Visvesvaraya Technological University

Belagavi, Karnataka-590 014

A MINI PROJECT REPORT
On

" HOTEL MANAGEMENT SYSTEM "

Submitted
In partial fulfilment requirements for the award of the Degree

of
BACHELOR OF ENGINEERING
IN
COMPUTER SCIENCE AND ENGINEERING

By

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CERTIFICATE

This is to certify that the project work entitled "**HOTEL MANAGEMENT SYSTEM**" is a bonafide work carried out by **Mr.Bharath M G** bearing USN **4CB20CS022 & Mr.Chinmaya B Shetty** bearing USN **4CB20CS026,** in partial fulfillment for the award of degree of Bachelor of Engineering in Computer Science and Engineering under the Visvesvaraya Technological University, Belagavi during the year 2022-2023. It is verified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed by Bachelor of Engineering Degree.

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Name of the Examiners **Signature with Date**

1.

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ABSTRACT

" Hotel Management System" is a web application. This system is developed to automate day to day activity of a hotel. This system is developed to provide service facility to hotel and also to the customer. This hotel management system can be used by employees in a hotel to handle the clients, their orders. The services that are provided is food ordering by the customer through the system online, customer information management, menu information management and report. Main objective to build the system , this is to provide ordering service by online to the customer. With this system online ordering management will become easier and systematic to replace traditional system where are still using paper. To register a dish, the customer has to become a member first then he can access the later part of the site. This project to facilitate customer for make online ordering of foods. The option of becoming member was only an attempt to avoid (to some extent placing the fake bookings).

Hotel management system is the system for manage of hotel business. After successful login the customer can access the menu page with the items listed according to the desired time. The main point of developing this system is to help hotel administrator manage the hotel business and help customer for online ordering. In proposed system user can search for a menu according to his choice i.e. according to price range and category of food and later he can order a meal. If the customer book an order and later wants to cancel the order, he is permitted to do this only within a specific time period. The customer is also given with the facility to view the status of the order and if the order is ready then he can go and get it. At management side, initially the staff member has to login, and according to his designation the privileges are set. Other than that, this project is to upgrade the manual system and make the business easily to access and systematic.

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CHAPTER 1

INTRODUCTION

1.1 PURPOSE

The Software is for the automation of Hostel Management. It maintains two levels of users:

- Administrator Level
- User Level

The Software includes :

- Maintaining Hotel details.
- Providing the hotel manager to manage the hotel more effectively and efficiently by computerizing meal ordering, billing and inventory control.
- Providing admin , all administrative controls like adding or deleting hotels or dishes.
- Providing user order details.

1.2 SCOPE

This system permits a customer to submit online orders for food, keeps check on the ordered food and associate delivery for items selected by the customers. It also manages the items in stock. The username and password entered creates an account for free and then redirects to the home page where they can choose the items from.

CHAPTER 2

REQUIREMENT SPECIFICATION

2.1 FUNCTIONAL REQUIREMENTS :

- Creating user account
- After signing up, the user can access the website by logging in whenever required
- User can select any hotel on the website that he wants to order dishes from
- The user can select the dish items from the menu and click on add to cart
- User can click on check out for proceeding to payment page
- After the payment is done, notification is sent to administrator's page
- Administrator can monitor the dish order requests that are made by customers
- Administrator can update the status of food orders as on the way, delivered or cancelled so that the updated status will be displayed to user

2.2 HARDWARE AND SOFTWARE REQUIREMENTS

- The hardware requirements of our project are:
    - Processor : Intel CORE
    - RAM : 4GB
    - Hard disk : 516GB
- The software requirements of our project are :
    - Operating System : Windows 7 or High
    - Front End design : HTML ,CSS, JAVASCRIPT
    - Back End Design : My SQL
    - Database Connectivity : PHP
    - Server : Apache

2.3 SOFTWARE TOOLS USED

The whole project is divided into two parts, namely, front end and the back end.

2.3.1 FRONT END : HTML, CSS & JAVA SCRIPT

HTML is the first layer of any website and creates the code version of a wireframe on a web page. These wire frames exist for the styles in CSS and all the bells and whistles in JavaScript. The letters in HTML stand for Hypertext Mark up Language. The mark up piece of the name is the most important to remember, as mark ups are the proper name for HTML elements, which are also called HTML tags. HTML as a whole is the mark up that creates the basic elements we view on a website. It doesn't make decisions or capture information on its own. It simply renders the scaffolding of the web pages. Cascading Style Sheets, or CSS, is what gives our HTML visual appeal and draws in the user. To put it simply, style sheets dictate the presentation of HTML elements on a page. CSS is what makes everything not look like a white background with a bunch of Times New Roman texts and blue hyperlinks JavaScript is a runtime language for web browsers. This means that when you open a web page, the page will load both the foundational JavaScript that is standard with the page and any new JavaScript added to a page. The new JavaScript will load in parallel with it and can perform actions and make decisions. It's the true programming language of front-end engineering and the underlying language that ties everything together.

2.3.2 Back End :

The back end is designed using MySQL. MySQL has been used for the creation of database and tables. This was possible by making use of the PHP Myadmin in XAMPP for easy operating and table creation. MySQL has also been used to fetch, insert and update the database using queries.

PHP is the language used for database interaction and executing sql queries for various operations that the user or the admin will demand.

CHAPTER 3

DATABASE DESIGN

3.1.1 ENTITY RELATIONSHIP DIAGRAM

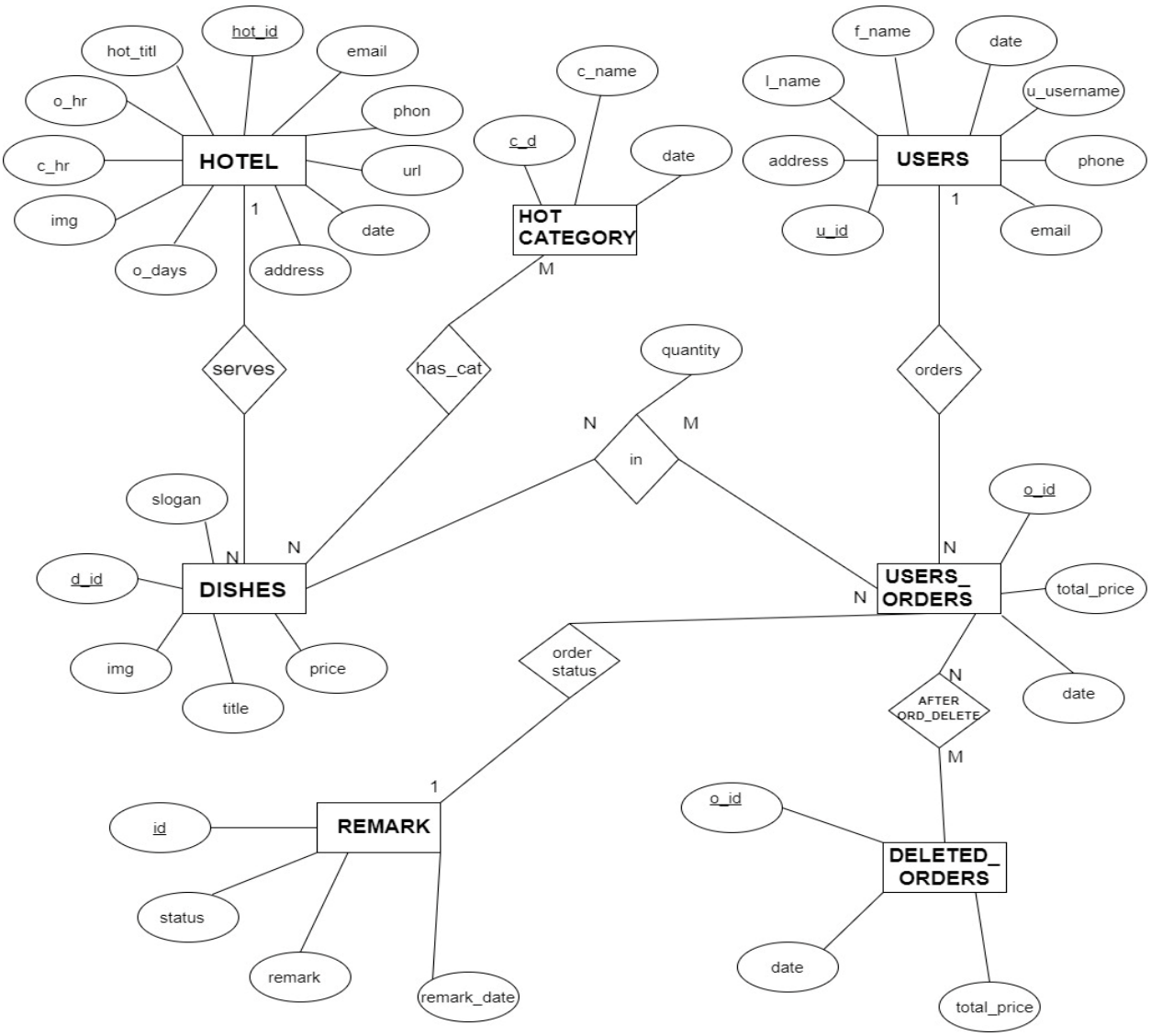

FIGURE 3.1.1 : Entity Relationship diagram

An entity relationship diagram (ERD) shows the relationships of entity sets stored in a database. An entity in this context is a component of data. In other words, ER diagrams illustrate the logical structure of databases.

3.1.2 RELATIONAL SCHEMA

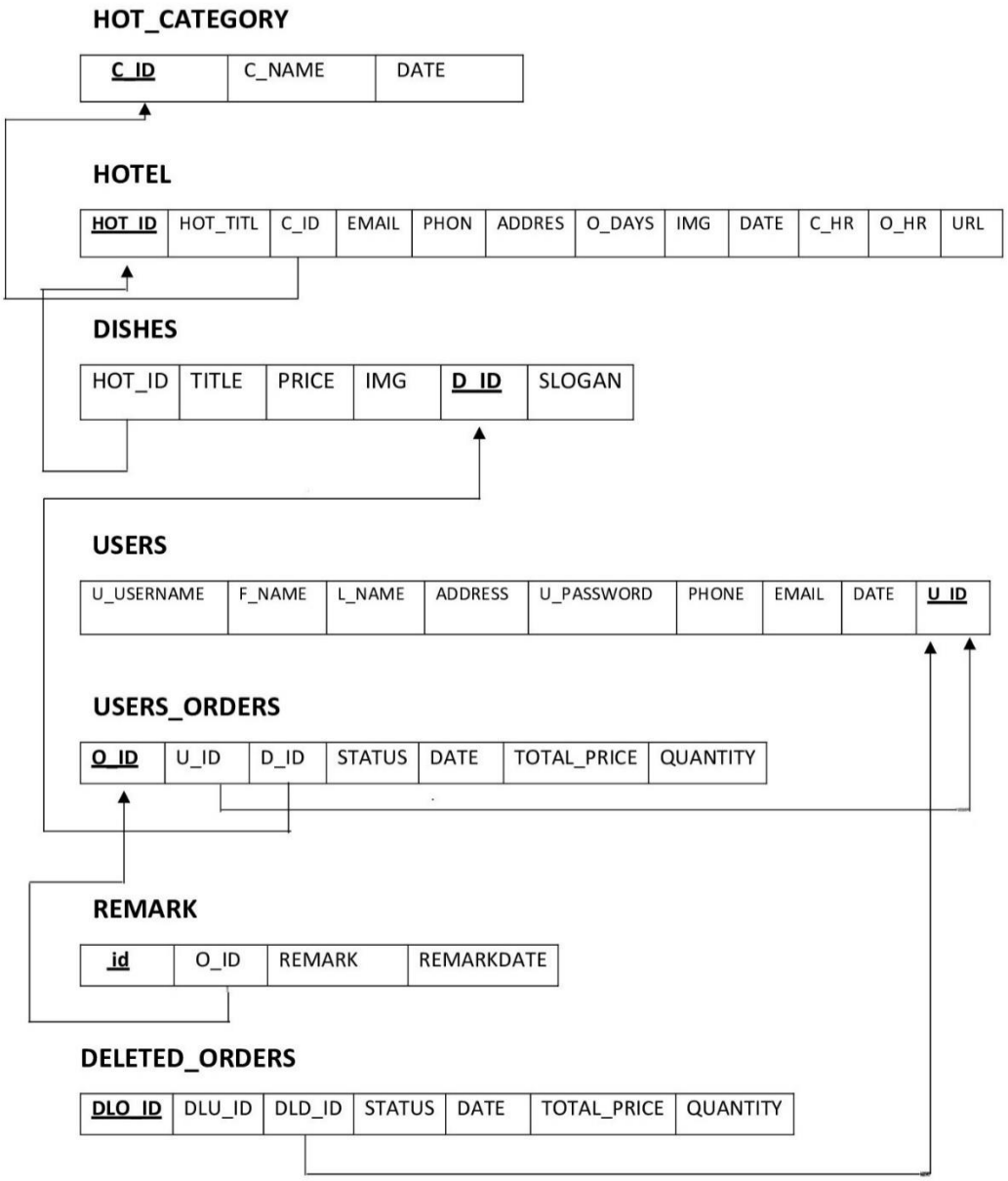

FIGURE 3.1.2 : Entity Relational diagram

A database schema is the skeleton structure that represents the logical view of the entire database. It defines how the data is organized and how the relations among them are associated. It formulates all the constraints that are to be applied on the data. A database schema defines its entities and the relationship among them. It contains a descriptive detail of the database, which can be depicted by means of schema .

CHAPTER 4

SYSTEM DESIGN

4.1 TABLE DESIGN

The project requires many relations to store the data and retrieve it. These relations are defined as tables in SQL using CREATE TABLE statement. The following are the tables defined in our project.

➢ Admin table for administrative controls.

```
CREATE TABLE `admin` (
 `adm_id` int(222) NOT NULL AUTO_INCREMENT,
 `username` varchar(222) NOT NULL,
 `password` varchar(222) NOT NULL,
 `email` varchar(222) NOT NULL,
 `code` varchar(222) NOT NULL,
 `date` timestamp NOT NULL DEFAULT current_timestamp() ON
  UPDATE current_timestamp(),
  PRIMARY KEY (`adm_id`));
```

➢ Hotel Category table.

```
CREATE TABLE `hot_category` (
 `c_id` int(222) NOT NULL,
 `c_name` varchar(222) NOT NULL,
 `date` timestamp NOT NULL DEFAULT current_timestamp() ON
 UPDATE current_timestamp(),
 PRIMARY KEY (`c_id`));
```

- **HOTEL table to store different Hotels.**

```
CREATE TABLE `hotel` (
  `hot_id` int(222) NOT NULL,
  `c_id` int(222) NOT NULL,
  `title` varchar(222) NOT NULL,
  `email` varchar(20) NOT NULL,
  `phone` varchar(222) NOT NULL,
  `url` varchar(222) NOT NULL,
  `o_hr` varchar(222) NOT NULL,
  `c_hr` varchar(222) NOT NULL,
  `o_days` varchar(222) NOT NULL,
  `address` text NOT NULL,
  `image` text NOT NULL,
  `date` timestamp NOT NULL DEFAULT current_timestamp() ON
  UPDATE current_timestamp(),
  PRIMARY KEY (`hot_id`),
  FOREIGN KEY (`c_id`) REFERENCES hot_category(`hot_id`) ON
  DELETE CASCADE );
```

- **DISHES table to store different types of dishes.**

```
CREATE TABLE `dishes` (
  `d_id` int(222) NOT NULL,
  `hot_id` int(222) NOT NULL,
  `title` varchar(222) NOT NULL,
  `slogan` varchar(222) NOT NULL,
  `price` decimal(10,2) NOT NULL,
  `img` varchar(222) NOT NULL,
  PRIMARY KEY (`d_id`),
  FOREIGN KEY (`hot_id`) REFERENCES hotel(`hot_id`) ON DELETE CASCADE);
```

- **USERS table to store user information.**

```
CREATE TABLE `users` (
 `u_id` int(222) NOT NULL,
 `username` varchar(222) NOT NULL,
 `f_name` varchar(222) NOT NULL,
 `l_name` varchar(222) NOT NULL,
 `email` varchar(222) NOT NULL,
 `phone` varchar(222) NOT NULL,
 `password` varchar(222) NOT NULL,
 `address` text NOT NULL,
 `date` timestamp NOT NULL DEFAULT current_timestamp() ON
 UPDATE current_timestamp() ,
 PRIMARY KEY (`u_id`));
```

- **USERS_ORDERS table to store the details of the order.**

```
CREATE TABLE `users_orders` (
 `o_id` int(222) NOT NULL,
 `u_id` int(222) NOT NULL,
 `d_id` int(222) NOT NULL,
 `quantity` int(222) NOT NULL,
 `total_price` decimal(10,2) DEFAULT NULL,
 `status` varchar(222) DEFAULT NULL,
 `date` timestamp NOT NULL DEFAULT current_timestamp() ON
 UPDATE current_timestamp(),
 PRIMARY KEY (`o_id`),
 FOREIGN KEY (`u_id`) REFERENCES users(`u_id`) ON DELETE CASCADE,
 FOREIGN KEY (`d_id`) REFERENCES dishes(`d_id`) ON DELETE CASCADE );
```

- **REMARK table to store the status of the order.**

```
CREATE TABLE `remark` (
 `id` int(11) NOT NULL,
```

```
`o_id` int(11) NOT NULL,
`remark` mediumtext NOT NULL,
`remarkDate` timestamp NOT NULL DEFAULT current_timestamp(),
PRIMARY KEY (`id`),
FOREIGN KEY (`o_id`) REFERENCES users_orders(`o_id`) ON
DELETE CASCADE );
```

- **DELETED_ORDERS table to store the details of previously deleted orders.**

```
CREATE TABLE `deleted_orders` (
`dlo_id` int(222) NOT NULL,
`dlu_id` int(222) NOT NULL,
`dld_id` int(222) NOT NULL,
`quantity` int(222) NOT NULL,
`total_price` decimal(10,2) DEFAULT NULL,
`status` varchar(222) DEFAULT NULL,
`date` timestamp NOT NULL DEFAULT current_timestamp() ON
UPDATE current_timestamp() ,
PRIMARY KEY (`dlo_id`),
FOREIGN KEY (`dlo_id`) REFERENCES users_orders(`o_id`) ON
DELETE CASCADE );
```

- **TRIGGER**

```
CREATE TRIGGER `delete_order`
BEFORE DELETE
ON
`users_orders`
FOR EACH ROW
insert into deleted_orders(date,dld_id,dlo_id,quantity,status,total_price,dlu_id)
values(old.date,old.d_id,old.o_id,old.quantity,old.status,old.total_price,old.u_id);
```

- **STORED PROCEDURE**

```
CREATE PROCEDURE `delp`  (IN `oid` INT)
BEGIN
delete from users_orders where o_id=oid ;
END
```

4.2 FORM DESIGN

Login form : This form is made for security purpose so that only authenticated users can access the project. There are two types of users that can login:

1. **Administrator**
2. **User**

User Login form :

- It takes the username and password as inputs from the user and redirects the user to the main page only of the details entered match with the ones stored in the login table.
- If the user enters incorrect details an alert is displayed to user as 'Invalid Name or User Password '.

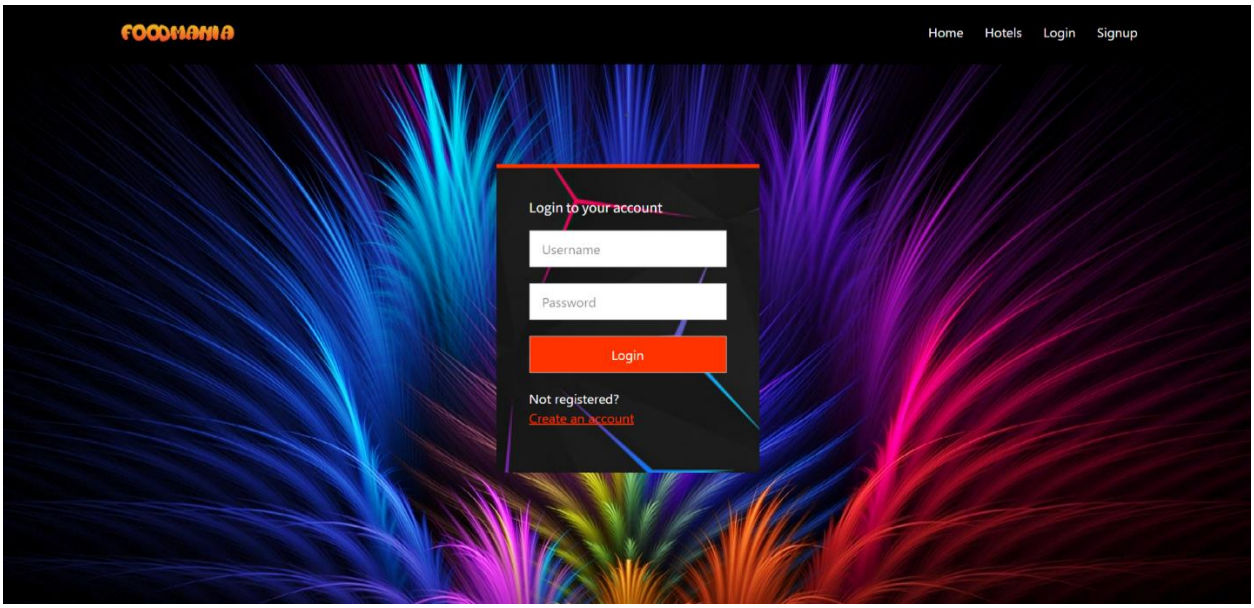

FIGURE 4.2.1 : User Login form

Admin Login Form :

- It is used for admin login , the admin username and password are taken as the input , then it redirects to the admin page only if the provided password and username is valid .

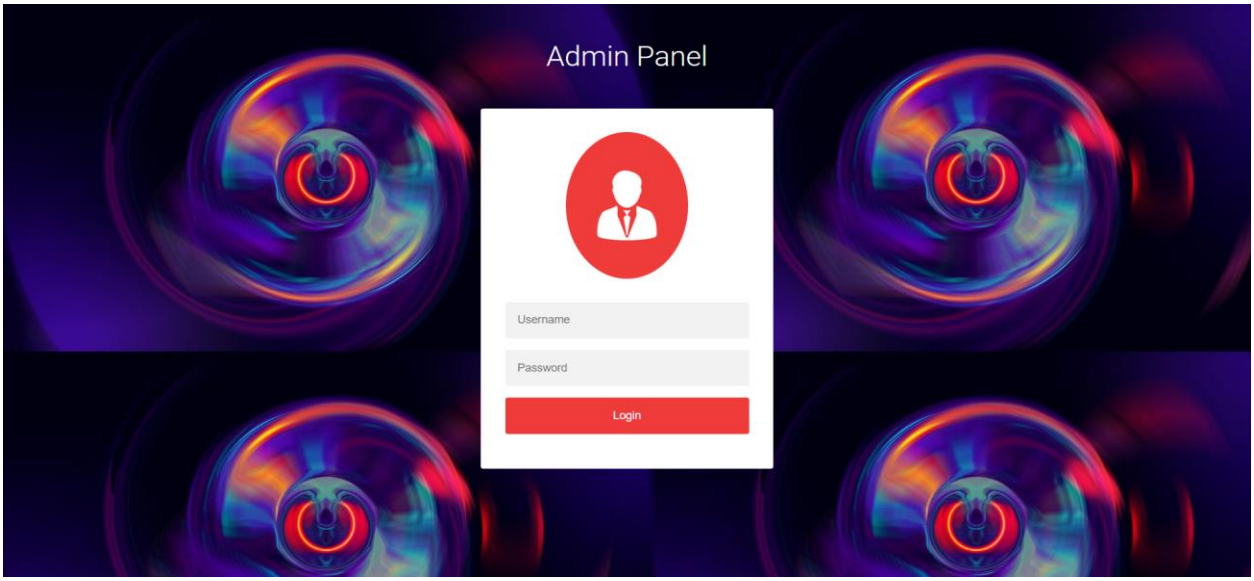

FIGURE 4.2.2 : Admin Login form

Sign Up Form :

- It is used to register a new user by creating a new account. The signup form asks for the Username, First Name, Last Name, Email Address, phone number, Password, Confirm Password and Delivery Address .

FIGURE 4.2.3 : User Sign up form

Add Hotel Form:

- It is used to add a new hotel to hotel table. This form requires the Hotel name, Business E-mail, Phone, Website URL, Open hours, Close hours, Open days, Image, Select Category and the Hotel Address to be filled to add the hotel.

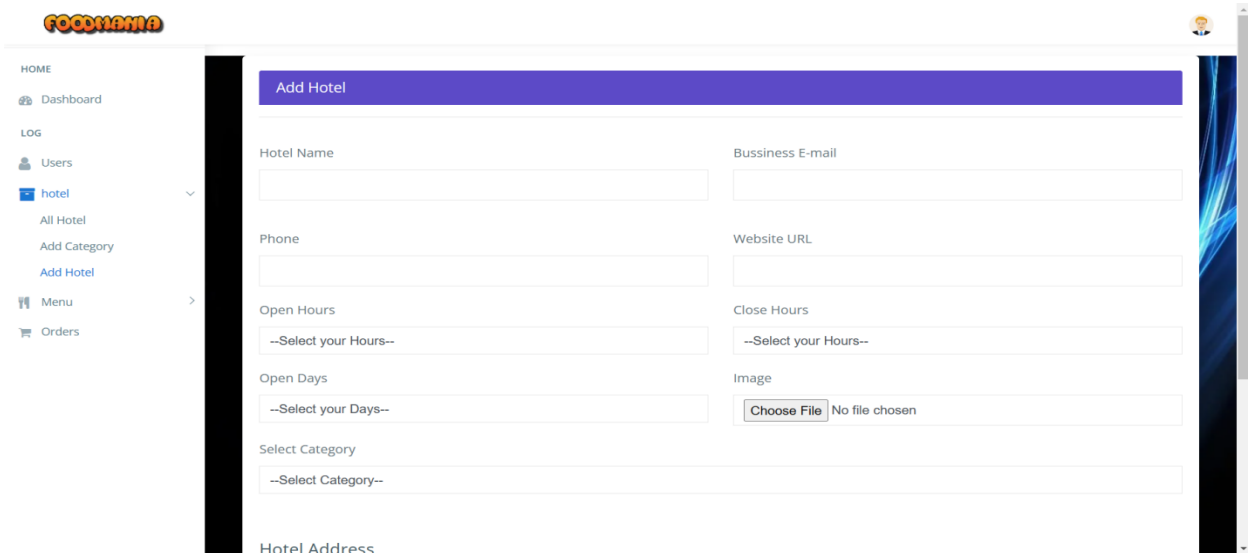

FIGURE 4.2.4 : Add Hotel form

Add Hotel Category Form:

- It is used to add a new category to the hotel category table. This form asks only for the new category that is going to be added.

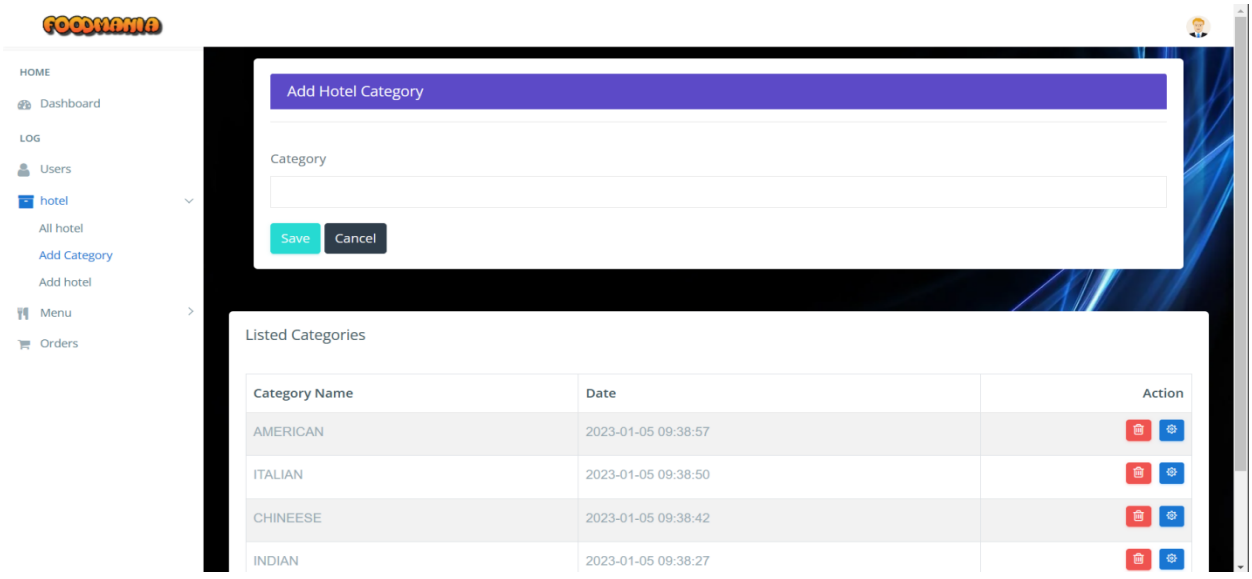

FIGURE 4.2.5 : Add Hotel Category form

Add Menu Form:

- It is used to add a new menu that is available on the hotel to the dishes table. It asks for Dish Name, Description, Price, Image and Select Hotel fields to be filled to add a new menu.

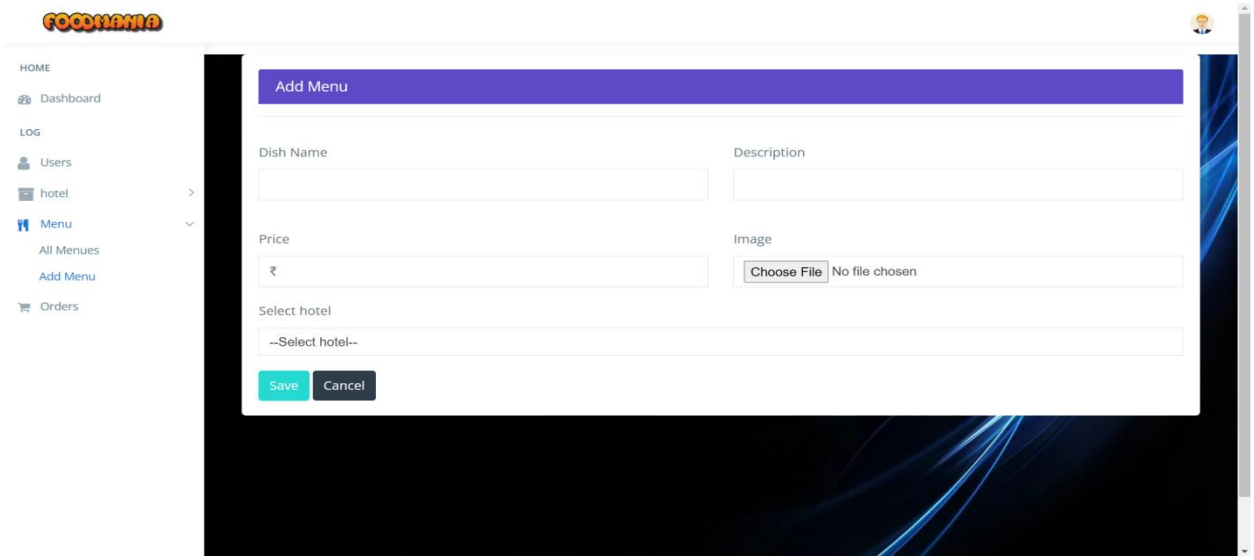

FIGURE 4.2.6 : Add Menu form

Update order status form :

- It is used to update the order status of particular dish ordered by the user or customer along updating remarks of that order .

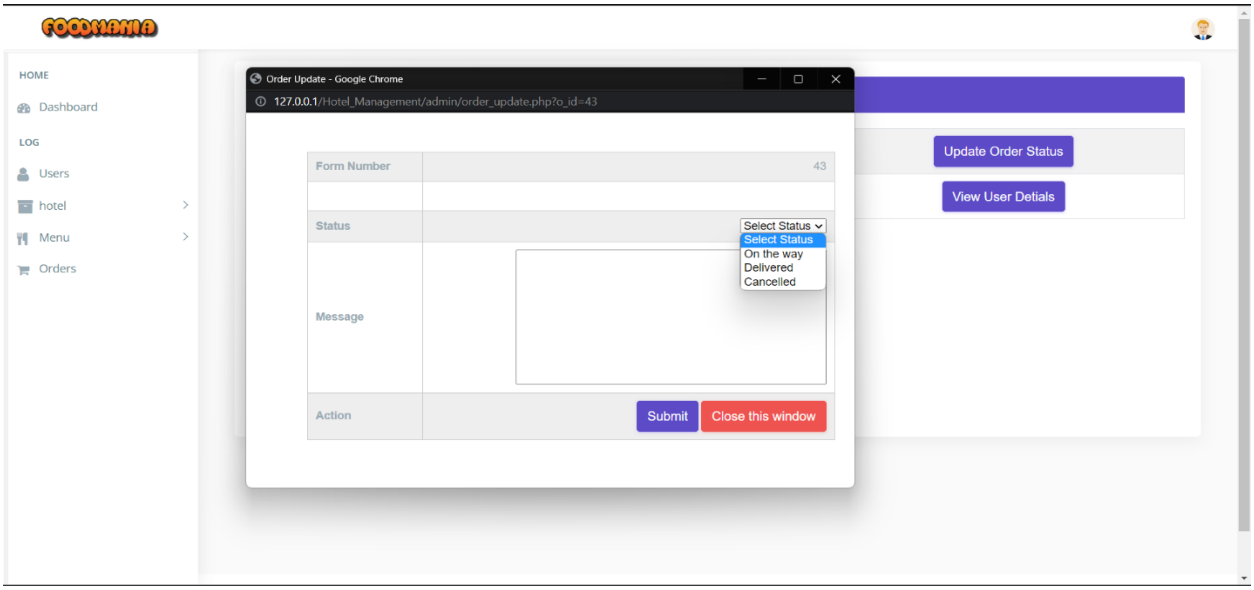

FIGURE 4.2.7 : Update Order form

CHAPTER 5

SYSTEM TESTING

The aim of the system testing process was to determine all defects in our project .The program was subjected to a set of test inputs and various observations were made and based on these observations it will be decided whether the program behaves as expected or not.

Our Project went through two levels of testing:

1.Unit testing

2. Integration testing

5.1 UNIT TESTING

Unit testing is undertaken when a module has been created and successfully reviewed. In order to test a single module we need to provide a complete environment where-in besides the module we would require :

- The procedures belonging to other modules that the module under test calls
- Non local data structures that module accesses
- A procedure to call the functions of the module under test with appropriate parameters

Unit testing was done on each and every module that is described under form design description:

1. Test for the admin module:

- Testing admin login form :- This form is used for log in of administrator of the system. In this we enter the username and password if both are correct administration page will open otherwise if any of data is wrong it will get redirected back to the login page and again ask for username and password
- Test for account creation :- This form is used for new account creation .When the user does not fill the form completely, it asks again to fill the whole form. When he fill the form fully it gets redirected to the login page which asks the user to login with his newly created account details.
- Category Addition :- In this section, the admin can verify if a specific category of dishes are available among the hotels on his website using hotel info and then only add the dish

category to category database. If the user clicks on a particular dish category the hotels where that category of dishes are available will appear on the page.

- Hotel Addition :- In this section, the admin can a add new hotel to the hotel database if the hotel comes under one the delivery locations by filling the details of the hotel in the form.if the user click on hotel, the newly added hotel will also appear on the hotels web page.
- Menu Addition :- Admin can enter a new dish item if it is available on any of the hotels present in the database by adding details to the dish table.

2. Test for User login module :

- Test for User login Form :- This form is used for log in of User.In this we enter the username and password .If both of these are correct login page will open, otherwise if any of data is wrong, it will get redirected back to the login page and again ask for username and password.
- Test for account creation :- This form is used for new account creation. When user does not fill the form completely, it asks again to fill the whole form. When he fill the form fully and correctly, it gets redirected to home page and his data will be added to the database.

CHAPTER 6

SNAPSHOTS

User view :

FIGURE 6.1 : Home Page of our website

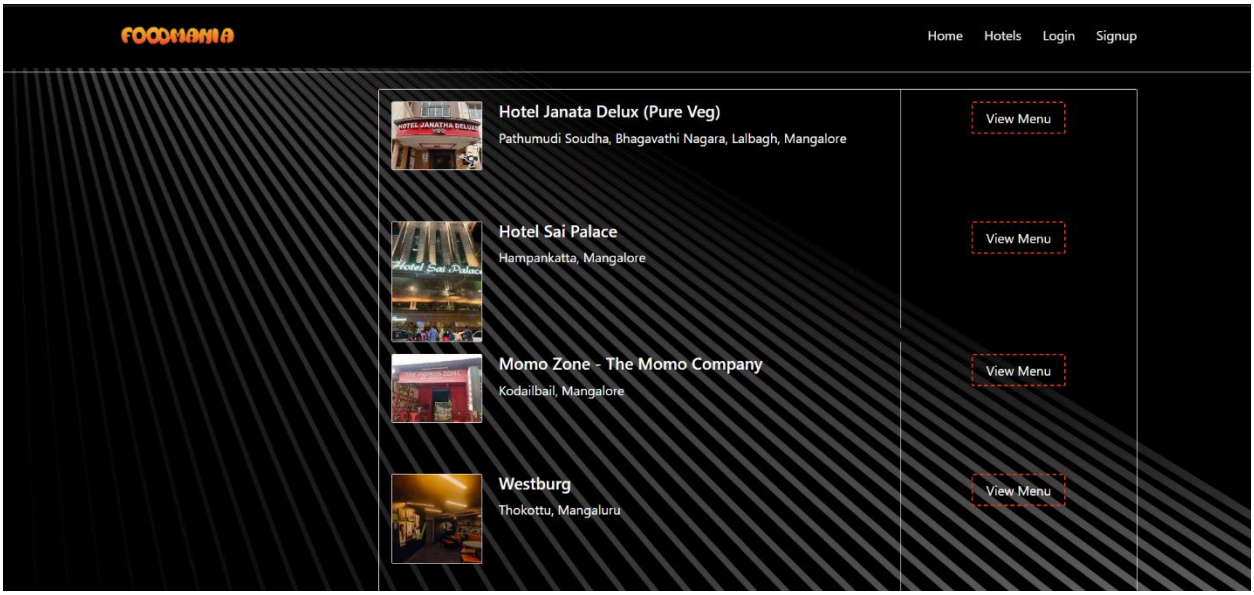

FIGURE 6.2 : Hotel Listing

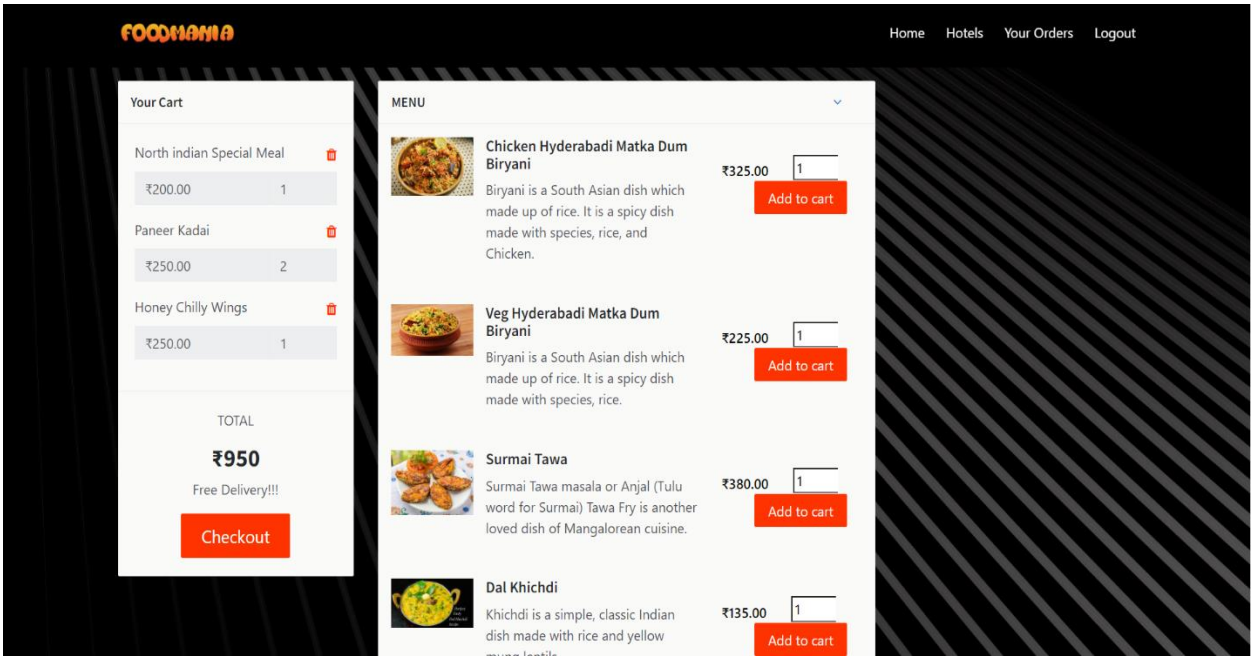

FIGURE 6.3 : Add to cart

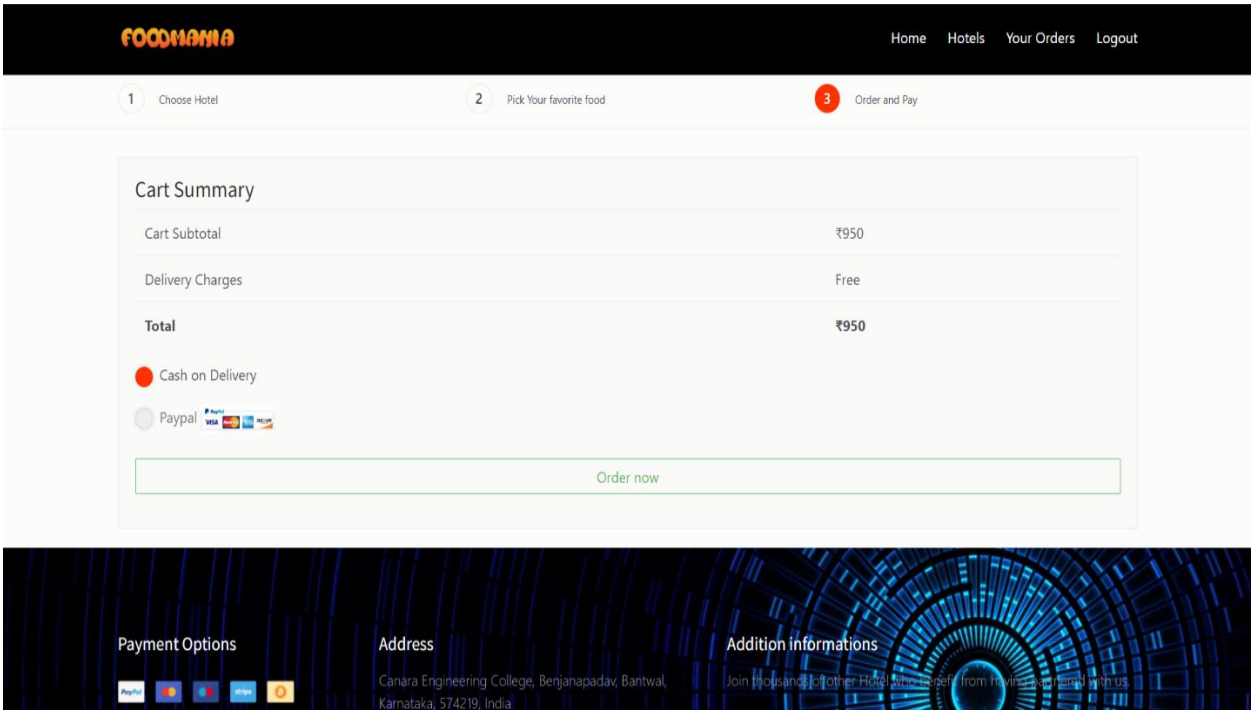

FIGURE 6.4 : Payment and order confirmation page

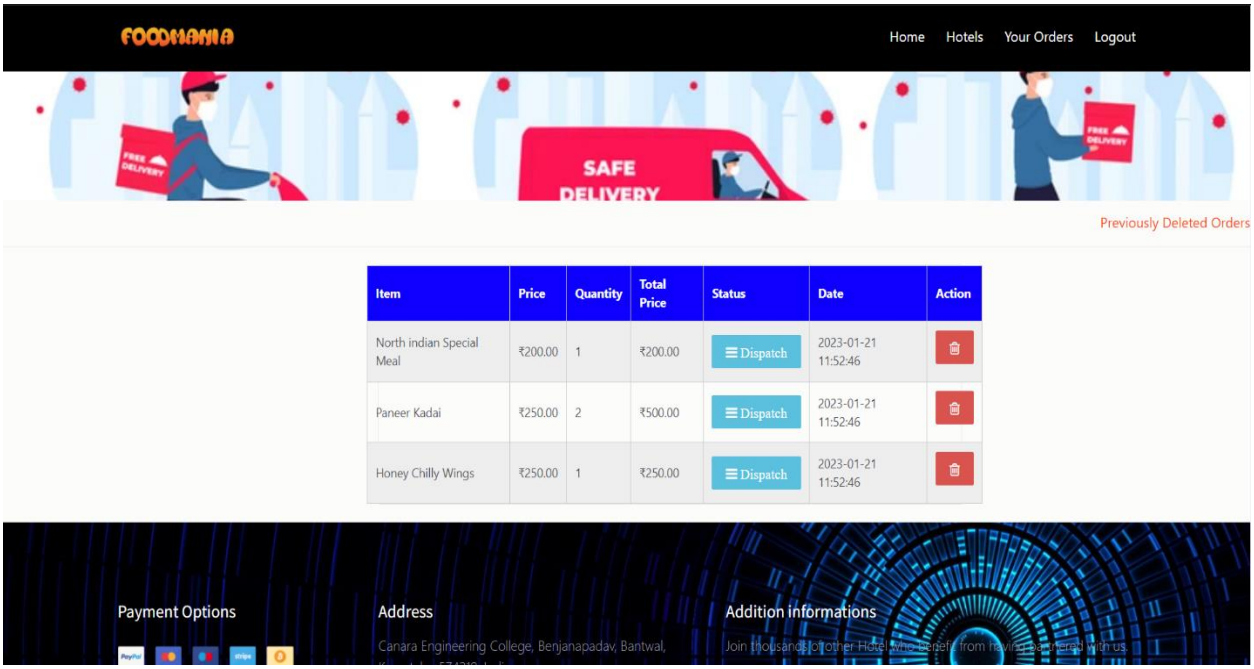

FIGURE 6.5 : Dish order details

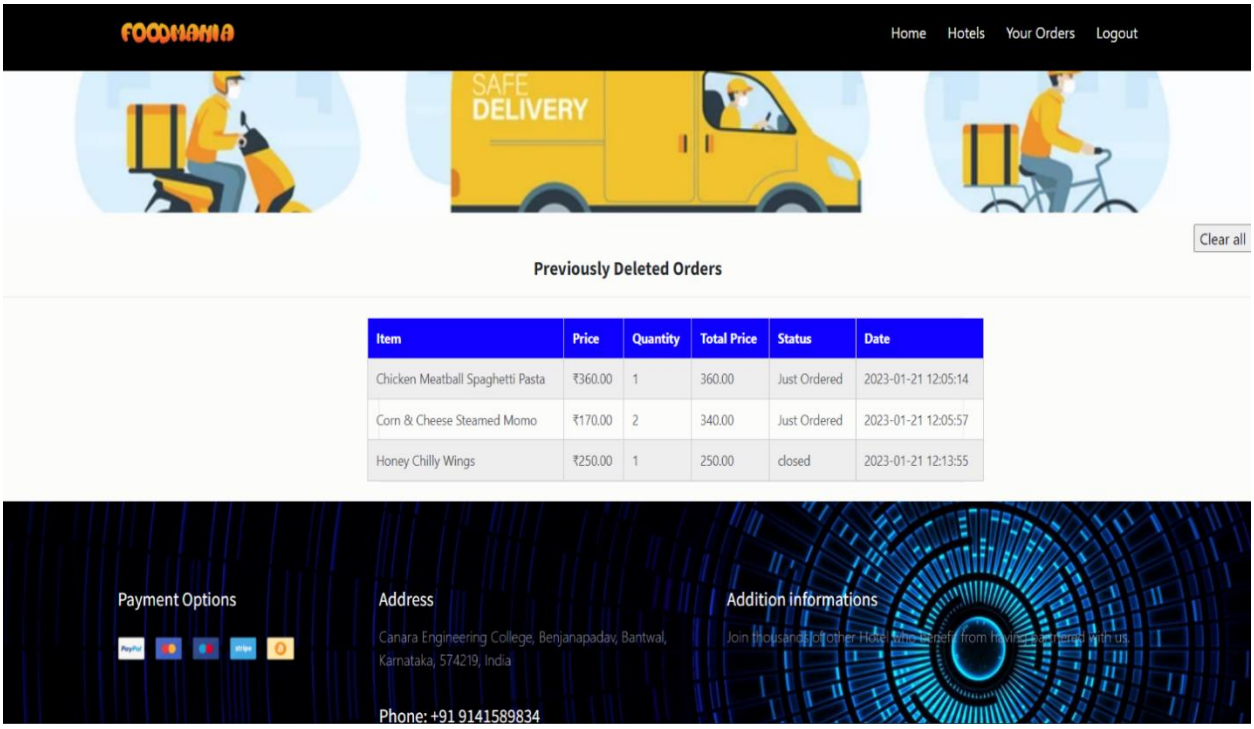

FIGURE 6.6 : Previously deleted orders

Admin View :

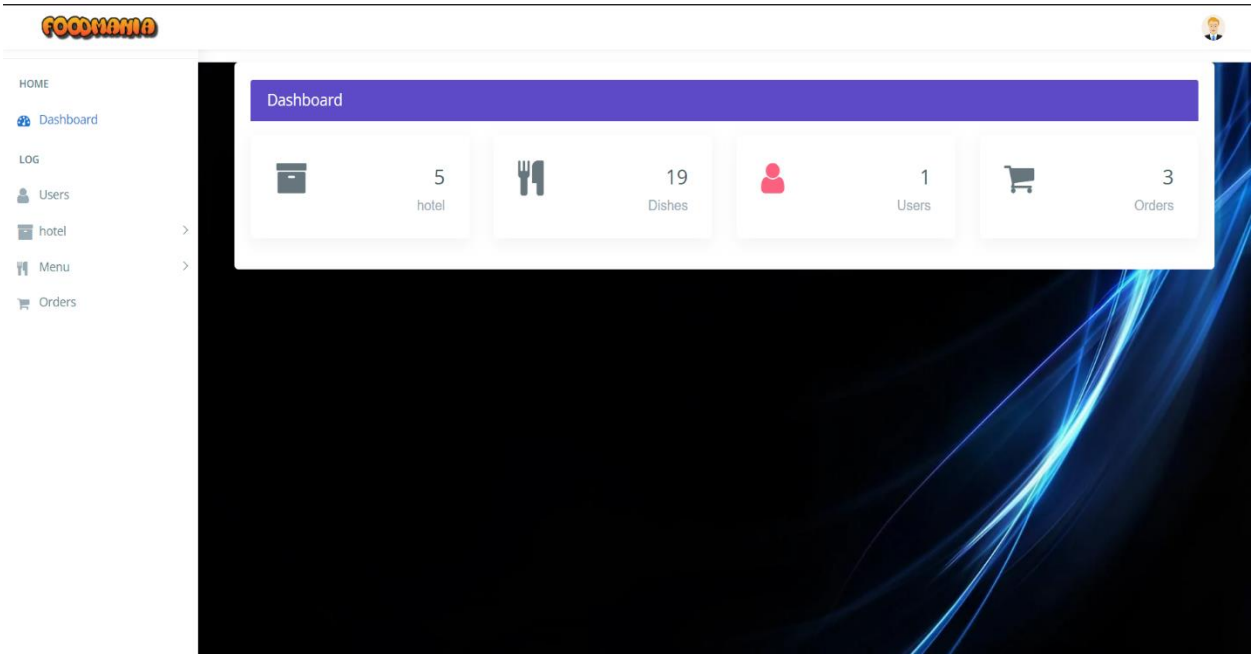

FIGURE 6.7 : Admin Dashboard

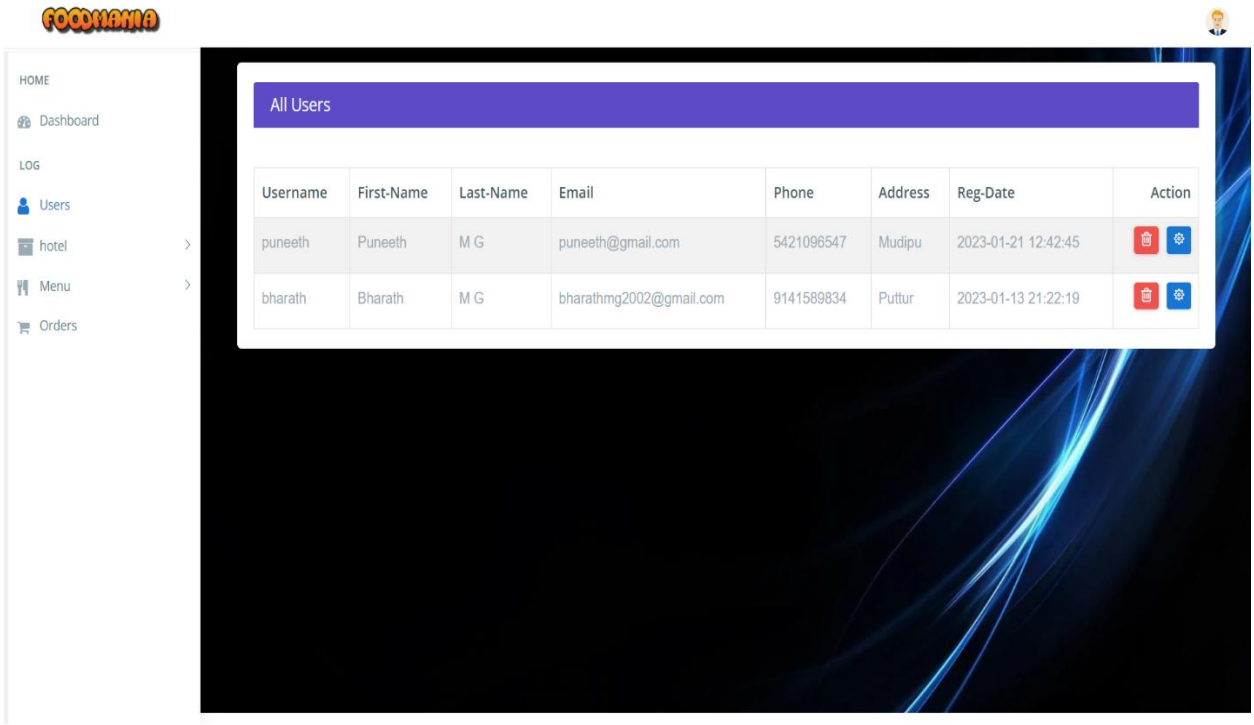

FIGURE 6.8 : All users view page

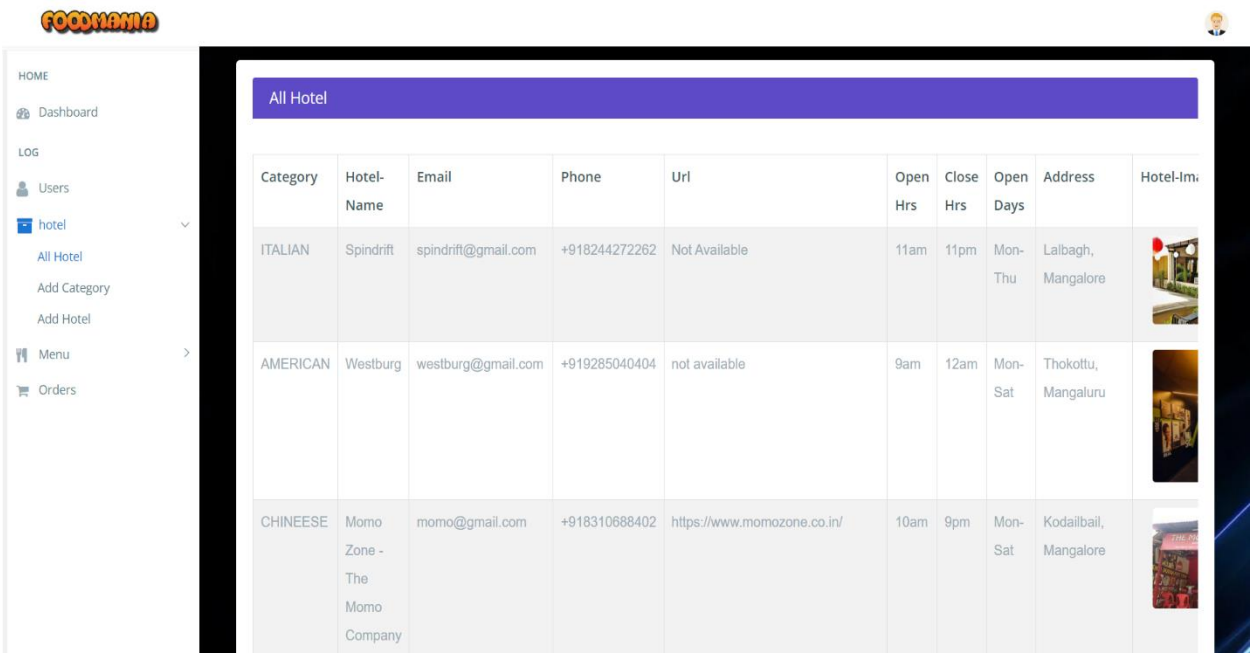

FIGURE 6.9 : All Hotel added list page

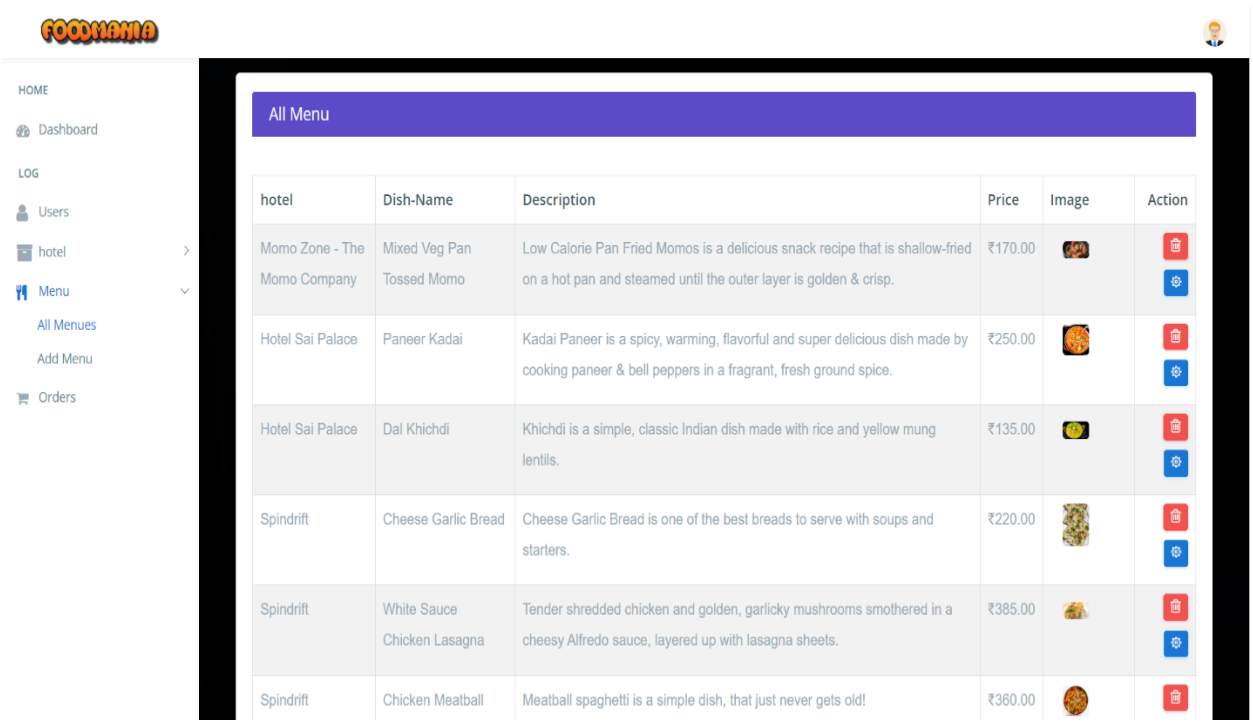

FIGURE 6.10 : All Menu added list page

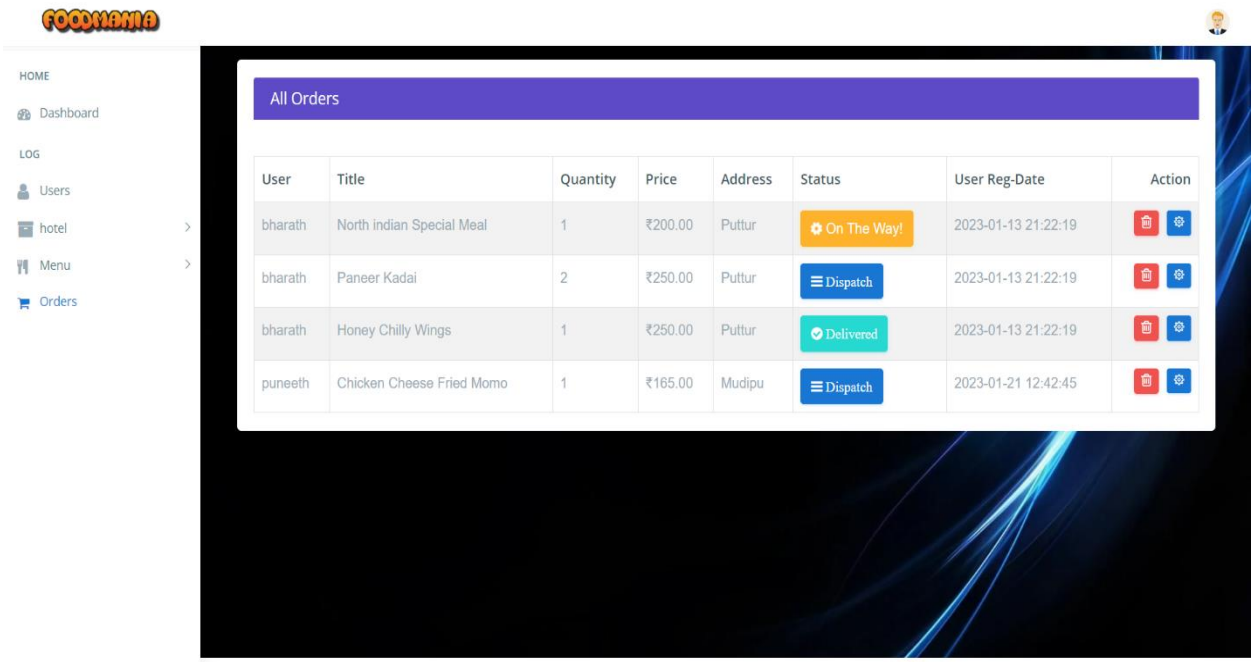

FIGURE 6.11 : All Users Dish ordered list

CHAPTER 7

CONCLUSION AND SCOPE FOR FUTURE WORK

The Hotel Management system is developed where the customers can make an order for the food and avoid the hassles of waiting for the order to be taken by the waiter. Using this website, the end users register online, read the E-menu card of particular hotel and select the food from the e-menu card to order food online. Once the customer or user selects the required dish item the chef will be able to see the results on the screen and start processing the food. This website nullifies the need of a waiter or reduces the workload of the waiter. Therefore by using this website, the users can directly place the order for food online. In conclusion the hotel management system is proposed which is useful in small family run hotels as well as in places like college cafeteria, etc.

This project can later be expanded on a larger scale. It is developed for hotels to simplify their routine managerial and operational task and to improve the dining experience of the clients. This also helps the hotel owners develop healthy customer relationships by providing reasonably good services. The system also enables the hotel to know the items available in real time and make changes to their dishes inventory based on the orders placed and the orders completed.

BIBLIOGRAPHY

[1] Ramez Elmasri, Shamakant Navathe, Fundamentals of Database Systems, 7th edition, Pearson Education, 2017.

[2] My SQL tutorial : https://www.youtube.com/watch?v=WmGgxTpGs_8

[3] W3 School for HTML ,CSS ,PHP ,JS : https://www.w3schools.com/

[4] https://www.youtube.com/watch?v=6mbwJ2xhgzM

[5] https://www.javatpoint.com/html-with-css