Android Application for Local Food Ordering System

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Abstract - The Rampant growth of wireless technology and Mobile devices in this era is creating a great impact on our lives. Some early efforts have been made to combine and utilize both of these technologies in advancement of hospitality industry. This research work aims to automate the food ordering process in near vicinity and also improve the dining experience of customers. In this report we discuss about the design & implementation of automated food ordering system with real time customer feedback for vendors. This system, implements wireless data access to servers. The android application on user's mobile will have all the menu details. The order details from customer's mobile are wirelessly updated in central database and subsequently sent to kitchen and cashier respectively. The vendor can manage the menu modifications easily. The wireless application on mobile devices provide a means of convenience, improving efficiency and accuracy for vendors by saving time, reducing human errors and real-time customer feedback.

Keywords – *Personal Digital Assistance (PDA), Global Positioning System (GPS), Android, SQLite database, GPS Server.*

1. Introduction

Now a day, all systems are managed by computer. Also all business transaction, billing system, inventory system are managed by information and communication technology (ICT). The rapid growth in information and communication technology (ICT) has greatly affected the business transactions. With increasing use of communication technology emergence of wireless technology and android devices has created quite mobility in the business transactions. The rapid growth of wireless telecommunication and the network lead industries that are gaining more customers every day. Providing fast services to customer within less time and also reducing human efforts is aim of all computerized system. The small scale vendors have to provide the best services and maintain relationships with their customer in order to survive in this competition .Moreover the food which is available is from restaurants there is no availability of home cooked food. Since there is constant migration of people in various states, restaurant food is not assumed to be healthy for regular consumption. Thus the system efficiently manages the home cocked food in various strata of society. There can be a provision of membership for regular customer. System provides the recommendation related with menu. There can be a provision for customer, if suppose customer want their order after some time then it will provided on that time. System also provides menus as per age of customer. If customer wants recipe of any menu then our system provide that facility. The application manage the food according to time of day so as which food is available at a particular time in nearby vicinity area. It will also encourage business from home. With this system customer can view the latest meal menu and send order using their smart phone or tablet. The tablet will interact with server in the application through wireless connection.

Some highlighted features our application achieves are as follows :
- Allows users to create a profile and display their "Menu-for-today" service.

- Users are both clients and service providers.

- Helps in providing recognition for small business from home.

- Main motive is to both-make money and have access to good, cheap, home-made delicacies.

2. Existing Methodologies

2.1 Conventional Paper-Based System

One of the most widely used food ordering system is the conventional   paper based system. In this system all records are stored on paper. The main drawback of this system is papers can get easily lost or damaged. There is also wastage of money, time and paper. Paper-based systems do not provide any form of dynamicity. Even a small change requires the re-print of entire menu-card. Also large amount of human efforts are required, this system is not work properly because it has some error and from a customer's point of view it is time consuming.

2.2 Computer Usage In Hospitality Management

The emergence of computers pioneered the automation of the food ordering system. A PC connection was established where the waiter after taking the orders would enter the order in the system. The respective orders taken were then displayed at a screen in the kitchen. The kitchen staff prepared the dishes accordingly and on completion notified the waiter who collected and delivered the dishes to the respective tables. The system was also capable of intimidating the waiter about the availability of a dish. If a certain dish was unavailable, the waiter was able to ask for changes or even delete a customer's order. After serving the food, bill was generated at the cash counter. All the details entered by the customer were fed into the system which the management had full access to.
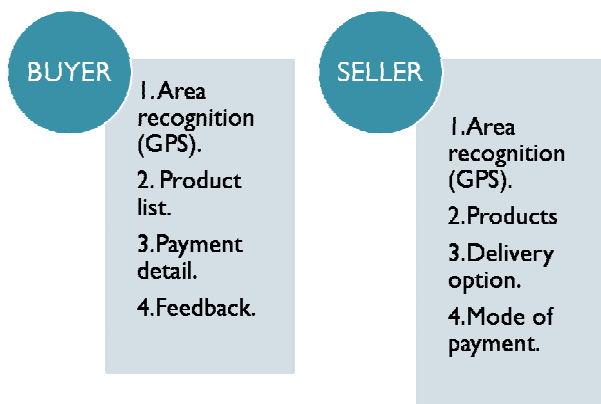
3. Working

Fig. 1: Basic framework of application

Above is the basic framework of our application. As we can see both buyer and seller are the users of the application. Buyer purchases the food items and Seller sells the food items through this application. Main advantage of our system is that anyone can prepare food and sell through our application.

ADVANTAGES

1. Since we are using technology such as Google Map and GPS the project development cost is economically viable.

2. The system would be always online which would ensure 24/7 service.

3. The system will make food available at a very low cost.

DISADVANTAGES

1. Availability of internet to use application .

2. Cannot prevent fraud users from entering their product.

4. Results

Some of the demo screenshots of our application are provided below.
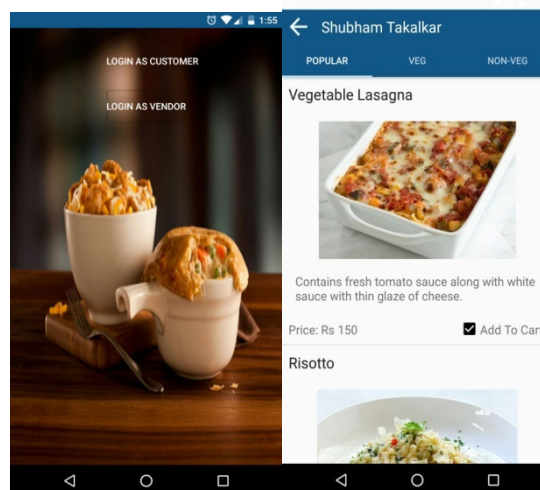

Fig: 2 Results

5. Conclusion

The GUI of Android applications are more attractive and informative than the PDA and QORDER systems. The processing speed of Android system and QORDER system is almost the same whereas the PDA based systems are slower than the other two systems. Therefore, it is clearly

visible that Android based systems are the cheapest automation solution for the restaurant owners. Thus, we present an automated food ordering system with features of feedback and wireless communication. This system also ensures good quality of service and customer satisfaction. Thus, the proposed system has the potential to attract customers and also adds to the efficiency of maintaining the vendors ordering and billing sections.

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