RESTAURANT MANAGEMENT SYSTEM

A COURSE PROJECT REPORT

By

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Under the guidance of

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In partial fulfillment for the Course

18CSC303J-Database Management Systems

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BONAFIDE CERTIFICATE

Certified that this B. Tech mini project report titled "**RESTAURANT MANAGEMENT SYSTEM**" is the bonafide work of Ms Priyanka M [RA2111003011351] who carried out the project work under my supervision for **18CSC303J-Database Management Systems**. Certified further, that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion for this or any other Candidate

Signature
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Department of CTECH

Signature
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Head of Department
Department of CTECH

Acknowledgement

We would like to express our gratitude to our Professor, Dr Suchithra M who gave us the golden opportunity to do this wonderful project on the topic **"RESTAURANT MANAGEMENT SYSTEM"** which also helped us in doing a lot of research and we came to know about so many new things we are really thankful to him.

We are also thankful to all the other faculty, teaching and non-teaching staff members of our department for their kind co-operation and help.

Lastly, we would also like to thank our friends who helped us a lot in finishing this project within the limited time. We are making this project not only for marks but to also increase our knowledge.

Priyanka M

(RA2111003011351)

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CHAPTER-1

1.INTRODUCTION

1.1 Brief Introduction:

Smart Restaurant Management System is a new generation of restaurant management software. When users/customer will enter in the website, he/she should have an account. If user does not have an account, user has to create a new account to order food. To create a new account user should enter unique username, email and new mobile no. with password. User fill his/her address for food delivery. Once user enters in the website, you can see different types of food available in restaurant. First select category of food from soups, starters, the main course dishes and desserts. After that search food as your interest. select food you want to order. After selecting all your meal place your order and confirm your address. Then website will saw you various type of payment methods and your total bill amount. You can pay cash on delivery or there are many more options for online payment to get benefits.
online payment methods:

- Credit/Debit card payments
- Bank transfers
- E-Wallets
- UPI

You can choose best deal for your meal.

1.2Tools/Technologies Used:

Technologies:

- Django
- Python
- Bootstrap
- HTML
- CSS

Tools:

- Git
- Visual Studio Code
- Pycharm

1.3 Advantages of HTML: 1. The first advantage it is widely used. 2. Every browser supports HTML language. 3. Easy to learn and use. 4. It is by default in every window so you don't need to purchase extra software. 5.You can integrate HTML with CSS, JavaScript, php etc. The back-end database used in this project is MySQL

1.4 Advantages of MySQL: 1.SQL Queries can be used to retrieve large amounts of records from a database quickly. 2.SQL is used to view the data without storing the data into the object 3.SQL joins two or more tables and show it as one object to user 4.SQL databases use long-established standard, which is being adopted by ANSI & ISO. Non-SQL databases do not adhere to any clear standard. 5.Using standard SQL.

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2.1 About the Project:

Online Food Delivery System is a system which will help restaurant to optimized and control over their restaurants. For the waiters, it is making life easier because they don't have to go kitchen and give the orders to chef easily. For the management point of view, the manager will able to control the restaurant by having all the reports to hand and able to see the records of each employees and orders. This website helps the restaurants to do all functionalities more accurately and enhances the spend of all the tasks. Online Food Delivery System reduces manual works and improves efficiency of restaurant. The online food delivery system set up menu online and the customers easily places the order with a simple mouse click. Also with a food menu online you can easily track the orders, maintain customer's database and improve your food delivery service. This system allows the user to select the desired food items from the displayed menu. The user orders the food items. 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.

2.2 Main features are:

1. Table Management
2. Order Management
3. Menu Management
4. Inventory Management
5. Point of Sale (POS) Integration
6. Staff Management
7. Customer Relationship Management (CRM)
8. Reporting and Analytics

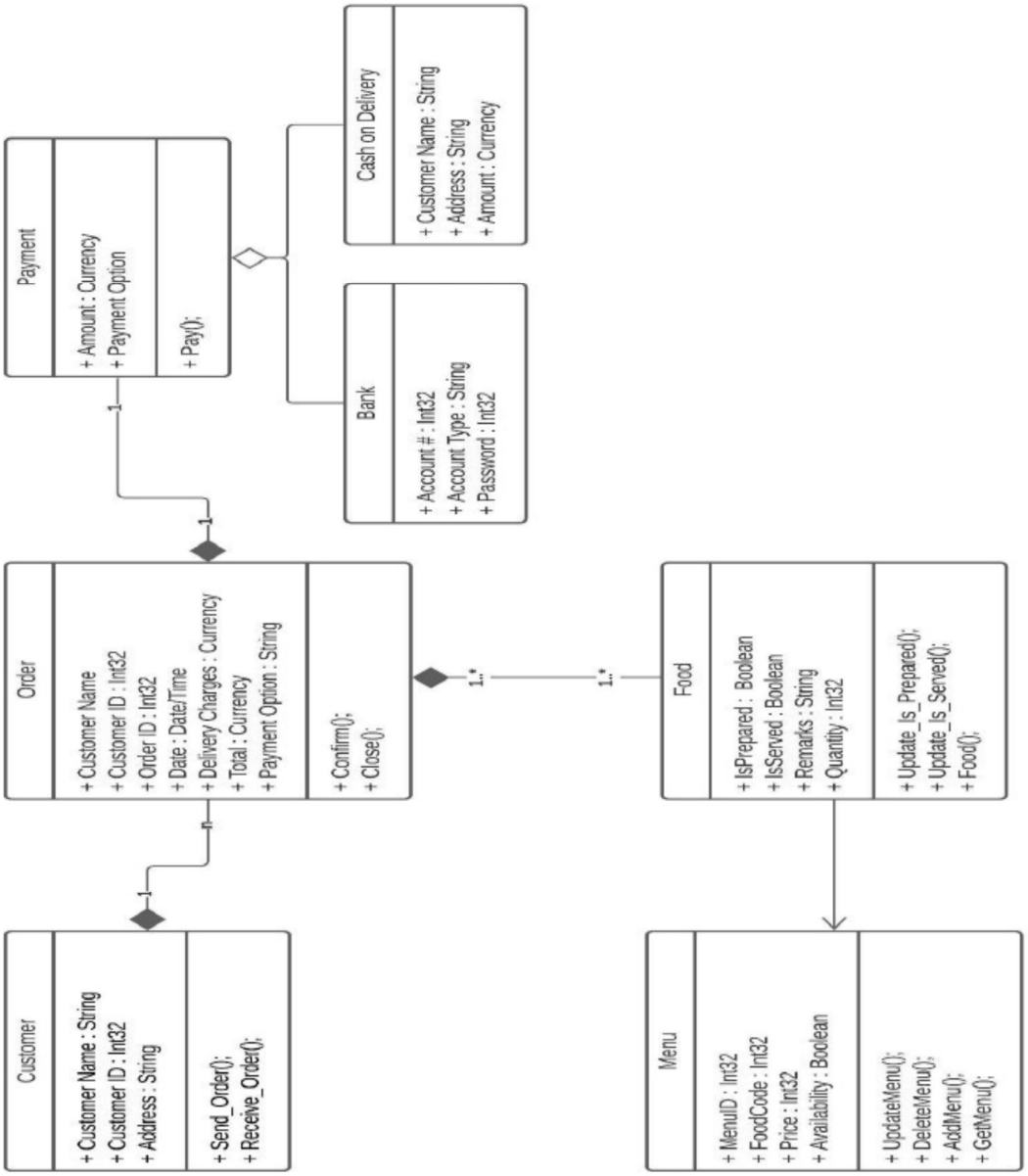
2.3 Objectives:

1. Enhance operational efficiency.
2. Improve customer satisfaction.
3. Optimize resource utilization.
4. Facilitate communication.
5. Manage inventory effectively.
6. Enable data-driven decisions.
7. Enhance staff management.
8. Improve marketing and CRM.
9. Ensure compliance with regulations.

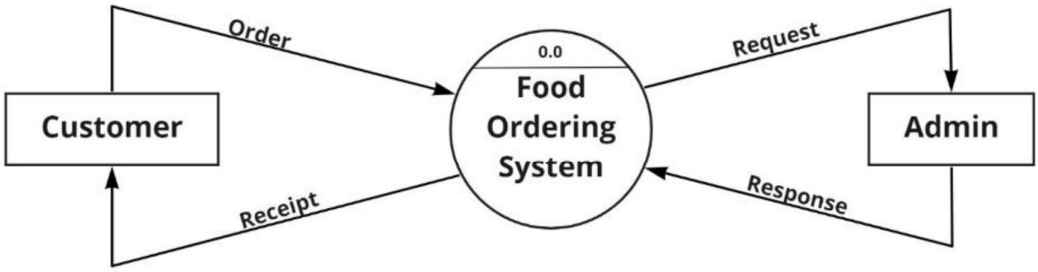
CHAPTER-3

BACK-END DESIGN & FRONT-END DESIGN

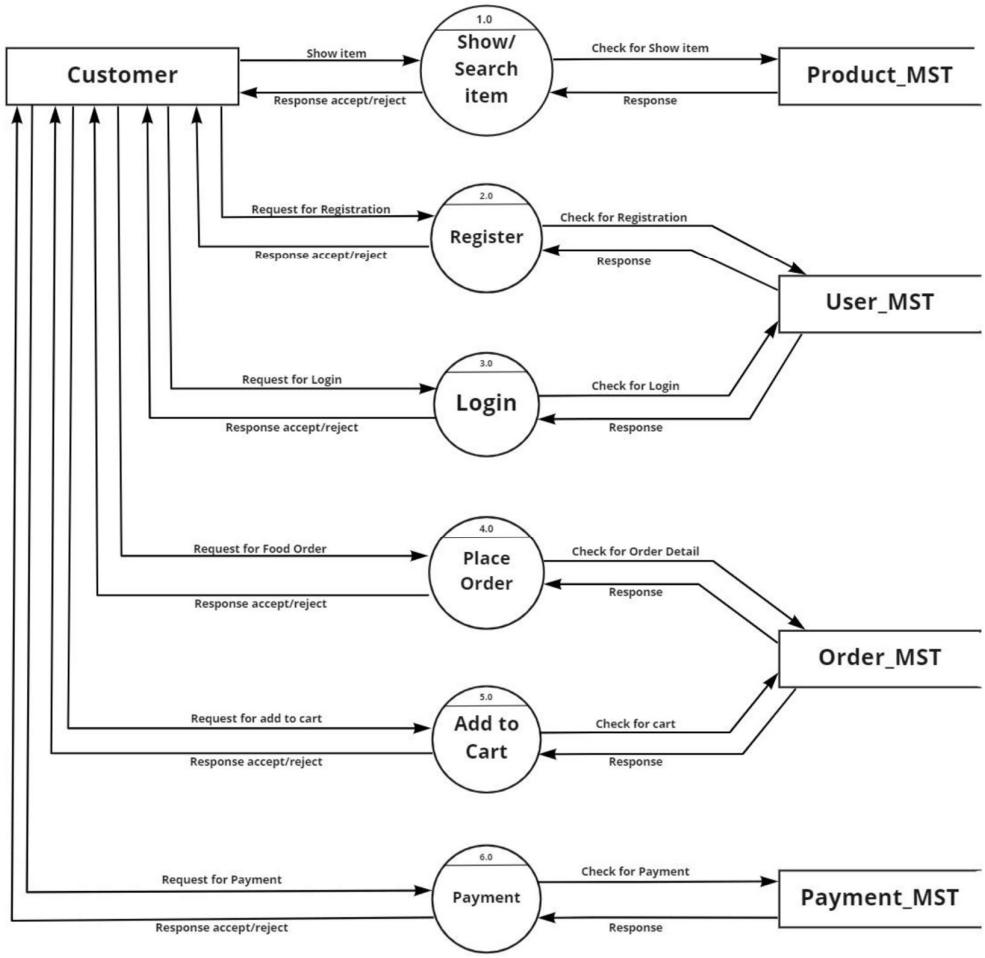
3.1 CLASS DIAGRAM:



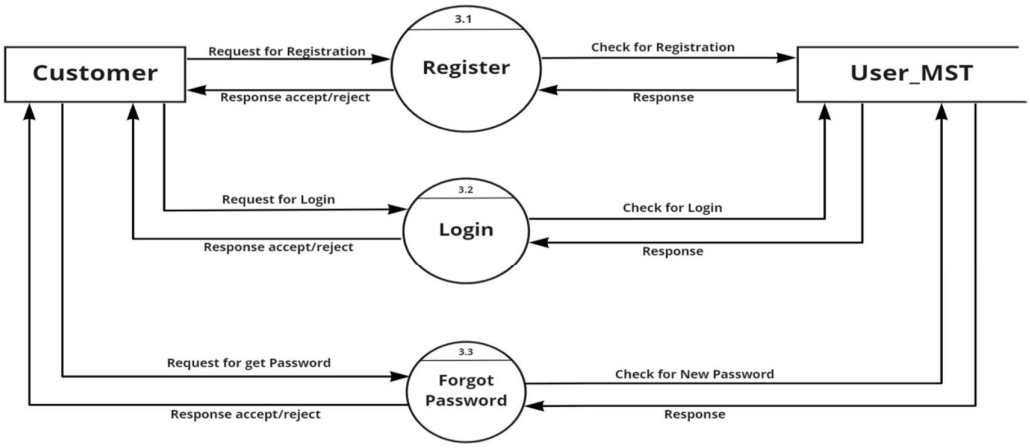
3.2 DFD MODEL



Level 0 DFD

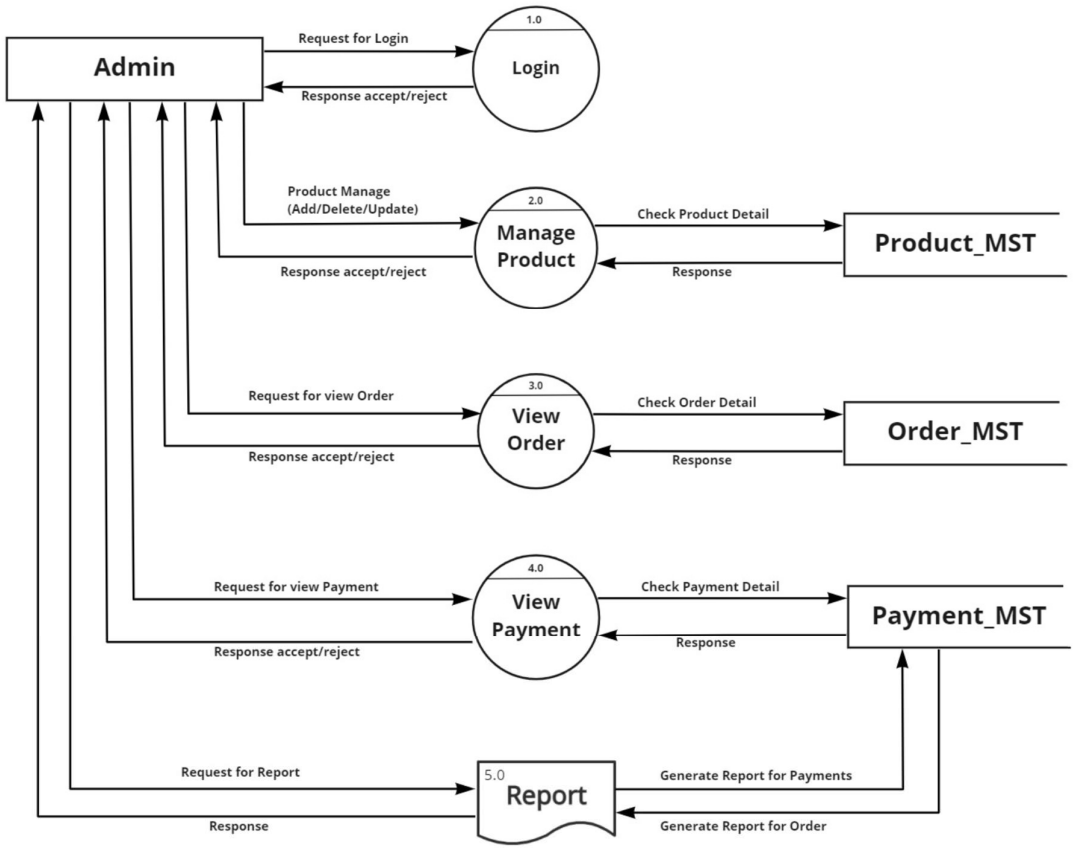


Level 1 DFD



Level 2 DFD(3.0)

miro



Admin side DFD

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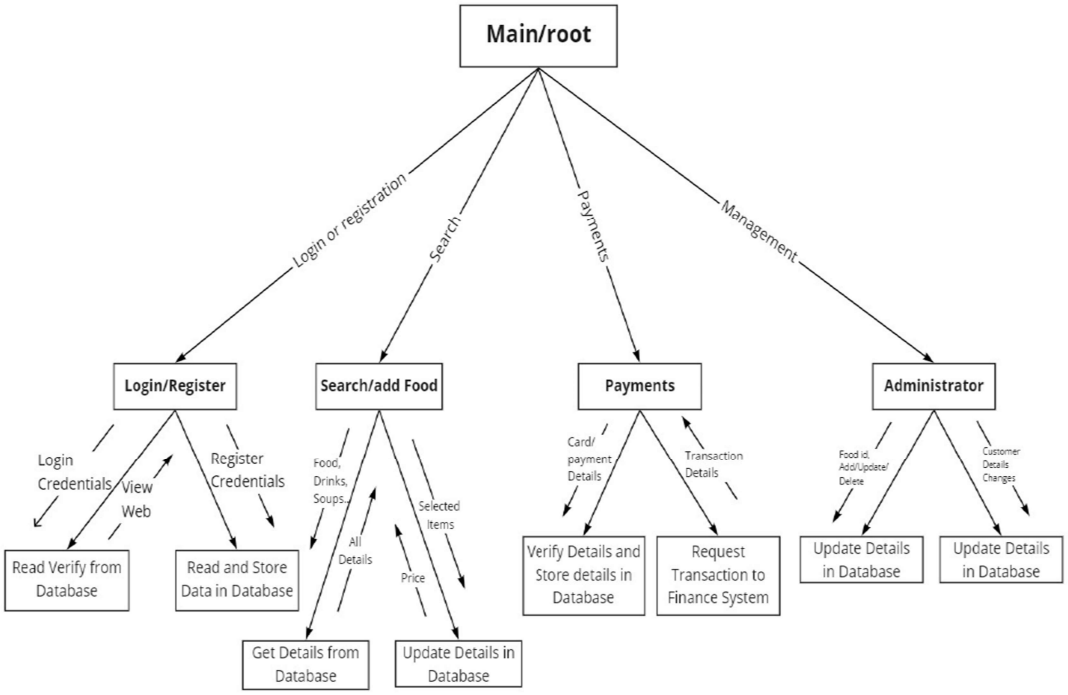
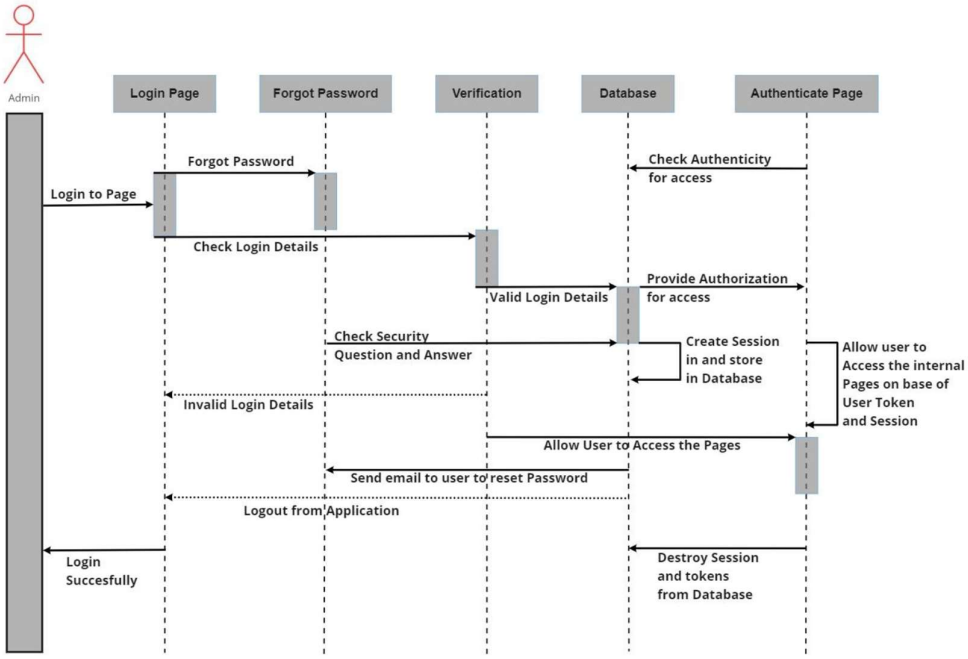
3.3 STRUCTURE CHART:



Structure Chart

miro

3.4 SEQUENCE DIAGRAM:



Login Sequence Diagram of Food Order System

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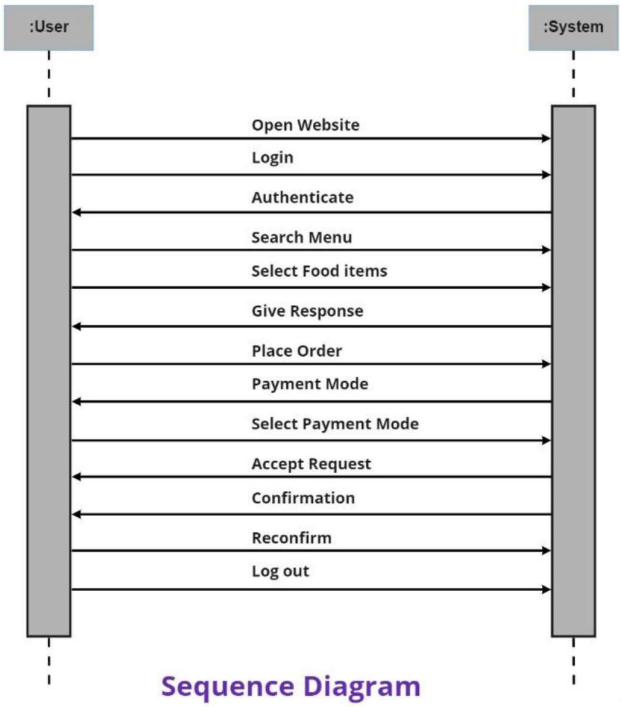
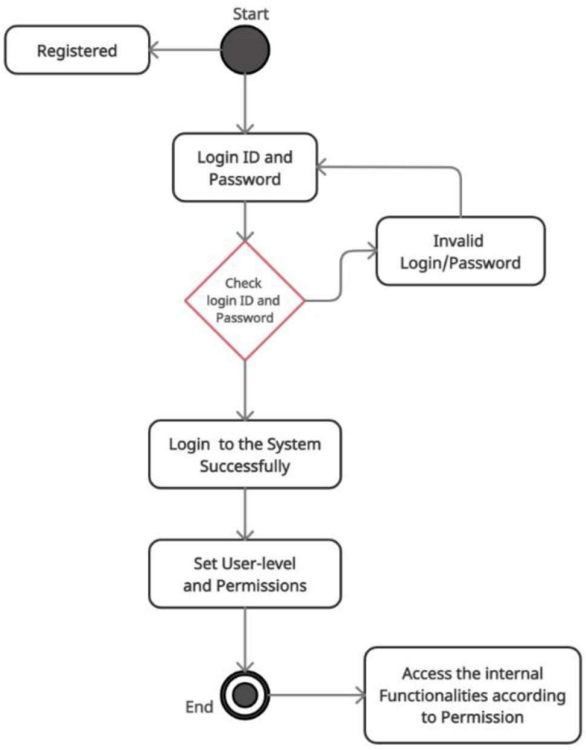
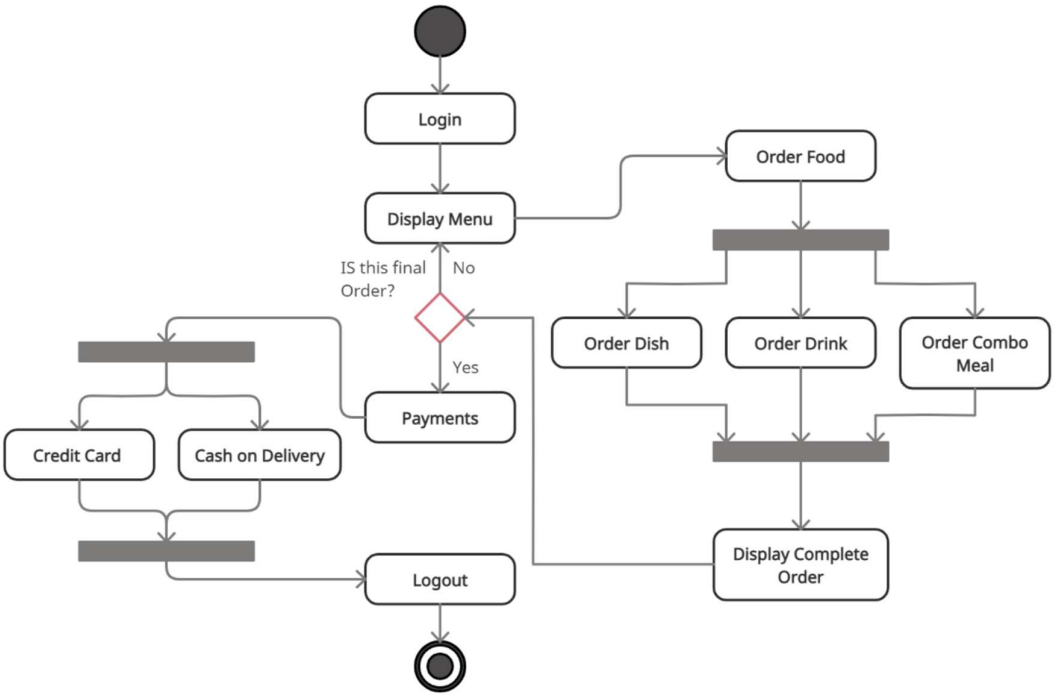


Sequence Diagram

3.5 ACTIVITY DIAGRAM:



Login Activity Diagram



Activity Diagram

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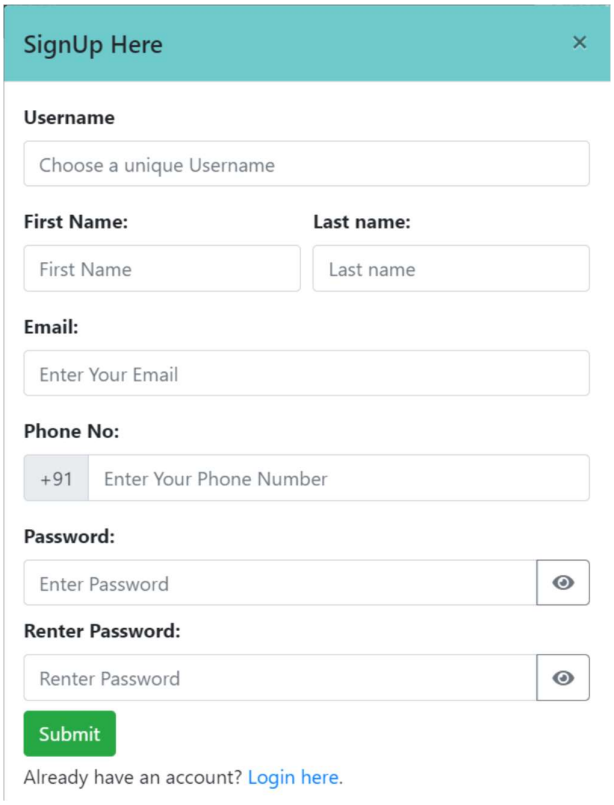
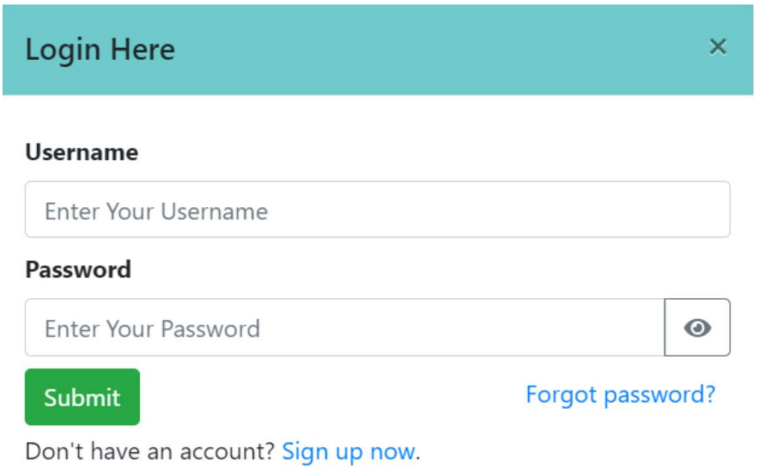
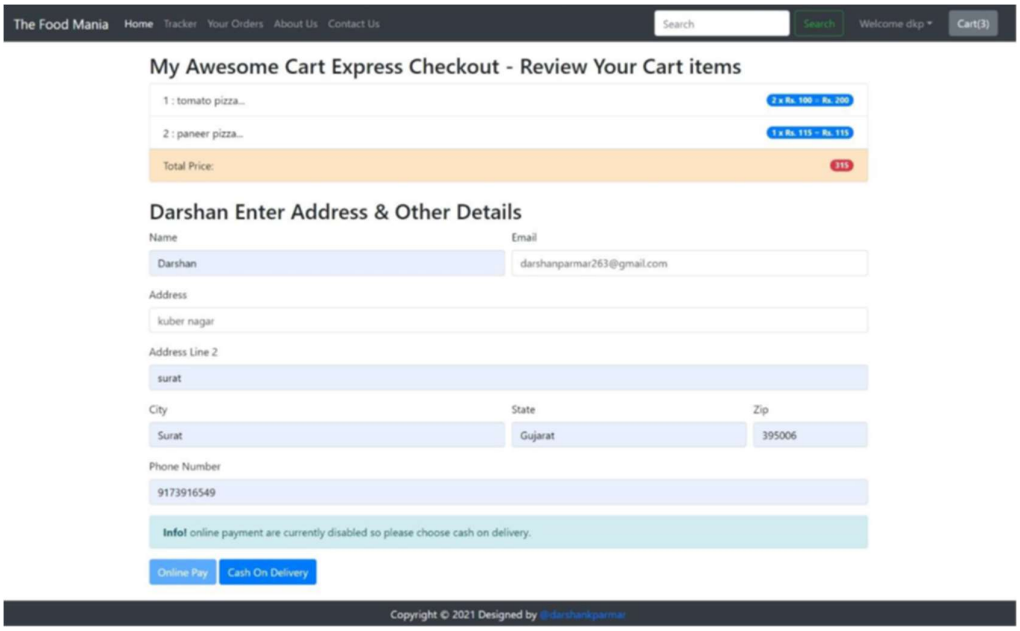
OUTPUT

4.1 LOGIN & SIGNUP MODULE:

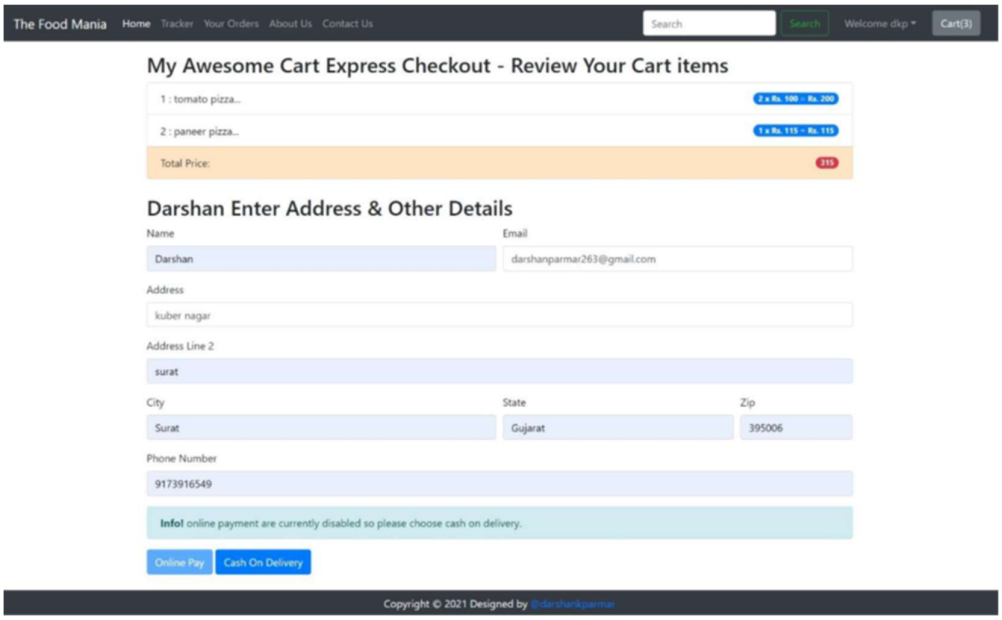




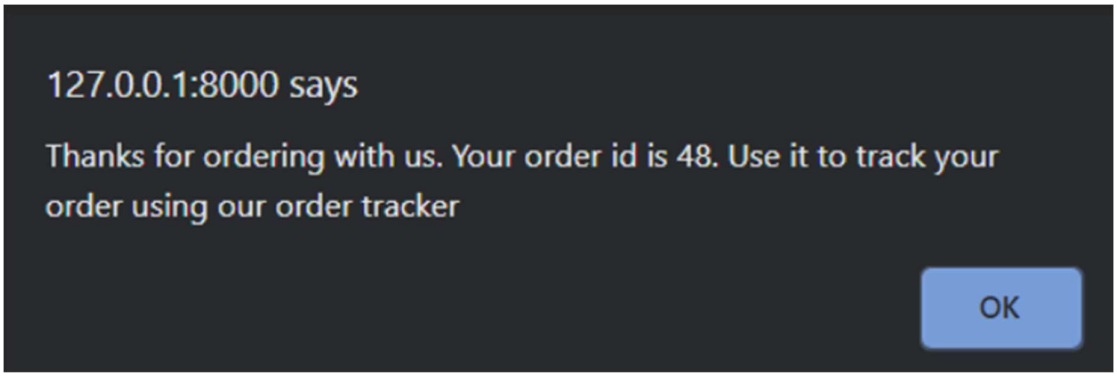
4.2 HOMEPAGE:



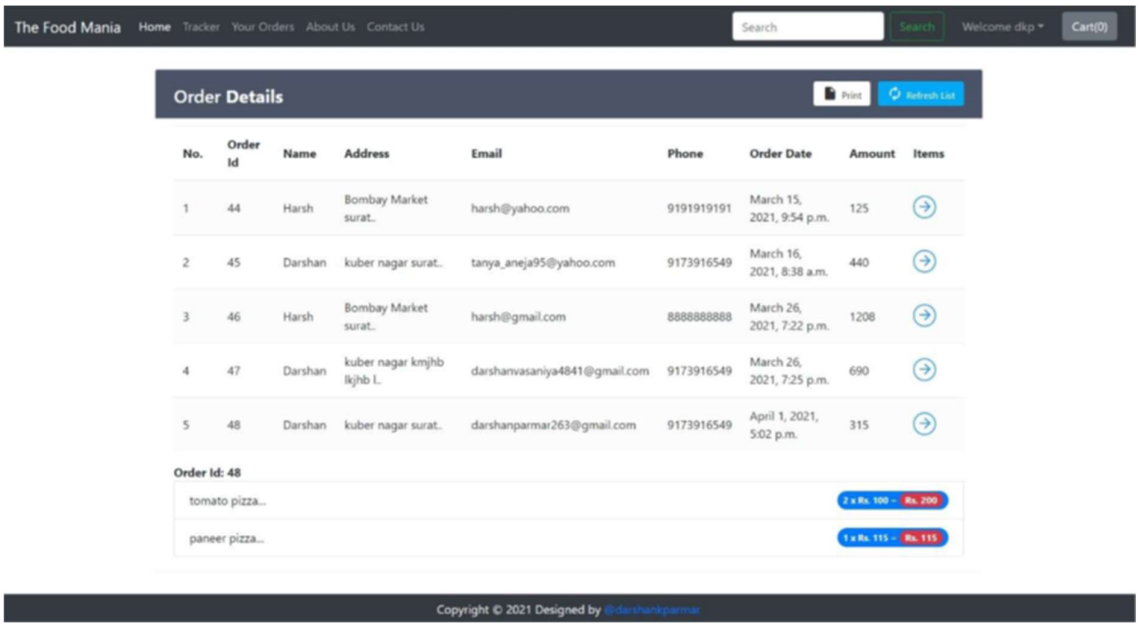
4.3 CHECKOUT PAGE:



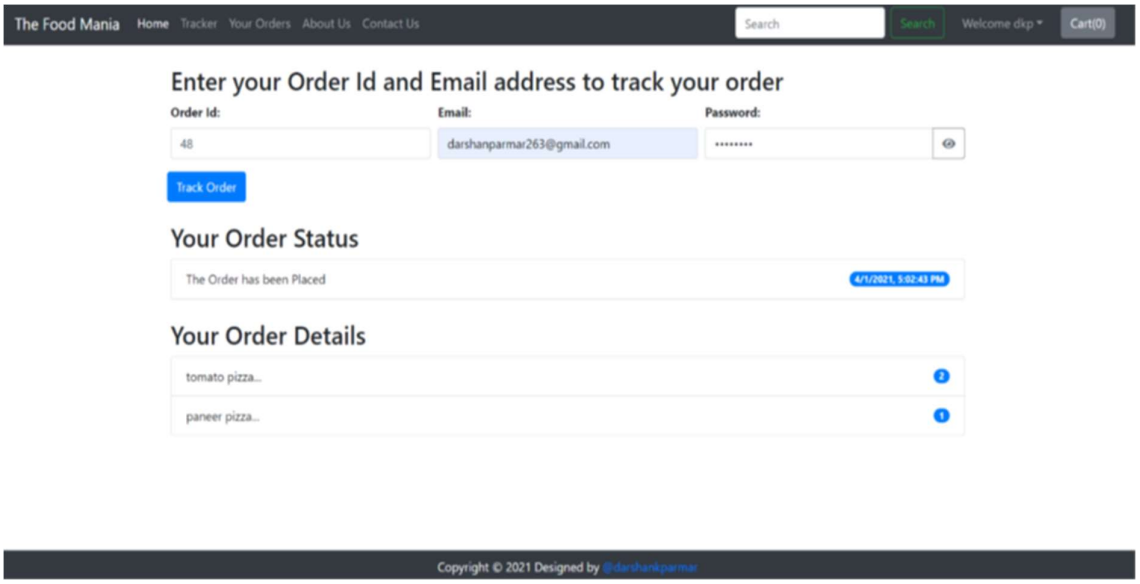
4.4 CONFIRM ORDER:



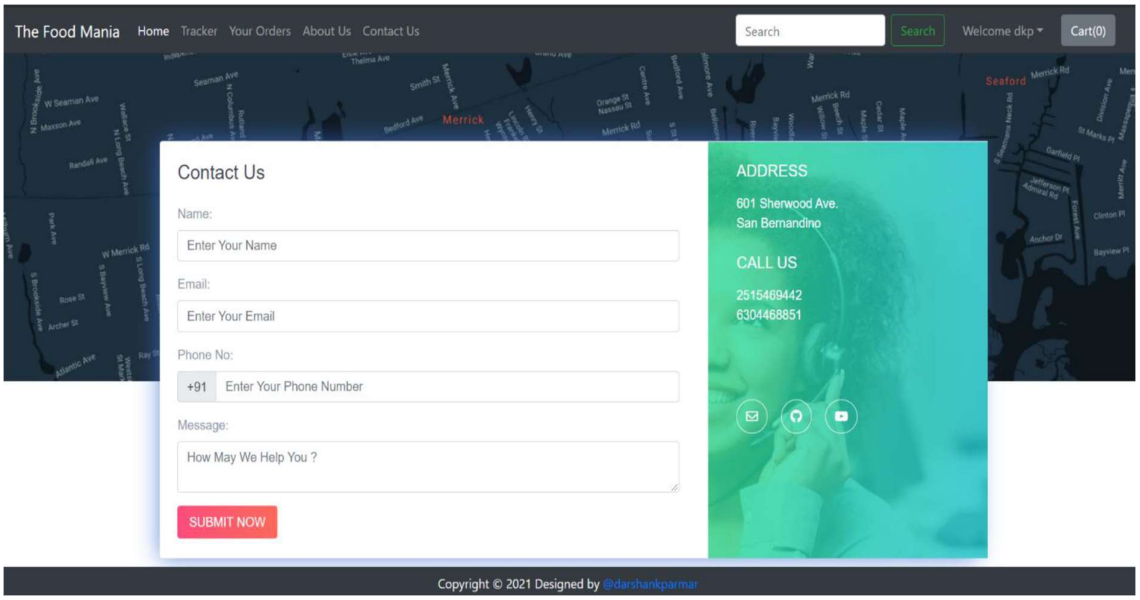
4.5 VIEW ORDER PAGE:



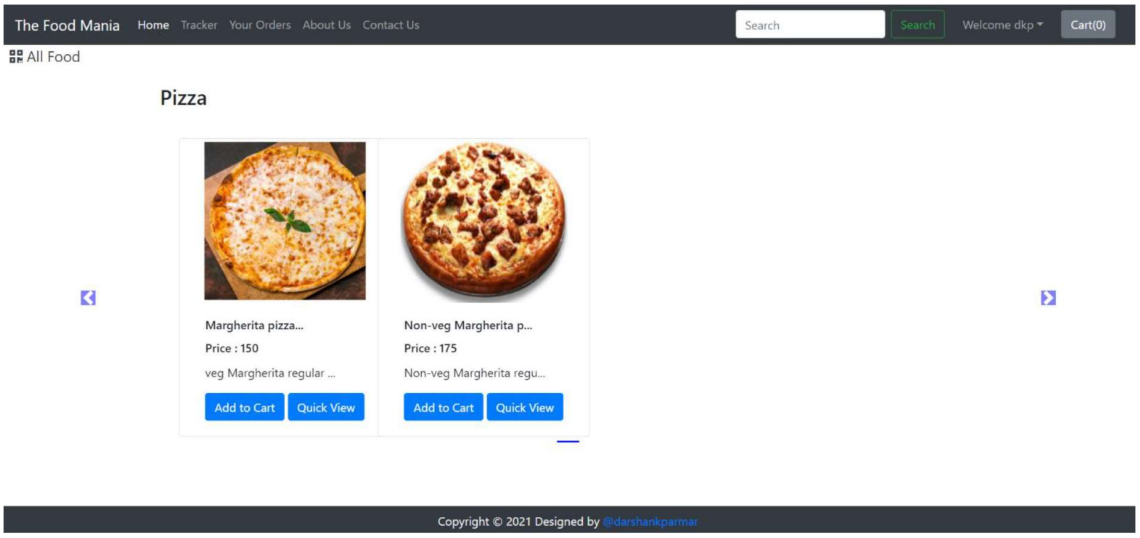
4.6 TRACKER PAGE:



4.7 CONTACT US PAGE:

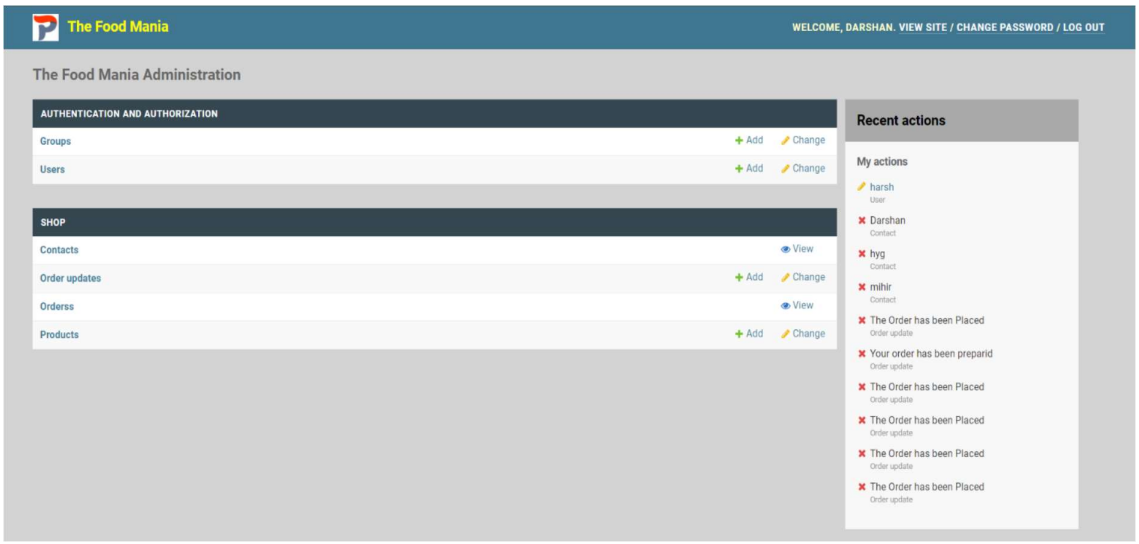


4.8 SEARCH PAGE:



4.9 ADMIN LOGIN PAGE:

4.10 ADMIN HOME PAGE:



CHAPTER-5

5.1 MODULES :

The system consists of 4 basic modules namely

- 1. User Module
- 2. Product Module
- 3. Order Module
- 4. Order Status Update Module

User Module:
The main aim of the User Module is provide all the functionality related users. It track all the information of the customers. We have developed all type of operations of the customers. This is role based Module Where Admin can perform each and every operations on data but customer only view his/her data, so access level restrictions has also been implemented on the project.

Product Module:
The main purpose for developing the Product Module is to manage Products category wise. All product will be managed by admin and Customer will be able to see product and buy them. Admin can see the list, change product details and also add or delete products.

Order Module:
The main aim of the Order Module is receive all order details and display them. It is designed to be used only by restaurant employees (and admin), and provides the following functions: Retrieve new orders from the database and Display the orders in an easily readable, graphical way. Under "ViewOrder" a customer will be able to see only his/her order.

Order Status Update Module:
The main aim of this Module is update all information related to order. Admin or employee can change or add order status. Customer only see his/her order status details. Under "Tracker" a customer will be able to see his/her order all status details

CHAPTER-6

6.1 APPLICATIONS

A restaurant management system (RMS) is a software solution designed to streamline and automate various operations within a restaurant, ranging from order management to inventory tracking. Here are some common applications of a restaurant management system:

Order Management: RMS helps in managing orders efficiently, from taking orders from customers to transmitting them to the kitchen or bar. This can include features like table mapping, order customization, and splitting bills.
Inventory Management: Keeping track of inventory is crucial for controlling costs and ensuring that ingredients are available when needed. RMS can automate inventory tracking, generate alerts for low stock levels, and even integrate with suppliers for automatic reordering.
Employee Management: From scheduling shifts to tracking attendance, RMS can streamline various aspects of employee management. It can also handle payroll processing and performance tracking.
Menu Management: RMS enables easy management of menus, including updating prices, adding or removing items, and highlighting specials or promotions.
Table Reservations: Many RMS include table reservation features, allowing customers to book tables online or through the system. This helps in managing seating capacity and improving customer experience.
Billing and Payment Processing: RMS simplifies billing processes by automating calculations, handling different payment methods (cash, credit card, etc.), and generating digital receipts.
Analytics and Reporting: RMS collects data on various aspects of restaurant operations, such as sales trends, popular menu items, and peak hours. Analyzing this data can provide insights for improving efficiency and making informed business decisions.
Customer Relationship Management (CRM): Some RMS include CRM features for managing customer data, preferences, and feedback. This helps in personalizing customer experiences and building customer loyalty.
Kitchen Display System (KDS): Integrated with the RMS, KDS digitally displays orders in the kitchen, reducing errors and improving communication between front-of-house and back-of-house staff.
Mobile Ordering and Delivery Integration: With the rise of online ordering and food delivery services, many RMS offer integration with third-party platforms for seamless order processing and delivery management.

CHAPTER-7

CONCLUSION

After reviewing our work, the conclusion is that after many adjustments the system works. As good as it is now, there can still be made many adjustments/improvements. However in the time was given that two persons can work on this project, the overall results are satisfactory in our opinion. The report covers the entire course of the project and results are there were needed. The first weeks the work progressed slower than expected, then the pace was increased to finish on time.For customers, web-based ordering system can make it easier to order food without having to visit the restaurants so that customers can save time and costs.

For admin, they can serve customers optimally in ordering their food and making the order report easier. Payment methods can also be done by customers through a system that is available on the web to facilitate customers in paying for their orders.

CHAPTER-8

BIBLIOGRAPHY

It has been a matter of immense pleasure, honor and challenge to have this opportunity to take up this project and complete it successfully.

We have obtained information from various resources to design and implement our project. We have acquired most of the knowledge from the Internet

The following are some of the resources:

- www.w3schools.com
- www.tutorialspoint.com
- Google and Youtube Tutorials.

Following links and websites were referred during the development of this project:

- https://getbootstrap.com/
- https://www.djangoproject.com/
- https://github.com/
- http://stackoverflow.com/
- https://codewithharry.com/