this system. It was believed that with the increasing use of handheld device such as PDAs in restaurants, pervasive application will become an important tool for restaurants to improve the management aspect by minimizing human errors and by providing higher quality customer service.

In [6] along with customer feedback for a restaurant a design and execution of wireless food ordering system was carried out. It enables restaurant owners to setup the system in wireless environment and update menu presentations easily. Smart phone has been integrated in the customizable wireless food ordering system with real-time customer feedback implementation to facilitate real-time communication between restaurant owners and customers.

In Paper [7], the purpose of this study was to investigate the factors that influence the attitude of internet users towards online food ordering in Turkey among university students. A Technology Acceptance Model (TAM) developed by Davis in 1986 was used to study adoption of Web environment for food ordering. Trust, Innovativeness and External Influences are added to the model as main factors along with TAM.

In Paper [8], the research work aims to automate the food ordering process in restaurant and also improve the dining experience of customers. Design implementation of food ordering system for restaurants were discuss in this paper. This system, implements wireless data access to servers. The android application on user's mobile will have all the menu details. Kitchen and cashier receives the order details from the customer mobile wirelessly. These order details are updated in the central database. The restaurant owner can manage the menu modifications easily.

In Paper [9], this research works on efforts taken by restaurants owners also to adopt information and communication technologies such as PDA, wireless LAN, costly multi-touch screens etc. to enhance dining experience. This paper highlights some of the limitations of the conventional paper based and PDA-based food ordering system and proposed the low-cost touch screen based Restaurant Management System using an android Smartphone or tablet as a solution.

4. PROPOSED SYSTEM

To overcome the limitations of above system, an Online Food Ordering System based on Internet of Things is proposed. It is a wireless food ordering system using android devices. Android devices have gained immense popularity and have revolutionized the use of mobile technology in the automation of routine task in wireless environment. Android is a Linux based operating system for mobile devices such as smartphones and tablets. To develop a reliable, convenient and accurate Food Ordering System is considered as a general Objective of the study. To develop a system that will surely satisfied the customer service will be considered as an objective. One of the Objective is to design a system that is able to accommodate huge amount of orders at a time and automatically compute the bill. To evaluate its performance and acceptability in terms of security, user-friendliness, accuracy and reliability is an important objective. To improve the communication between the client and customers is one of the objective. The figure.1 represents the simple system architecture of the proposed system: -



Fig.1: System Architecture

The architectural design consists of 3 main users: - Service Consumer, Owner of Mess/Restaurant, and Employee of mess. When a person shifted to new city he has to find source

for hygienic and quality food, so he/she will search and select restaurant or home-based food service based on his category and as well as service that is veg or non-veg.

Here the main function is, in what pattern user will search the service so for that purpose a part of Geo-Hashing Algorithm is used, and GPS system should be on. Person can have the facility to search service by location that is home location of the person is detected with GPS and according to selected option location of nearby service get searched. Another way for searching is by cost. Here user must give input in terms of rupees that in what range he/she need service per plate if there are any service provider within that area than the list will display.

User can also search by rating. The service that has rating is checked by user given rating and if matched it will give the list of service. Search can be done by accepting distance from user in which user need to search and displaying service provider within that distance. User can communicate to service provider with the help of message box and get notification from provider end if any. On the other end provider has facility to add or reject request from person who want to join the service.

5. CONCLUSION

Therefore, conclusion of the proposed system is based on user's need and is user centered. The system is developed in considering all issues related to all user which are included in this system. Wide range of people can use this if they know how to operate android smart phone. Various issues related to Mess/Tiffin Service will be solved by providing them a full-fledged system. Thus, implementation of Online Food Ordering system is done to help and solve one of the important problems of people.

Based on the result of this research, it can be concluded: It helps customer in making order easily; It gives information needed in making order to customer. The Food website application made for restaurant and mess can help restaurant and mess in receiving orders and modifying its data and it is also made for admin so that it helps admin in controlling all the Food system.

With online food ordering system, a restaurant and mess menu online can be set up and the customers can easily place order. Also with a food menu online, tracking the orders is done easily, it maintain customer's database and improve the food delivery service. The restaurants and mess can even customize online restaurant menu and upload images easily. Having a restaurant menu on internet, potential customers can easily access it and place order at their convenience. Thus, an automated food ordering system is presented with features of feedback and wireless communication. The proposed system would attract customers and adds to the efficiency of

maintaining the restaurant and mess ordering and billing sections.

Scope of the proposed system is justifiable because in large amount peoples are shifting to different cities so wide range of people can make a use of proposed system.

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