VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI-590014, KARNATAKA

A Mini Project Report

On

"Online Food Ordering System"

Submitted in Partial Fulfillment of the Requirement for

"DBMS Laboratory with Mini Project(18CSL58) -V Semester"

For the Award of Degree

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE & ENGINEERING

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Certificate

Certified that the Mini Project Work entitled **"ONLINE FOOD ORDERING SYSTEM"** carried out by **SUPRITH K S (1SG18CS116) & NIRANJAN S (1SG18CS065),** students of **Sapthagiri College of Engineering**, in partial fulfillment for the award of **Bachelor of Engineering degree in Computer Science and Engineering of Visvesvaraya Technological University, Belagavi** during the academic year 2020-21. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The mini-project report has been approved as it satisfies the academic requirements in respect of **DBMS Laboratory with Mini Project (18CSL58)** prescribed for the said Degree.

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2._____	_____

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ABSTRACT

The purpose of Online Food Ordering System is to automate the existing manual system by the help of computerized equipments 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 and reliable to work with.

Online Food Ordering System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

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CHAPTER 1

INTRODUCTION

1.1 Introduction to DBMS

Database is a collection of related data. DBMS came into existence in 1960 by Charles. Again in 1960 IBM brought IMS-Information Management System. In 1970 Edgar Codd at IBM came up with a new database called RDBMS. In 1980 came SQL ArchitectureStructured Query Language. Between 1980 to 1990 there was advances in DBMS e.g. DB2, ORACLE. A database has the following implicit properties:

- A database represents some aspect of the real world, sometimes called the mini world or the universe of discovers (UOD). Changes to the mini world are reflected in the database.
- A database is a logically coherent collection of data with some inherent meaning. A random assortment of data cannot be referred to as a database.
- A database is designed, built and populated with data for a specific purpose. It has an intended group of users and some preconceived applications in which these users are interested.

In other words, a database has some source from which data is derived, some degree of interaction with events in the real world, and an audience that is actively interested in its contents.

Metadata (metadata, or sometimes meta information) is “data about data”, of any sort in any media. An item of metadata may describe a collection of data including multiple content items and hierarchical levels, for example a database schema. In data processing, metadata is definitional data that provides information about or documentation of order data managed within an application or environment. The term should be used with caution as all data is about something, and is therefore metadata.

A database management system (DBMS) is a collection of programs that enables users to create and maintain the database. The DBMS is a general purpose software system that

facilitates the process of defining, constructing, manipulating and sharing database among various users and applications. Defining a database specifying the database involves specifying the data types, constraints and structures of the data to be stored in the database.

The descriptive information is also stored in the database in the form of a database catalogue or dictionary; it is called meta-data. Manipulating the data includes querying the database to retrieve the specific data. An application program accesses the database by sending the queries or requesting for data for DBMS. The important function provided by the DBMS includes protecting the database and maintaining the database.

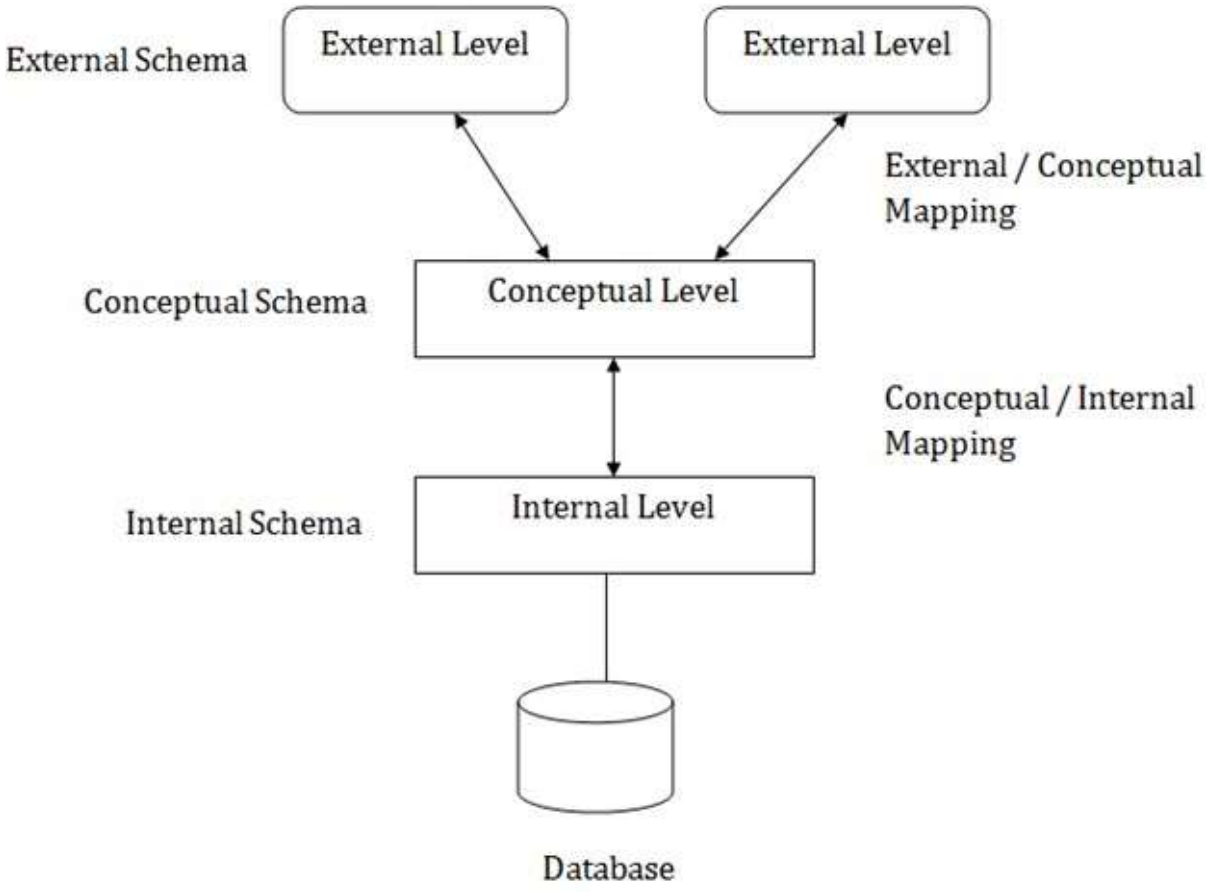

Figure 1.1: Three Schema Architecture

The Figure 1.1 shows the Three Schema Architecture of Database Management System. The architecture has three levels:

- **External level:**

  The external level is the view that the individual user of the database has. This view is often a restricted view of the database and the same database may provide a number of different views for different classes of users. In general, the end users and even the application programmers are only interested in a subset of the database.

- **Conceptual level:**

  The conceptual view is the informational model of the enterprise and contains the view of the whole enterprise without any concern for the physical implementation. The conceptual view is the overall community view of the database and it includes all the information that is going to be represented in the database.

- **Internal level:**

  The internal view is the view about the actual physical storage of data. It describes what data is stored in the database and how.

1.2 Overview of the project

Problem statement :

Online Food Ordering System is a form of electronic commerce which allows customers to directly buy food items from a restaurant over the Internet using a web browser. Customers can find items of interest by visiting these online food ordering websites.

Objectives of the project :

The main objective of the Project on Online Food Ordering System is to manage the details of Food Item, Category, Customer, Order, Confirm Order. It manages all the information about Food Item, Payment, Confirm Order, Food Item. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the Food Item, Category, Payment, Customer. It tracks all the details about the Customer, Order, Confirm Order.

- Provides the searching facilities based on various factors. Such as Food Item, Customer, Order, Confirm Order
- Online Food Ordering System also manage the Payment details online for Order details, Confirm Order details, Food Item.
- It tracks all the information of Category, Payment, Order etc
- Manage the information of Category
- Shows the information and description of the Food Item, Customer
- To increase efficiency of managing the Food Item, Category
- It deals with monitoring the information and transactions of Order. Manage the information of Food Item
- Editing, adding and updating of Records is improved which results in proper resource management of Food Item data.
- Manage the information of Order
- Integration of all records of Confirm Order.

CHAPTER 2

SYSTEM DESIGN AND METHODOLOGY

2.1 System Architecture

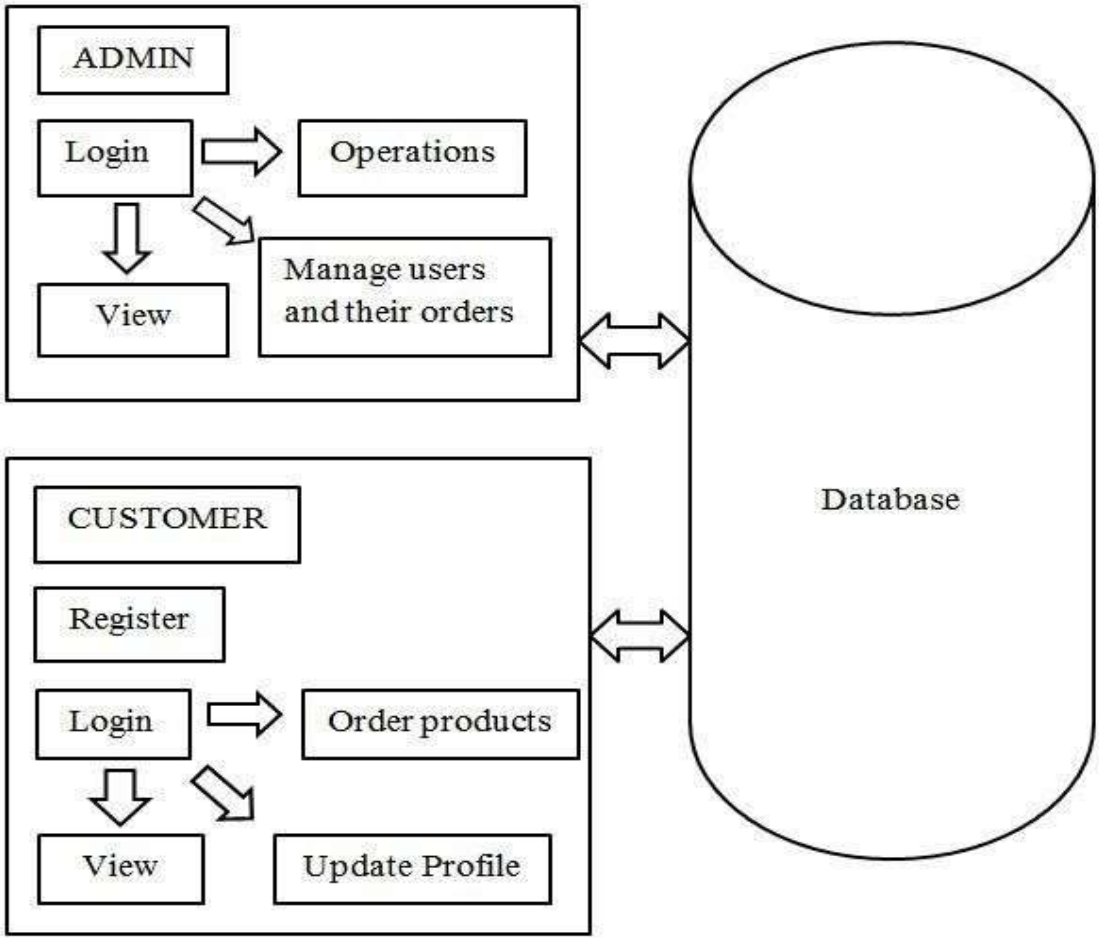

Figure 2.1: System Architecture of Online Food Ordering System

The above figure 2.1 describes the system architecture of Online Food Ordering System. The architecture consists of a centralized database, which can be accessed by admin and normal users or customers. Administrative access is required for the admin, which is implemented through login module by which the admin can login with the registered userId and password.

Once login is successful, the admin can manipulate the updating or deleting customers or users and their orders, adding, updating and deleting categories and food items. If the admin

fails to login, the admin gets a popup message that the userId and password are incorrect. The admin needs to enter valid userId and password once again.

A customer first needs to register in the website by filling up valid userId ,name, email, address and password. Username should be unique and if it is already been taken then a popup message is displayed that the username is already taken. Password confirmation should be made by retyping the password again. If the password and password confirmation do not match then it produces a popup message stating that retype the password again.

On successful registration, customer can login through valid userId and password. On successful login, customer is directed to food item list where customers can view food items of their interest and then add to cart, select delivery address, make payment and order the food item. Customer can also update their password and address .

2.6 ER Diagram

An entity-relationship model describes inter-related things of interest in specific domain of knowledge. An ER module is composed of entity types and specifies relationships that can exist between instances of those entity types. It is a data modeling technique that graphically illustrates an information systems entities and the relationship between those entities.

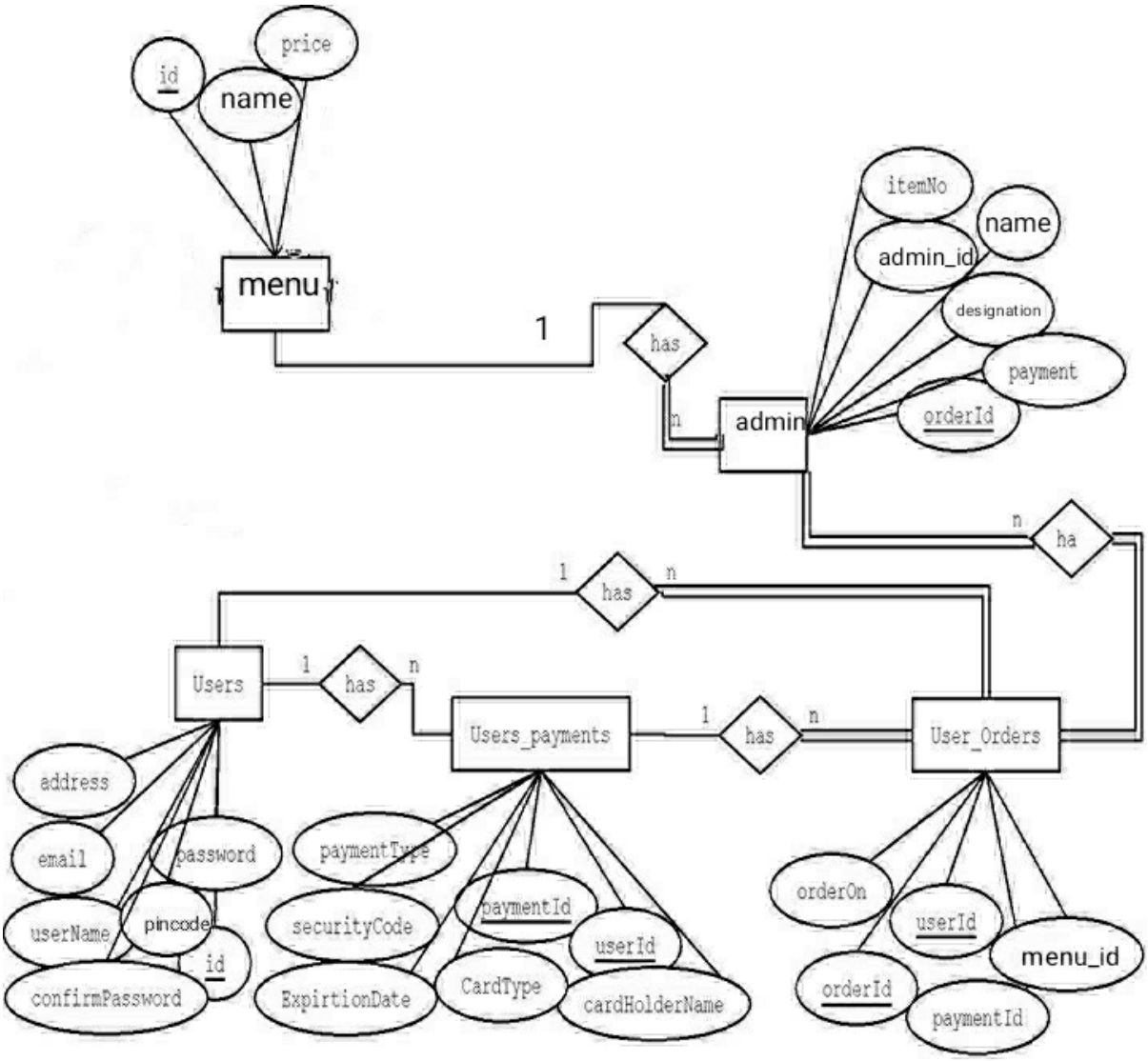

Figure 2.6: ER Diagram

2.5 Schema Diagram

A database schema is a skeleton structure that represents the logical view of the entire database. It defines tables, views and integrity constraints.

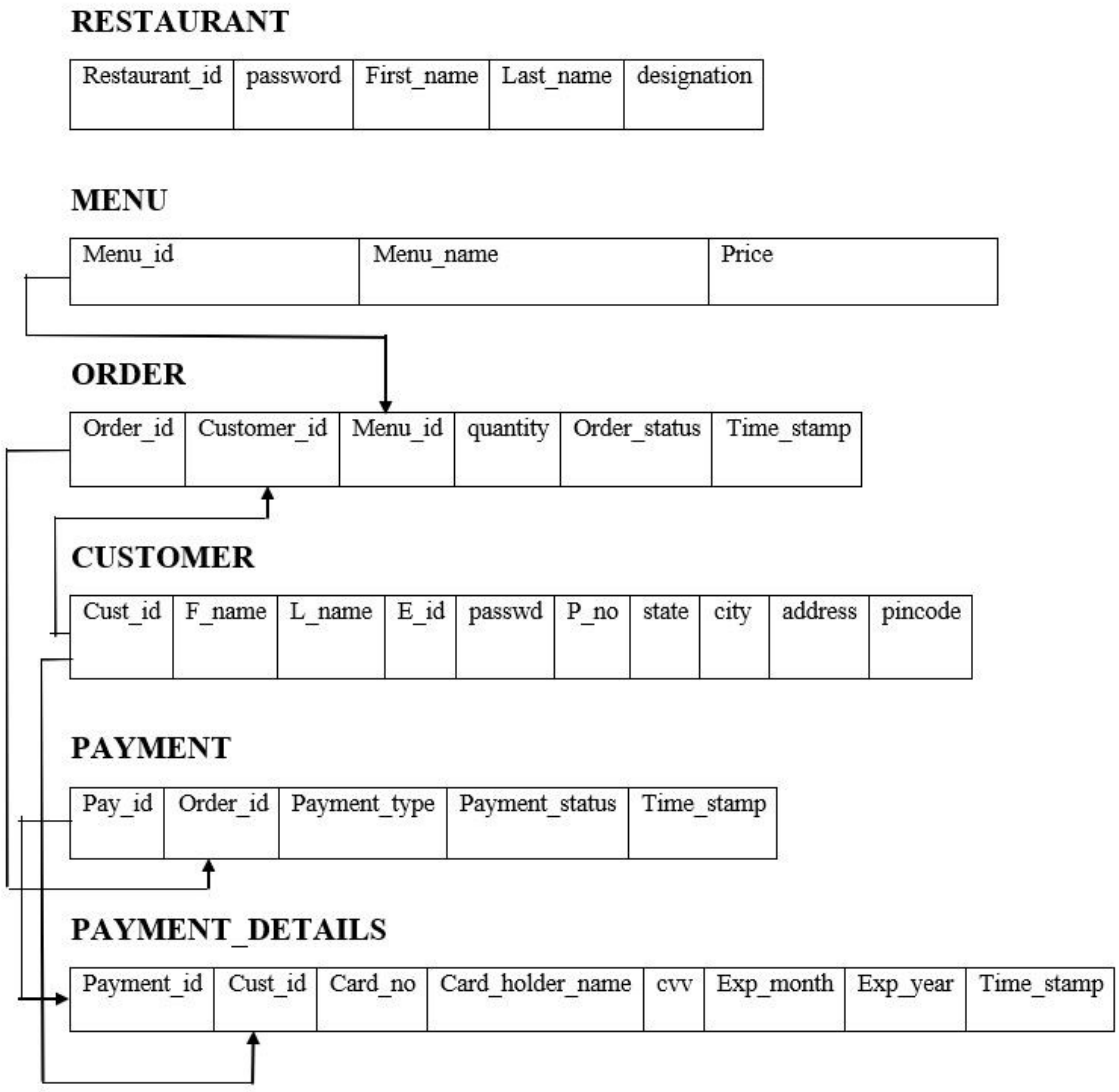

Figure 2.5: Schema Diagram

2.4 Algorithm :

Stored procedure

STEP 1: BEGIN

STEP 2: DELIMITER $$

STEP 3: CREATE DEFINER=`root`@`localhost` PROCEDURE `order_list` () NO SQL

```
SELECT
o.order_id,o.customer_id,m.menu_name,p.payment_type,CONCAT(c.phone_no,'
,',c.state,' ,',c.city,' ,',c.landmark,' ,',c.pincode) AS Address,o.quantity as Qnt

FROM orders o INNER JOIN menu m ON m.menu_id=o.menu_id INNER JOIN
payment p ON p.order_id=o.order_id INNER JOIN customer c ON
c.customer_id=o.customer_id

WHERE o.order_status='PAYMENT_CONFIRMED' ORDER BY p.time_stamp
ASC$$

DELIMITER ;
```

STEP 4: END

Stored procedure is a set of sql statement . The procedure is created by the name Order list in the created definer `root`@`localhost` with select all the attributes of orders table by giving order id as condition .

Trigger :

STEP 1: BEGIN

STEP 2: AFTER INSERT ‘orders’

STEP 3: DELIMITER $$

STEP 4: CREATE TRIGGER `res_id` BEFORE INSERT ON `restaurant` FOR EACH ROW

BEGIN

SET NEW.restaurant_id = (SELECT MAX(restaurant_id) + 4 FROM restaurant);

END//

DELIMITER ;

STEP 5: END

A trigger is a special type of stored procedure that automatically executes when an event occurs in the database server. A trigger named insert_member is created for the table member using the action ‘after insert’, all the tuples will be inserted into the table gym_backup after the insertion in member table.

CHAPTER 3

SYSTEM IMPLEMENTATION

To implement this system Java ,NetBeans IDE 8.2 is used for backend and XAMPP is used for frontend.

System requirements :

Hardware Requirements

Processor	: Intel Core
Processor speed	: 13 GHz
Ram size	: 1 GB RAM (min)
Minimum disk space	: 250 GB space (min)

Software Requirements

Database	: MySQL
Front End	: XAMPP, Scene Builder
Back End	: Netbeans IDE 8.2
Technologies	:java , MySQL , javaFX , JFoenix

3.1 Admin module:

INPUT:

The login inputs are UserId and password.

OUTPUT:

A successful login shall direct admin to view orders, also can process orders. If the login attempt fails, popup message will be displayed that the userId and password are invalid and admin needs to retype the userId and password again.

DESCRIPTION:

Frontend is designed using XAMPP. Login page consists of a form with userId, password fields. On filling the form the admin should click on the login button. If the userId and passwords are valid then admin is directed to order list page. If not popup message will be displayed stating that the username and password are invalid.

OBJECTIVES:

- The main purpose of this module is to provide all the functionality such as create, update and delete options to categories, products, orders, order items, users and their profiles only to admin and not for customers.
- Admin can view list of users and only he can update user's details or can also delete users.
- Admin can view list of categories and products
- Only admin can create new categories and products, update or delete existing categories and products.
- Admin can manipulate the orders and order items of customers (users).

3.2 Customer module:

INPUT:

Inputs for registration are Username, Email id, Password . Inputs for login are Username, Password.

OUTPUT:

On successful registration, customer will be redirected to login page to login. If not popup message will displayed informing customer that invalid email or password.

A successful login shall direct customer to food item list page. If the login attempt fails, popup message will be displayed that the email id and password are invalid and customer needs to retype the email id and password again.

DESCRIPTION:

Frontend is designed using XAMPP, Scene Builder. Registration page consists of a form with username, email id, password ,address ,phone number fields. Login page consists of a form with email id, password fields. On filling the form the customer should click on the submit button. If the username and passwords are valid then admin is directed to food item list

page. If not a popup message will be displayed stating that the email id and password are invalid.

OBJECTIVES:

- The main objective of customer module is to provide all the required limited functionality to customers.
- Customer can view the list and details of categories and food items .
- Customer can add items to his cart, change the quantity of items required, select delivery address, make payment.
- Customer can update his password and address in the settings page ,He can also view his previous orders list.

3.3 menu module:

INPUT:

Inputs for menu module are menu id ,item name, item image, price.

OUTPUT:

The item will be successfully added to the cart and pop up message will be displayed.

DESCRIPTION:

Frontend is designed using XAMPP, Scene Builder .The items ordered by the customer will be added to the cart and the details regarding menu id, item name and price will be displayed .The customer can modify items of his own interest.

OBJECTIVES:

- The main purpose for developing this module is to provide menu id, item name and price.
- Items will be managed by customer will be able to see food items and order the items.
- Admin can create a new product or update an existing product.
- Admin can even delete a product.

3.4 Order module

INPUT:

Inputs for this module are order id ,customer id ,menu id ,quantity and the order status.

OUTPUT:

An order will be created when customer add items to the cart with details of menu id, price and quantity.

DESCRIPTION:

Frontend is designed using XAMPP, Scene Builder. When customer add items to the cart the order will be created with menu id ,item name, price and quantity. If the items are not yet ordered, a pop up message will be displayed stating that the cart is empty. If the items are added , The customer can confirm his order and also can view his order status.

Order module also has a method to calculate total price.

OBJECTIVES:

- The main objective of this module is to manage customer's orders.
- Customer can order the items and also view his order status .
- Customer can view his previous orders
- The customer can manage orders of his own interest.

3.5 payment module:

INPUT:

Inputs for payment module are order id, payment type, payment status .

OUTPUT:

The payment made by the customers for the orders can be viewed by the admin .the customer can select the payment mode by cash on delivery or online payment .

DESCRIPTION:

Frontend is designed using using XAMPP, Scene Builder. If the customer select online payment he must furnish the details of the card number , card holder name ,CVV ,date and year of expiry , on successful payment of the order ,A popup message will be displayed as “thank you for ordering”.

OBJECTIVES:

- The main objective of this module is to manage customer’s payment.
- The module provides the payment for the orders to the customers of his own interest .
- Admin can only view the payment details of the customer.
- And also this module stores the payment mode of the customer .

3.6 payment details module:

INPUT:

Inputs for payment module are payment id , order id, card details of the customer.

OUTPUT:

The payment made by the customers for the orders can be viewed by the admin . The admin can view the mode of the payment .

DESCRIPTION:

Frontend is designed using using XAMPP, Scene Builder. If the customer select online payment he must furnish the details of the card number , card holder name ,CVV ,date and year of expiry , on successful payment of the order .The payment details of the customer will be stored.

OBJECTIVES:

- The main objective of this module is to manage customer’s payment.
- The module provides the payment for the orders to the customers of his own interest .
- Admin can only view the payment details of the customer.
- This module stores the payment id , order id, card details of the customer and also this module stores the payment mode of the customer .

CHAPTER 4

RESULTS AND SCREENSHOTS

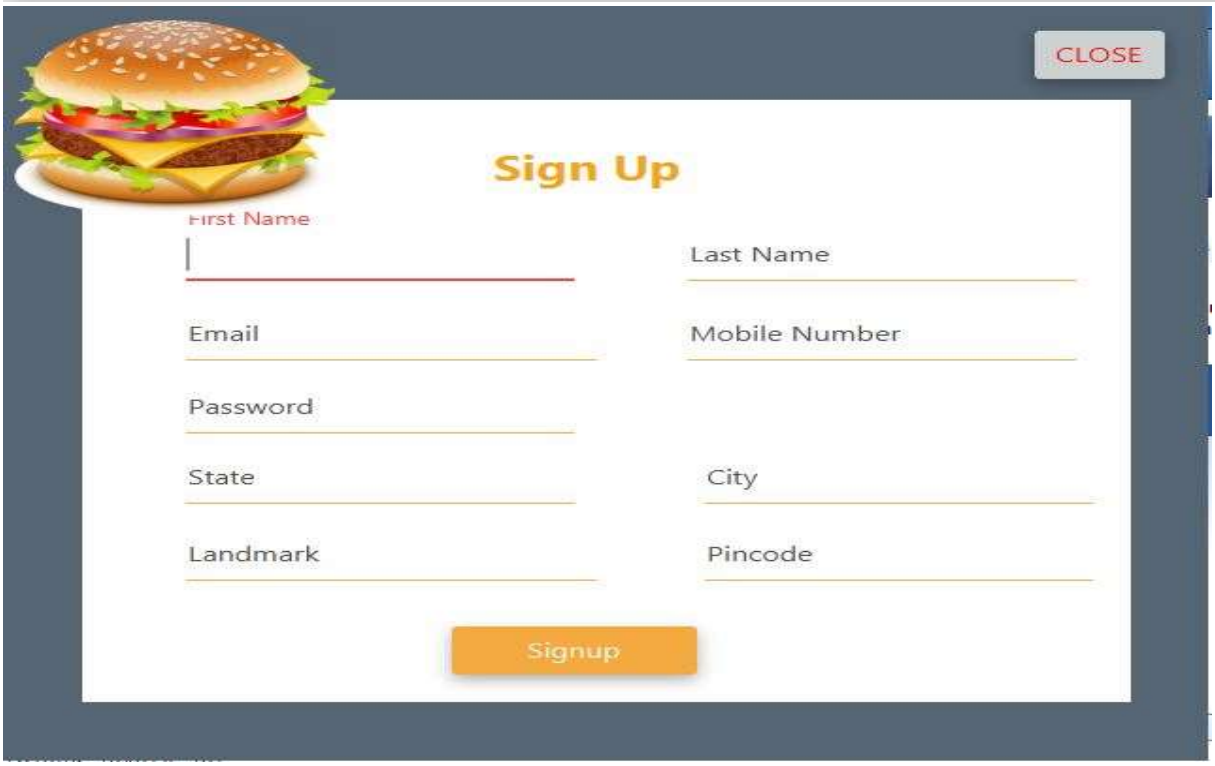

Figure 4.1: sign up page

Figure 4.1 represents a sign up page through which customer can sign up with their details.

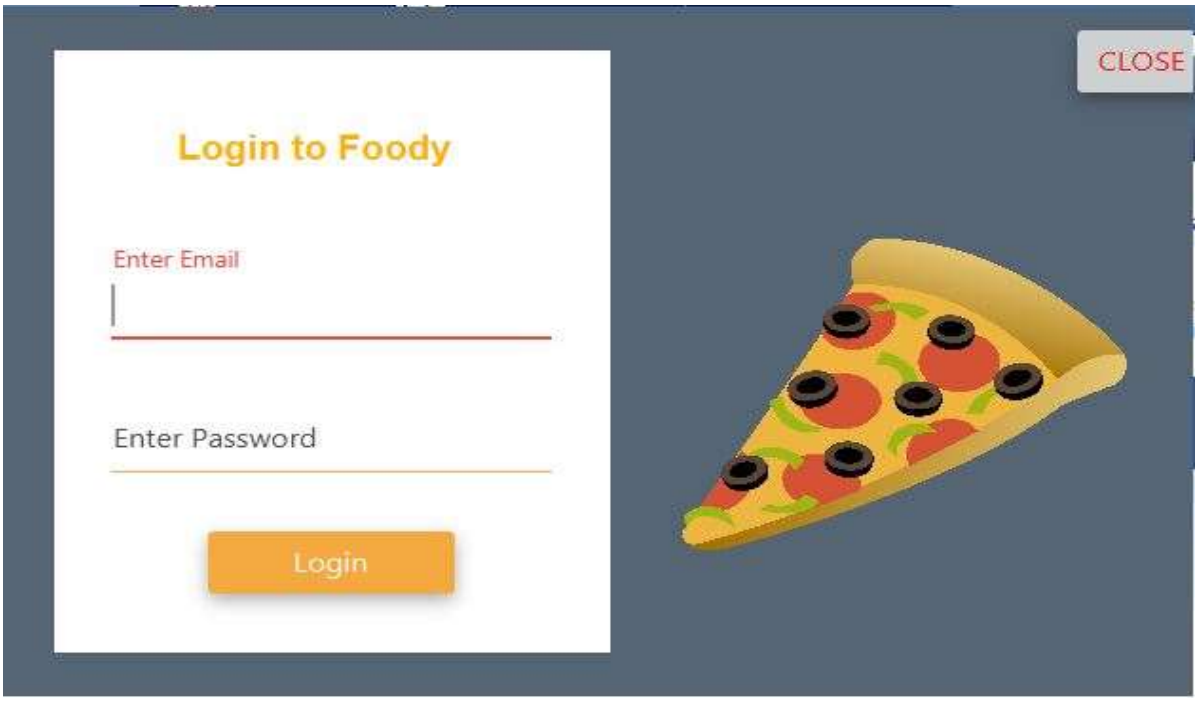

Figure 4.2: Login page

Figure 4.2 represents a login page through which customer can login.

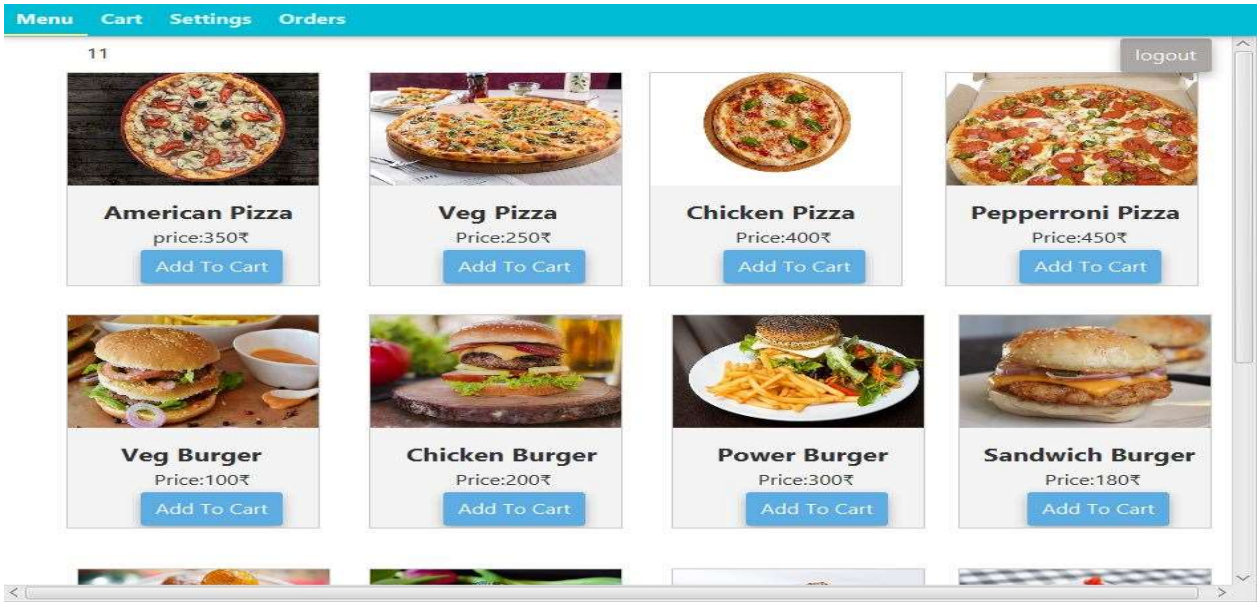

Figure 4.3: menu page

Figure 4.3 represents menu page in which all the items are displayed for customers .

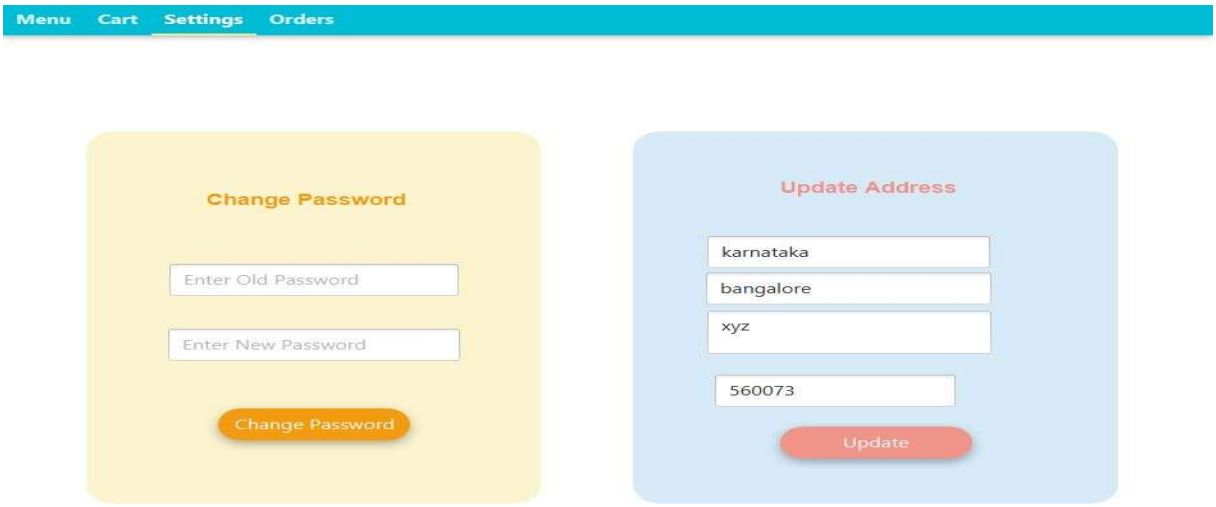

Figure 4.4: settings page

Figure 4.4 represents settings page where customer can change password and update the address.

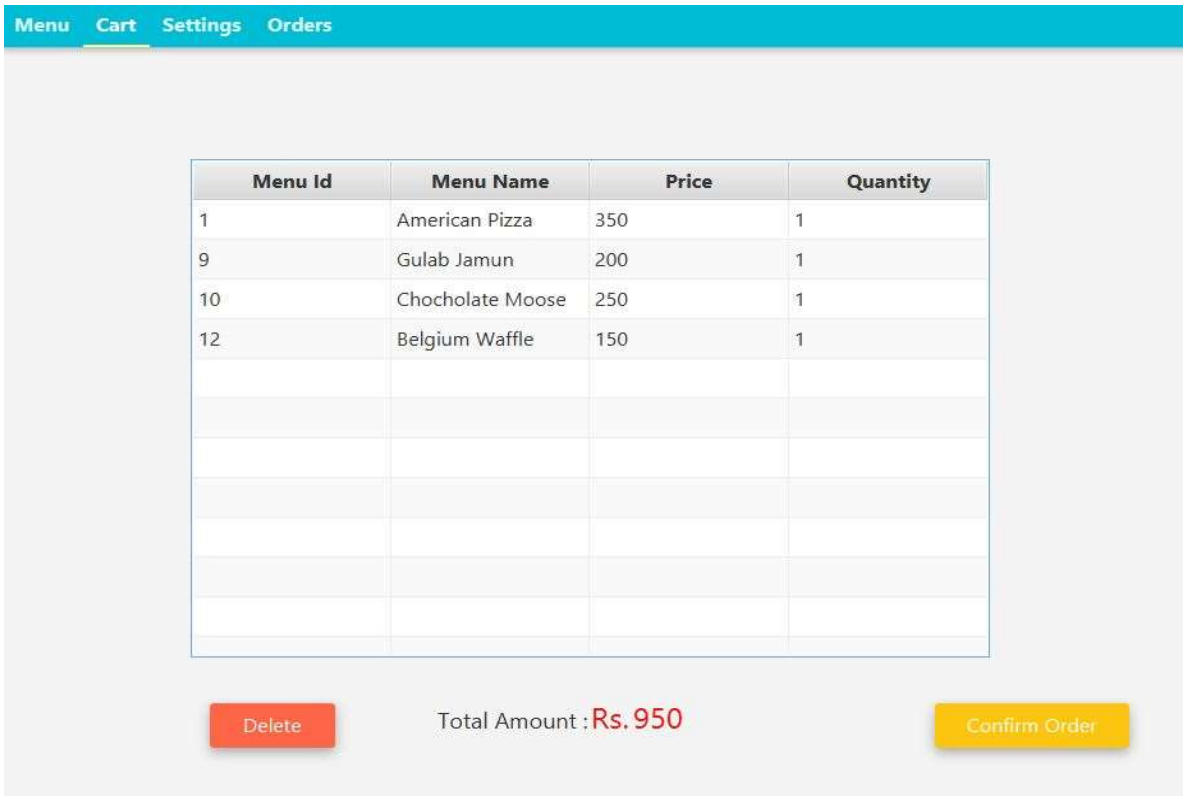

Figure 4.5: cart page

Figure 4.5 represents a Cart page which displays the order of the customer and confirm the orders.

Figure 4.6: payment page

Figure 4.6 represents payment page which allows customers to make payment for their orders, And a popup message is displayed after payment is confirmed .

Figure 4.7: order details page

Figure 4.7represents order details page where customers order status is displayed .

Figure 4.8: admin login

Figure 4.8represents Admin page where admin can login through his user id and password.

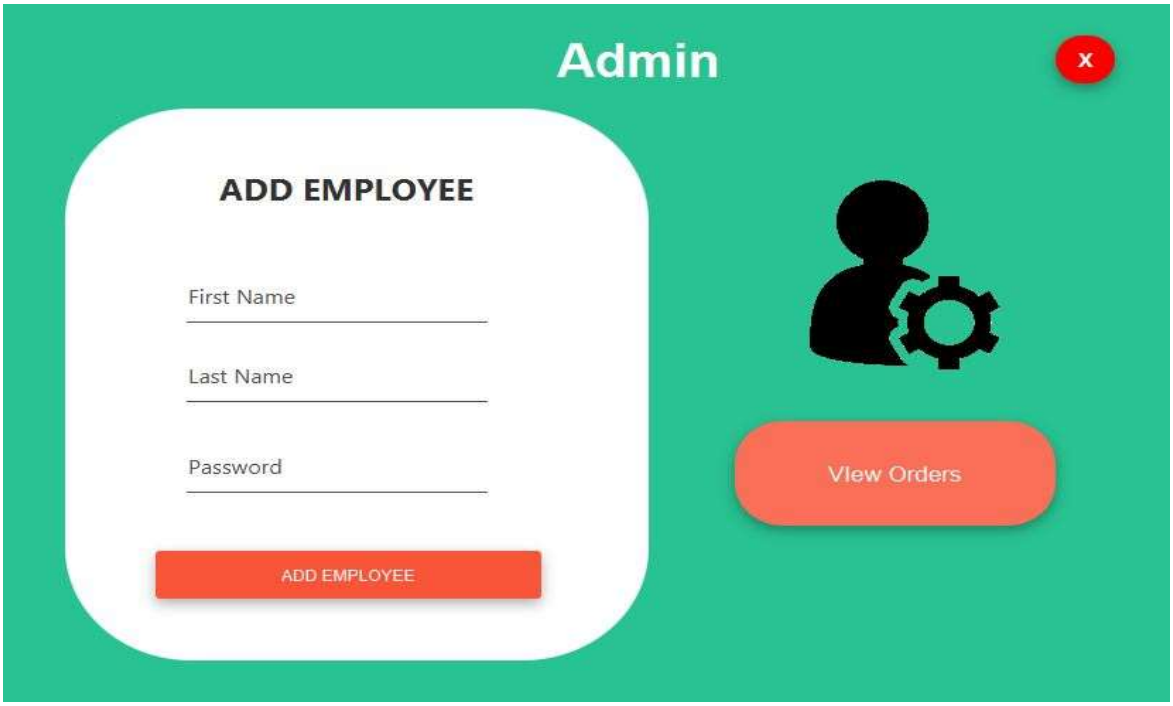

Figure 4.9: Admin page

Figure 4.9 represents admin page , in this admin can add employee and view orders .

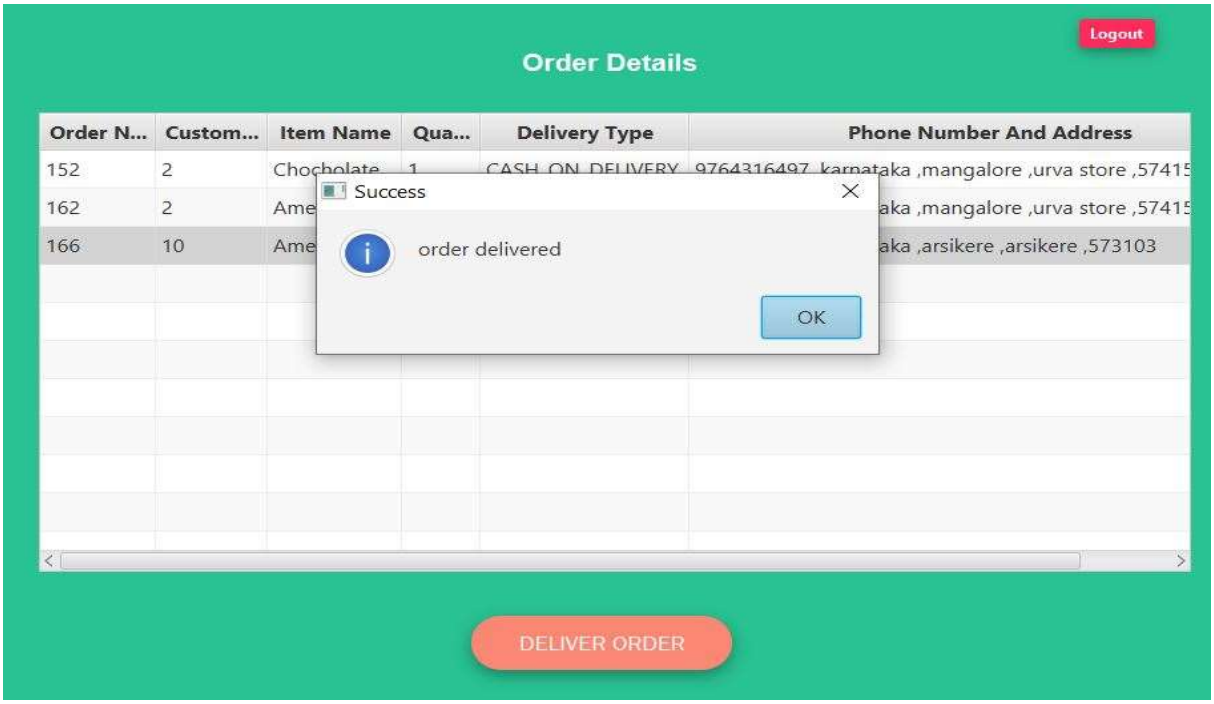

Figure 5.0: Customer's orders and delivery details page

Figure 5.0 represents Customer's orders and delivery details page which provides details of the order and displays the popup message when order is delivered .

CHAPTER 5

CONCLUSION AND FUTURE WORKS

"Online Food Ordering System" is a form of electronic commerce which allows consumers to directly buy food items from a restaurant over the Internet using a web browser. Customers can find food items of interest by visiting these online Food Ordering websites. It is designed to reduce time for customers as it provides wide variety of food items which the customer can buy.

While developing this project we have learnt a lot about database management and working with database management, we have also learnt how to make the application user-friendly by hiding the complicated parts of it from the users.

The design and development of online food ordering database as a database administrator system was able to maintain all the details of customer, order and payment .The complete and proper implementation of all the required detail will lead to the effective maintenance of online food ordering system.

During the development process, we studied carefully and understood the criteria for making a software more demanding, we also realized the importance of maintaining a minimal margin for errors.

FUTURE WORKS:

- Customer's activity can be studied and offers based on their activity for specific food items can be given.
- Online payment can be modified with authentication for the secure payment of the customers.

CHAPTER 6

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