SMART FOOD ORDERING SYSTEM FOR RESTAURANT

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Abstract*:* The purpose of this project is to develop a computerized and mobilized food ordering system that can be used to revolutionize the traditional ordering system which is currently carried out in majority of the food and beverage industries. The accustomed system that is being used by most of the food and beverage industries is the manual ordering system which means all work and procedures are recorded manually and it also includes huge amount of paper work that is not effective and efficient. This causes the business to encounter trouble regarding human error due to the huge amount of manual work that is being operated in business routine. Thus, this computerized and mobilized food ordering system is designed to assist the business routine in term of having better management as well as easier to handle daily business operation. The accentuate feature of the system is it does not limit the ordering procedures to desktop as portability and adaptaility is the current trend. The chosen methodology for this system is Agile methodology. The implementation of this system will be done using android application for tablets, PCs and mobiles. The front end will be developed using Android, Php and at the backend MySQL database will be used.

Keywords:- Agile, application, desktop, MySQL

1. Introduction:

The main goal is to maintain the restaurant's functions in an effective and accurate manner and also to reduce the use of manual entries.

Manual errors occur on daily basis in traditional method followed by the restaurants. Digital system can reduce these errors as the order is placed digitally. The issue of wired system will also be resolved as Wi-Fi module is used [1]. Android applications are easy to access by every other person; food ordering via android applications is easy and can handle multiple orders at a time [2]. Menu stored electronically can be easily updated by the restaurant owner. Hence, cost of printing will be reduced [3]. Food ordering through application reduces the requirement of manual labor as simultaneous orders can be handled easily with just a single click and it also reduces the queue at the counter for billing as the bill is directly generated by application [4]. Touch screen is the latest technology and the android applications work well with it rather than the professional keypad based systems. We can use touchpad hardware for the tables and kitchen module as well [5]. Nowadays smart phones are easy to operate; hence the restaurant staff once trained about application can easily use it [6]. Regular customers can use our application to book tables in advance digitally rather than using typical telephonic process. This will lead to time saving for real time food ordering [7].

2. Technical Specifications:

The technologies which will be used to implement the system are:

a. Android version 9.0.1 (smart phone) and Android version 8.1 – 9.0 for tablets is required.
b. Android, Php programming language is used to develop the software.
c. Agile is used as a Rapid Application Development Tool   (RAD) or as an Integrated Development Environment (IDE) for coding the software.
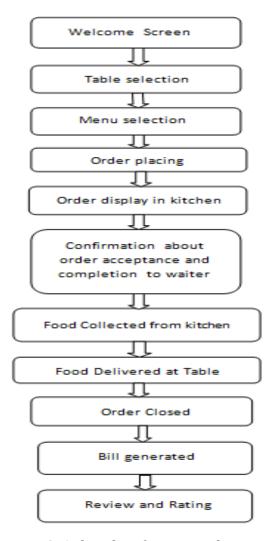d. SQL is the database which will be used for database access from handheld device or the tablet

Fig.1.Flow chart for proposed system

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3. Proposed Algorithm:

In this system customer orders the food by using android based touchpad. Fig. 1. Shows the algorithm for the proposed system. Customer first orders the food from the touchpad looking at various combination of food which is further carried to the kitchen for fulfilling the order and the same is passed for billing at the each customer's tablet.

This proposed system presents an automated food ordering system with-real time customer feedback.

This system is convenient, effective and easy thereby improving the performance of restaurant's staff. It will also provide quality of service and customer satisfaction. Overall conclusion is that, this is a fabulous food ordering system for the restaurant sector, made by combining the Android and Wireless technology.

Application will perform following functions:

- To store records
- Control orders and service

- ▪ Billings
- ▪ Control staff and their shifts
- ▪ Control multiple shifts
- ▪ Helps manager to control each part of the restaurant

4. Future Scope:

The module of stock maintenance and raw material management can be added to the existing system to ease the work of restaurant admin. Enhance user interface by including more interactive features. Allow customers to customize their orders. In future, work can be done on providing provisions to accept different types of payments like credit cards, debit cards, tips, etc. We can also add different payment options such as Google Pay, PhonePe etc. We can also add a feature to see live order status and provide deals to influence customer regularity.

5. Conclusion

This system will minimize the number of employees at the back of the counter. Also, the system will help to reduce the cost of labor and errors. Addition to this, this will avoid long queues at the counter due to the speed of execution and number of optimum screens to accommodate the maximum throughput

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