



## Food Ordering Application

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### ABSTRACT

The Online food Ordering System described in this document has been designed to fill a specific niche in the market providing small restaurants with the ability to offer their customers an online ordering option without having to invest large amounts of time and money in having custom software designed specifically for them. The system, which is highly customizable, allows the restaurant customers to easily manage the site content, most importantly the menu, themselves through a very intuitive graphical interface.

The app, which is the only component seen by the restaurant customers, is then built dynamically based on the current state of the system, so any changes made are reflected in real time. Visitors to the app, once registered, are then able to easily navigate this menu, add food items to their order with only a few clicks, greatly simplifying the ordering process. Back in the restaurant, placed orders are promptly retrieved and displayed in an easily readable format for efficient processing.

Keywords: Food Ordering App, Online Food Shop, Online Food Delivery.

### 1. Introduction

The basic problem in the food service industry is that restaurants are not realizing efficiencies that would result from better applications of technology in their daily operations. The earlier food ordering system was entirely a manual process which involved waiters, pen and paper. The waiter had to note down orders from customers, take these orders to kitchen, update them in records and again make bill. Even though this system is simple it may involve human errors in noting down the orders. There are many reasons leading to the feeling of dissatisfaction including being entertained late in terms of order taking by the waiter and meals serving. To overcome these limitations in manual system, multi-touchable restaurant management system is proposed in this paper to automate food ordering process.

The food restaurant with automated food ordering system will be equipped with a userfriendly touch screen, display screen in the kitchen, and software for completing the process at the back-end. For this system there will be a system administrator who will have the rights to enter the menu with their current prevailing prices. The system administrator can enter anytime in the system by a secured system password to change the menu contents by adding or deleting an item or changing its price. Now when the customer enters the restaurant, customer will place his order with the help of the touch screen using the intuitive graphical user interface, right from the selection of menu items, confirming the order and viewing offers. The customer will select from the food options according to his choice and the system will display the payment amount customer has to make once finished with the order.

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## 2. Literature Review

In [1] an automated food ordering system is proposed which will keep track of user orders smartly. Basically, they implemented a food ordering system for different type of restaurants in which user will make order or make custom food by one click only. By means of android application for Tablet PCs this system was implemented. The front end was developed using JAVA, Android and at the backend MySQL database was used.

In [2] Customer using a Smartphone is considered as a basic assumption for the system. When the customer approach to the restaurant, the saved order can be confirmed by touching the Smartphone. The list of selected reordered items shall be shown on the kitchen screen, and when confirmed, order slip shall be printed for further order processing. The solution provides easy and convenient way to select pre-order transaction form customers.

In [3] there was an attempt to design and implementation of digital dining in restaurants using android technology. This system was a basic dynamic database utility system which fetches all information from a centralized database. This application improved the accuracy and efficiency of restaurants as well as human errors. Earlier drawbacks of automated food ordering systems were overcome by this system and it requires a onetime investment for gadgets.

In [4] an application of integration of hotel management systems by web services technology is presented. Ordering System Kitchen Order Ticket (KOT), Billing System, Customer Relationship Management system (CRM) is held together by the Digital Hotel Management. Add or expand of hotel software system in any size of hotel chains environment was possible with this solution.

In [5] research work aims to design and develop a wireless food ordering system in the restaurant. Technical operations of Wireless Ordering System (WOS) including systems architecture, function, limitations and recommendations were presented in this system. By providing higher quality customer service and reducing human errors to improve the management aspect for restaurants, pervasive application will be a valuable tool due to the high demands of handheld devices such as PDAs.

In [6] along with customer feedback for a restaurant a design and execution of wireless food ordering system was carried out. It enables restaurant owners to setup the system in wireless environment and update menu presentations easily. Smart phone has been integrated in the customizable wireless food ordering system with real-time customer feedback implementation to facilitate real-time communication between restaurant owners and customers.

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## 3. Objective and Scope

### 3.1 Objective of the Project

1. To study Food ordering system
2. Better error handling.
3. It handles the entire information about the customer and Shop Owner Securely.
4. To develop the store and maintenance computerized system from the previously existing system.

### 3.2 Scope of Project

1. Large volume of data will be handled by the system.
2. Various reports will be provided by the system.
3. Security and integrity of database can be maintained.
4. Keeping record in detail of each customer and department head is possible.
5. Changes to the records are easy.
6. Information maintenance of customer and department head detail is securely.

## 4. Methodology

### 4.1 System Architecture

In this system customer orders the food by using android based touch pad. Figure shows the system architecture, which cover three main areas of the restaurant: the serving area, the restaurant owner's working desk (cashier table), and the kitchen. Customer first orders the food from the touch pad 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.

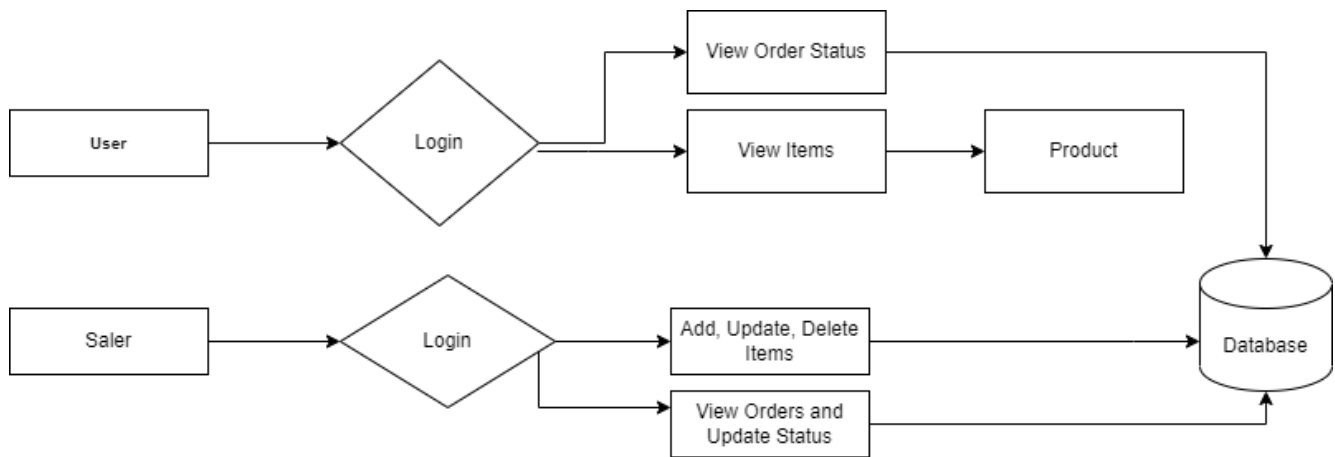


Figure 4.1: System Architecture

#### 4.1.1 Module 1: Registration

In this module the customer can register himself. He needs to provide his details like name, address, phone number and he needs to create a username and password.

#### 4.1.2 Module 2: Login

Module will authenticate the admin or customer which has to be login. The Login Module is a portal module that allows users to type a Email and password to log in.

#### 4.1.3 Module 3: Forget Password

This module is useful if in case customer forgets his/her password this module will ask the Email and user can change his/her password by generated forgotten password link which is given by email. And in case if user is unable to provide his details the system will suggest customer to contact Admin.

#### 4.1.4 Module 4: Search

A search module is for search required products using search bar. search module helps user to find his product he wants.

#### 4.1.5 Module 4: Category

The Category module allow customers to choose and buy from a specific group of products Categories help in organizing products in a way that makes it easy for visitors to find out what they're looking for.

#### 4.1.6 Module 5: Admin Portal

Admin login can add, delete, update and modify the products details. These changes will then be reflected to permanent database.

#### 4.1.8 Module 7: Order Summary

(User Side) in this module the user is able to view all the order details of the shopping he did earlier.

#### 4.1.9 Module 8: Order Summary

(Admin Side) This module is designed for Admin. Admin can view all the order and see order status accordingly.

#### 4.1.10 Module 9: User Profile

In this module the user can see his profile as well as he can edit his/her Details.

#### 4.1.11 Module 9: About us

The aboutus module provides information about shop.

#### 4.1.12 Module 9: Contact Us

The Contact Us module provides contact information of shop.

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### 5. Flowchart

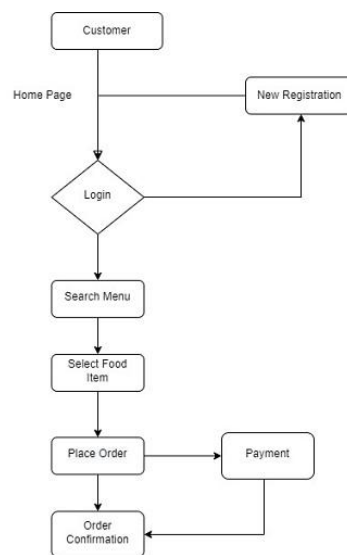


Figure 5.1 Flowchart

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### 6. System Configuration

#### 6.1 Hardware Requirement

- Processor - snapdragon 665 above
- RAM - 4 GB(min)
- Hard Disk - 32 GB(min)

#### 6.2 Software Requirement

- Androidversion 8 above
- Languages - Java
- Android studio

#### 6.3 Database Requirement

- MySQL

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## 7. Advantages and Disadvantages of Proposed System

### 7.1 Advantages

- Makes the ordering process easier
- Efficient customer and order management
- Monitor your expenses incurred in real-time
- Better customer's data
- Stay ahead of the competition

### 7.2 Disadvantages

- Data Security
- Risk of losing customers data.
- Changes of a technical problem in the system.
- Mismatch data of orders, customers.
- Difficulty in choosing the right developer to develop a customized system.

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