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Digital Dining 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 queuing system. Our proposed system is a medium to order online food hassle free from waiting for waiter to take the order This system improves the method of taking the order from customer. The online food ordering system sets up specific QR code on every table after scanning it the customers will have easy access for the food menu online and customers can easily place the order as per their wish. Also the food will be served to the specific table. This system also provides a feedback system in which user can rate the food items. Also, the proposed system can recommend food, based on the ratings given by the user, the working 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.*

Keywords: Automated Food Ordering System, Dynamic Database Management, Smart Phone

I. INTRODUCTION

When peoples go to the Cafe's/ Restaurants The online food ordering system sets up a food menu online and customers can easily place the order as per they like without waiting in the queues. Also with a food menu, online customers can easily track the orders. The management maintains customers database, so that the ordered food does not get delivered on the wrong table. The Cafe management systems motivates us to develop the system. There are various facilities provided so that the users of the system will get service effectively. Again, the idea comes that mostly mess users are person who don't wont to west time by waiting in the queue or waiting for the waiters to take their order. Increasing use of smart phones is also considered as a motivation, we use QR code on every tables in the store and every QR code is indifferent to that specific table, After Scanning that QR code the user will go directly to our Cafe's website. 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 provide feedback and recommendations and can give ratings, it will give appropriate feedback to Restaurants service providers.

The proposed system will provide the flexibility to the Customers/Users to order from either With the help of the waiters or order it by themselfs. It will also provide Recommendations to the customers from theCafe/restaurants 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 owner. It gives appropriate feedback 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 justificable because in large amount peoples wait for waiters or cafe's/ Restaurant staffs to take the food order, 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 is the table number with the specific QR code where the customer scan and ordered the food. The additional data of the customer are: name, email-Id, mobile-no, etc. The output will include user/customer's Order, Bill, Feedback and Payment options if the customer select the Cash payment.

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 nned to wait for waiter or for the queue . The system is not only for user but also for provider who provides

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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

II. 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 customers can easily get their orders delivered on their table. The management maintains customer's database to not serve food on the wrong table, and improvefood serving service.

This system also provides a feedback system in which user can rate the food items. Also, the proposed system can recommend food, based on the ratings given by the user, the cooking 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 IDand a password.

III. LITERATURE REVIEW

The current gadget is paper based. Papers are used in eating places for showing the traditional menu cards, writing down the orders of customers, storing the information of customers. The disadvantage paper- based gadget is that papers can get effortlessly damaged through stain marks, they can be lost dueto fireplace or accidents or can wander off in general. Hence, time and money is wasted. As conventional menu playing cards are paper based, any adjustments that need to be made in the menu will require reprinting of the complete menu card, main to wastage. For small adjustments, reprinting the entire menu card is impossible.

Changes in the menu card can't be made dynamically. It is inefficient to get right of entry to a particular document from the stack of papers. This system is time consuming. One has to call a waiter quantity of times till he notices it, and await him to arrive at their desk to take their order. Also, the waiter can misread the customer's order since he's writing the order on paper, and the case of serving a wrong dish is possible. The management of restaurants has advanced with time. Each waiter is assigned a collection of tables, and after taking ordersfor a table, the waiter enters the order (listing of meals, drinks ordered via the purchaser or a group of customers) into the machine at the PC.

In [1] 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. Efficiencyand 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 Paper [2], this research works on eff orts 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 ofthe conventional paper based and PDA-based food orderingsystem and proposed the low-cost touch screen based Restaurant Management System using an android Smartphoneor tablet as a solution.

In [3] research work aims to design and develop a wireless foodordering 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 [4] 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 [5], 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 inthe central database. The restaurant owner can manage the menu modifications easily.

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DataSet

The dataset use for Digital Dining is the images of the different verity of dishes. For Cafes we use the images such as image ofan ice cream, Cakes, Coffee, Sandwich, etc

IV. PROPOSED METHODOLOGY

To overcome the limitations of above system, The Digital Dining System based on Dynamic Database is proposed. It uses the different QR code for different tables.

If a customers wont to order something then they need to scan the QR code with their smart phones, if the customer is sitting on the table no 7 is trying to order food with the help of QR code then after Scanning the QR code thet will lead the customer to the website where the Table number ofthe customers scaned QR code will be saved in the databaseand after the customer need to place an order on the website. The customer needs to select the foodsthat he needs to order and after selecting the order he need to select the mode of payment such as online mode or using cash.

After selecting the payment mode the customer needs to fillup the personal details such as name, mobile no and email id, etc. After making an order customer just need to wait forwaiter to serve their dishes.

The Provider or cooking staff will receive the order and startpreparing the food, The serving staff or waiter will deliver the food on the table number mention on the order, it also helps the serving staff to avoid misplacing the order on the wrong table.

This type of system helps to reduce the time consumtion ofboth customer and provider. And avoiding miss serving of the food.

The customers can also send the feedback of the food that they have ordered and also recommend that dish to the future customers, so that the future customer can see whichis the most recommended dish.

Architecture

To develop a system that will surely satisfy the customer service will be considered as an objective. One of the Objective is to design a system that is able to accommodatehuge 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

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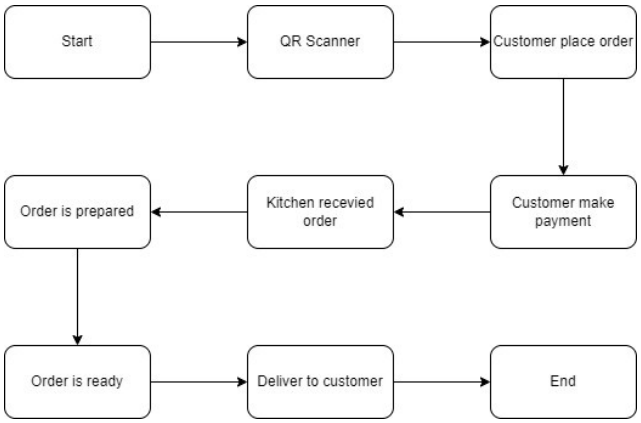
an important objective. To improve the communication between the client and customers is one ofthe objective. The figure.1 represents the simple system architecture of the proposed system: -

Fig.1: System Architecture



The architectural design consists of 3 main users: - Service Consumer, Owner of Restaurant, and Employee.
User can also search by food rating. The dish that has high rating is checked by user and if matched it will give the list of dishes. User can communicate to service provider with the help of message box and get notification from provider end if any.

V. CONCLUSION

Thus the need for tablet food ordering is analyzed and its advantages over the traditional food ordering system in restaurants are studied. It is concluded that the proposed tablet food ordering system is time saving and error free as compared to the traditional system.
Therefore, conclusion of the proposed system is based on user's need and is user centered. The system is developed in consideringall 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 Service will be solved by providing them a full- fledged system. Thus, implementation of Digital Dining 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 forrestaurant can help 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 Cafe menu can be set up and the customers can easily place order. Also with a food menu online, it maintain customer's database and improve the food serving. The restaurants 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 ordering and billing sections
Scope of the proposed system is justifiable because in large amount peoples wait for the waiters to take the order or wait in the queue for placing the order, so wide range of people can make a use of proposed system

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

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[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.
[4]. Ashutosh Bhargave, Niranjan Jadhav, Apurva Joshi, Prachi Oke, S. R Lahane, "Digital Ordering System for Restaurant Using Android", International Journal of Scientific and Research Publications.
[5] Prof V.B. Dhore, Surabhi Thakar, Prajakta Kulkarni, Rasika Thorat "Digital Table Bookingand Food Ordering System Using Android Application."
[6]. Prof V.B. Dhore, Surabhi Thakkar, PrajaktaKulkarni, Rasika Thorat "Digital Table Bookingand Food Ordering System Using Android Application".