

# Hotel Food Delivery System without Plastic with Shortest Path in GPS using Mobile App

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**Abstract:** Hotel Food Delivery System without Plastic with Shortest path in GPS using Mobile App is an application designed for food delivery system without plastic, because plastic is harmful for customer health. This system will allow hotels and restaurants to increase scope of business by providing safe food to the customers. The system also allows to easily manage an online menu. The online food ordering system provides convenience for the customers. It overcomes the disadvantages of the traditional queuing system. This system increases the takeaway of foods than visitors. Therefore, this system enhances the speed and standardization of taking the order from the customer. It provides a better communication platform. The project of smart services deals with the system of monitoring services of Tiffin in the metropolitan cities and for the department of business cooperatives. The payment can be made online or pay-on-delivery system. The user's details are maintained confidential because it maintains a separate account for each user. An id and password is provided for each user. Therefore, it provides a more secured ordering. It is seen that these advance system for the food services which improves the environmental pollution by reducing the vehicle flow and also it gives the service healthy to all the human beings those are not able to manage their time and business.

**Keywords:** Hotel Food Delivery System, GPS

## 1. Introduction

It is known globally that, in today's market, it is extremely difficult to start a new small-scale business and live-through the competition from the well-established and settled owners. In fast paced time of today, when everyone is squeezed for time, the majority of people are finicky when it comes to placing a food order. The online food ordering service is a local restaurant and food cooperative website or application for customers to provide more interactive menu so that the ordering process could be carried out. Ordering food online is designed for its more flexibility and performance, some website or application are make sure that the system has enough navigation function through the picture information or significant logo to guide customer like students follow the steps to finish the ordering food process, apart from that it has been constructed to dealing with large number of orders simultaneously to prevent the food overload.

Online ordering system that I am proposing here, greatly simplifies the ordering process for both the customer and the restaurant. Customer can view all the order details in the cart

before checking out. At the end, customer gets order confirmation details. Once the order is placed it is entered in the database and retrieved in pretty much real time. In this paper, we will analyse the advantages and disadvantages of some existing applications, and finally we will design an application that solve the problems we aim.



Fig. 1. Food delivery

The hotel or the main leader will provide the Tiffin and location address on the specified app of dabbawala and it will be given to the service boy. The service boy has to locate the address of specified destination through GPS. Once the Tiffin is reached at the destination the work of service boy is done, later after a specific time any other service boy can collect the respective Tiffin by locating the device through ultrasonic sensor. This application is helping Food Ordering to maintain the stock and cash flows and there are many more functionalities, like. The main goal is to provide the safe food to the customer and maintain the restaurant's functions in an effective and accurate manner and also it is reducing the use of manual entries, plastic. This software helps food orders to maintain day to day records in system and maintain. It is keeping a proper record of the database.

## 2. Problem statement

Hotel Food Delivery System without plastic with Shortest path in GPS using Mobile App sets up a food menu online and customers can easily place the order as per they like. Also, the online customers can easily track their orders. The management maintains customer's database, and improve food delivery service. This system presents an interactive and up-to-date menu with all available options in an easy to use manner. Customer can choose one or more items to place an order which

will be added in the Cart. In this system uses a Stainless Steel Tiffin rather than Plastic Container for food packing. Delivery Person Delivers Tiffin to Respective Address, We Are Giving 12 Hrs. Times to Customer for Finishing the Food Items and Return Tiffin to Delivery Person We can used shortest path for Food delivery. The payment can be made online or cash or pay-on-delivery system. For more secured ordering separate accounts are maintained for each user by providing them an ID and a password.

### 3. Literature review

1. Kirti Bhandge, Tejas Shinde International Journal of Advanced Research in Computer Science Technology (IJARCST 2015). Automated Food ordering system is proposed which will keep track of user orders smartly. 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.
2. Customer using a Smartphone is cons Varsha Chavan, Priya Jadhav, Snehal Korade, "Implementing Customizable Online Food Ordering System Using Web Based Application", International Journal of Innovative Science, Engineering Technology(IJSET) 2015 idered 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 preordered items shall be shown on the kitchen screen, and when confirmed, order slip shall be printed for further order processing.
3. International Journal of Advanced Research in Computer Science Technology (IJARCST 2015). 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) are 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.
4. Ashutosh Bhargave, Niranjn Jadhav, Apurva Joshi, S. R Lahane, "Digital Ordering System for Restaurant Using Android" (2010.) 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. It was believed that with the increasing use of handheld device such as PDAs in restaurants, pervasive application will become an important tool for restaurants to improve the management aspect by minimizing human errors and by providing higher quality customer service. Special color background and some special page icon, through understanding about the main elements that affect the app design, the team consider that it may be minimize time form app selection. Whereas, through common issues and the development trend in the markets, the team could learn the

mobile screen limitation may illustrate that the small size has a negative effect for users to use it. To overcome this problem, the team want to add the new function to show the different restaurants in the map, ensure that users have their own positions among restaurants, this design may reduce the unnecessary steps during checking restaurants process.

5. 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.
6. The purpose of this study was to investigate the factors that influence the attitude of internet users towards online food ordering in Turkey among university students. A Technology Acceptance Model (TAM) developed by Davis in 1986 was used to study adoption of Web environment for food ordering. Trust, Innovativeness and External Influences are added to the model as main factors along with TAM. This paper highlights some of the limitations of the conventional paper based and PDA-based food ordering system and proposed the low-cost touch screen based Restaurant Management System using an android Smartphone or tablet as a solution.

### 4. Proposed system

To overcome the limitations of above system, an Online Food Ordering System based on Internet of Things is proposed. It is a wireless food ordering system using android devices. Android devices have gained immense popularity and have revolutionized the use of mobile technology in the automation of routine task in wireless environment. Android is a Linux based operating system for mobile devices such as smartphones and tablets. . One of the Objective is to design a system that is able to accommodate huge amount of orders at a time and automatically compute the bill. To evaluate its performance and acceptability in terms of security, user-friendliness, accuracy and reliability is an important objective. Delivery provides delivery services as well as marketing and order services, allowing it to provide food from restaurants that do not normally provide delivery services. It makes this application much easier for users to use. In another word, it has a good usability.

Service Consumer, Owner of Mess/Restaurant, and Employee of mess. Open the app and click on menu list users will see a drop-down list of possible menus that may be searched which shows the number of these types of restaurants. Then he/she will search and select restaurant or home-based food service based on his category and as well as service that is veg or non-veg. Here the main function is, in what pattern user will search the service so for that purpose a part of Geo-Hashing Algorithm is used, and GPS system should be on. Person can

have the facility to search service by location that is home location of the person is detected with GPS and according to selected option location of nearby service get searched. Another way for searching is by cost. User can also search by rating. Search can be done by accepting distance from user in which user need to search and displaying service provider within that distance.



Fig. 2. Mess and restaurant

### 5. Conclusion

Food services is based on the computers-based technology i.e. Web App which is easy to use by any person Gives employment to the needy persons for their betterment in lifestyle. All designed to satisfy the demands of the users. Using GPS map which shows the positions of delivery man, restaurant and destination is provided for users. For those who care about the status of orders, this feature allows them to more intuitive understanding of the current order status. It reduces the time of

a busy person who works at office by providing a Tiffin services. On this basis, we have to study user needs and ordering system common problems, and finally we discuss the development of online ordering system mobile in the market.

### 6. Future work

Enhance User Interface by adding more user interactive features. Provide Deals and promotional Offer details to home page. Provide Recipes of the Week/Day to Home Page. Payment Options: Add different payment options such as Paytm, Wallets etc. It will be applicable for large area.

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