ISBM COLLEGE OF ENGINEERING, PUNE

(Affiliated To Savitribai Phule Pune University)

A PROJECT REPORT

ON

"Online Food Delivery System "

SUBMITTED BY :

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UNDER THE GUIDANCE OF :

Prof. Balbhim Lanke

SUBMITTED TO :

Department Of Artificial Intelligence & Machine Learning,

ISBM College Of Engineering, Pune

(Academic Year: 2024-25)

ISBM COLLEGE OF ENGINEERING, PUNE

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CERTIFICATE

This is to certify that

Pratiksha Sunil Lohokare - 30

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of class Third Year Engineering (2024-2025) have successfully completed the Project on **"ONLINE FOOD DELIVERY"** under the guidance of **"PROF. BALBHIM LANKE"** in the requirement for the award of Third Year Engineering from ISBM College Of Engineering, Pune.

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Prof. Balbhim Lanke	**Prof. Kirti Randhe**	**Dr. P. K. Srivastava**
(Project Guide)	**(H.O.D)**	**(Principal)**

This Project Report has been examined by us as per the **Savitribai Phule Pune University, Pune** requirements at **ISBM College of Engineering, Nande, Pune on 2024-2025.**

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Internal Examiner	**External Examiner**

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THANK YOU….!!!

ABSTRACT

Online Food Delivery System project is aimed at developing a complete online food delivery system for use in the food service industry which will allow the restaurants to quickly and easily manage an online menu which customer can browse and use to place orders with just a few clicks. The customers will have to choose whether they want to do payment online or cash on delivery.

The customer will be in a position to view the products, register and place an order. Online Food delivery is a form of electronic shopping store where is directly online to the seller's computer usually via the Internet. There is no intermediary service. The sale and purchase transaction is completely electronically and interactively in real-time. The development of this new system contains the following activities, which try to develop on-line application by keeping the entire process in the view of database integration approach. User gets their email id and password to access their account.

This Online Food Delivery System is proposed here which simplifies the food ordering process. The proposed system shows a user interface and update the menu with all available options so that it eases the customer work. Customer can choose more than one item to make an order and can view order details.

The order confirmation is sent to the customer. The placed order status can be seen and updated in the database and returned in real time. This study identifies how web application can be utilized to provide food services to the customers and to understand the potential of web application in the business environment.

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CHAPTER 1 : INTRODUCTION

1.1 Overview :

In today's age of fast food and take-out, many restaurants have chosen to focus on quick preparation and speedy delivery of orders rather than offering a rich dining experience. Until very recently, all these deliveries were placed over the phone, but there are many disadvantages to this system, including the inconvenience of the customer needing to have a physical copy of the menu, lack of a visual confirmation that the order was placed correctly, and the necessity for the restaurant to have an employee answering the phone and taking orders. In this technological age it is very difficult for any organization to survive without utilizing technology.

There is a lot of scope online food delivery business, and we can tap it to the max extent possible as everyone has access to an online food facility via the internet. Food business usually will have a high demand and hence online business prospect for food ordering should be profitable.

So the ONLINE FOOD DELIVERY SYSTEM, which is a technique of ordering foods online is applicable in any food delivery industry. The main advantage of my system is that it greatly simplifies the ordering process for both the customers and our restaurant. When the customer visits the our restaurant webpage, they are presented in an interactive and up-to-date menu, complete with all available options and dynamically adjusting prices based on the selected options. After making a selection, the item is then added to their order, which the customer can also review the details of at any time before checking out. This provides visual confirmation of what was selected and ensures that items in the order are, in fact, what was intended. Within this application, all items in the order are displayed, along with their corresponding options and delivery details, in a concise and easy to read manner.

1.2 Functionalities :

Some of the most important features of an online food delivery app include:

- **Real-time GPS tracking**: Allows customers to track the location of their food in real-time.
- **Push notifications**: Can increase app retention rates by 3 to 10 times.
- **Search filters**: Allows users to narrow down their options by cuisine type, price range, delivery time, and ratings.

- **Order placement**: Allows users to place orders and track their status in real-time.
- **In-app messaging**: An important feature for communication between the user and the app.
- **Voice integration**: Can improve the search experience and navigation.
- **Payment options**: Secure payment gateways and flexible payment options are essential.
- **Delivery person details**: Providing the contact details of the delivery person can help customers track their order and reach out to the delivery person.

1.3 Project Scope :

Online food ordering system will be a web-based application whose main language of programming will be HTML. Its main aim to simplify and improve the efficiency of the ordering process for both customer and our restaurant, minimize manual data entry and ensure data accuracy and security during order placement process. Customer will also be able to view product meus and their ingredients and be able to have a visual confirmation that the order was place correctly.

CHAPTER 2 : PROJECT PLANS

2.1 Goals And Objectives :

The main objectives of an online delivery system are to:

- **Improve customer experience** - Online delivery systems make it easy for customers to order food from anywhere, at any time, and on any device. They can browse menus, customize orders, and make payments without waiting in line or calling the restaurant.

- **Reduce costs for businesses** - Online delivery systems can help businesses reduce costs by streamlining the ordering and delivery process, reducing manual operations, and offering online payment options.

- **Increase sales** - Online delivery systems can help restaurants increase sales by making it easier for customers to order food.

- **Improve efficiency**- Online delivery systems can help businesses reduce customer wait times and improve efficiency.

- **Reduce manual errors** - Online delivery systems can help reduce manual errors and make the entire operation run smoothly.

2.2 Stakeholders :

- **End Users**: These are individuals or customers who will use the system to access their banking services, such as checking balances, making transfers, and viewing transaction histories. Their needs focus on ease of use, security, and availability of key banking features.

- **Bank Administrators**: Administrators handle the management and oversight of the system. Their responsibilities include creating and managing user accounts, monitoring transactions for compliance and security, and handling any user-related issues.

- **Developers**: The team responsible for building and maintaining the system. Developers focus on coding, debugging, and implementing new features while ensuring that the system remains secure and scalable.

2.3 Tools and Technologies :

- **Backend Development**: PHP is used as the primary server-side scripting language. It handles server requests, processes transactions, and dynamically generates user-specific content, such as account details and transaction histories.

- **Database Management**: MySQL is used to store and manage user data, transaction records, and account information. The database is designed to be efficient, with normalized tables that ensure data integrity and reduce redundancy.

- **Frontend Development**: The user interface is built using HTML for structure, CSS for styling, and JavaScript for interactivity. This combination creates a visually appealing and responsive design that works well on various devices, including smartphones, tablets, and desktops.

- **Server**: The system is hosted on a web server like Apache or Nginx. These servers handle incoming user requests, route them to the PHP scripts for processing, and return the appropriate responses to the user's browser.

- **Security Tools**: To ensure that the system remains secure, it incorporates SSL/TLS encryption for secure data transmission, libraries for password hashing, and methods for secure session management to prevent unauthorized access.

CHAPTER 3 : PROJECT REQUIREMENTS

3.1 Software Requirements :

- **Database Management System**: MySQL for storing user data, account information, and transaction records.
- **Programming Language**: PHP for server-side scripting, handling backend logic, and data processing.
- **Frontend Technologies**: HTML, CSS, and JavaScript for building a responsive and userfriendly interface. .
- **Security Tools**: SSL/TLS certificates for encrypting data transmissions, and libraries for secure password hashing and user authentication.

3.2 Hardware Requirements :

Server Specifications:

- Minimum RAM: 4 GB (8 GB recommended for better performance).
- Processor: Dual-core processor (Quad-core recommended for handling multiple requests).
- Storage: At least 100 GB of free disk space for storing the database, application files, and backups.

User Device Requirements:

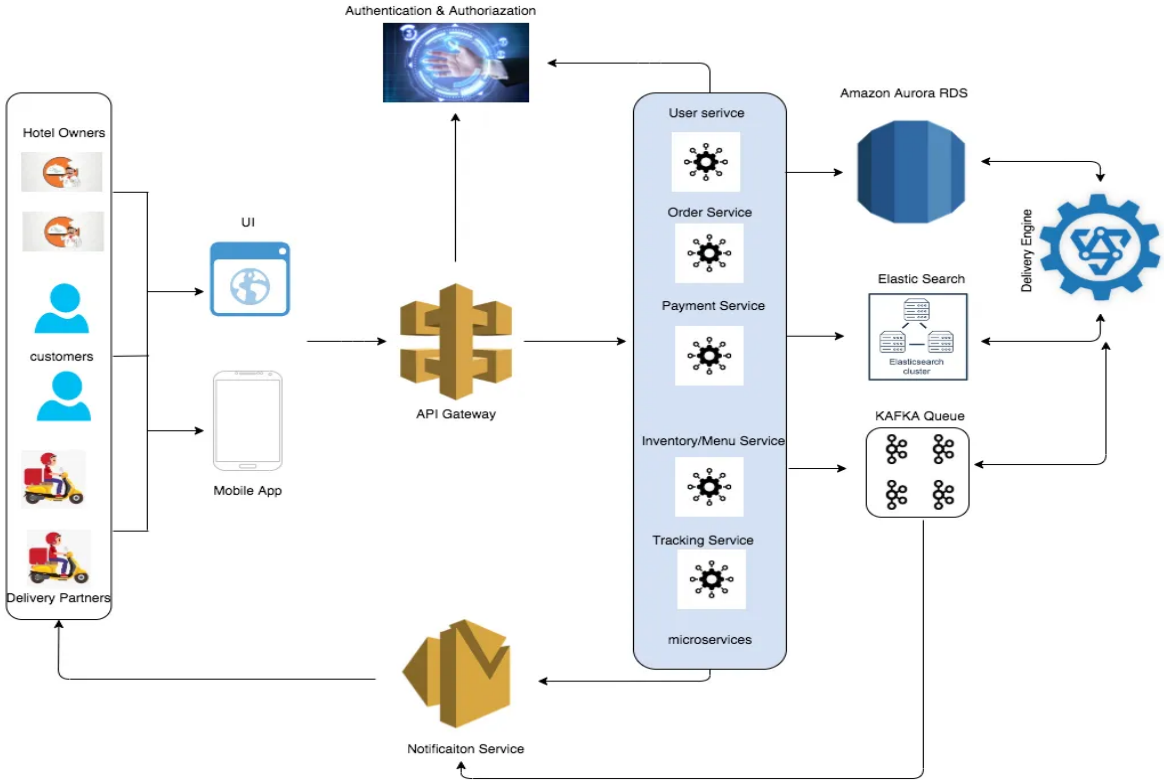
- Minimum RAM: 2 GB for basic functionality.
- Processor: Any modern processor capable of running a web browser.
- Operating System: Compatible with modern web browsers (Windows, macOS, Linux).

Network Requirements:

- Stable internet connection with a minimum bandwidth of 2 Mbps for smooth operation.

CHAPTER 4 : PROJECT DESIGN

4.1 System Architecture:



Core Features of Customer App

- **Searching menu:** Allow your users to search for different restaurants, cafes by location, and cuisines. Using the search filter, users can easily find their favorite eating places, list menu, offers, etc.

- **Order placement:** The user can place an order of selected dishes and food. They just need to cross-verify their preferred dish, delivery time, and proceed check-out.

- **Tracking Delivery Partners:** With real-time tracking features, it becomes easy for users to track delivery drivers and know their real-time location information. Users can check the time taken by the food delivery executive to deliver their parcel**.**

- **Payment gateway integration**: You provide the users with multiple payment options like credit/debit cards, different wallets like Google Pay, Paytm, Phonepe, UPI, etc

Core Features of Delivery Partner

- **Delivery Partner's profile:** Through this feature, a driver can keep his profile update. It contains his full name, address, email, contact number, photo, and other personal information.

- **Notification for orders:** Through push notifications, drivers can get constant updates & alerts for new orders. It will help in the accurate delivery service of your restaurant.

- **Map for the delivery route:** Integrate Google Map or other providers and allow drivers to choose the shortest and fastest routes to reach the location.

Core Features of Food Partners/ Restaurants

- **Restaurant Profile/Menu:** Through this feature, a restaurant owner can add their restaurant details, menu and its availability, price, preparation times, etc

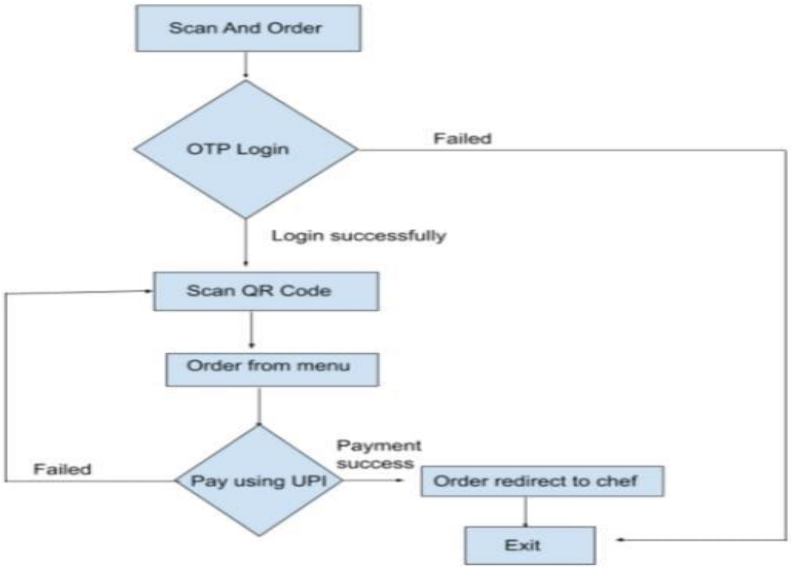
- **Notification for orders:** Through push notifications, Restaurants can get constant updates & alerts for new orders. It will help in the accurate delivery service of your restaurant.

- **Notifications for Pickup Partners:** They will get alerts about delivery partners, their location when they will pick up, etc.

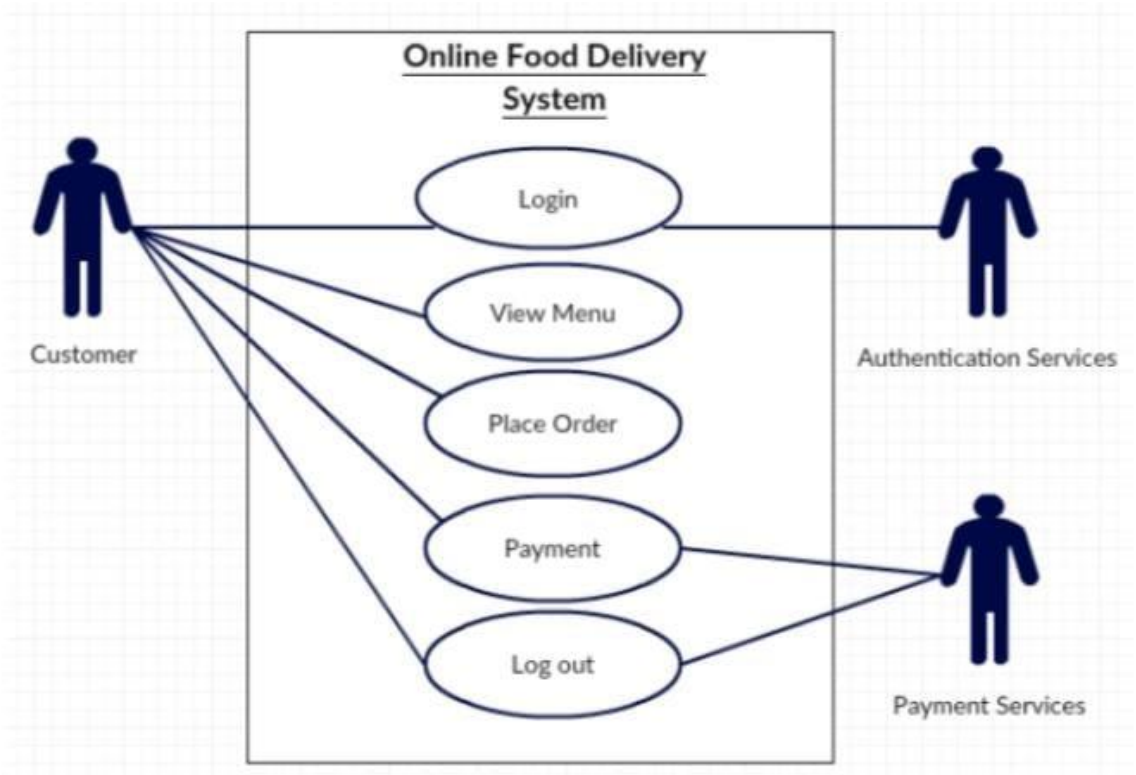
- **Payment Details:** Information about the payment received from the food delivery system for their orders

4.2 System Design :

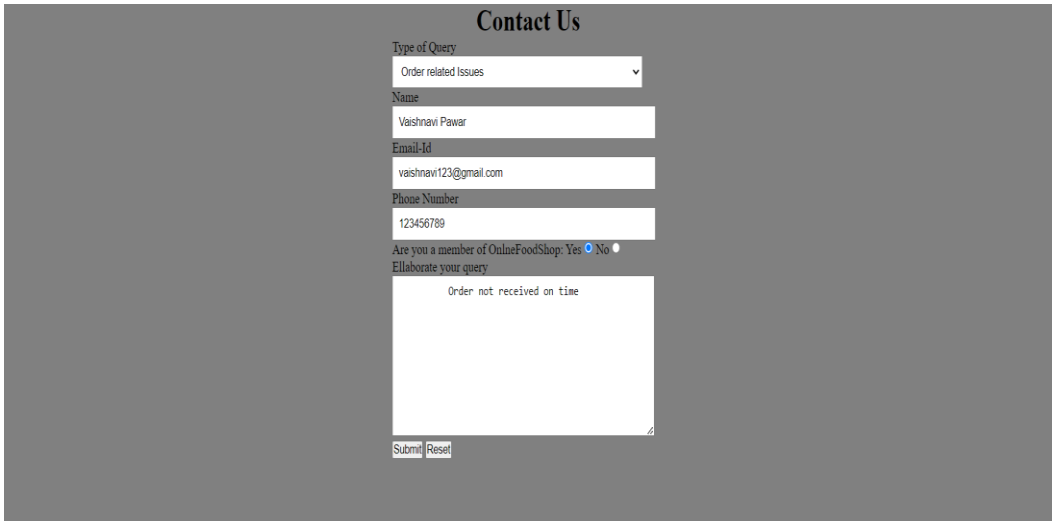
4.2.1 Flow Chart:



4.2.2 Use Case Diagram:



CHAPTER 5 : OUTPUT



CHAPTER 6 : ADVANTAGES AND DISADVANTAGES

6.1 Advantages :

- **Increased sales:** Third-party delivery apps can increase sales by expanding a restaurant's customer base and reach.
- **Competitive advantage:** Online food delivery apps can give restaurants an edge over competitors.
- **Data insights:** Apps provide analytics tools to help restaurants understand their customers' preferences and ordering patterns.
- **Improved customer experience:** Online ordering can reduce wait times and make ordering more convenient.

- **Increased order accuracy:** Online ordering systems can reduce errors caused by manual entry.

6.2 Disadvantages :

- **No control over delivery quality:** Restaurants have no control over the quality of delivery.

- **Delivery cost:** The cost of delivery may outweigh the benefit.

- **No access to customer data:** Restaurants don't have access to customer data, such as names, emails, and order details.

CHAPTER 7 : CONCLUSION

The purpose of online Food ordering system is to develop software base information system for food service.

This project will enable user to order food online and the food will be delivered to their door step. The main goal was to facilitate customer's demand.

The software was developed using HTML and PHP as front end and SQL as back end in windows environment. This software has been developed and tested successfully by taking "test cases”

It consists of all kind of cuisines. This software helps in generation of bill for the items purchased.

The main features of this site includes flexibility, reduce manual work in an efficient manner, a quick, convenient, reliable and efficient . The project could very well be enhanced further as per the requirements.

CHAPTER 8 : FUTURE SCOPE

The online food delivery system has a promising future, with ongoing advancements and trends expected to drive growth and innovation. Here are some key areas where we can anticipate future developments:

1. **Increased Automation**
    - Drone and Robot Deliveries: Companies are experimenting with drones and autonomous robots to make faster deliveries and reduce costs. As technology advances, these options may become standard, especially in urban areas.
    - AI and Machine Learning: Enhanced algorithms will improve route optimization, delivery timing, and even food preparation processes. AI can also help platforms recommend meals based on customer preferences and past orders.

2. **Focus on Sustainability**
    - Eco-Friendly Packaging: As customers grow more eco-conscious, there will likely be a shift towards biodegradable or reusable packaging to reduce waste.

- Electric Vehicles (EVs): To cut down on emissions, delivery companies may increasingly use electric bikes and cars, especially in cities with strict environmental regulations.

3. **Expansion of Ghost Kitchens**
    - Virtual Restaurants: Ghost kitchens (restaurants without a physical dine-in location) will continue to grow, allowing businesses to focus solely on online orders. These kitchens can reduce operational costs and increase the variety of food choices.
    - Multi-Brand Kitchens: Some ghost kitchens may operate multiple brands from a single location, offering diverse cuisine options to customers and enabling efficient resource utilization.

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