Advanced Touch Based Food Ordering System For Restaurants

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Abstract - Since, technology has been growing rapidly in all fields that exist today, the idea of implementing an advanced touch based food ordering system for restaurants arises. Though we have food ordering apps and previously existing systems, they somewhere lack the efficiency so the idea of adding some interesting features to enhance the working and service was born. Our system is different as it has data that can be shared among users (including chef ,manger, customer and admin).A large number of users can access this system.. There will be devices on each table and the users have to register first and then can login in the system. Users can choose whatever dish they would like to have after scrolling through various sections of food menu. The ordered dish will be displayed to chef as well as manager and cashier. As soon as the dish is delivered or brought to the table, chef will tick on his screen and that particular dish will be added to the bill on cashiers screen for the particular table. For each customer there will be a unique ID that will be generated. The Customer can book the table before coming to the restaurant. The customers can give feedback as well as they will be clicking selfie and uploading on our system and the best selfie will be getting offers which will be generated when they visit the restaurant next time. Similarly other features like these can be added to the system.

Keywords - Online food ordering, Restaurant , Touch based system, Online booking, Automated system.

I. INTRODUCTION

Our system is application based . All the tasks are carried out through our mobile application. We have created a touch based food ordering system using which user can place order and receive food item at the table without any extra waiting time and get food as per the requirement with his/her specific preferences. This system helps and reduces man power as well as time and food will be served faster. Billing, transactions are managed by information and communication technology. This system is for luxury purpose. We can update menus, keep different types of offers for customers. This system shares data unlike previous system in which the data could not be shared. Customer's orders will be displayed according to the tables available in the restaurant and with that chef can decide whom he has to deliver first or which customer has minimum number of item ordered .With this kind of approach immense care is taken as to provide better service to customers without any occurrence of errors. Two tables can also be merged and billed together based on the ID generated for that particular user. Cashier will have the details of orders delivered and cancelled .The manager will be keeping track of the whole system , whether its working properly and if there is some problem , manager will solve the problem as soon as possible. Payment will also be cashless. Customers can use debit and credit cards or even payment through any e-wallet will be accepted as well. Booking of table before arriving to the restaurant is also possible. The device on the table will be installed with the application or else if the user wishes he can download the

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application in his android device .

II. PROBLEM STATEMENT

Nowadays when customer checks into the restaurant, he/she has to tell the orders to the manager, who makes note of the items ordered by the customer. The person on cash counter(cashier) makes a bill with order number and corresponding name. After giving the order the customer has to wait till his/her order gets delivered. The manager forwards the order of the customers to the chef and the cashier. The chef starts cooking accordingly and the cashier makes note of all the orders made by customers .When the order is ready, the waiter serves the customer order at his table. If more number of customers come in the restaurant then it would become difficult for the manager to handle the orders from each customer and accordingly forward to the kitchen. And the records help to generate bill.

III. LITERATURE REVIEW

Existing Methodologies:

1. Traditional Pen and Paper

In this kind of system the waiter used to go the respective tables and used to note down the customers orders on notepad. Then the waiter used to go to the chef and place the give order. Once the order is done and delivered at the table .They count the orders manually and then generate the bill for the respective table.

2. Computers for Management:

In few places the cashier is given a computer, which has a software (like a database) where note of all the orders customer wise is written in a systematic order. Even this method is not very efficient because even though there is a computer system, the orders are told by the manager (or waiter) who notes down order in notepad and reads it out to cashier who just types the order in computer for record purpose. At the end with the help of software the bill is calculated and printed and given to the customer.

Advantages of the System in comparison to existing systems:

Our system is far advanced as compared to above mentioned systems because most of the manual work done by a person is replaced by an application that does the work of delivering information from the customers table to the desks of Manager , Cashier and Chef all at the same time.

This system is less error prone as compared to earlier ones because even though the system is automated by mobile applications, Manager checks time to time whether the system is working as per required standards and also is the admin of the advanced touch based food ordering system for restaurants. So the main work of Manager is to check the processing of the order as per customer's needs and delivering within a short span as long waiting annoys the customer.

Also we have exciting features and offers for regular customer as this helps to maintain good customer relations. We have Selfie of the day offer where the best selfie will be selected and the customer will be given an offer code of acknowledging the special food item which would be offered free during next visit of customer.

IV. IMPLEMENTATION

Web host:

The devices are connected to the Chefs, Manager's and Cashier's systems through a comman web host . A comman web host is used because it enables android devices to connect automatically to the software with the help of LAN network maintaining database records.

Security aspects:

Talking about security aspect our application is password protected.

Only registered users can login or the customer who is operating app for first time needs to register first and then order. Also the passwords are encrypted internally so that even if database gets hacked the details of the customer remains secure.

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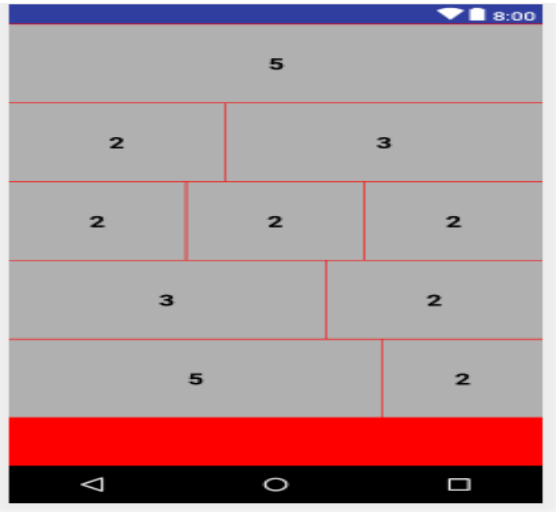

Fig.1: Book a table

Fig.2: User Dashboard

V. CONCLUSION

In this project, we proposed automated food ordering system for the restaurant. The system is compared to earlier food ordering traditional methods such as, traditional pen and paper methods, Computers for management etc. We have discussed advantages of the proposed system over those earlier methods. The differentiating factor for the proposed methodology is its adjustable efficiency which comes from the technology it uses.

This system removes the manual process of food ordering and thus reduces the number of restaurant staffs saving cost of labor to a great extent.

Implementing this system only requires one time investment in installing the necessary devices in the restaurant. It saves human errors to a great extent as this whole process is automated and does not involve manual pen and paper methods. It also saves time by making the food ordering process independent of restaurant staffs.

Since this system makes the food ordering fast, it prevents forming of a long queue in front of the counter. Thus, this is an advanced and cost effective system for food ordering. It also simplifies the complex static method of editing the menu lists by making the editing process dynamic through the application.

VI. FUTURE SCOPE

The future scope of this project is very large as with increasing technology the possibilities keep on increasing day by day also there are various aspects of restaurant systems that can be automated. In future we can imagine to see a restaurant completely automated where cooking, delivering and managing of restaurant can be done by the robots and automated systems all by itself. Also it can be made more secure and robust.

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