RestoServe Android Application

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Abstract - The growing number of restaurants and population of restaurant-goers have emphasized the need to enhance the working of hospitality industry. Here an application of integration of restaurant management systems by Android technology. RestoServe. Android Application integrates lots of systems of restaurants such as Food Ordering System, Billing System, and Customer's Feedback.

This system increases quality and speed of service. It works with the aim for improving the quality of services and business of the hospitality industry by incorporating technology. We are trying to integrate technology in restaurants using android application. This system is a basic dynamic database utility system which fetches all information from a centralized database. The tablet at the customer table contains the android application with all the restaurant and menu details. The customer tablet and the cashier counter connect directly with each other through Wife. Even the customer can order food from a remote location.

The restaurant can set up there menu ,provide offer's detail and customize the food menu by upload images easily .It will be more convenient for the customer to use android application rather that surfing the website .This application will improves the efficiency and accuracy for restaurants by saving time, reduces human errors and provides customer feedback .

Key Words: **Ordering, Information Management system, Restaurant Automation , Wireless food ordering system, Android application.**

1.INTRODUCTION

The sudden and rapid growth and development of communication technology, and android devices has created quite a stir in the business transactions. Business in the hospitality industry has been greatly influenced and competition has increased due to improved food ordering techniques. In order to effectively run a restaurant, time saving and cost optimization are essential. Reduction in time by a few seconds for each table can speed up order processing, increase efficiency and boost profits. The biggest obstacle most restaurants face is the migration from a paper-pencil system to a completely automated system. The food ordering system, till a few years ago, was a completely manual process where a waiter used to note down orders from the customers using pen and paper, take the orders to the kitchen, bring the food and make the bill. Although this system was simple it required extensive investment in purchase and storage of paper, large manpower and greater time consumption. To overcome this situation we are developing an android application for restaurant food ordering system.

2. RELATED WORK

The existing system is paper based. The traditional menu cards in the restaurants are paper based. Waiters use paper to write the order of customers. The records are stored on paper. As with anything paper based, it is so easy for things to get damaged by Coffee stains etc or paper being lost due to fire or accidents or just generally lost. There is wastage of time, money, and paper. As traditional menu cards are paper based, any changes that need to be made in the menu card will lead to wastage. As it will require reprinting of all the menu cards. Also, for small changes it is not possible to print all the menu cards again and again. There is no power to dynamically make any changes in the menu card.

To access a particular record from the stack of papers is not efficient. From the customer's point of view, this system is time consuming. As, one has to wait until the waiter comes to take the order, one has to call waiter number of times till he notices it, there can be misinterpretation while the waiter is writing your order on paper, and it might be possible that you are served with a wrong dish. There have been improvements in the management.

Some of the existing systems are mentioned below:

1.   Pixel Point-

PAR Pixel Point Company uses this software for managing the restaurant. The system consists of the company's *software and hardware.* This network system is compatible to TCP/IP, enabling information sending through both wireless and conventional networks.

2.   LRS Restaurant Server Pager Starter Kit

This system improves the food-ordering service quality in restaurants and reduces the waiting time of clients. The on-site paging system is used at UHF frequency or the frequency range of 467 MHz for sending the order data .This system receives a client's order and makes a list by

means of the designed client's template in the kitchen. The food ordering device is portable. The waiter takes the client's order and sends it to the client's template in the cook room.

3. Implementation of Network-based Smart Order

System The Smart Order System in Restaurants (SOSIR) has been modified to take order from the client's table through RS-232 signal, which is sent to the cashier counter. The cashier counter system is connected to a database. When the clients' orders are sent the cashier counter system will screen and prioritize the orders before sending the information to the kitchen for the chef to cook
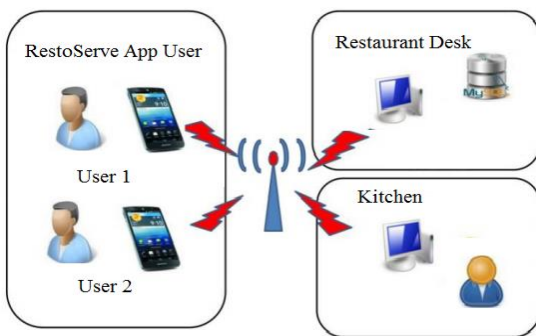

Fig -1: RestoServe App Overview

3. PROJECT SCOPE

Following are some of the major scopes of our system:

1. Tablet on table

There will be a tablet on each table.

This will allow the customers to browse the food items for the time they wish.

This will allow the customers to browse the food items the way the customer wish.

2. Customer feedback

Customer can enter the feedback about the service and the food served. This helps the Restaurant owner to analyze the service and make necessary changes if needed. This also helps the Customer's to decide a particular Food item with a positive feedback.

3. Searching Item

Customer can search a particular food item according to name, price, category etc. This saves a lot of time of customer to order an item.

4. Offers for Customer

The Restaurant owner can post various offers on tablet. This will help the customer as well as the restaurant owners.

5. Attractive Presentation

The Menu is organized in an attractive way. There are images of every food item which will make the view of customers more clearly about how the food will look like after delivery.

6. Sorting an Item

The food items will be sorted according to price, season and user ratings. This helps the customer to find or select a food item which has a good rating and which is liked by a many customers. This also helps the Restaurant owner to make changes in a particular food item if it has low ratings which improves the quality of food.

7. Time to Serve

The menu includes the approximate time to be served of a particular food item. This will help the customer to select the food item accordingly.

4. SYSTEM ARCHITECTURE

1. **Home Screen** -The Home page is the starting page of the application. It has a "Welcome" button to be click in for entering into the application.
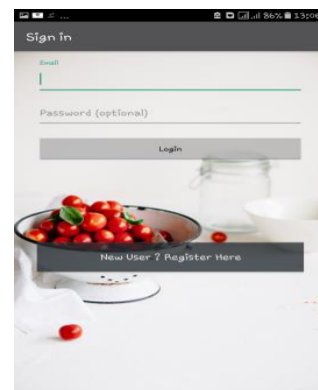
2. **Login Activity** -This enables the user to login to the application so as to view the homepage activities. The user can login by entering their email and password. If the user enters the wrong credentials, he/she is not allowed to login. In case the user is new user for this application then he can register himself by choosing "New user? Register Here".
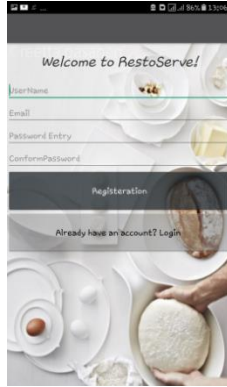
3. **Register Activity** - This lets the user to register with the application. The user has to register by giving a username, a valid password and an email address. All the user details are stored in a database located on a server. This enables the user to login from any device as the data is centrally located on a server. Certain constraints have been set on the password and the email is checked for a valid format.

4. **Homepage Activity** -This allows the user to search for different food menus, or search images of the restaurant from "Gallery" and to share this application over different platforms.

5. CONCLUSION

This is our first attempt in developing a mobile application which gave us a basic understanding of development and challenges in mobile application development . The main aim of the project is to provide an easy to use application for ordering food from restaurant .We have presented a food ordering system based on android technology.

This system is convenient , effective and easy ,thereby improving the performance of restaurant's staff. The system can be further extended to register and link multiple restaurants to enhance the dining experience of customers.

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BIOGRAPHIES

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