



GLOBAL JOURNAL OF COMPUTER SCIENCE AND TECHNOLOGY: H  
INFORMATION & TECHNOLOGY  
Volume 18 Issue 1 Version 1.0 Year 2018  
Type: Double Blind Peer Reviewed International Research Journal  
Publisher: Global Journals  
Online ISSN: 0975-4172 & Print ISSN: 0975-4350

# An Innovative Approach for Online Food Order Management System

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**Abstract-** Restaurants are one of the favorite premises. An online food ordering is a integrated process in fast food Restaurants to offer choice of food from menu, cooked and served or packaged hot to satisfy customer to immediately make orders on their own selves. Customers can also call the restaurant to pack in advance or to deliver the food item but sometimes restaurants run out of certain items. The existing system lacks the feature to use Remote GPS tracker such that restaurant managers are auto updated about the location of the customer before reaching the restaurant. We propose a complete system to easily manage online menu where items update as per the availability of food and prices. The Customer views the products, register and place the order. The system administrator adds and manages user accounts and the Manager manages product and orders. The Kitchen meal deliverable deals with pending deliveries .The proposed system is developed using Android platform which is open source software and built in data connection modules. It also decreases labour rates to replace mobile phones to book order and table unlike employees who come to take order and payments. In advent of food consumption problems like obesity, overeating etc., he proposed system will show food items with nutrition based searches showing ingredients of the food items.

**Keywords:** food ordering system, GPS, PDA, smart phone/tablet, SMS, trackpads.

**GJCST-H Classification:** H.3.5



AN INNOVATIVE APPROACH FOR ONLINE FOOD ORDER MANAGEMENT SYSTEM

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# An Innovative Approach for Online Food Order Management System

Anjali Baranwal <sup>a</sup>, Anshika Srivastava <sup>b</sup> & Bindu Rani <sup>c</sup>

**Abstract:** Restaurants are one of the favorite premises. An online food ordering is a integrated process in fast food Restaurants to offer choice of food from menu, cooked and served or packaged hot to satisfy customer to immediately make orders on their own selves. Customers can also call the restaurant to pack in advance or to deliver the food item but sometimes restaurants run out of certain items. The existing system lacks the feature to use Remote GPS tracker such that restaurant managers are auto updated about the location of the customer before reaching the restaurant. We propose a complete system to easily manage online menu where items update as per the availability of food and prices. The Customer views the products, register and place the order. The system administrator adds and manages user accounts and the Manager manages product and orders. The Kitchen meal deliverable deals with pending deliveries .The proposed system is developed using Android platform which is open source software and built in data connection modules. It also decreases labour rates to replace mobile phones to book order and table unlike employees who come to take order and payments .In advent of food consumption problems like obesity, overeating etc. ,the proposed system will show food items with nutrition based searches showing ingredients of the food items.

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## I. INTRODUCTION

In the proposed system both the owner and the customer will find it easier to eliminate manual operations like ordering food and providing bill. There is also chance of minor errors and it also takes time. It aims to implement online orders helping customers to wirelessly order food using E-menu sending I straight to the cook-room. The server fetches the order and compile the data based category. Starters and main course orders are usually taken together. Drinks and desert orders may be taken separately. Kitchen staff sees the dish orders on their screen. There is a status shown at the client table which updates customer the time when the cook in the kitchen gets the order, starts preparing food till food served at the customers table [1].

The categories of users include Customers to order food and pay in return, Chef who gets the placed order and cooks the ordered food and if cook has not

started cooking means action to cancel the order may be taken by the manager. Another category include Admin who adds, cancels, alters the order placed by the customer, manages the staff also .Staff include waiters and helpers who help in restaurant management.

The objectives include reducing the paper work. It automates the whole process incuding transactions and customer management. Also faster retreivel of records with less overhaed to manage user friendly and flexible records in files and papers. The general objective include to stand out from others in food industry. Specifically providing customized menu, Status check if the order was placed correctly Reduction in food wastage, more accurate system with faster servicing, more customers and huge profits. Also Restaurants know what food items the customers want in advance, eliminate long queues shortened purchase time and more secured order placement process. It also eliminates the difficulty in tracking past history as all bookings at a user account get saved easily. Also the feedbacks are recorded from each user account to get deliver better services. There is no need for restaurants to answer calls to take the orders. Customers can easily scroll menus, add more orders to order list.

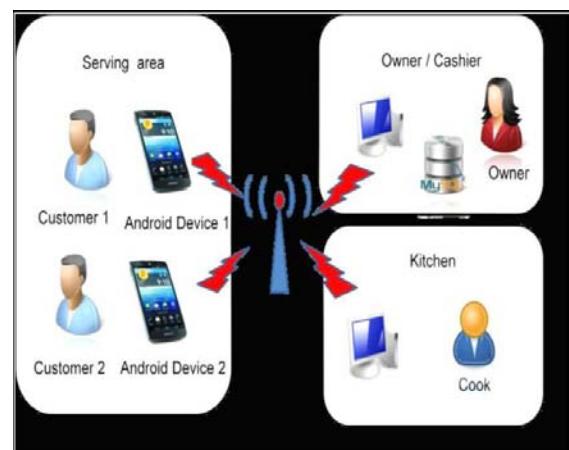


Fig. 1: Working of android devices and wireless order track

The different modules in this proposed system are as follows:

### 1) Module -1 (USER Tablet)

Category of customer-Normar day to day customers. Firstly customer will do an online registration and based on account login all details are stored in

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process customer has to decide earlier before going to the cash counter.

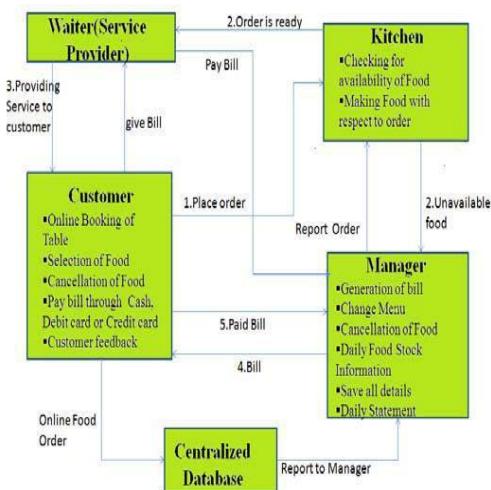
#### iii. Automated food Ordering System

Development of multitouch technology made possible to run food ordering application.

#### iv. Multitouch Technology

Multi-Touch technology works with TrackPad (or TouchPads) and touch-screen interfaces, like those found on laptops, smartphones and tablets. It allows users to interact with their devices in a multitude of ways, by expanding the number of interface options. Rather than simply swipe and tap, Multi-Touch allows for zooming, Automatic system reduces the service cost and provide dynamicity to make changes which enhances the customer experience. The automatic system used to search the restaurant book the table or order the food through the electronic touch screen devices like phones, tablets or laptops which present you the booking option and menus. First customer can book the table or choose the home delivery and select the food item to order and make payment. The Touch screen device present the menu and the customer gives the input of food items. Then the technical team passes this ordered item detail to the kitchen through the waiter. A customer who ordered for home delivery can track the delivery option. And if customer booked the table on his arrival within a certain time limit their food to be served. Also Finance department can manage the sell and purchase through the application.

With the improvement in computer technology and advancement in devices like scrolling, selecting, and more. It is designed to provide touch-screen interfaces with the same sort of flexibility and usability that a traditional mouse and keyboard provide, while also providing for a more intuitive and seamless user experience.



*Fig. 2:* System flow diagram

### III. SYSTEM ARCHITECTURE

The architecture consists of the three main parts of restaurants which is Server, Kitchen, and Cashier counter. Catering orders from customers online to the Kitchen staff to prepare that particular order in minimum time. Keeping track of the orders placed and fetched information into the server application. Order updates, cancellations, add ons are detailed at a central database. The above tiers of the system are connected via wireless technology. Food Android application finds out the location based on latitudes and longitudes.

### IV. SYSTEM MODULES AND SYSTEM DESIGN

Owners to manage the application will log in to the system ,update the details of the food like GST rate hikes ,better surplus, free discounts .Generally Festive season brings out a wide variety of catering add on such as to invite more customers and more huge profits. Different categories of food and different interests of customer find a better choice to get huge customer. Customer selects a list of items in order, and can easily add one or more items in no time ,can easily cancel items which is not required and find a good choice. The customer can click to view the order status and can easily cancel the order. Customer feedback are stored to provide the customer with the best services.

### V. SYSTEM SPECIFICATION

#### a) Table Booking

It will allow customers to book table of his/her choice in advance by browsing the animated view of the restaurant accordingly.

#### b) Customer Feedback

Customer owner can easily analyse the changes if needed and can check on the quality of service.

#### c) Click-and-Add Menu

Customer can browse for a food item according to name, nutritional value, price, category etc. He/She will click on the food item to add it to the menu item.

#### d) Offers for Customer

Seasonal discounts, Free surplus food items are displayed to the customer will ordering to help in getting food at a reasonable cost.

#### e) Attractive Profile

The images of food items to make good and clear view of food to the customer about the food which is to be ordered.

#### f) Time to Serve

The manager easily calculates the time the customer will take to reach in a way provides ease to the customer to get food served as soon as possible.

**g) Find Friends**

Customer can easily search nearby friends in order to encourage more customers to the particular restaurants.

**h) Diet Count**

The Diet count, nutritional count, calorie intake, sugar intake is recorded in the customer account. It allows alert notification to the health conscious customers at their login account to take care of customer health.

**Operating-Environment**

Android based Operating system is an open source operating platform with programmers aiming to make it more better. Thus, Android is one of the fastest growing technology in the market with Android phones in every customers pocket making Android more secured. It brings more refined interface designs to suit in the interaction with the customers . Apple charges people who want to develop applications for the App store \$100/year, while Google only charges Android developers \$25. So android prevails.

## VI. SCOPE AND LIMITATION OF PROJECT

Restaurant Food Ordering and Billing System is an integration of different operations: ordering, pricing and billing systems. Customer input orders directly into the computer system, which communicates the customer's order directly to the Kitchen. The fixed terminal number identifies which customer ordered items and Staffs print bill of the food order. Additional orders may have to be cancelled by the kitchen only if the bill hasn't been Printed. The other limitations include the user must be Computer Literate. There should be LAN/WIFI.

## VII. FUTURE ENHANCEMENT

Anything cannot be ended with a single step. It is the fact that nothing is permanent in this world. So the utility requires to have some future enhancement's in the evergreen and booming in the IT industry. Change is inevitable. The project entitled "Online Food Ordering System" is successfully designed developed and tested. The system and the architecture should a compatible one.

## VIII. CONCLUSION

Thus, we propose an automated food ordering system with features of feedback and wireless communication. 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. Thus, the proposed system would attract customers and also adds to the efficiency of maintaining the restaurant's ordering and billing section.

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