Project Report on

Online Food Ordering System

Submitted in partial fulfilment for the award of
Post Graduate Diploma in Advance Computing

PG-DAC

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<u>CERTIFICATE</u>

This is to certify that the project work under the title '***Online Food Ordering System***' is done by Chaudhari Hitendra Anil (Team Leader), Ghritanchi Sahu, Janapure Aditya Gourishanker, Mane Vipul Vilas, Saloni Priya, Vedansh Saxena in partial fulfilment of the requirement for award of Diploma in Advanced Computing Course.

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THIS PROJECT "ONLINE FOOD ORDERING SYSTEM " WAS TRULY A GREAT LEARNING EXPERIENCE FOR US AND WE ARE SUBMITTING THIS WORK TO ADVANCED COMPUTING TRAINING SCHOOL (CDAC ACTS).

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Online Food Ordering System

ABSTRACT

The Online Food Ordering System described in this document has been designed to fill a specific niche in the market by 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 employees to easily manage the site content, most importantly the menu, themselves through a very intuitive graphical interface. The website, 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 site, once registered, are then able to easily navigate this menu, add food items to their order, and specify delivery options 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. The purpose of this document is to provide in-depth descriptions of design and implementation details of the system, as well as descriptions of all available functionality and plans for evolution.

1.   Background of Study

Restaurant businesses are greatly influenced by the internet and technological improvements. With most people spending a significant portion of their day online, restaurants have a great business opportunity. In fact, online food ordering systems for restaurants are becoming increasingly popular among customers.

Restaurant operators are always looking for ways to let consumers make orders online and have their food delivered quickly. Indeed, as more restaurants adopt this business model, online ordering and delivery systems are gradually becoming the standard.

The readiness of the online market is encouraging the development of **restaurant online ordering systems**. Online food ordering systems are eventually becoming the standard among food outlets.

By 2030, the online meal ordering business will touch $365 billion globally. If you are a restaurant and much of your business comes from food delivery portals, then it is time you had your own online food ordering system. There are other more compelling reasons why you must have your own food delivery software.

1.2 Statement of Problem

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 delivery orders were placed over the phone, but there are many disadvantages to this system. First, the customer must have a physical copy of the restaurant's menu to look at while placing their order and this menu must be up to date. While this expectation is not unreasonable, it is certainly inconvenient.

Second, the orders are placed using strictly oral communication, which makes it far more difficult for the customer to receive immediate feedback on the order they have placed. This often leads to confusion and incorrect orders. The current system is also inconvenient for the restaurant itself, as they must either have a dedicated staff member to answer the phone and take orders, or some employees must perform double-duty, distracting them from their regular tasks.

1.3 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. Efficiency and accuracy of restaurants as well as human errors were improved by this user-friendly application. 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) 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.

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. 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.

2. Objectives of Study

What we propose is an online ordering system, originally designed for use in college students, but just as applicable in any food delivery industry. The main advantage of my system is that it greatly simplifies the ordering process for both the customer and the restaurant. When the customer visits the ordering webpage, they are presented with an interactive and up-to-date menu, complete with all available options and dynamically adjusting prices based on the selected options. After selecting, the item is then added to their order, which the customer can review the details of at any time before checking out. This provides instant visual confirmation of what was selected and ensures that items in the order are, in fact, what was intended.

The system also greatly lightens the load on the restaurant's end, as the entire process of taking orders is automated. Once an order is placed on the webpage, it is placed into the database and then retrieved, in pretty much real-time, by a desktop application on the restaurant's end. 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. This allows restaurant employees to quickly go through the orders as they are placed and produce the necessary items with minimal delay and confusion.

3.   Methodology

The simulation first starts with the customer entering his/her credentials (name, ID and password). Once that has been verified, the customer can place an order specifying the quantity of the food required. Now we get a window that displays the order number, customer ID, food name, price and quantity. Once the customer finalizes his/her order, they are redirected to the payment window where the total price is displayed and the customer can select the payment method of their choice and then the customer gets a message of confirmation of order. The block diagram and the ER Diagram of the proposed Online Food Ordering System is given in The above-mentioned simulation flow is with respect to the customer's point of view. Now if you are an admin, you can select the normal login option and enter the admin credentials (email ID and password). Once you enter the admin portal, you get the option of adding food, deleting food or updating food. Any option of choice leads you to the food menu. Once the selected operation is carried out, the end result, i.e, the added food or the updated food list is displayed and if you have deleted a food, that particular food disappears from the main menu. operational planning method and change management. Information which was used for this studywas carried out by oral interview.
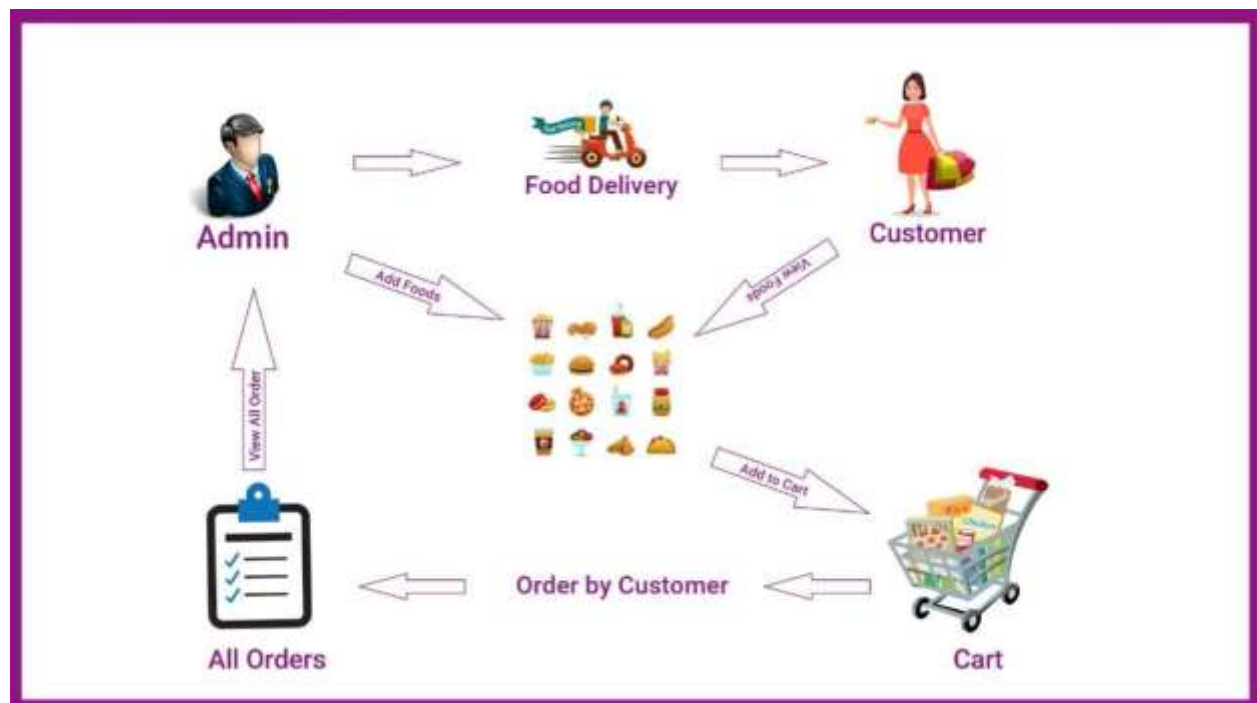
Figure: Flow Diagram
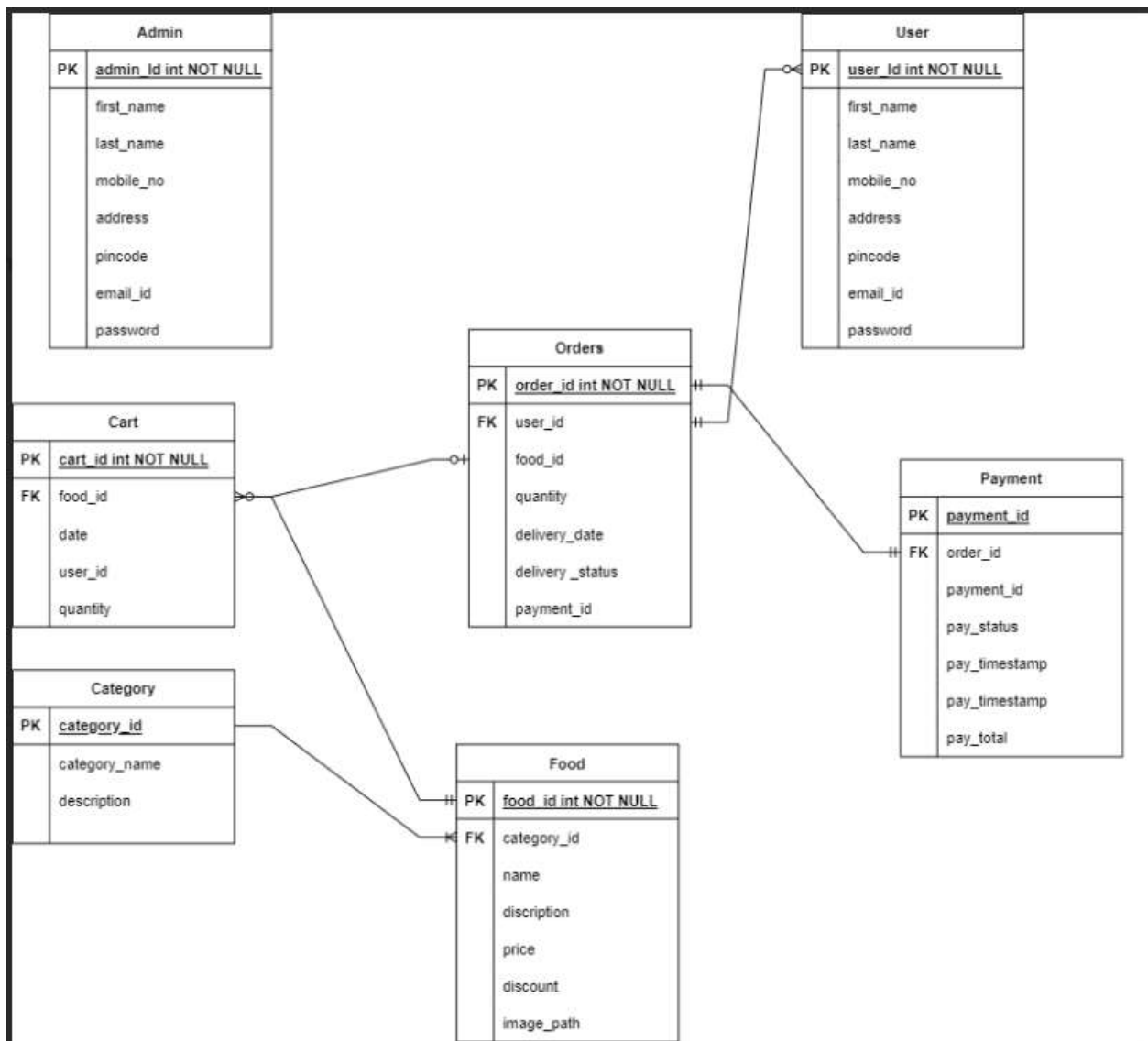
Figure: ERD

3.1   Choice of Methodology

For any project to be completed, it must go through stages called Development Life Cycles. System Development Life Cycle (SDLC) is the process of understanding how an Information System (IS) can support business needs, designing the system, building it and delivering it to users. The SDLC composes off our phases: Planning, Analysis, Design and Implementation.

In order for this project to be developed, the methodology that will be used is the System Structured Analysis and Design Methodology. The SSADM is classified as a Waterfall Development. With Waterfall Development, analyst and users proceed sequentially from one phase to the next and each phase can be mapped out and evaluated (Hevner, 2004). Below, in figure below is a diagram on the waterfall methodology.

Figure 3.1 The waterfall development Methodology (Wee, 2007)
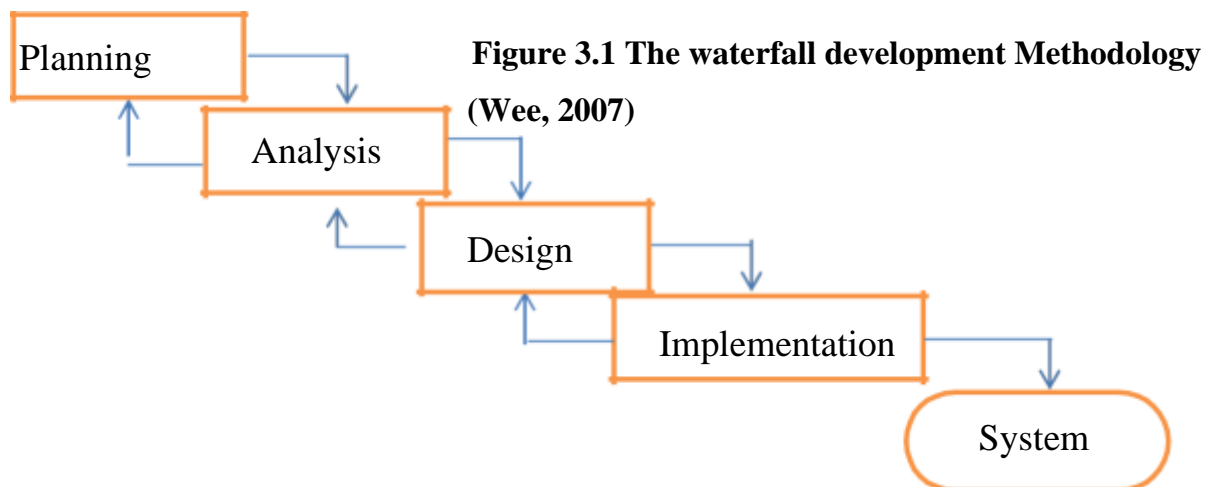
3.2   DATA FLOW DIAGRAM (DFD)

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modeling its process aspects. A DFD shows what kind of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored.

The development of DFD'S is done in several levels. Each process in lower level diagrams can be broken down into a more detailed DFD in the next level. The Top-level diagram is often called context diagram. It consist a single process bit, which plays vital role in studying the current system. The process in the context level diagram is exploded into other process at the first level DFD.

Admin

Admin_id	Admin_name	Admin_password

Customer

Cust_id	Name	Email	password

Order_details

Order_no	Cust_id	Fname	price	quantity

Food

Food_id	F_Name	Price	Description	Admin_id

payment

Payment_id	Order_no	Price	Payment_mode
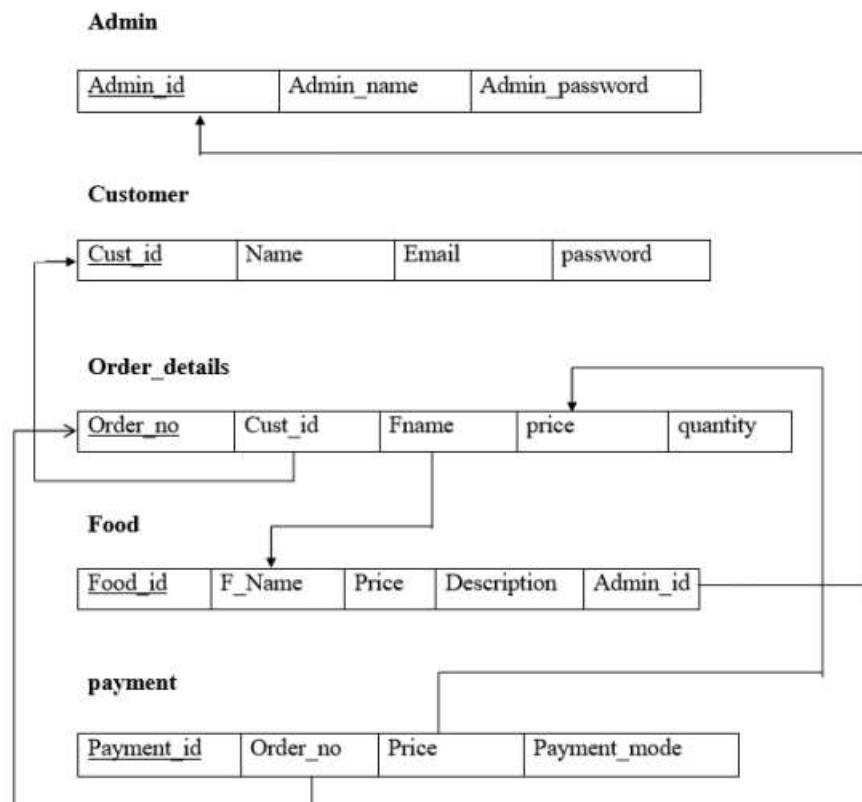
Figure 3.3: Admin Register Page(This Page only allowed to authenticated Admins to function)

Figure 3.4: Admin Login Page(This Page only allowed to authenticated Admins to function)

Figure 3.5 Admin view of Online Food Ordering System

(This page allow admin to make a required change in Food Items like add, remove, change, record)
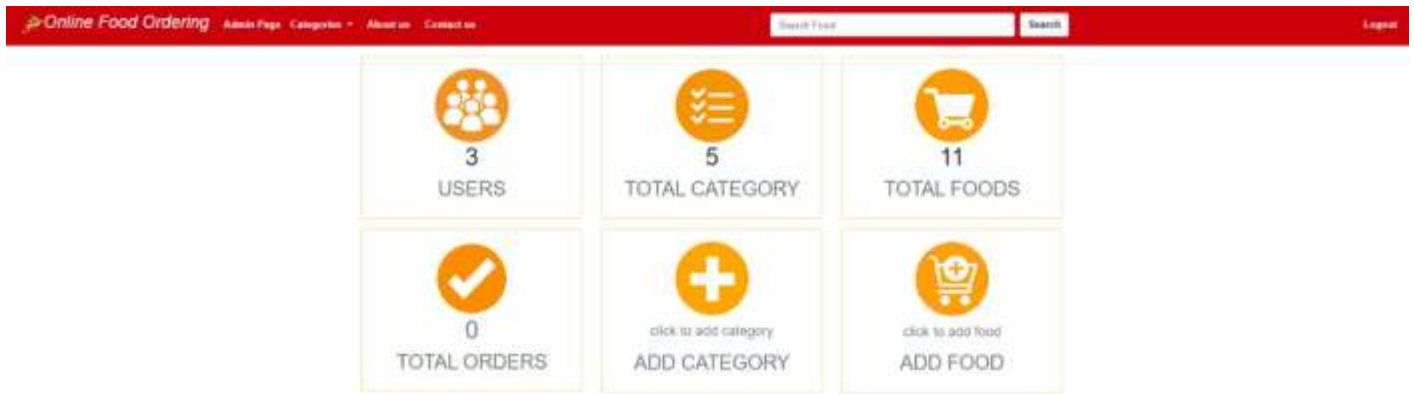
3.6   USE CASE DIAGRAM FOR USERS

A use case is a description of a system's behaviour as it responds to a request that originates from outside of that system (the user). In below figure a use case of the activities in a Food Ordering system shown.
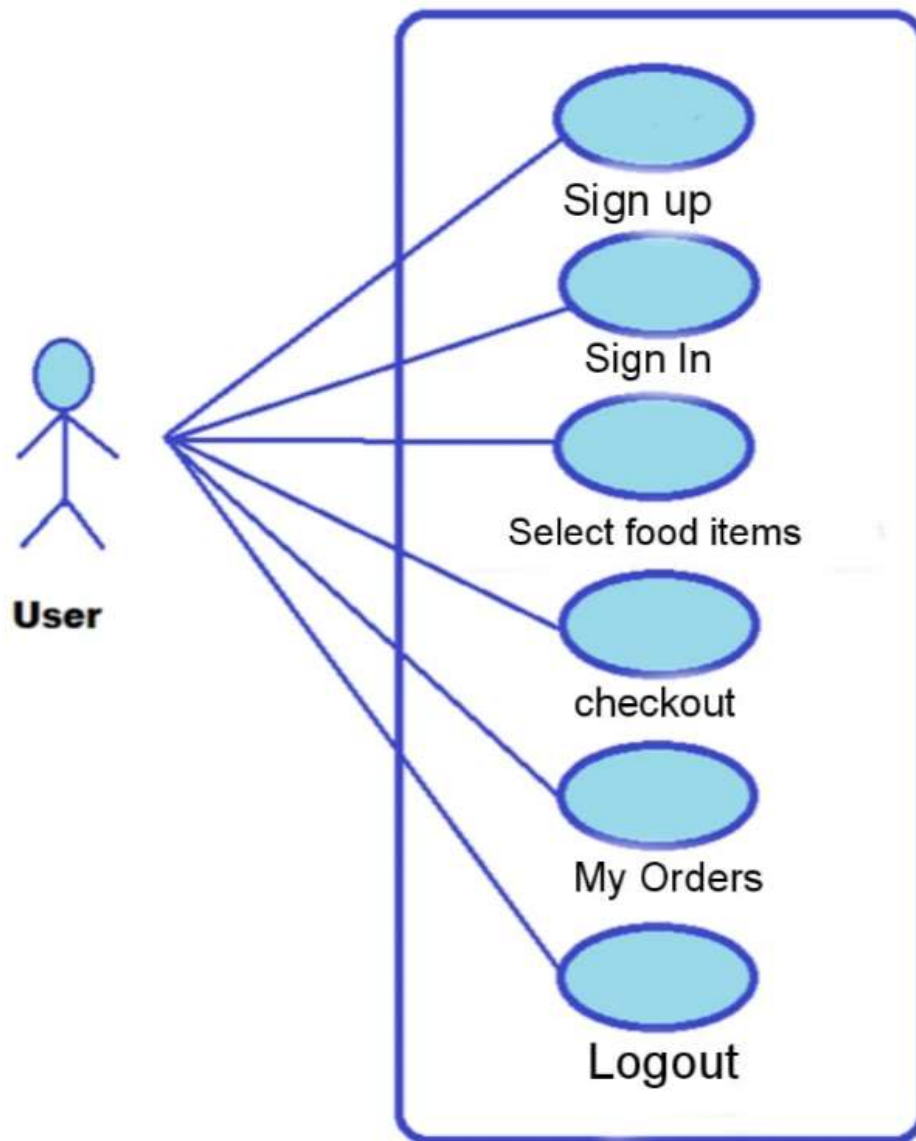
In other words a use case describes "who" can do "what" with the system in question. The use case technique is used to capture a system's behavioural requirements by detailing scenario-driven threads through the functional requirements.

4.   INPUT AND OUTPUT DESIGN

The input design is the link between the information system and the user. It comprises of the developing specification and procedures for data preparation and those steps are necessary to put transaction data into a usable form for processing data entry while an output design is a process that involves designing necessary outputs in the form of reports that should be given to the users according to the requirements. Below are some screenshots which comprises of both input and output designs of the proposed system.

Figure 4.1 Landing Page

(When customer visit this website below landing page will show)
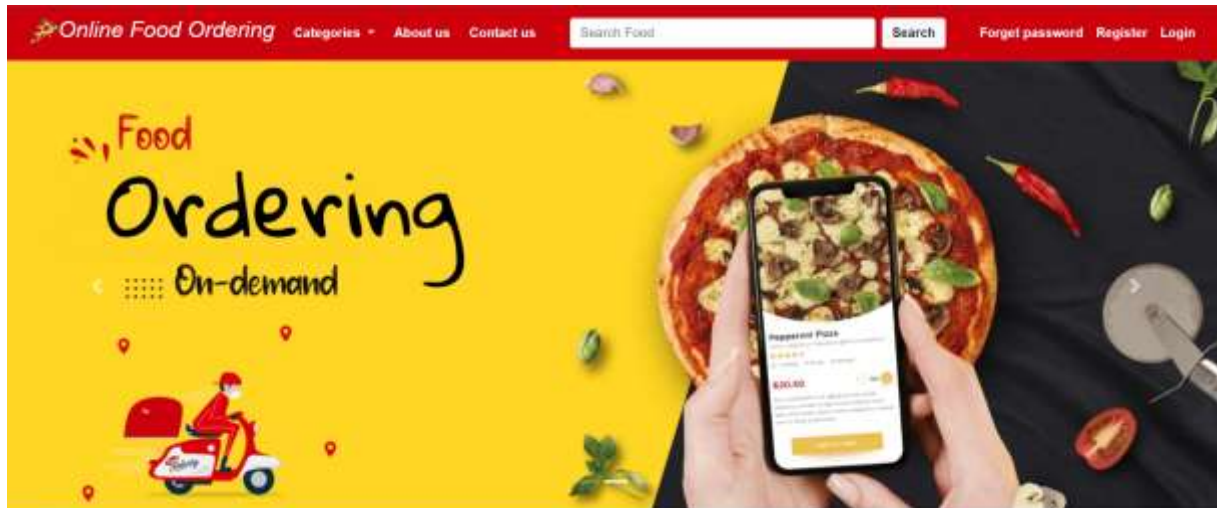
Figure 4.2 Home Page

(Home Page will show all food items and Categories where customer will select the required

category and place the order accordingly.)
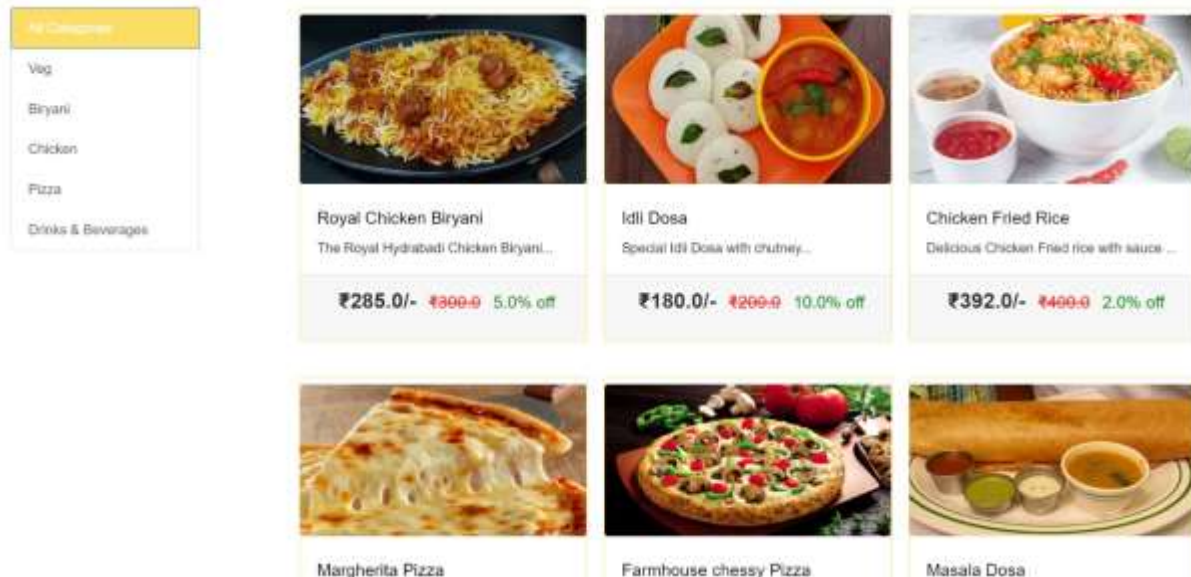
Figure 4.3   Contact Us Page(Shows contact of website management.)
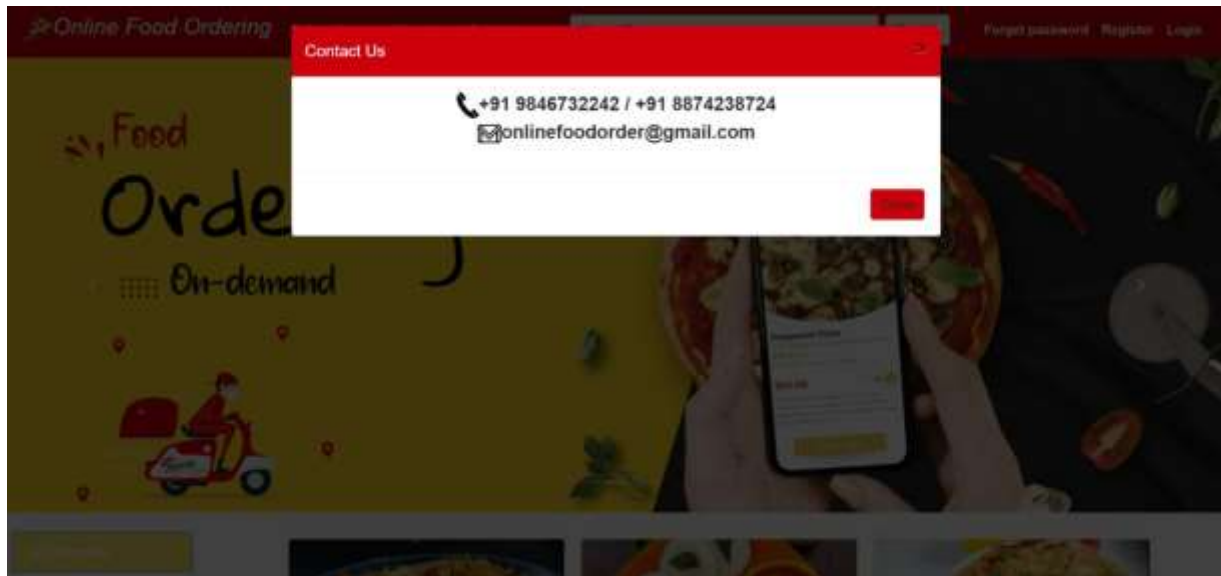
Figure 4.4   Registration Page

(Only Authenticated Customers allow to place the orders for if the user is new then they will have to register

themselves first)

Figure 4.5: Sign in Email Validation

(We have provided validation for Email so only valid syntax will allowed)

Figure 4.6: Sign in Password Validation
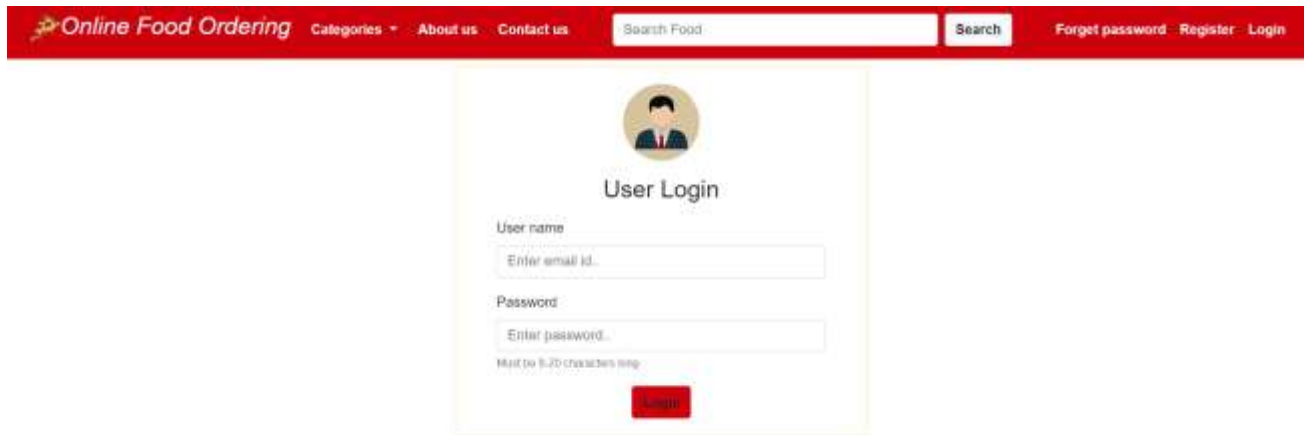
(We have provided validation for password so only valid syntax will allowed)

Figure 4.7: Sign In Page

(Only Authenticated Customers allow to place the orders for that first they need to login them themselves)

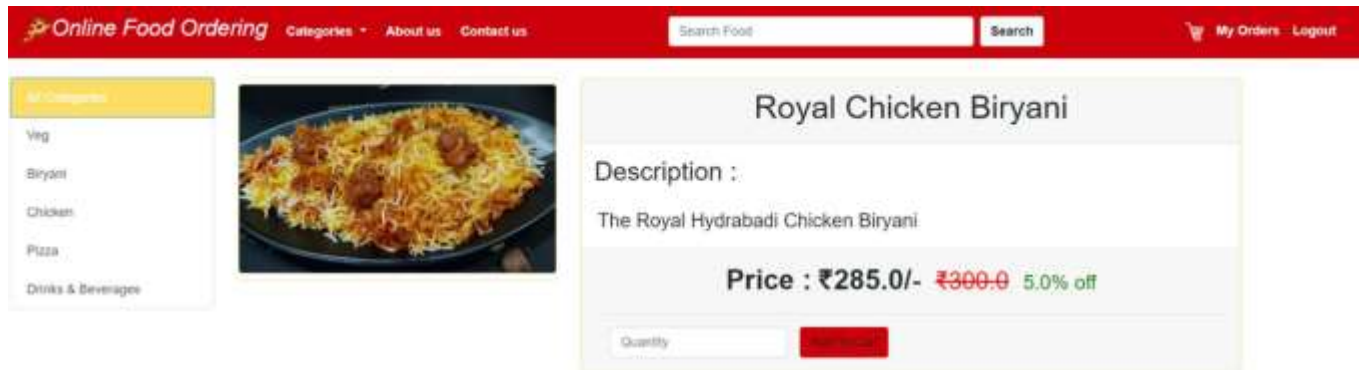
Figure 4.8:   Sign in Successful Page

(When customer signed In successfully it will show them that they have successfully Signed In)
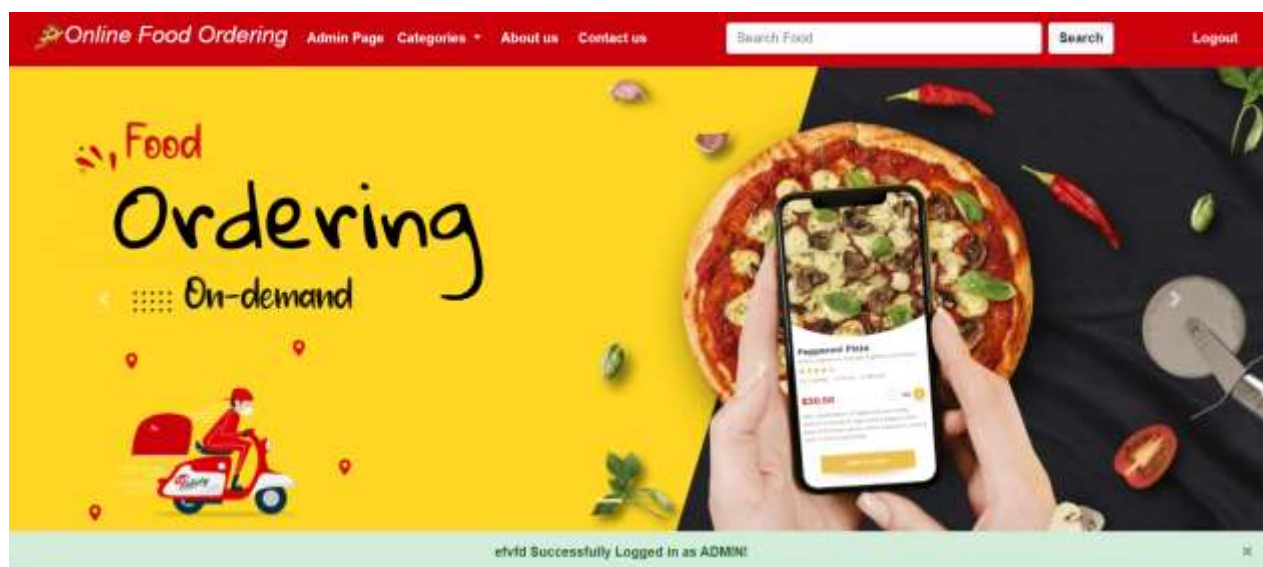
Figure 4.9   Food Adding into Cart

(First of all customer need to add the selected food into the Cart to place the order by pressing the "Add to Cart"

button)

Figure 4.10 Food Added into Cart

(First of all, customer need to add the selected food into the Cart then only they can place the order. In Cart they will find Food

name, description, quantity, Total amount)
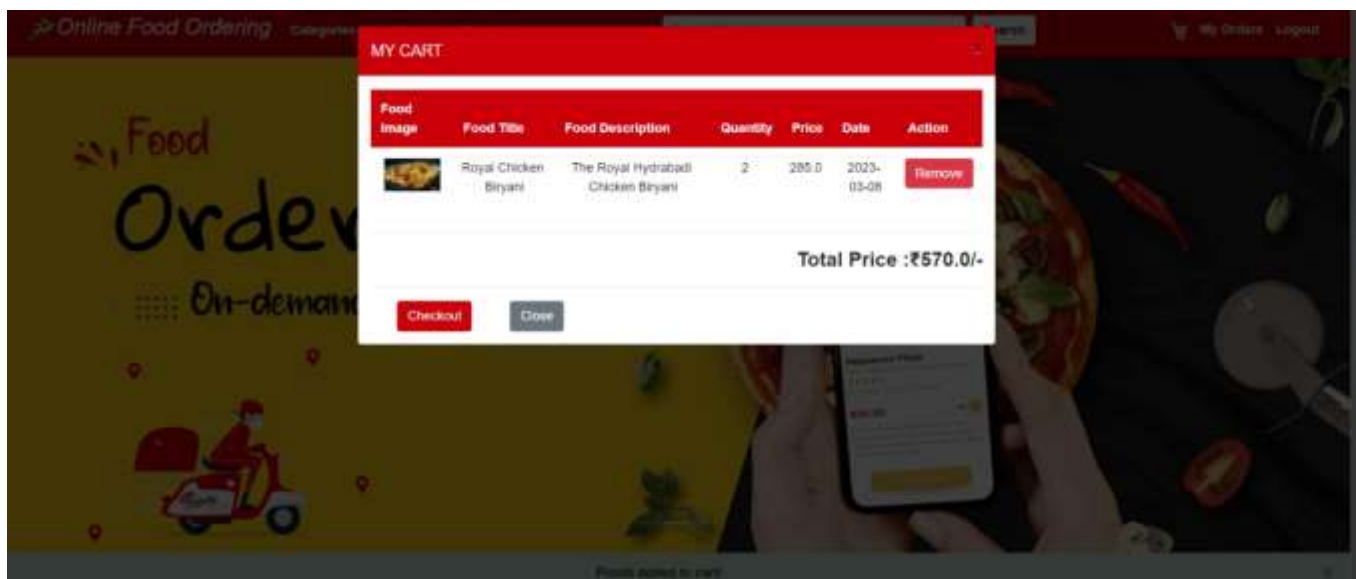
Figure 4.11 Payment Page

(After pressing "Checkout" button customer will find payment page where they will pay the amount.)

Figure 4.12 Order Status Page

(In this page all status of delivery will be shown)

5.0   Summary

In 1994, The Pizza Hut were the first to use an online Food ordering System, which was still almost manual. Technology grew, and a computer ordering system was developed. In this present era, online ordering system has improved the operations of various sectors of a nation's economy deploying this system. Online Food Ordering System being a web-based system that ensures that the company would be able to transform most of the processes carried out manually into automated, error-free and easy to use operations in the organization especially in the area of Food Ordering; also it would be able to generate report for the management decision purpose.

This system will be developed using a waterfall methodology for research and design purposes, J2EE as the programming language because of its server-side processing capabilities that makes data process less on the client personal computer, an implementation strategy as well as testing and maintenance strategies suitable for efficient deployment of the system.

6.0 Conclusion

Therefore, conclusion of the proposed system is based on user's need and is user centred. The system is developed in considering all issues related to all user which are included in this system. Wide range of people can use this if they know how to operate android smart phone. Various issues related to Mess/Tiffin Service will be solved by providing them a full-fledged system. Thus, implementation of Online Food Ordering system is done to help and solve one of the important problems of people. Based on the result of this research, it can be concluded: It helps customer in making order easily; It gives information needed in making order to customer. The Food website application made for restaurant and mess can help restaurant and mess in receiving orders and modifying its data and it is also made for admin so that it helps admin in controlling all the Food system. With online food ordering system, a restaurant and mess menu online can be set up and the customers can easily place order. Also with a food menu online, tracking the orders is done easily, it maintain customer's database and improve the food delivery service. The restaurants and mess can even customize online restaurant menu and upload images easily. Having a restaurant menu on internet, potential customers can easily access it and place order at their convenience. Thus, an automated food ordering system is presented with features of feedback and wireless communication. The proposed system would attract customers and adds to the efficiency of maintaining the restaurant and mess ordering and billing sections. Scope of the proposed system is justifiable because in large amount peoples are shifting to different cities so wide range of people can make a use of proposed system.

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