

**ONLINE ORDERING AND PAYMENT SYSTEM FOR RESTAURANTS**

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ABSTRACT

The purpose of Online Food Ordering System is to automate the existing manual system by the help of computerized equipment's and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with. The Online Food Ordering System's main purpose is to maintain track of information such as Item Category, Order, and Shopping Cart. It keeps track of information about the Item Category, the Customer, the Shopping Cart, and the Item Category. Only the administrator gets access to the project because it is totally built at the administrative level. The project's purpose is to develop software that will cut down on the time spent manually managing Item Category, Food, Customer. It saves the Order, and Shopping Cart information. This system will allow hotels and restaurants to increase scope of business by reducing the labor cost involved. The system also allows to quickly and easily manage an online menu which customers can browse and use to place orders with just few clicks. Restaurant employees then use these orders through an easy to navigate graphical interface for efficient processing. Customers will be able to order their preferred foods at any time, but as we've already mentioned, this is only a limited option. As a result, restaurants need to have a specific system in place that will allow them to serve a large number of customers while streamlining operations. One of the best platforms is ordering, which offers all of these services in addition to a host of cutting-edge features that have helped countless small and large enterprises establish themselves as market leaders.

1. INTRODUCTION

Online food ordering is the process of ordering food from a website. The product can either be food that has been specially prepared for direct consumption (such as vegetables straight from a farm or garden, frozen meats, etc.) or food that has not been (such as direct from a certified home kitchen, restaurant). The effort to create an online food ordering system aims to replace the manual method of taking orders with a

digital one. The ability to rapidly and correctly create order summary reports whenever necessary is a key factor in the development of this project. The potential of an online food ordering system is enormous. Any restaurant or fast food chain can use this PHP project to keep track of customer orders. This project is simple, quick, and precise. There is less disk space needed. MYSQL Server is used as the backbone by the online food ordering system, eliminating



the risk of data loss and ensuring data security. Customers have the option of either having the food delivered or picked up. A customer starts by selecting the restaurant of their choice, then scans the menu, picks an item, and then decides whether they want it delivered or picked up. Then, when picking up the food, you can pay with cash at the restaurant or with a credit card or debit card using the app or website. The customer is informed by the website and app about the food's quality, how long it takes to prepare, and when it will be ready for pick-up or delivery.

In restaurant we have to wait until the waiter arrives or have to call him, no idea about the order arrival and some payment issues. To make a “contact-less ordering” at restaurants. With the help of this application we don't need to call waiter every time to place an order, this is an online website page which is used by scanning QR code given at the tables. It takes you to menu where you can order, track order, and pay. This can be a time saving, no interruption, self satisfaction, more connectivity, acknowledgement of the order and invoice, paying securely. There are several good reasons to create an online food ordering application. There is a lot of demand, which is why so many restaurants are utilizing online ordering. Customers enjoy how convenient it is to purchase food online and have it delivered to their place of residence or 2 workplace. By providing the services, you may maintain your competitiveness in the restaurant business.

This system focuses mainly on dealing with customer's food order lists as users can bores available food items and add them to the cart

for checkout procedure. Data are collected through interview, observation and internet. It is collected for the purpose of analysis. Information consists of facts that defines the relationship between pieces of data. Data becomes information after being processed, information gives off facts when data supports it and facts are what data reveals. Also, the system displays both veg and non-veg restaurants with their menus on the client-side with their respective food images. In addition, the system lists out all the available store's descriptions with their opening hours. It is an opportunity to grow network and public relation. It helps to develop critical thinking to solve any problem. Therefore, it is most important for the students to work on this project for the self-development of communication skill and experiencing the working environment.

OBJECTIVES

The management of the information regarding item category, food, delivery address, order, and shopping cart is the system's primary goal. It oversees the management of all customer, shopping cart, and item category information. Since the project was entirely developed on the administrative end, only the administrator is assured access. The goal is to develop an application program to simplify managing the food consumer item category. It keeps note of every delivery address requested.

The objective of this project is to develop a web application that allows the customers to order their desired food item from their working location. The following points simplify the objectives of this project more clearly:



- To increase efficiency and improve services provided to the customers through better application of technology in daily operations.
- To enable customers to order their desire food.
- To make all the work easier and computerized.
- To improve efficiency of restaurant's staff.
- To increase speed of service, sales volume and customer satisfaction

NEEDS OF ONLINE FOOD ORDER

Helping customers in placing meal orders whenever they want. Customers will be able to order their preferred foods at any time, but as we've already mentioned, this is only a limited option. As a result, restaurants need to have a specific system in place that will allow them to serve a large number of customers while streamlining operations. One of the best platforms is ordering, which offers all of these services in addition to a host of cutting-edge features that have helped countless small and large enterprises establish themselves as market leaders.

FEATURES

- Based on products and components.
- Easily creating and altering issues.
 - Issue List can be queried in any detail.
 - User accounts are used to manage access and uphold security.
 - Straightforward status & resolutions.
 - Attachments & Additional Comments for more information.
 - A solid database back end.
 - Various levels of reports are provided with many filtering options.
 - Accuracy in the work.

- Information retrieval is simple and quick. nicely crafted reports.
- Reduce the workload of the person using the current manual system.
- Individual access to any information.
- Simple information updates.

2. LITERATURE SURVEY

Online food Ordering (OFO) refers to online channel that consumers use to order food from restaurants and fast-food retailers (Elvandari et al., 2018). In OFO system, consumers have a better choice in terms of restaurants and food items (Pigatto et al., 2017). By adopting OFO, restaurants and fast-food retailers can increase their reach among consumers in a cost-effective manner while consumers can order the meal of their choice without spending much time and efforts (Ray et al., 2019). In the recent past, OFO has witnessed several technological advancements. For instance, restaurants have transitioned from offline into online platforms by developing their own websites and allowing customers to order food using restaurants' own website (Yeo et al., 2017). Further, due to the increasing use of smartphone applications, restaurants have launched their apps which also serve as online food ordering platforms for consumers (Ray et al., 2019). However, due to operations and/or financial reasons, not all restaurants use their own delivery channels for food delivery (Hwang et al., 2020). Hence, restaurants opt for third-party platforms and food aggregators to facilitate online food delivery, helping them to reach out to a wider market in a cost-effective manner (Williams et al., 2020). Food panda, Swiggy, Zomato and Uber Eats are a few examples of third-party food delivery



platforms (Lo et al., 2020). However, such platforms, i.e., third-party food delivery services, are normally limited to metro cities. Thus, to geographically expand the availability of OFO services, restaurants opted for AI and drone-based channels for food delivery, another form of OFO (Hwang et al., 2021). Accordingly, all the above indicated platforms, such as OFO, online to offline delivery, mobile application-based food delivery, and drone-based food delivery are classified as OFO services.

In the recent years, OFO has recorded an exponential growth. According to “Online Food Ordering Services Global Market Report 2020–30”, the global OFO market is expected to grow from \$107.44 billion in 2019 to \$154.34 billion in 2023, at an annual growth rate of 11.51%. The above statistics indicate an enormous potential for the growth of OFO system, a factor triggering the research on the OFO from multifarious perspectives, using various conceptualizations and methods. Although several studies exist on OFO, the literature on this domain is fragmented (Ray et al., 2019).

In the extant literature, studies attempted to investigate the role of technology in delivering food items and how consumers respond to different OFO platforms. However, studies carried out on different technological platforms and facets of OFO were not synthesized to show the future technological trajectory of OFO.

Considering the extent and diversity of prior research on OFO, researchers are likely to be benefitted from a focused discussion of current dynamics of OFO research. The above discussion indicates that OFO

literature needs to be synthesized to show various factors driving intention to adopt OFO, various theoretical underpinnings of OFO research and different technological platforms and facets of OFO. Such a synthesis is a need of the hour to map current growth of OFO research and to provide avenues for future research in this domain (Khanra et al., 2020, Dhir et al., 2020). Systematic literature reviews can provide a valuable summarization of current knowledge in a domain (Aznoli and Navimipour, 2017, Talwar et al., 2020) and allow for the identification of gaps to provide avenues for future research in the domain (Gopala krishnan and Ganesh kumar, 2013, Dhir et al., 2020).

Accordingly, we propose the following research objectives. The first objective is to analyse the development of the OFO literature over the years. The second objective is to propose a conceptual framework of OFO based on the synthesised literature on this domain. The third and the final objective is to provide avenues for future research by pointing out the gaps in the extant OFO literature. To achieve the abovementioned objectives, the current study adopted Paul and Criado’s (2020) process of conducting systematic literature review. Paul and Criado’s (2020) process of conducting SLR is considered a more comprehensive approach to doing SLR because it enables researchers to synthesise literature in four key areas, i.e., theories, characteristics, contexts, and methods (TCCM). Given that OFO literature is fragmented in terms of theories used and characteristics (i.e. factors affecting customer responses to OFO and

technological platforms used in OFO), Paul and Criado's (2020) process of conducting systematic literature review seems more appropriate than other SLR approaches. Further, due to the rigour and comprehensiveness, many scholars have recommended following Paul and Criado's (2020) approach to provide an insightful synthesis of the literature (e.g., Jebarajakirthy et al., 2021; Mishra et al., 2021). Hence, this SLR follows Paul and Criado's (2020) approach to provide a deeper understanding of the OFO phenomenon and a comprehensive review of the literature on OFO.

every user that it includes. Almost anyone may use the program if they know how to use an Android smart phone. The various problems with Mess service will be resolved by this system. The implementation of an online food ordering system is done to assist and resolve significant issues for consumers. Based on this, it can be said that: This system makes placing orders simple; it gives customers the information they need to place orders. it is able to receive orders and change their data, and it also aids the administrator in managing all the Food system.

3. SYSTEM DESIGN

3.1 System Architecture

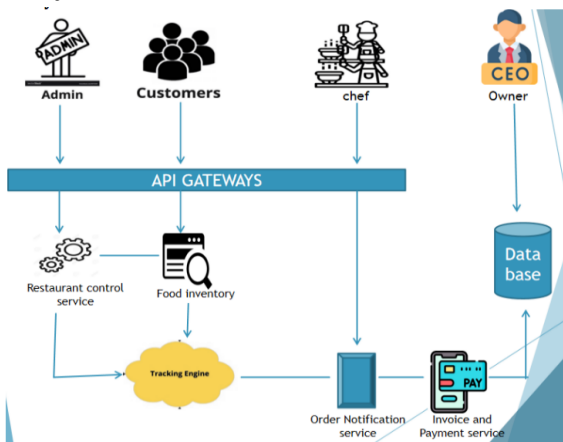


Fig-1 System Architecture

3.1.1 Complete Visualization

An easy-to-use table management system will also be included in a good restaurant reservation setup. This enables restaurants to see their restaurant hour by hour and receive reservations through a variety of ways. This system developed all problems pertaining to

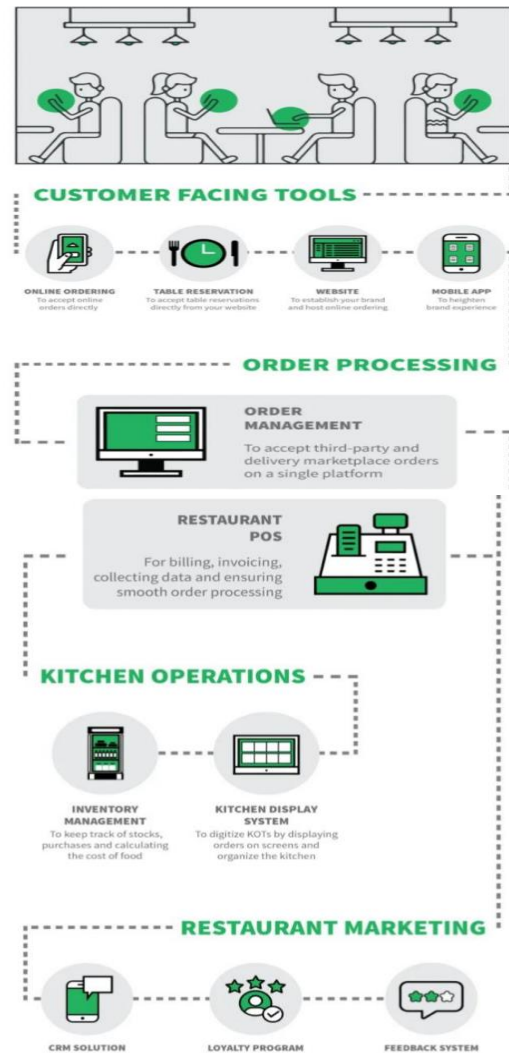


Fig-2 Complete Visualization

ACTIVITY DIAGRAM

Activity Diagrams describe how activities are coordinated to provide a service which can be at different levels of abstraction. Typically, an event needs to be achieved by some operations, particularly where the operation is intended to achieve a number of different things that require coordination, or how the events in a single use case relate to one another, in particular, use cases where activities may overlap and require coordination. It is also suitable for modeling how a collection of use cases coordinate to represent business workflows.

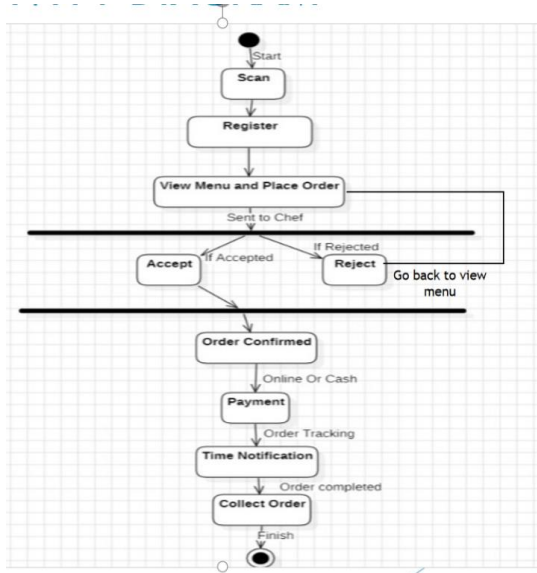


Fig-3 Activity Diagram

4. OUTPUT SCREENS

SCREEN-1: (QR code) scan the QR code



Fig-4 QR code

SCREEN-2: The QR code takes you to the web page where you will find the menu of different dishes are displayed over their.



Fig-5 Online Web Page

SCREEN- 3: Login page takes the user details like table no and user name for better service

Login

Table No:

User Name:

Fig-6 Login page

SCREEN- 4: After logging into the website we go the menu page.



Fig- 7 Home Page

SCREEN- 5: click on the about to go to the about page

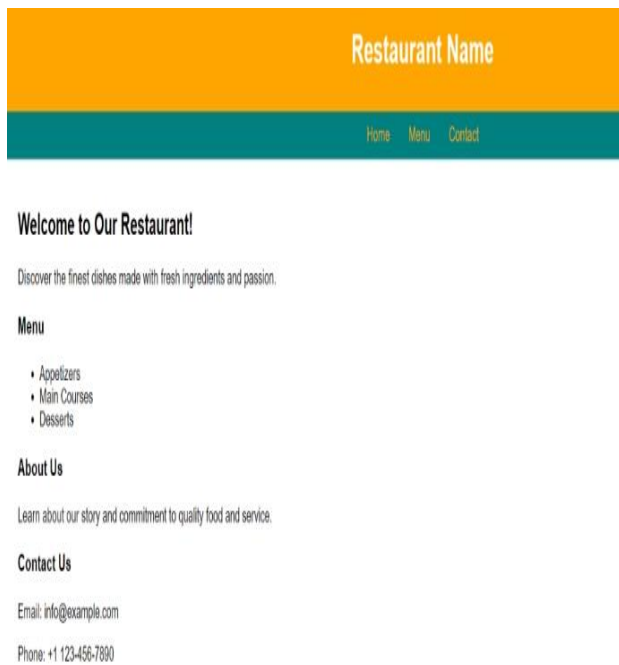


Fig-8 About Page

SCREEN- 6: Contact us page contains the details of the manager

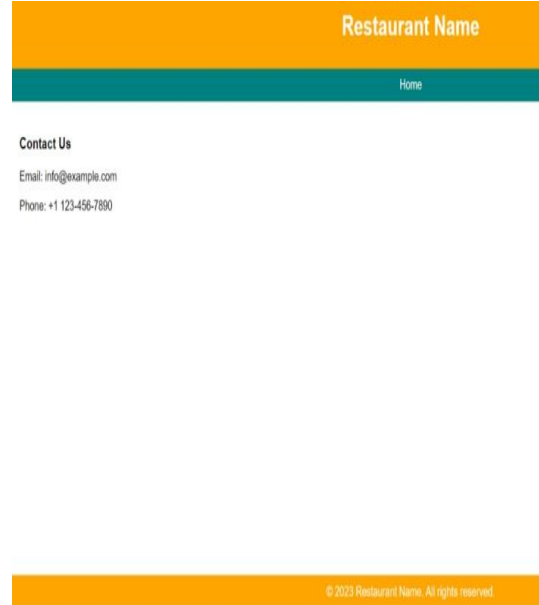


Fig-9 Contact Us / Help Page

SCREEN- 7: Click on the offers tag to access the offers page



Fig-10 Special Offers Page

SCREEN- 8 : All the cart items are saved here in the checkout page or items page

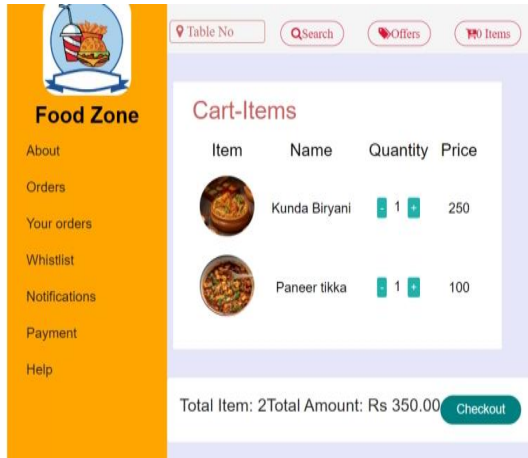


Fig-11 Cart / Checkout Page

SCREEN- 9 : Payment page appears once you click the checkout button for payment of the order

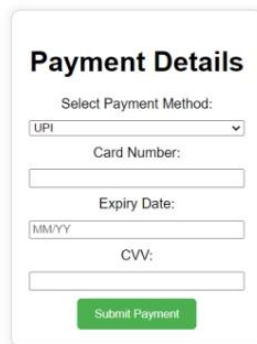


Fig-12 Payment Page

5. CONCLUSION

Our mission was to create a virtual space where food enthusiasts could explore a world of flavors, where busy individuals could find solace in the simplicity of ordering meals online, and where restaurants could connect with their patrons effortlessly.

We believe we've achieved this goal by crafting an intuitive, user-friendly interface that simplifies the entire food ordering process. Restaurant Management System is a web-based technology that aids the restaurant industry in carrying out tasks effectively and efficiently. It aids in managing cash flow for managers. Managers can view analytics data to assess company growth. The manager can control orders and employee schedules by using this system. The full complement is a restaurant management system.

6. FUTURE ENHANCEMENT

Each project should pay close attention to future development because it contains the system's most recent features. It lessens software issues and defects. It develops a close relationship with customers based on their comments or preferences. Developer will incorporate certain dynamic elements that are briefly described below into my restaurant management system. Although the project has been completed and able to overcome the problem of the study, even if some problems are solved by this project and still problems and requirement are not implemented by this project which can be solved in upcoming future days.

online food delivery platforms and eateries continually adapt to changing consumer eating trends and the evolving technology landscape. They strive to provide customers with a seamless food ordering experience using the latest technology and big data.

Some of the future enhancements of this project are:

- More interactive user interface can be



added.

- Module that allows for the printing of sales report, dishes report can be added.
- Online Payment System like E-sewa, Khalti, mobile banking can be added.
- Others necessary module can be added.

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