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Chapter 1

INTRODUCTION

1.1 Overview of Database Management System

A Database is a collection of related data organized in a way that data can be easily accessed, managed and updated. Any piece of information can be a data, for example name of your school. Database is actually a place where related piece of information is stored and various operations can be performed on it. A DBMS is a software that allows creation, definition and manipulation of database. DBMS is actually a tool used to perform any kind of operation on data in database. DBMS also provides protection and security to database. It maintains data consistency in case of multiple users. Here are some examples of popular DBMS, Sql, Oracle, Sybase, Microsoft Access and IBM DB2. The database system can be divided into four components:

The database system can be divided into System developer and End users.

- Database application: Database application may be Personal, Departmental, Enterprise and Internal.
- DBMS: Software that allow users to define, create and manages database access, Ex: Sql, Oracle etc.
- Database: Collection of logical data. Functions of database management system:
 - Provides Recovery services
 - Provides utility
 - Provides data Independence
 - Provides a clear and logical view of the process that manipulates data.

Advantages of DBMS:

- Segregation of application program
 - Minimal data duplicity
 - Reduced development time and maintenance need.
-

1.2 Problem Statement

Nowadays, with improvement in technology, life has become so easy. Everything is at our finger tips. The main objective of online Restaurant management system is to make life easy, to get things done faster. Many people have experienced going to a restaurant where the service is poor and there is a lack of attention from the wait staff. The paper menus can be flimsy, hard to navigate, and outdated. To leverage the growing mobile industry, the online restaurant proffers solution. This restaurant menu and management system will replace the paper waste, is more maintainable, and allows for greater customer engagement. This system is developed to provide service facility to restaurant and also to the customer. The system is implemented to reduce the manual work and enhances the accuracy of work in a restaurant. This system manages and maintains the record of customers and their orders online.

1.3 Objectives

- To provide online food ordering service to the customer.
- Make an easy user interface.
- To automate day to day activity of a restaurant.
- To avoid unnecessary confusions in a restaurant
- To help restaurant administrator manage the restaurant business and help customer for quality food ordering.

1.4 Data Set Description

Online Restaurant management system is the system for manage the restaurant business. After successful login the customer can access the menu page with the items listed according to the desired time and order anything he wishes. This interface also manages the activities done by the admin. The main point of developing this system is to help restaurant administrator manage the restaurant business and help customer for online ordering.

The database schema is designed to meet the requirements of a restaurant. The portal consists of Admin, Customers, Menu, Order_items and Order_placed module.

Admin module is used for the administrator of the restaurant system. He is the one who uploads the dishes and sets its quantity and prices accordingly. He will be able to view the customers registered, the orders placed and track each and every order.

Customers module is for any user who logs in. The customer needs to login first to avail the benefits of the restaurant.

Menu module consists of the most important aspect of a restaurant, that is the menu itself. Dishes are segregated according to category. Each dish has description, price and quantity present.

Orderitems module consists of the complete detail of an order placed by a customer. It has the dish name, the quantity purchased along with the total price of each item purchased and who purchased it.

OrderPlaced module consists of the order placed by a customer. It records the date of purchase, total amount and the order id.

The tables along with its attributes are:

- Admin (username, password)
- Customer (id, username, password, email, phone_number, address)
- Menu (dish_id, dish_name, dish_desc, price, image, category, qty, avail_status)
- Orderitems (id, Order_id, quantity, user_id, price, dish_name)
- Orderplaced (Order_id, purchase_amount, user_id, order_date, status)

Chapter 2

SYSTEM REQUIREMENTS

2.1 Software and Hardware

Software Configuration:

Operating system: Windows 10, 64 bit

Front end: HTML, CSS, JavaScript

Server side language: Php

Back end: Mysql

Web server: Apache

Browser: Chrome

Application software: XAMP

Hardware Configuration:

Processor Intel Core i5

RAM: 8 GB

Hard disk: 1 TB

Chapter 3

SYSTEM DESIGN

3.1 E-R Diagram

An entity-relationship diagram(ERD) is a data modelling technique that graphically illustrates an information system's entities and the relationships between those entities. An ERD contains different symbols and connections that visualize two important information. The major entities within the system scope and the inter relationships among these entities.

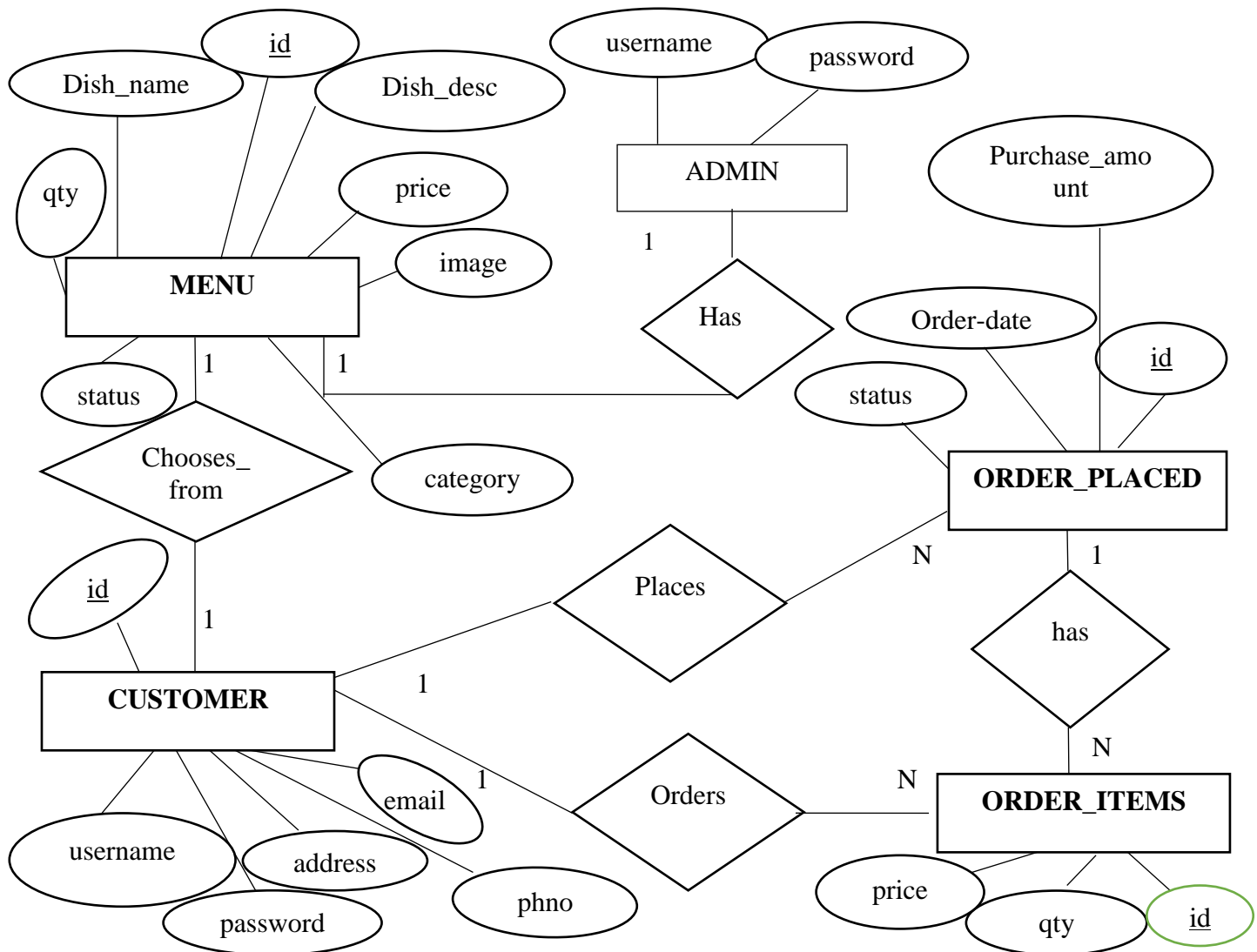


Fig 3.1.1 E-R Diagram of Online Restaurant Management System

3.2 E-R to Relation Mapping

1. Mapping of regular entity types:

We create the relations **MENU**, **CUSTOMER**, **ORDER_PLACED**, **ORDER_ITEMS** corresponding to the regular entities in the diagram. Dish_id, id, id, id are the corresponding primary keys.

2. Mapping of binary 1:M relationship:

Identify the relation S that represents the participating entity at the M-side of relationship type.

Include into S, the primary key of T.

For **ORDER_ITEMS** we include the primary key of **CUSTOMER**

For **ORDER_ITEMS** we include the primary key of **ORDER_PLACED**

For **ORDER_PLACED** we include the primary key of **CUSTOMER**

ADMIN

ATTRIBUTES	DATATYPE
username	varchar(20)
password	varchar(20)

CUSTOMER

ATTRIBUTES	DATATYPE
id	Int(11)
username	varchar(20)
phno	bigint(10)
address	varchar(150)
email	varchar(50)
password	varchar(50)

MENU

ATTRIBUTES	DATATYPE
dish_name	varchar(50)
dish_desc	varchar(500)
dish_id	int(3)
quantity	int(11)
avail_status	int(1)
category	varchar(50)
image	blob
price	int(11)

ORDERITEMS

ATTRIBUTES	DATATYPE
id	int(11)
Order_no	int(11)
Dish_name	varchar(50)
User_id	int(11)
Qty	int(11)
Price	int(11)

ATTRIBUTES	DATATYPE
Order_no	Int(11)
Purchase_amount	Int(11)
user_id	Int(11)
Order_date	Date
status	Int(1)

3.3 Schema Diagram

ADMIN

<u>username</u>	password
-----------------	----------

MENU

dish_name	price	qty	dish_desc	dish_id	image	category	avail_status
-----------	-------	-----	-----------	---------	-------	----------	--------------

CUSTOMER

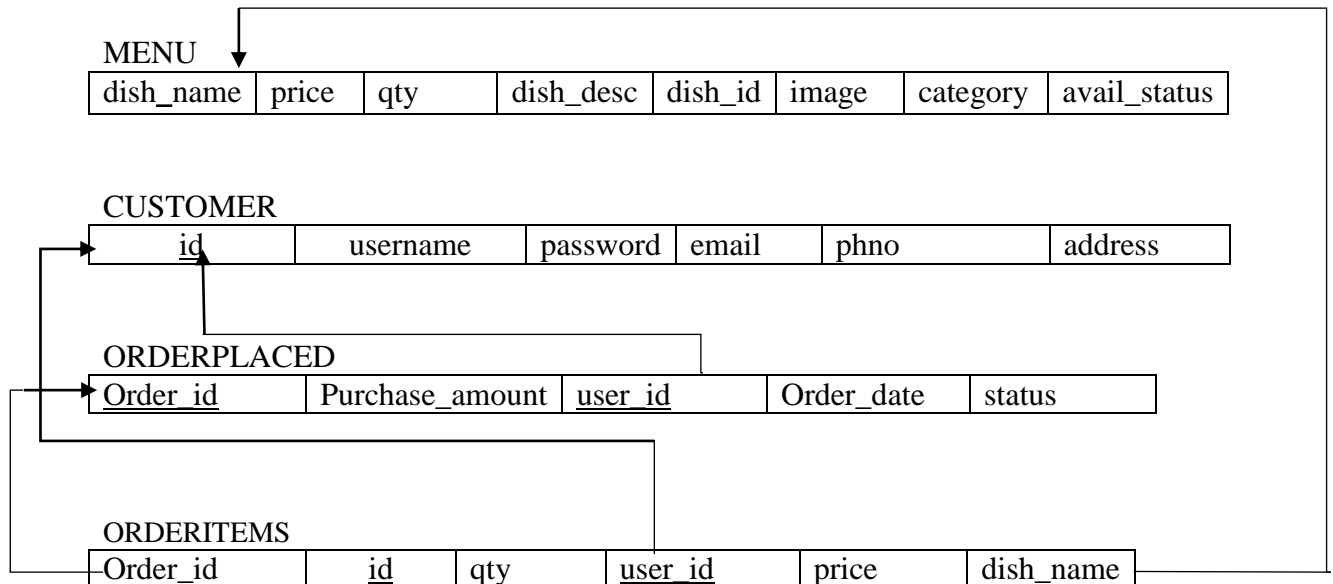
<u>id</u>	username	password	email	phno	address
-----------	----------	----------	-------	------	---------

ORDERPLACED

<u>Order_id</u>	Purchase_amount	<u>user_id</u>	Order_date	status
-----------------	-----------------	----------------	------------	--------

ORDERITEMS

Order_id	<u>id</u>	qty	<u>user_id</u>	price	dish_name
----------	-----------	-----	----------------	-------	-----------



3.4 Overview of GUI

GUI is a program interface that takes advantage of the computer's graphics capabilities to make the program easier to use. Well-designed graphical user interfaces can free the user from learning complex command languages. On the other hand, many users find that they work more effectively with a command-driven interface, especially if they already know the command language. Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With JavaScript it forms a triad of cornerstone technologies for the World Wide Web. Web browsers receive HTML documents from a web server or from local storage and render them into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

Cascading Style Sheets(CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content.

3.5 Normalization

Normalization is a process of analyzing the given relation schema based on their functional dependencies and primary key to achieve desirable properties of minimizing redundancy and minimizing insert, delete, update anomaly. The normalization process takes a relation schema through a series of tests to certify whether it satisfies a certain normal form. The normal form of a relation refers to the highest normal form condition that it meets, and hence the degree to which it has been normalized. Normalization rule are divided into following normal form.

1. First Normal Form
2. Second Normal Form
3. Third Normal Form
4. Boyce-codd Normal Form

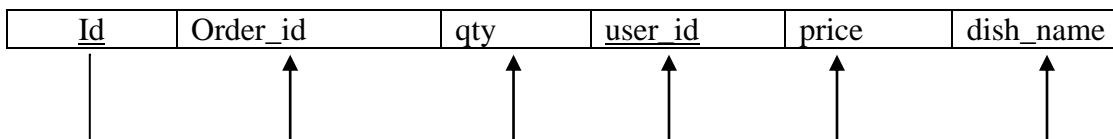
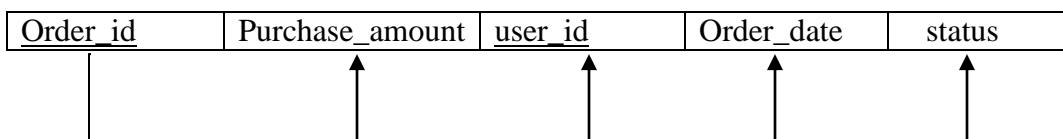
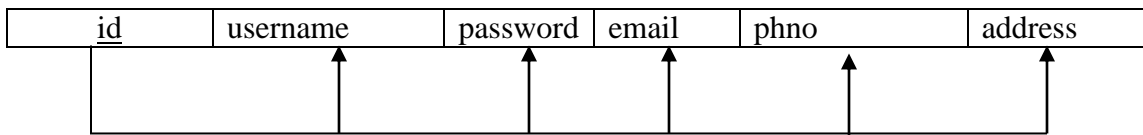
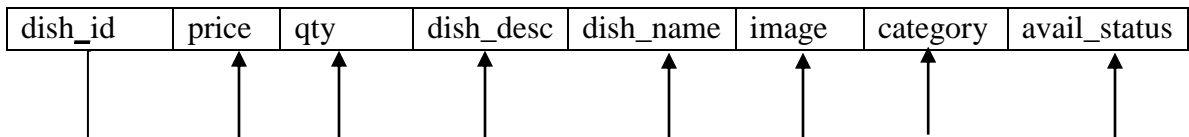
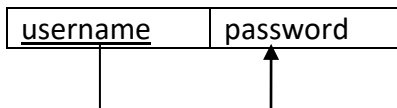
3.5.1 First Normal Form

First normal form states that the domain of an attribute must include only atomic (simple, individual) values and that the value of any attribute in a tuple must be a single value from the domain of attribute.

Consider the relations of Online restaurant management system all the relations are in 1NF as they have neither any multivalued attributes nor composite attributes. Hence the relations are said to be in 1NF.

3.5.2 Second Normal Form

Second normal form is based on the concept of full functional dependency. A functional dependency $X \rightarrow Y$ is a full functional dependency if removal of any attribute A from X means that the dependency does not hold anymore. A relation schema R is in 2NF if every nonprime attribute A in R is fully functionally dependent on the primary key of R.



Consider the relations shown above. Here all the relations are in 2NF as all the non-prime attributes are fully functionally dependent on the set of prime attributes. Hence the relations are in 2NF.

3.5.3 Third Normal Form

Third normal form is based on the concept of transitive dependency. A relation schema R is in 3NF if it satisfies 2NF and no non-prime attribute of R is transitively dependent on the primary key. A relation schema R is in 3NF if every non-prime attribute of R meets both of the following conditions:

- It is fully functionally dependent on every key of R
- It is non transitively dependent on every key of R.

The relations used in this database are fully functionally dependent on its key attribute and does not hold any transitive dependencies. Hence all the relations are in 3NF.

Chapter 4

IMPLEMENTATION

4.1 Table Creation

Create table admin

```
(  
    username varchar(20) not null,  
    password varchar(20) not null,  
    primary key(username)  
);
```

Create table customer

```
(  
    id int(11) auto_increment,  
    username varchar(20) not null,  
    password varchar(50) not null,  
    email varchar(50) not null,  
    address varchar(150) not null,  
    phone bigint(10) not null,  
    primary key(id)  
);
```

Create table menu

```
(  
    dish_id int(3) auto_increment,  
    dish_name varchar(50) not null,  
    dish_desc varchar(500) not null,  
    price int(11) not null,  
    qty int(11) not null,  
    avail_status int(1) not null,  
    image blob not null,  
    category varchar(50) not null,
```

```
primary key(dish_id)
);
```

Create table order_placed

```
(
order_id int(11) auto_increment ,
purchase_amount int(11) not null,
status int(1) not null,
order_date date not null,
user_id references customer(id),
primary key(order_id)
);
```

Create table order_items

```
(
id int(11) auto_increment ,
order_id references order_placed (id),
dish_name references menu(dish_name),
price int(11) not null,
qty int(11) not null,
user_id references customer(id),
primary key(id)
);
```

4.2 Description of the Tables

admin

```
MariaDB [login]> desc admin;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| username   | varchar(20)   | NO   |     | NULL    |       |
| password   | varchar(20)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.027 sec)
```

customer

```
MariaDB [login]> desc customer;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)       | NO   | PRI | NULL    | auto_increment |
| username   | varchar(20)   | NO   |     | NULL    |       |
| password   | varchar(50)   | NO   |     | NULL    |       |
| email      | varchar(50)   | NO   |     | NULL    |       |
| address    | varchar(150)  | NO   |     | NULL    |       |
| phno       | bigint(10)    | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.062 sec)
```

menu

```
MariaDB [login]> desc menu_table;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id         | int(3)        | NO   | PRI | NULL    | auto_increment |
| dish_name  | varchar(50)   | NO   |     | NULL    |       |
| dish_desc  | varchar(500)  | NO   |     | NULL    |       |
| price     | int(11)       | NO   |     | NULL    |       |
| image      | blob          | NO   |     | NULL    |       |
| qty        | int(11)       | NO   |     | NULL    |       |
| category   | varchar(50)   | NO   |     | NULL    |       |
| avail_status | int(1)       | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
8 rows in set, 2 warnings (0.094 sec)
```

orderitems

```
MariaDB [login]> desc orderitems;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra      |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)   | NO   | PRI | NULL    | auto_increment |
| orderid    | int(11)   | NO   |     | NULL    |               |
| dish_name  | varchar(50) | NO   |     | NULL    |               |
| user_id    | int(11)   | NO   |     | NULL    |               |
| qty        | int(11)   | NO   |     | NULL    |               |
| price      | int(11)   | NO   |     | NULL    |               |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.055 sec)
```

orderplaced

```
MariaDB [login]> desc orderplaced;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra      |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)   | NO   | PRI | NULL    | auto_increment |
| purchase_amount | int(11) | NO   |     | NULL    |               |
| user_id    | int(11)   | NO   |     | NULL    |               |
| order_date | date      | NO   |     | NULL    |               |
| status     | int(1)    | NO   |     | NULL    |               |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.053 sec)
```

4.3 Populated Tables

admin

```
MariaDB [login]> select * from admin;
+-----+-----+
| username | password |
+-----+-----+
| admin    | admin    |
+-----+-----+
1 row in set (0.001 sec)
```

customer

```
MariaDB [login]> select * from customer;
```

id	username	password	email	address	phno
1	Rashmita	a5a585216634f9fd4f0c8b23d447a990	barickrashmita2000@gmail.com	jain bhawan 4th floor 12/1, Shanthinagar Bangalore, 560027	9342338910
2	Raksha	dfa88c09096fdb070a6de6b46b4c76d6	raksha@gmail.com	Sagar bhawan,18/1, Basavanagudi Bangalore, 560027	8765432801
3	Shreeja	e96580a72bcd721a360206db2eca3eaa	shreeja@gmail.com	Malhotra Mansions, #16/2, ABC Layout Chattisgarh	9886754312
4	Ranjith	e9bc67845328fb66badce018aa8c5c04	ranjith@gmail.com	Malhotra Mansions, #16/2, BTM Layout Bangalore	8747805901
5	Sejal	668f6cdf7cb09c5e856bee4dbe22b048	sejal@gmail.com	Sagar bhawan,18/1, Basavanagudi Bangalore, 560027	9886754312
6	Shilpa	02a08433d06bdd4161f27179de60584c	shilpa@gmail.com	Shilpa bhawan,18/1, Basavanagudi Bangalore, 560027	9886754312
7	User1	24c9e15e52afc47c225b757e7bee1f9d	user1@gmail.com	Los Angeles	9999888888
8	sonali barick	a9610e955c9bb8905ed96926c6ec1aa2	baricksonali2002@gmail.com	Malhotra Mansions, #16/2, BTM Layout Bangalore	9342338910
9	Taara	17ad554ca0b33d555eaad363ce8f6bb0	taara@gmail.com	Jain Bhawan 4th floor 12/1, Shanthinagar Bangalore, 560027	9342338910
10	Siddharth	f72e9a1ac26eb390ef16669c43bac7f3	siddharth@gmail.com	Malhotra Mansions, #16/2, BTM Layout Mumbai	8976543089

```
10 rows in set (0.000 sec)

MariaDB [login]>
```


menu

				id	dish_name	dish_desc	price	image	qty	category	avail_status
<input type="checkbox"/>				2	Paratha	soft, spongy, deliciously cooked with butter	40	[BLOB - 9.1 KiB]	10	Rotis	0
<input type="checkbox"/>				5	Chicken Biryani	Cooked with Basmati rice and aromatic spices	70	[BLOB - 64.0 KiB]	28	Biryanis	0
<input type="checkbox"/>				6	Pineapple juice	Made by blending fresh pineapple and water togethe...	40	[BLOB - 14.2 KiB]	8	Beverages	0
<input type="checkbox"/>				7	Chapathi	Soft and fluffy made of whole wheat flour	20	[BLOB - 64.0 KiB]	22	Rotis	0
<input type="checkbox"/>				9	Garlic Naan	Garlic Naan is a delicious Indian bread which is m...	40	[BLOB - 64.0 KiB]	19	Rotis	0
<input type="checkbox"/>				10	Paneer butter masala	A creamy delicious dish made with paneer, cashews ...	80	[BLOB - 56.3 KiB]	18	Sides	0
<input type="checkbox"/>				11	Chicken curry	Simple Indian chicken curry made delicious, spicy ...	50	[BLOB - 40.0 KiB]	20	Sides	0
<input type="checkbox"/>				12	Peas Masala	This is a creamy and delicious green peas masala g...	50	[BLOB - 64.0 KiB]	18	Sides	0
<input type="checkbox"/>				13	Egg curry	Egg curry with a rich delicious onion tomato gravy	40	[BLOB - 42.4 KiB]	20	Sides	0
<input type="checkbox"/>				14	Palak Paneer	Soft and delicious, smooth and creamy palak paneer	60	[BLOB - 64.0 KiB]	17	Sides	0
<input type="checkbox"/>				15	Rajma	A delicious curry made by simmering rajma (red kid...	60	[BLOB - 56.3 KiB]	19	Sides	0
<input type="checkbox"/>				16	Hyderabadi Biryani	Biryani made with basmati rice & chicken marinated...	60	[BLOB - 64.0 KiB]	7	Biryanis	0
<input type="checkbox"/>				17	Aloo dum biryani	Aloo dum Biryani, layered and dum cooked Biryani w...	70	[BLOB - 64.0 KiB]	12	Biryanis	0
<input type="checkbox"/>				19	Paneer Biryani	Flavorful Paneer Biryani made in the Instant Pot! ...	60	[BLOB - 64.0 KiB]	10	Biryanis	0
<input type="checkbox"/>				25	Orange juice	Nothing beats a glass of fresh squeezed orange jui...	30	[BLOB - 10.4 KiB]	13	Beverages	0
<input type="checkbox"/>				27	Mango milk shake	Mango Shake (Mango Milkshake) is a cool and tempti...	30	[BLOB - 6.8 KiB]	1	Beverages	0
<input type="checkbox"/>				29	Coffee	Brewed drink prepared from roasted coffee beans mi...	15	[BLOB - 42.0 KiB]	5	Beverages	0
<input type="checkbox"/>				31	Mint Choco chip	This scrumptious mint ice cream has tiny bits of c...	30	[BLOB - 31.6 KiB]	18	Ice creams	0
<input type="checkbox"/>				32	Samosa	Punjabi samosa are crisp fried Indian snack with a...	35	[BLOB - 64.0 KiB]	16	Snacks	0
<input type="checkbox"/>				33	Pav bhaji	Pav bhaji is a popular street food from Mumbai con...	30	[BLOB - 11.1 KiB]	20	Snacks	0
<input type="checkbox"/>				34	Potato Chips	Ditch the boring bag of potato chips and go for th...	30	[BLOB - 64.0 KiB]	13	Snacks	0
<input type="checkbox"/>				36	Banana Chips	Your favourite classic banana chips just got bette...	40	[BLOB - 61.3 KiB]	1	Snacks	0
<input type="checkbox"/>				37	Strawberry ice cream	Cool and tasty, made with real strawberries	45	[BLOB - 22.8 KiB]	10	Ice creams	0
<input type="checkbox"/>				39	Popcorn	Crispy and fluffy popcorns	30	[BLOB - 36.5 KiB]	8	Snacks	0
<input type="checkbox"/>				41	Poori	An unleavened deep fried bread made with flour & s...	30	[BLOB - 23.8 KiB]	0	Rotis	1
<input type="checkbox"/>				42	Bread biryani	Special Vegetable Briyani along with fried bread B...	50	[BLOB - 21.7 KiB]	2	Biryanis	0
<input type="checkbox"/>				43	Kolkata Biryani	Fragrant rice and soft chicken get together in thi...	60	[BLOB - 64.0 KiB]	10	Biryanis	0
<input type="checkbox"/>				44	Banana Milk shake	This deliciously thick banana milkshake is so full...	30	[BLOB - 32.4 KiB]	4	Beverages	0
<input type="checkbox"/>				45	Tea	tea beverage made by boiling black tea in milk and...	15	[BLOB - 21.5 KiB]	14	Beverages	0
<input type="checkbox"/>				46	chocolate ice cream	Forget the freezer aisle and try your hand at home...	30	[BLOB - 49.6 KiB]	10	Ice creams	0
<input type="checkbox"/>				49	Medu vada	Medu vada is a popular south Indian breakfast also...	30	[BLOB - 33.9 KiB]	10	Snacks	0
<input type="checkbox"/>				50	Mango ice cream	Hassle-free deliciously creamy mango ice cream	120	[BLOB - 29.7 KiB]	20	Ice creams	0
<input type="checkbox"/>				51	Vanilla ice cream	An old fashioned vanilla ice cream recipe that eve...	60	[BLOB - 25.6 KiB]	20	Ice creams	0

orderitems

```
MariaDB [login]> select * from orderitems;
```

id	orderid	dish_name	user_id	qty	price
26	1	Hyderabadi Biryani	1	1	60
27	1	Poori	1	1	30
28	1	Palak Paneer	1	1	60
29	2	Bread biryani	3	2	100
30	2	Samosa	3	2	70
31	3	Chicken Biryani	8	1	70
32	3	Garlic Naan	8	1	40
33	3	Poori	8	5	150
34	3	Paneer butter masala	8	1	80
35	4	Coffee	9	1	15
36	5	Orange juice	10	3	90
37	5	Hyderabadi Biryani	10	2	120

```
12 rows in set (0.001 sec)
```

orderplaced

```
MariaDB [login]> select * from orderplaced;
```

id	purchase_amount	user_id	order_date	status
1	150	1	2021-01-02	1
2	170	3	2021-01-04	1
3	340	8	2021-01-06	1
4	15	9	2021-01-13	1
5	210	10	2021-01-14	1

```
5 rows in set (0.000 sec)
```

4.4 SQL Triggers and Stored Procedures

4.4.1 Trigger

A database trigger is procedural code that is automatically executed in response to certain events on a particular table or view in a database. The trigger is mostly used for maintaining the integrity of the information on the database. Triggers execute when a user tries to modify data through a data manipulation language (DML) event. DML events are INSERT, UPDATE, or DELETE statements on a table or view.

Edit

Details

Trigger name	<input type="text" value="updatequantity"/>
Table	<input type="text" value="orderitems"/>
Time	<input type="text" value="AFTER"/>
Event	<input type="text" value="INSERT"/>
Definition	<pre>1 BEGIN 2 UPDATE menu_table 3 SET qty=qty-new.qty 4 where dish_name=new.dish_name; 5 UPDATE menu_table 6 SET avail_status=case when qty=0 then 1 7 END 8 WHERE dish_name=new.dish_name; 9 END</pre>
Definer	<input type="text" value="root@localhost"/>

Go

Close

4.4.2 Stored Procedure

A stored procedure is a set of Structured Query Language (SQL) statements with an assigned name, which are stored in a relational database management system as a group. So if a query has to be written over and over again, instead of having to write that query each time, it can be saved as a stored product and can be executed just by calling the procedure. In addition, parameters can also be passed to the stored procedure. It is called as and when we require it.

Edit

Details

Routine name
calc_amt

Type
PROCEDURE

Parameters

	Direction	Name	Type	Length/Values	Options
↑	IN	price	INT		⌵ Drop
↑	IN	ordid	INT		⌵ Drop

Add parameter

Definition

```

1 BEGIN
2     UPDATE orderplaced
3     SET purchase_amount=purchase_amount+price
4     WHERE id=ordid;
5 END

```

Is deterministic ☐

Adjust privileges ☒

Definer
`root`@`localhost`

Security type
DEFINER

SQL data access
NO SQL

Comment

Go Close

4.5 Database Connectivity

A Database connection is a facility in computer science that allows client software to talk to database server software, whether on the same machine or not. A connection is required to send commands and receive answers, usually in the form of a result set. PHP has a pretty straight forward method to working with MySQL databases. There are five steps to make PHP database interaction

- 1.Create a connection
- 2.Select database
- 3.Perform database query
- 4.Use return data
- 5.Close connection

```
<?php
session_start()

//1. Create a database connection
$conn=mysql_connect('localhost','root','');
if($conn)
echo "Connection Successful";

//2. Select a database to use
$db=mysql_select_db('login',$conn);
If($db)
echo "Database selected!";

//3. Perform database query
$sql ="Select * from customer";
If(mysql_query($sql,$conn)
echo "Rows selected";
$result=mysql_query($sql,$conn);
```

```
//4. Use returned data
```

```
While($row=mysql_fetch_array($result){  
echo $row['username'];  
echo $row['email'];  
}
```

```
//5. Connection close
```

```
mysql_close($conn);
```

```
?>
```

4.6 Modules

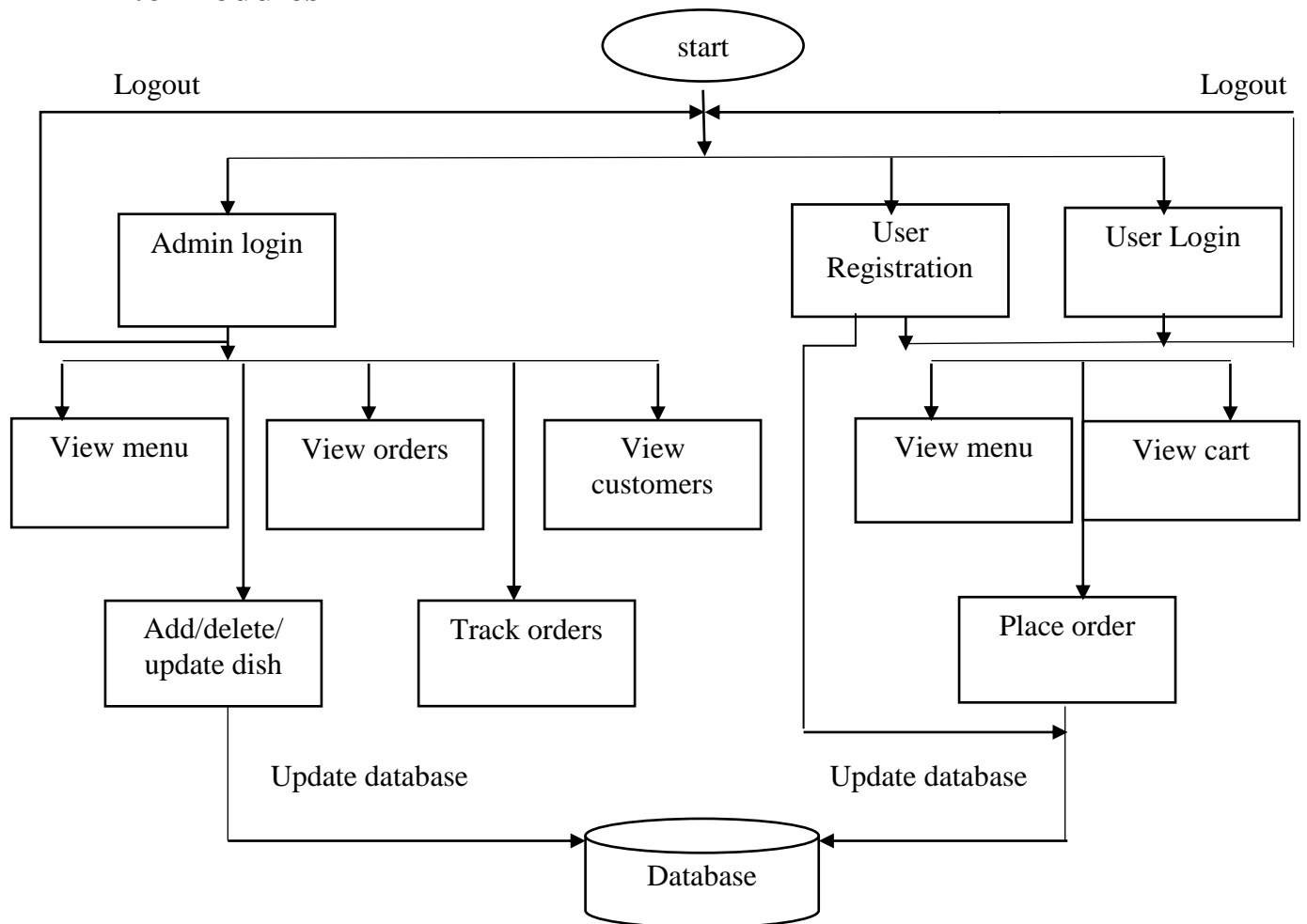


Figure 4.6.1 Modules for Online Restaurant Management System

The above figure shows the modules required for complete restaurant management system. All the modules are flexible and can be reused as and when required. The system consists of administrator account and user account. The user is required to register himself first without which he will not be able to access any facilities of the system.

After successful registration, he can login to his account and view the restaurant menu and can place order. The user cart is implemented using cookies. Cookies is a nice way of implementing a cart because any time a user wishes to add dishes into his cart, hitting database each time for temporary purposes makes multiple transactions which can be costly. Cookie reduces the wasteful transactions. After a user adds items to his cart, he will be able to place order. If the cart is empty, he will not be allowed to do so. Once an order is placed and confirmed, he will be receiving his bill.

Towards the admin side, facilities available to the admin will be updating the restaurant menu, where he will be view the items present in the menu (status is set to available if the item is present else it will be set as Not available). He can also update the quantity and the price of a dish. If he wishes to insert a new dish, then he can do so. He also has rights to delete a particular item from the menu. He will also be able to view his customers and track orders based on the order id and customer id.

Chapter 5

RESULT

Home page: This page has options to login either as a customer or as an admin

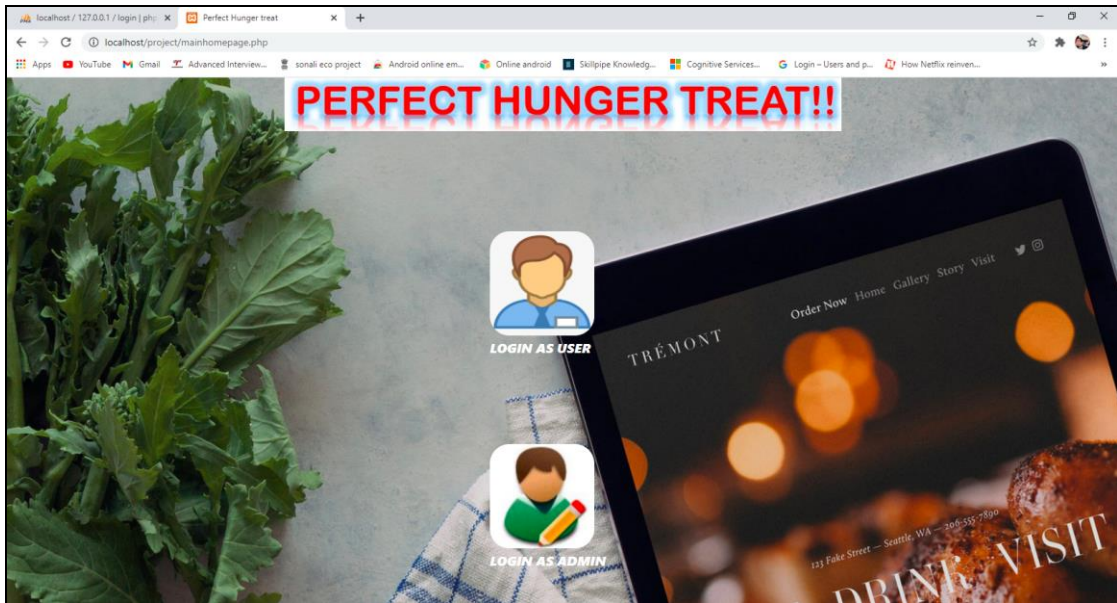


Fig 5.1 Snap shot of main home page

User Registration Page: Any user who wishes to view this website has to register first providing the following details

Fig 5.2 Snap shot of user registration page

User login page: User needs to provide his user name and password to login and place order

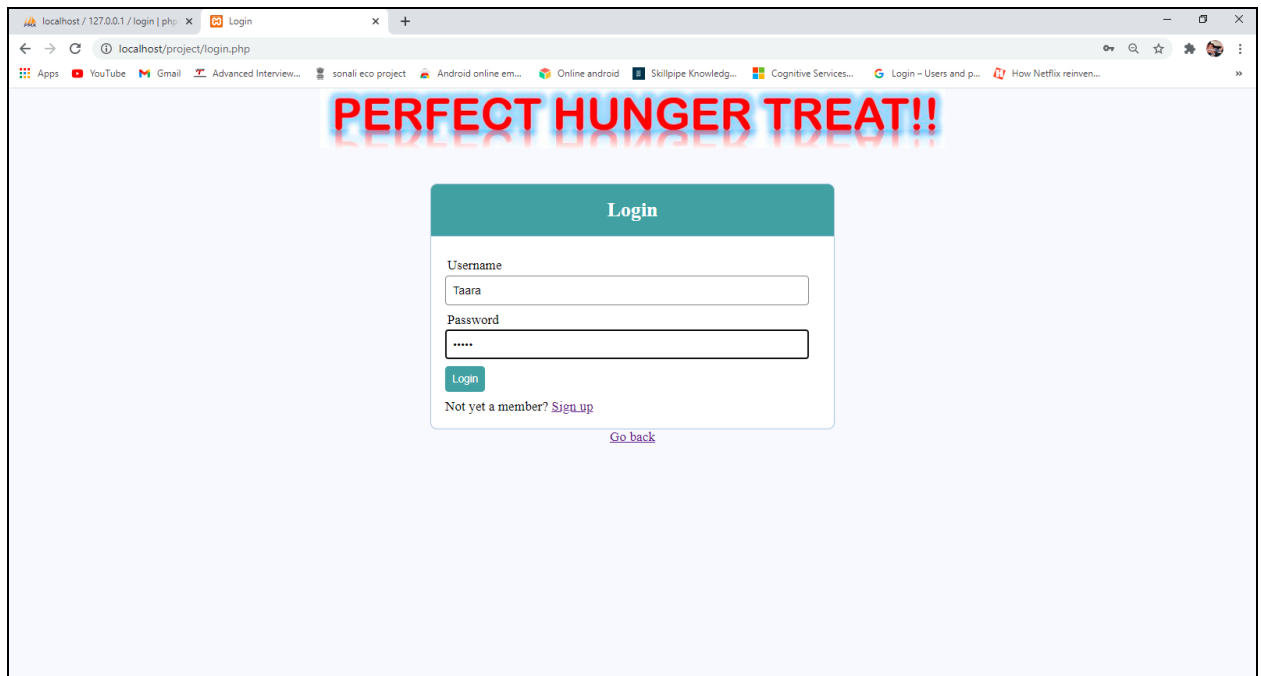


Fig 5.3 Snap shot of user login page

User Home page: The welcome page is what the user sees after login. It consists of details of the outlets the restaurant owns and the various ways through which users can contact them

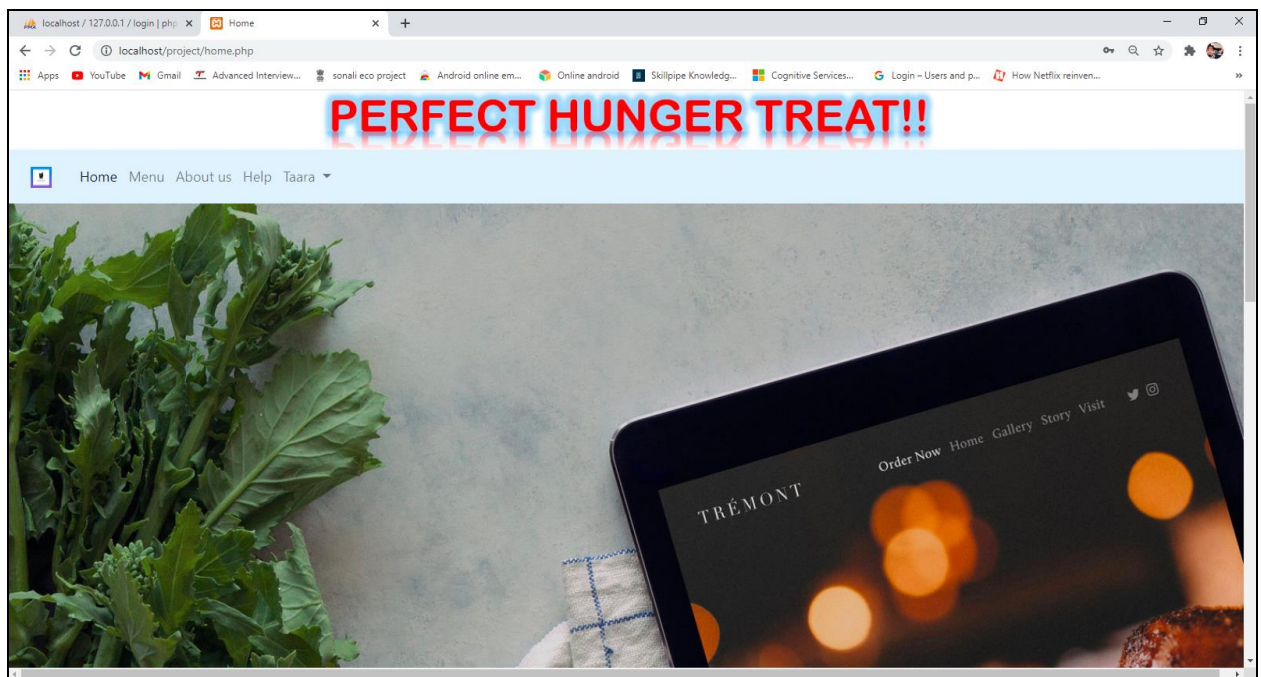


Fig 5.4 Snap shot of user home page

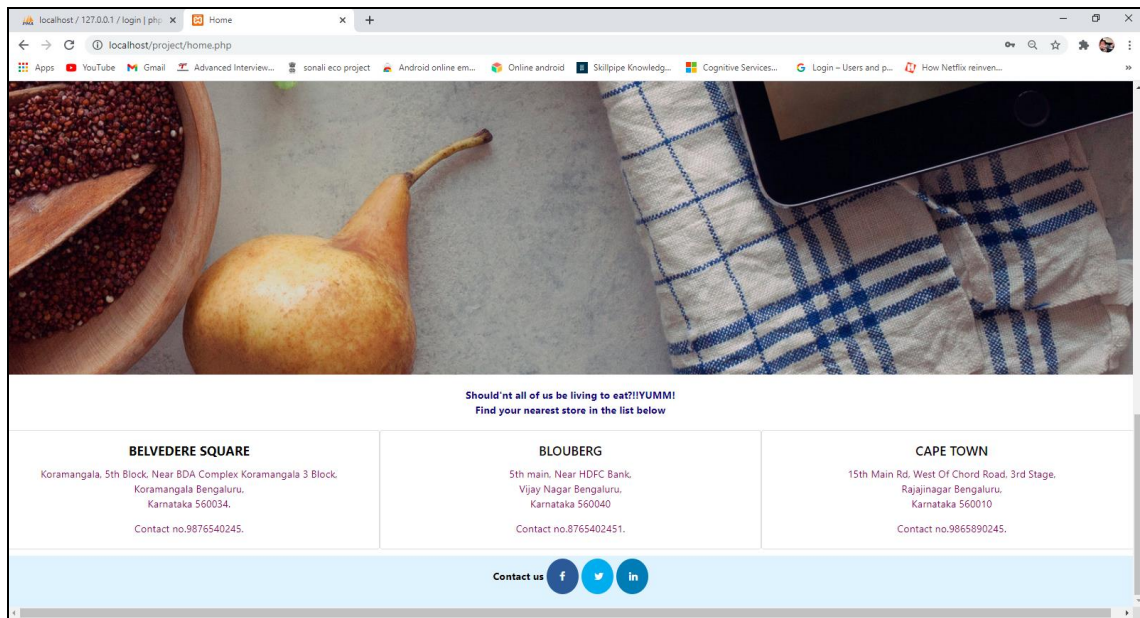


Fig 5.5 Snap shot of user home page(bottom half)

Menu page: It consists of various dishes segregated by category. User can filter his requirements based on category and the dish which he is looking for. The user can add the desired dishes into his cart and then proceed to place order

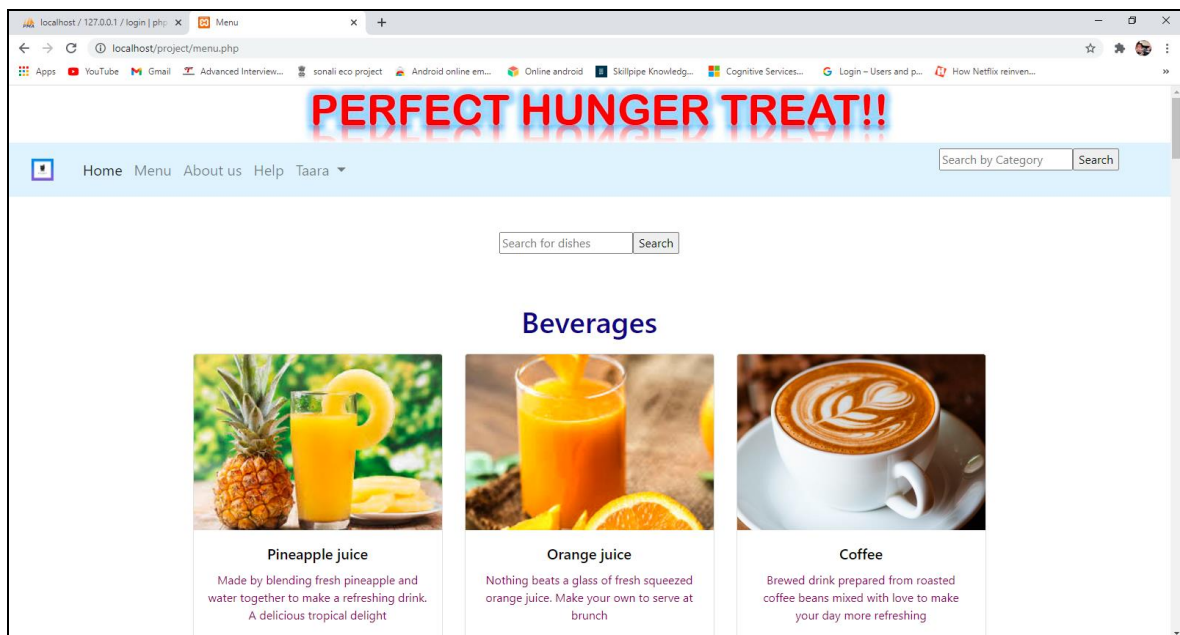


Fig 5.6 Snap shot of user menu page

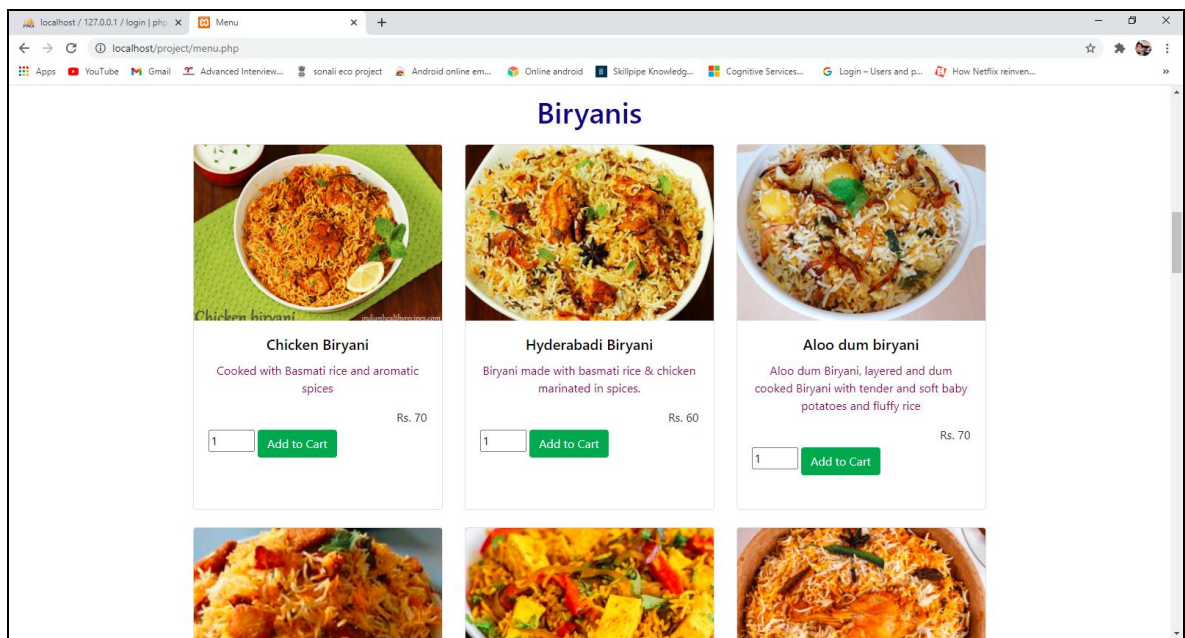


Fig 5.7 Snap shot of user menu page (bottom half)

Figure showing the pop up window once a user clicks on add to cart button.

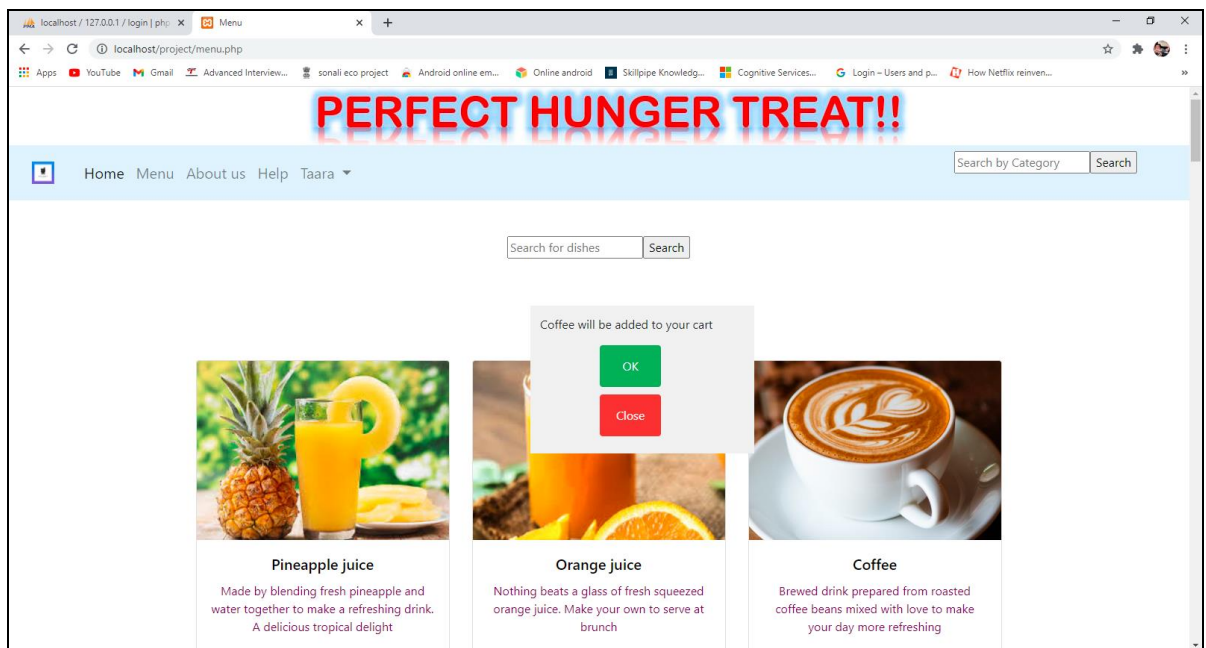


Fig 5.8 Snap shot of user menu page when a dish is added to cart

Cart page: Once a particular item is added to cart, it is inserted and displayed on this page

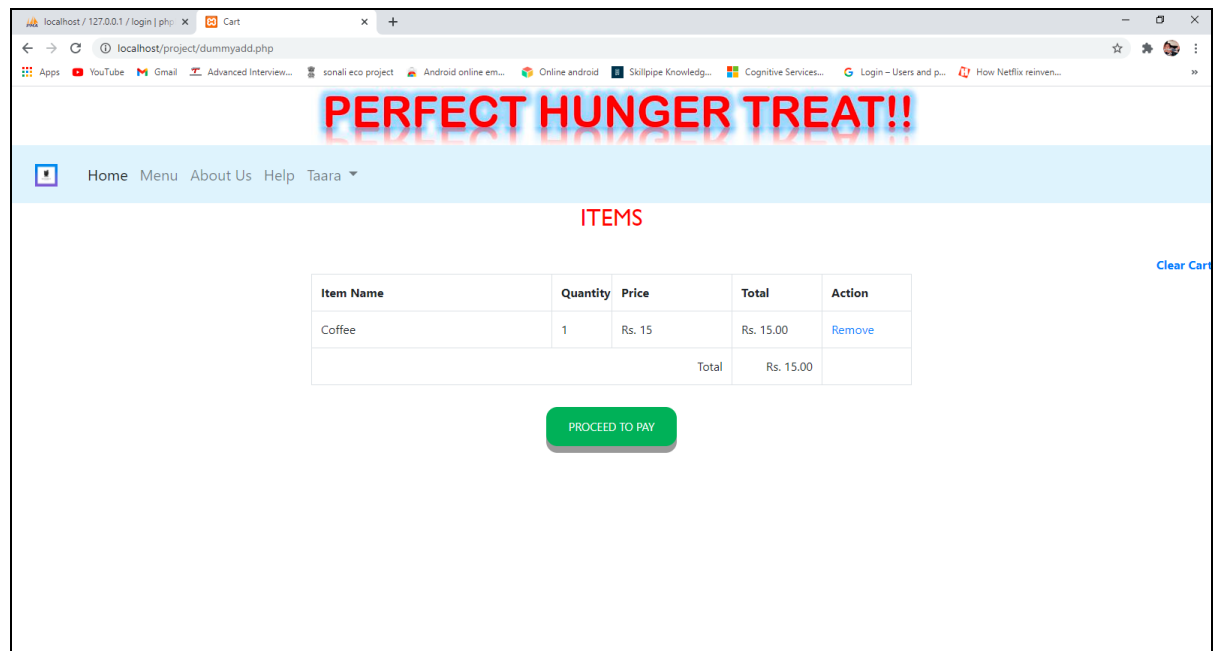


Fig 5.9 Snap shot of user cart page

Order confirmation page: Once the user places order, a confirmation page appears asking him for the relevant action.

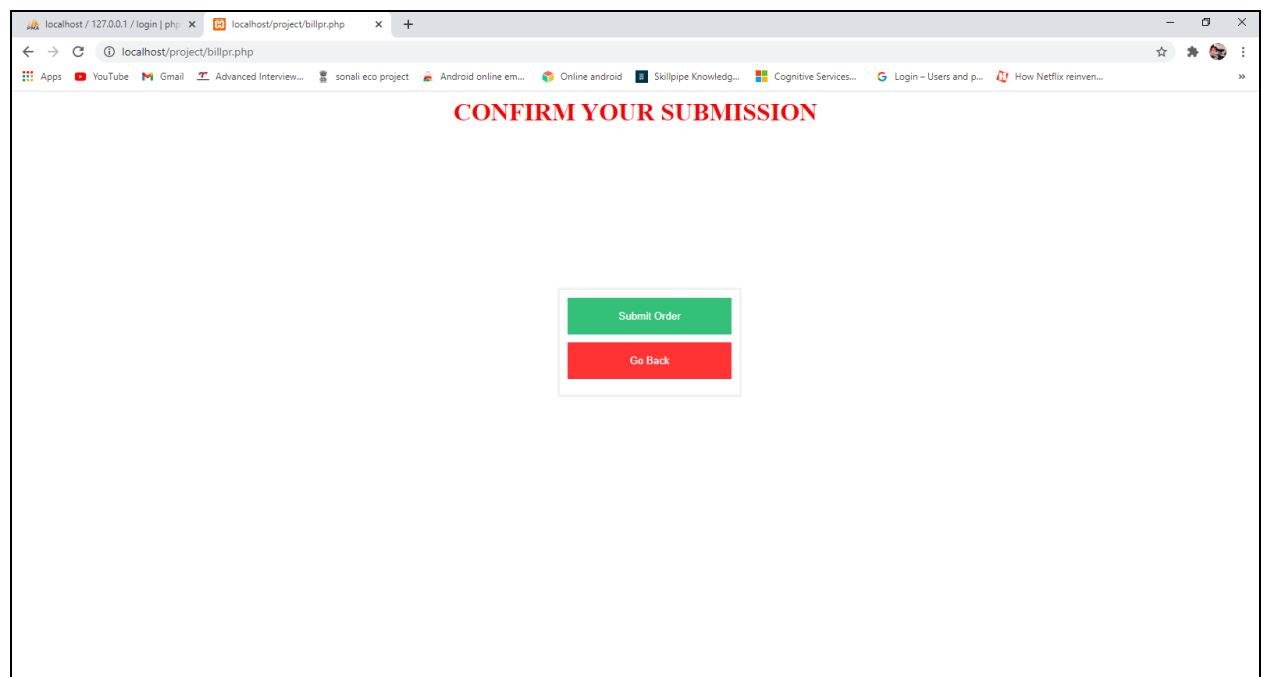


Fig 5.10 Snap shot of order confirmation page

Invoice page: After succesful placement of order, the user gets his bill genrated with all the relavant detials as shown below. After the generation of bill, he will be redirected to

cart.

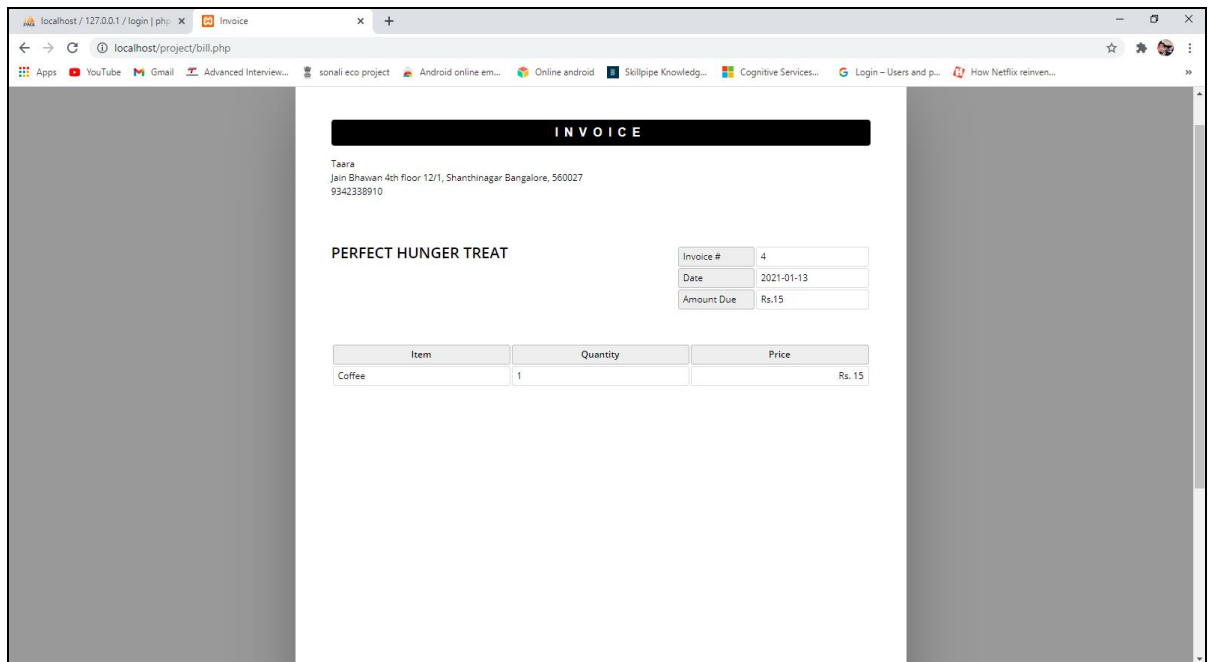


Fig 5.11 Snap shot of invoice generated

About us page: This page provides the details of the restaurant

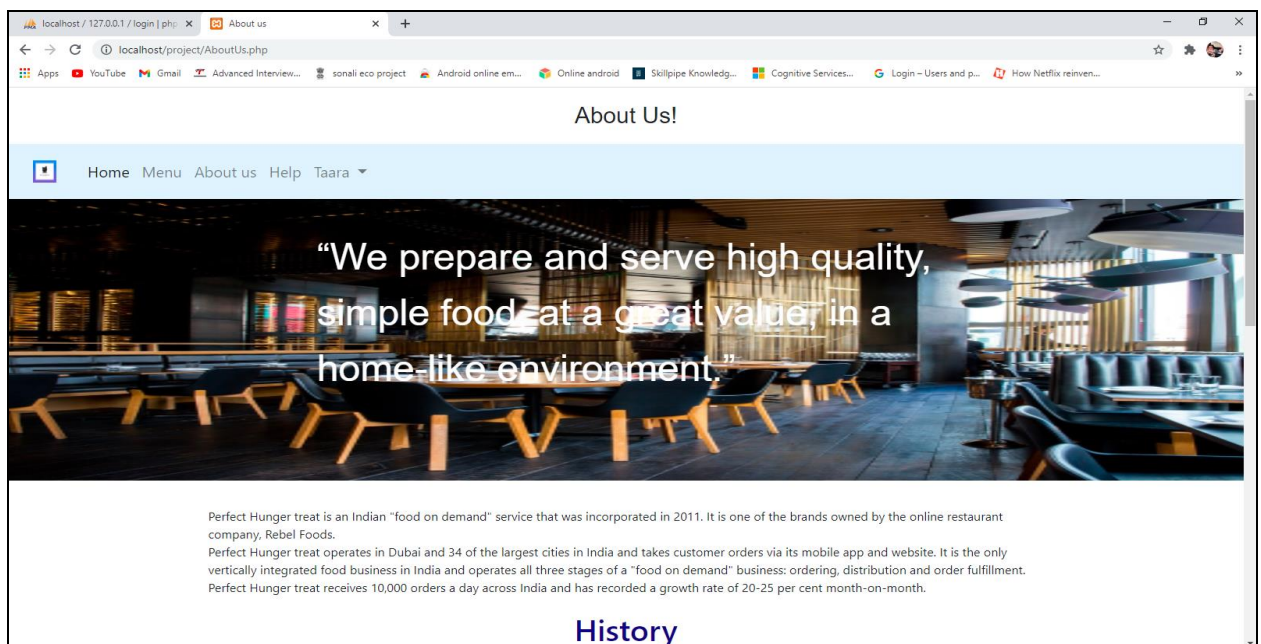


Fig 5.12 Snap shot of about us page of restaurant

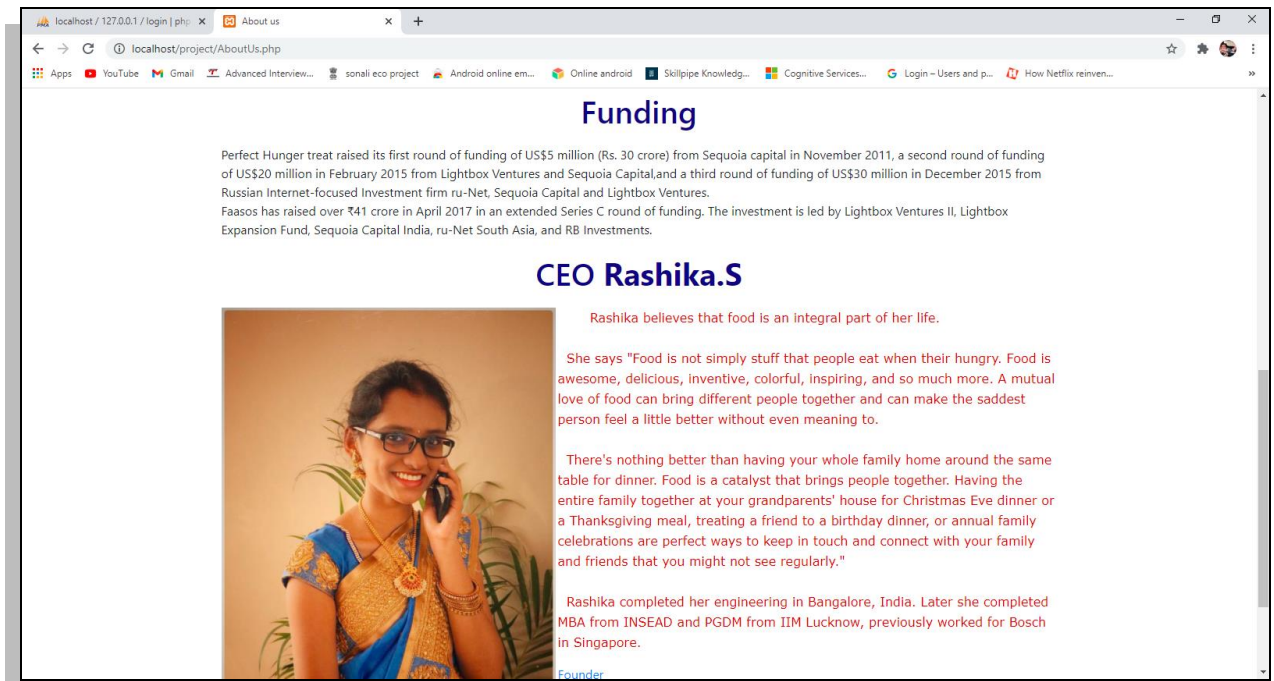


Fig 5.13 Snap shot of about us page of restaurant (bottom half)

Help page: It displays Frequently asked questions that might help a customer

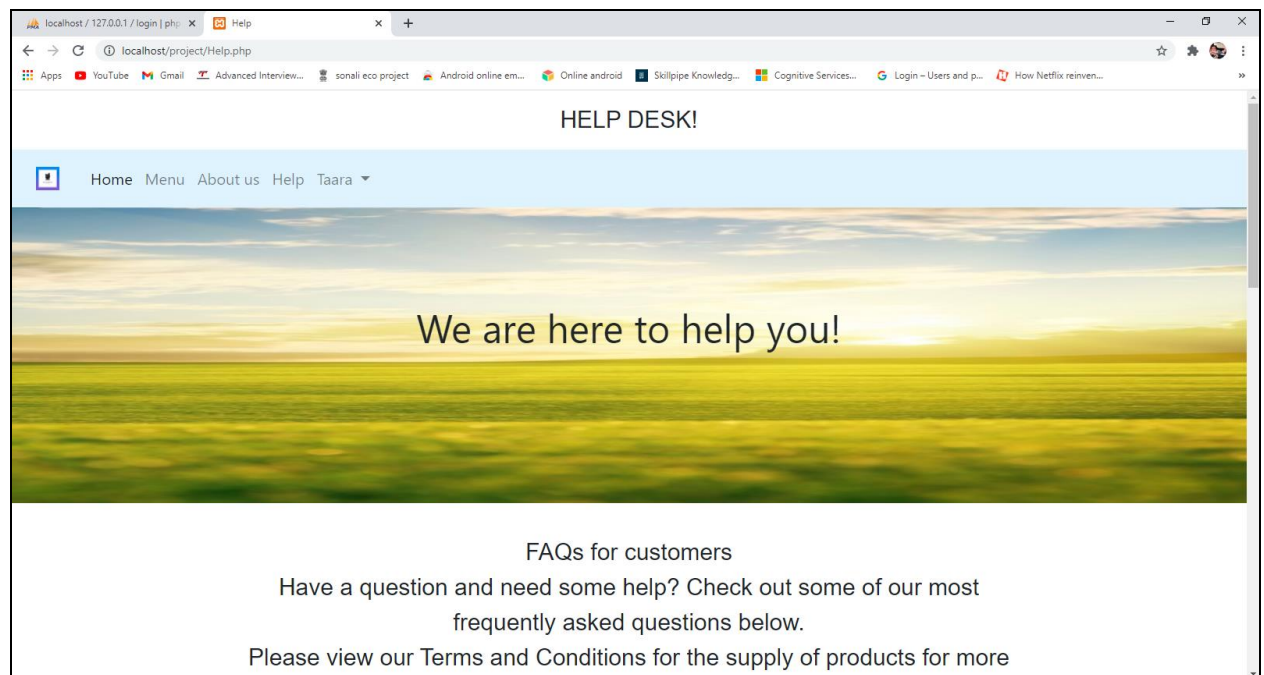


Fig 5.14 Snap shot of user help page

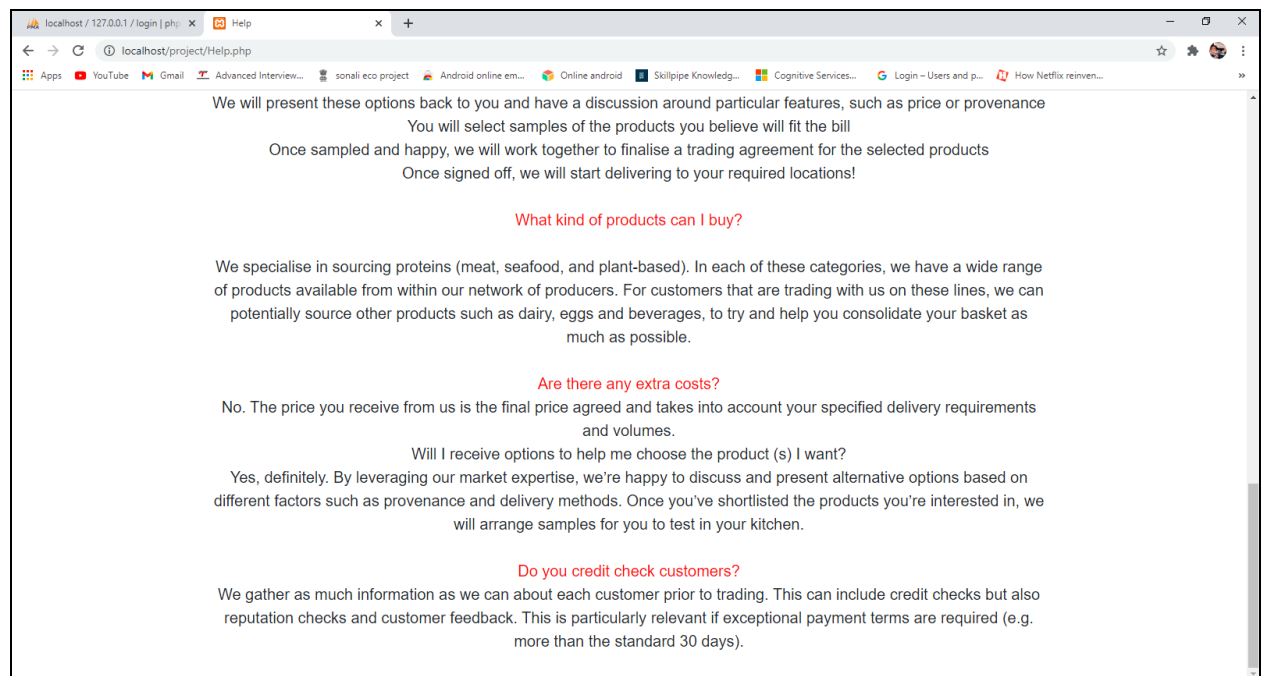


Fig 5.15 Snap shot of user help page (bottom half)

Admin login page: This page is for the administrator of the restaurant to login and continue

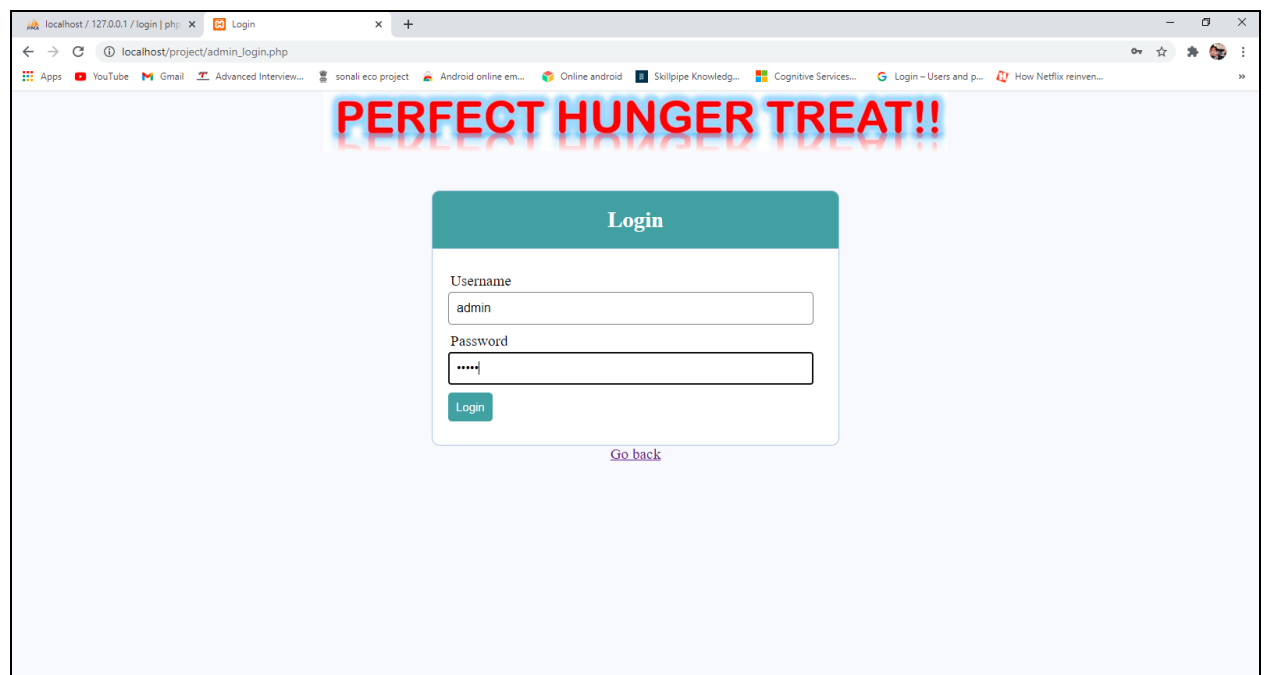


Fig 5.16 Snap shot of admin login page

Admin menu page: This page shows the dishes present in the menu and allows the admin to modify the menu by adding new dish, deleting an existing dish, updating price and quantity of a particular dish.

The screenshot shows the 'Admin menu page' with a navigation bar containing 'Home', 'Menu', 'Orders', 'Customers', and 'Admin'. The main heading is 'PERFECT HUNGER TREAT!!'. Below it is the 'ADD NEW DISH' form with fields for Dish Name, Price, Quantity, Description, Category, and Image. The 'Image' field has a 'Choose File' button and 'No file chosen' text. A 'submit' button is at the bottom of the form. Below the form is a table titled 'MENU' with the following data:

DISH IMAGE	DISH NAME	DESCRIPTION	CATEGORY	QUANTITY PRESENT	INCREASE QUANTITY	REMOVE DISH	PRICE	UPDATE PRICE	STATUS
	Aloo dum biryani	Aloo dum Biryani, layered and dum cooked Biryani with tender and soft baby potatoes and fluffy rice	Biryani	12	Quantity SET	REMOVE	70	Price SET	Available

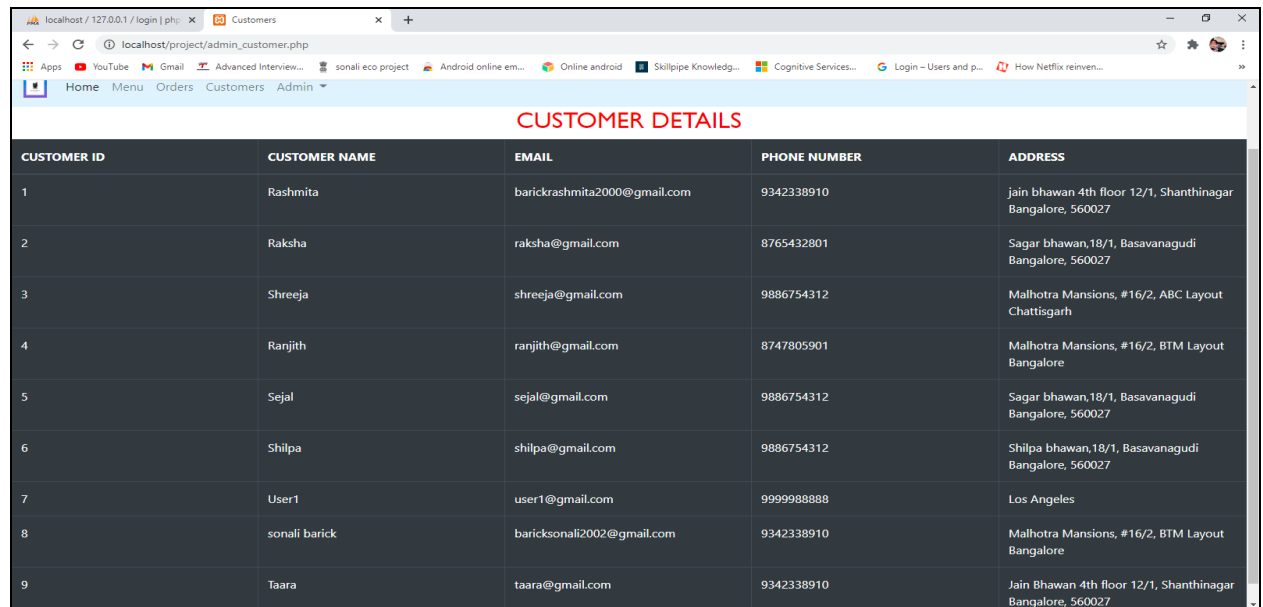
Fig 5.17 Snap shot of admin menu page

The screenshot shows the bottom half of the 'MENU' table with the following data:

DISH IMAGE	DISH NAME	DESCRIPTION	CATEGORY	QUANTITY PRESENT	INCREASE QUANTITY	REMOVE DISH	PRICE	UPDATE PRICE	STATUS
	Aloo dum biryani	Aloo dum Biryani, layered and dum cooked Biryani with tender and soft baby potatoes and fluffy rice	Biryani	12	Quantity SET	REMOVE	70	Price SET	Available
	Banana Chips	Your favourite classic banana chips just got better! These tasty treats are fried to perfection and sprinkled with salt to achieve that perfect taste	Snacks	1	Quantity SET	REMOVE	40	Price SET	Available
	Banana Milk shake	This deliciously thick banana milkshake is so full of flavour, and is perfectly spiced	Beverages	4	Quantity SET	REMOVE	30	Price SET	Available
	Bread biryani	Special Vegetable Biryani along with	Biryani	2	Quantity SET	REMOVE	50	Price SET	Available

Fig 5.18 Snap shot of admin menu page (bottom half)

Admin customer page: This page shows the admin, the customers who are using this website.

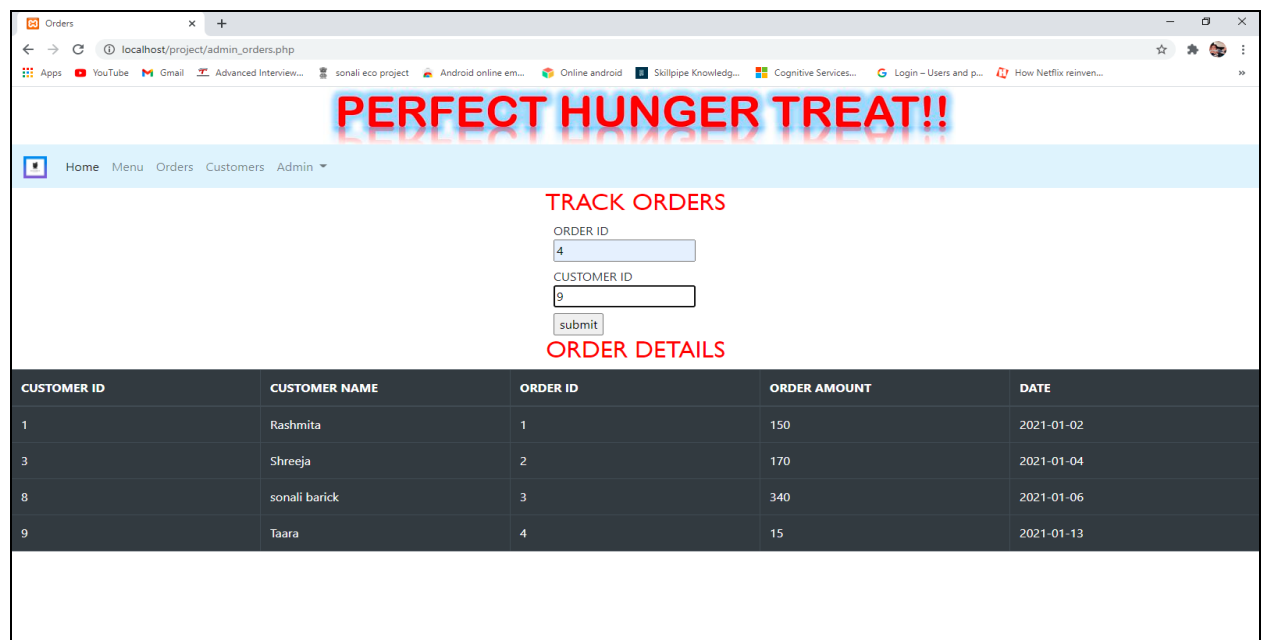


The screenshot shows a web browser window with the URL `localhost/project/admin_customer.php`. The page has a navigation bar with links: Home, Menu, Orders, Customers, Admin. The main content area is titled "CUSTOMER DETAILS" and contains a table with the following data:

CUSTOMER ID	CUSTOMER NAME	EMAIL	PHONE NUMBER	ADDRESS
1	Rashmita	barickrashmita2000@gmail.com	9342338910	jain bhawan 4th floor 12/1, Shanthinagar Bangalore, 560027
2	Raksha	raksha@gmail.com	8765432801	Sagar bhawan, 18/1, Basavanagudi Bangalore, 560027
3	Shreeja	shreeja@gmail.com	9886754312	Malhotra Mansions, #16/2, ABC Layout Chattisgarh
4	Ranjith	ranjith@gmail.com	8747805901	Malhotra Mansions, #16/2, BTM Layout Bangalore
5	Sejal	sejal@gmail.com	9886754312	Sagar bhawan, 18/1, Basavanagudi Bangalore, 560027
6	Shilpa	shilpa@gmail.com	9886754312	Shilpa bhawan, 18/1, Basavanagudi Bangalore, 560027
7	User1	user1@gmail.com	9999988888	Los Angeles
8	sonali barick	baricksonali2002@gmail.com	9342338910	Malhotra Mansions, #16/2, BTM Layout Bangalore
9	Taara	taara@gmail.com	9342338910	Jain Bhawan 4th floor 12/1, Shanthinagar Bangalore, 560027

Fig 5.19 Snap shot of admin's view customer page

Track orders page: This page shows the various orders placed by multiple users. It also has a track order button, where the admin can view who has placed what order and in how much quantity.



The screenshot shows a web browser window with the URL `localhost/project/admin_orders.php`. The page has a navigation bar with links: Home, Menu, Orders, Customers, Admin. The main content area is titled "PERFECT HUNGER TREAT!!" and contains a section titled "TRACK ORDERS" with a form to track orders. The form has input fields for "ORDER ID" (value: 4) and "CUSTOMER ID" (value: 9), and a "submit" button. Below the form is a section titled "ORDER DETAILS" containing a table with the following data:

CUSTOMER ID	CUSTOMER NAME	ORDER ID	ORDER AMOUNT	DATE
1	Rashmita	1	150	2021-01-02
3	Shreeja	2	170	2021-01-04
8	sonali barick	3	340	2021-01-06
9	Taara	4	15	2021-01-13

Fig 5.20 Snap shot of admin's view orders page

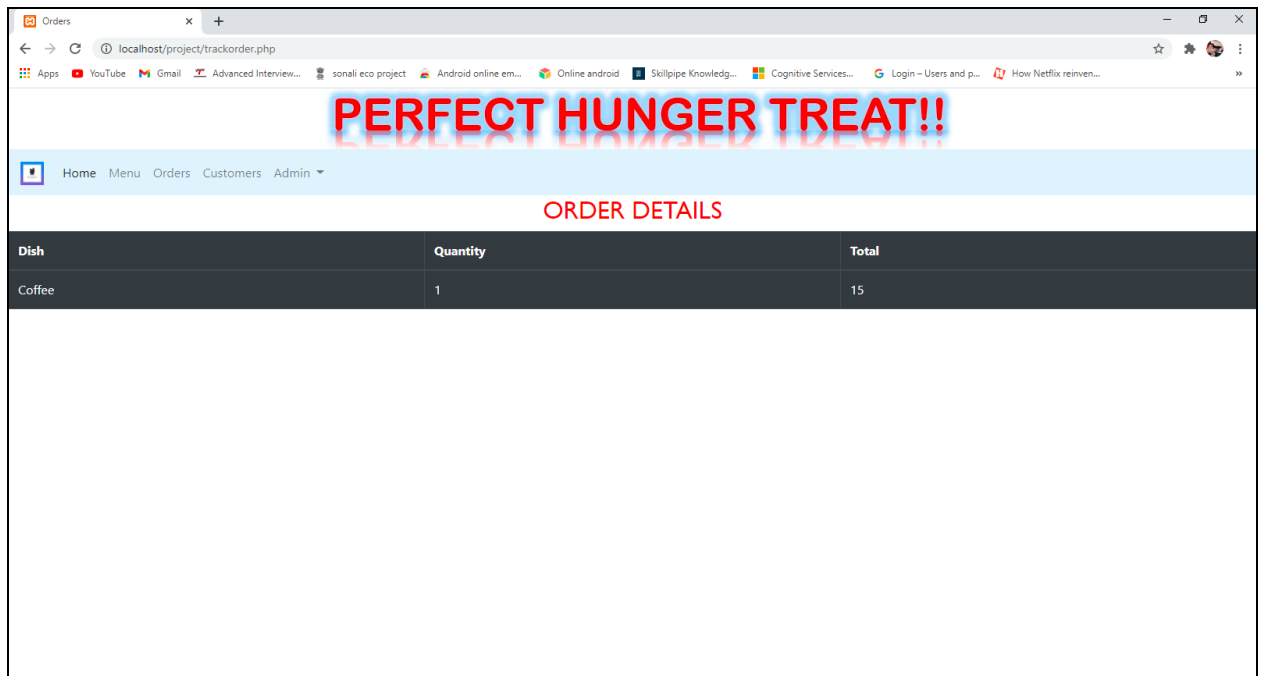


Fig 5.21 Snap shot of admin's track orders page

Chapter 6

CONCLUSION AND FURTHER ENHANCEMENTS

6.1 Conclusions

The proposed Restaurant management system (named as Perfect Hunger Treat) provides an interface for the user to order his meal anytime and anywhere, online. This not only allows the customer to reap its benefits but also the administrator of the restaurant to manage his activities very well. This is an easy to use User Interface.

This project helps in modifying the existing system to the site based system. It can be monitored and controlled remotely. Further the project reduces the manpower required for this job and reduces efforts from an individual. Allowing things to go online has the benefit of maintaining the accurate user information. This facility allows the admin of the restaurant to view day to day orders and track a specific order. The data which is stored in the database helps in taking intelligent and quick responses by its managing team. This will also reduce the damages done to the data unexpectedly.

The project teaches us the essential skills like:

- Understanding the database handling and query processing.
- Implement, analyze and evaluate the project developed for an application.
- Demonstrate the working of different concepts of DBMS.
- Determine the nature of Online Restaurant

6.2 Further Enhancements

The project is developed in such a way that any further enhancements to it will not affect its current functionalities in any way.

The following enhancements can be incorporated in the system

1. In order to make it more realistic, a payment gateway can be included.
2. Adding a delivery component to the currently existing online ordering system would make it much better.

3. Developing recommendation system which would recommend users for related dishes.
4. In order to improve the performance of the restaurant, a feedback module can be implemented where the users rate the quality of the meal that they ordered.
5. Adding reservation table module where the users along with ordering food online would be able to reserve tables.