15IT304J-Web Programming

Restaurant Management Website - Restro

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Brief Introduction

Restaurant Management System is developed to automate the daily activity of a restaurant. The purpose of this system is to provide a service facility to the restaurant workers and also to the customers. This restaurant management system website can be used by the employees in a restaurant to handle the clients, their orders, reservation and can help them easily find free tables or place orders. The services provided are

- Browse through food categories
- Browse through updated store content
- Customer information management
- Order management
- Contact the Store option.

After login, the customer can access the menu page. The main point of developing this system is to help restaurant administrators manage the restaurant business and help customers with online ordering and reserving a table.

System Requirements

Software Used -

Mainly used software is a code editor/IDE, Here it is VS Code running tech stacks like PHP, Javascript and elementary HTML, CSS.

A cross-platform web server stack package, Here it is XAMPP running Apache and MySQL.

To Run the website, we also need browser, here we mainly used Google Chrome

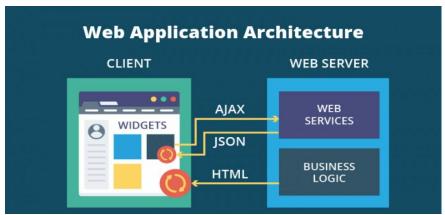
Hardware Used-

PC with adequate processing power to run a browser and web-server.

System Architecture

The main objective builds the system is to provide ordering and reservation service online to the customer. Each menu item has a name, price and associated recipe available. This way ordering and reservation will become easier. The user needs to register first, then they can access the other part of the site.

Talking about the features of this system, it contains the admin section and the user (customer) section. All the editings, updating, managing order details, food items, and categories are from the admin section while customers can only go through the site and give orders if want. The design of this system is simple so that the user won't get any difficulties while working on it. But the functionality is not a complete one.



Working:

With any typical web application, there are two different codes (sub-programs) running side-by-side. These are:

Client-side Code - The code that is in the browser and responds to some user input Server-side Code - The code that is on the server and responds to the HTTP requests

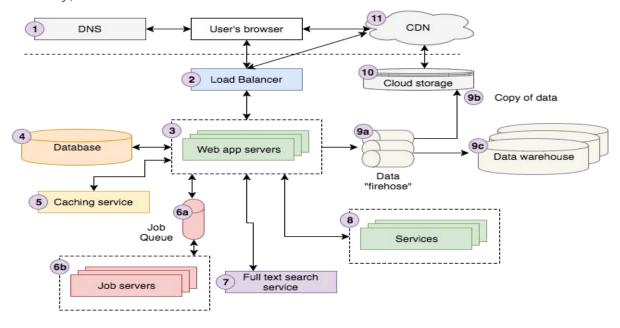
A web developer (team) developing the web application decides as to what the code on the server will do with respect to the code in the browser. For writing server-side code, C#, Java, JavaScript, Python, PHP, Ruby, etc. are used. Any code that is able to respond to HTTP requests has the ability to run on a server. The server-side code is responsible for creating the page that the user requested as well as storing different types of data, including user profiles and user input. It is never seen by the end-user.

Web Application Architecture:

The web application architecture describes the interactions between applications, databases, and middleware systems on the web. It ensures that multiple applications work simultaneously. Let us understand it with a simple example of opening a webpage.

As soon as the user hits the go button after typing a URL in the address bar of a web browser, it requests for that particular web address. The server sends files to the browser as a response to the request made. The browser then executes those files to show the requested page.

Finally, the user is able to interact with the website. The most important thing to note here is the code parsed by the web browser. A web app works in a similar way. This code might or might not have specific instructions that tell the browser how to respond with respect to the different types of user inputs. Hence, a web application architecture has to include all the sub-components as well as the external applications interchanges for the entire software application, in the aforementioned case, which is a website. The web application architecture is indispensable in the modern world because a major portion of the global network traffic, as well as most of the apps and devices, make use of web-based communication. A web application architecture has to not only deal with efficiency, but also with reliability, scalability, security, and robustness.



Project Description

Homepage

The homepage of the restaurant contains details about the webpage it has a navigation bar on the top. Navigation bar tells the details regarding the various pages in the website. Below the navigation bar we have a few images about the restaurant followed by details about the restaurant and some categories of food followed by customer reviews and finally footer page which has details about restaurant address, contact details and social media handles of the website

About us page

It has the navigation bar and the footer which is common in all pages and details regarding the restaurant about the owners ,chefs, date of inauguration, branches and a brief history about the restaurant and its services offered

Categories page

This page also contains a navigation bar and footer page. This page has information regarding the various food categories that are available to the customer. The customer can choose among the various categories given. Some of the categories given here include North Indian, Chinese, South Indian, Continental, Thai, Arabic and Japanese.

Foods page

This page too contains a navigation bar and footer page. This page contains information about food that is present in various categories. It shows details regarding the various food items present in a particular category. For example if the food category is chosen as South Indian Then the food items present in that category are Masala Dosa, Idli Sambar, Rice Plate ,Payasam ,Medu Vada ,Pongal etc. Each food item has a small description regarding the food and it also provides the facility to order the required food item.

Contact Page

It pops up the contact details and also asks to check the footer page for more details.

Login page

It pops up the page where you have to enter the email Id and password to enter into your account. It checks if the email Id and Password entered are actually present in the database ,if present you are logged into your account otherwise it shows error message. Only once you log in will you be able to order your food successfully

Register page

It pops up the page where you have to enter your full name ,email-Id and password to successfully register. Your email id would be checked if it is in the right format. After successful registration you will be logged in.

Code

Homepage

```
<?php
session_start();
?>
<!DOCTYPE html>
<html lang="en">
<head>
       <meta charset="UTF-8">
       <title>Restro - The Perfect Food at Your Door!</title>
       <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
       <!-- <meta http-equiv="refresh" content="1"> -->
       <link href="https://fonts.googleapis.com/icon?family=Material+Icons" rel="stylesheet">
       <link href="https://fonts.googleapis.com/css?family=Pacifico&display=swap"</pre>
rel="stylesheet">
       <link href="https://fonts.googleapis.com/css?family=Bree+Serif&display=swap"</pre>
rel="stylesheet">
       <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/materialize.min.css">
       <link rel="stylesheet" href="css/style.css">
</head>
```

```
<body>
       <?php require('chunks/login-modal.php'); ?>
       <?php require('chunks/register-modal.php'); ?>
       <?php require('chunks/info-modal.php'); ?>
       <?php require('chunks/navbar.php'); ?>
       <?php require('chunks/banner-slider.php'); ?>
       <?php require('chunks/description.php'); ?>
       <?php require('chunks/cards.php'); ?>
       <?php require('chunks/carousel.php'); ?>
       <?php require('chunks/about.php'); ?>
       <?php require('chunks/services.php'); ?>
       <?php require('chunks/reviews.php'); ?>
       <?php require('chunks/footer.php'); ?>
       <script
        src="https://code.jquery.com/jquery-3.4.1.min.js"
        integrity="sha256-CSXorXvZcTkaix6Yvo6HppcZGetbYMGWSFIBw8HfCJo="
        crossorigin="anonymous"></script>
  <!-- Compiled and minified JavaScript -->
```

src = "https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materialize.min.js" > </script > (script) = (script) + (script)

<script

```
<script src="js/loaders.js"></script>
  <script src="js/ajax.js"></script>
  </body>
  </html>
```

About us

```
link
href="https://fonts.googleapis.com/css?family=Pacifico&display=swap"
rel="stylesheet">
      link
href="https://fonts.googleapis.com/css?family=Bree+Serif&display=swap"
rel="stylesheet">
      <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/materialize.min."
css">
      <link rel="stylesheet" href="css/style.css">
</head>
<body>
      <?php require('chunks/login-modal.php'); ?>
      <?php require('chunks/register-modal.php'); ?>
      <?php require('chunks/info-modal.php'); ?>
      <?php require('chunks/navbar.php'); ?>
      <?php require('chunks/carousel.php'); ?>
      <?php require('chunks/about-us.php'); ?>
      <?php require('chunks/description.php'); ?>
      <?php require('chunks/footer.php'); ?>
<script
```

```
src="https://code.jquery.com/jquery-3.4.1.min.js"

integrity="sha256-CSXorXvZcTkaix6Yvo6HppcZGetbYMGWSFIBw8HfCJo="

crossorigin="anonymous"></script>

<!-- Compiled and minified JavaScript -->

<script

src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materialize.min.js"
></script>

<script src="js/loaders.js"></script>

<script src="js/ajax.js"></script>

</body>
</html>
```

Food Categories

```
<?php
session_start();
?>
<!DOCTYPE html>
```

```
<html lang="en">
<head>
      <meta charset="UTF-8">
      <title>Restro - Categories!</title>
      <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
      <!-- <meta http-equiv="refresh" content="1"> -->
      <link href="https://fonts.googleapis.com/icon?family=Material+Icons"</pre>
rel="stylesheet">
      link
href="https://fonts.googleapis.com/css?family=Pacifico&display=swap"
rel="stylesheet">
      link
href="https://fonts.googleapis.com/css?family=Bree+Serif&display=swap"
rel="stylesheet">
      <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/materialize.min."
css">
      <link rel="stylesheet" href="css/style.css">
</head>
<body>
      <?php require('chunks/login-modal.php'); ?>
```

```
<?php require('chunks/register-modal.php'); ?>
      <?php require('chunks/info-modal.php'); ?>
      <?php require('chunks/navbar.php'); ?>
      <?php require('chunks/banner-slider.php'); ?>
      <?php require('chunks/categories.php'); ?>
      <?php require('chunks/footer.php'); ?>
      <script
       src="https://code.jquery.com/jquery-3.4.1.min.js"
       integrity="sha256-CSXorXvZcTkaix6Yvo6HppcZGetbYMGWSFIBw8HfCJo="
       crossorigin="anonymous"></script>
  <!-- Compiled and minified JavaScript -->
  <script
src="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/js/materialize.min.js"
></script>
  <script src="js/loaders.js"></script>
  <script src="js/ajax.js"></script>
</body>
</html>
```

Food Items

```
<?php
session_start();
?>
<!DOCTYPE html>
<html lang="en">
<head>
      <meta charset="UTF-8">
      <title>Restro - Categories!</title>
      <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
      <!-- <meta http-equiv="refresh" content="1"> -->
      <link href="https://fonts.googleapis.com/icon?family=Material+Icons"</pre>
rel="stylesheet">
      link
href="https://fonts.googleapis.com/css?family=Pacifico&display=swap"
rel="stylesheet">
      k
```

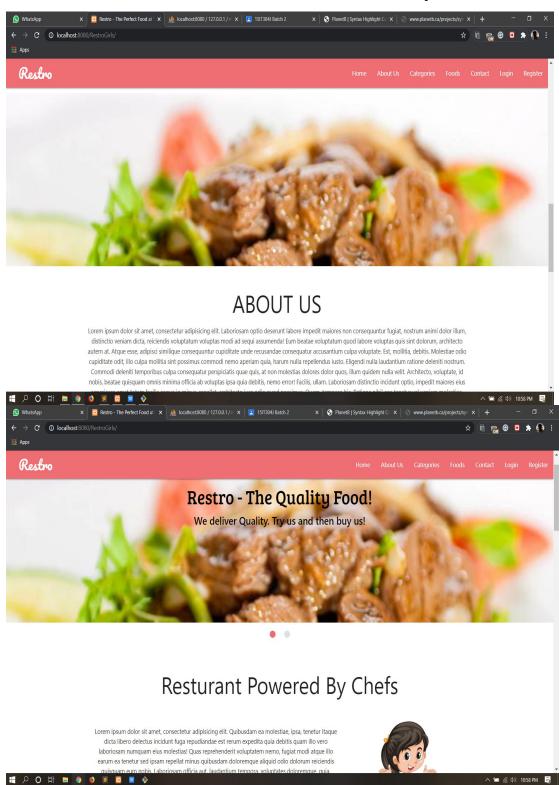
```
href="https://fonts.googleapis.com/css?family=Bree+Serif&display=swap"
rel="stylesheet">
      <link rel="stylesheet"</pre>
href="https://cdnjs.cloudflare.com/ajax/libs/materialize/1.0.0/css/materialize.min."
css">
      <link rel="stylesheet" href="css/style.css">
</head>
<body>
      <?php require('chunks/login-modal.php'); ?>
      <?php require('chunks/register-modal.php'); ?>
      <?php require('chunks/info-modal.php'); ?>
      <?php require('chunks/navbar.php'); ?>
      <?php require('chunks/banner-slider.php'); ?>
      <?php require('chunks/foods.php'); ?>
      <?php require('chunks/footer.php'); ?>
      <script
       src="https://code.jquery.com/jquery-3.4.1.min.js"
       integrity="sha256-CSXorXvZcTkaix6Yvo6HppcZGetbYMGWSFIBw8HfCJo="
       crossorigin="anonymous"></script>
```

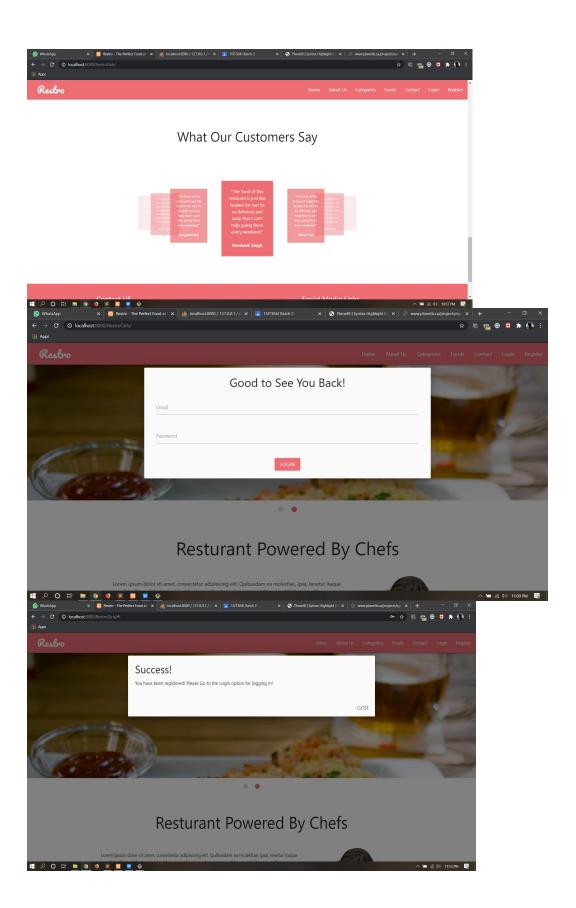
```
<input id="email_login" type="email" class="validate">
           <label for="email">Email
          </div>
              <div class="input-field col s12">
           <input id="password_login" type="password" class="validate">
           <label for="password">Password
          </div>
             </div>
             <a href="javascript:void(0)" class="modal-close waves-effect waves-
light btn" id="login_btn" style="background: #ee6e73 !important;">Login</a>
         </form>
        </div>
       </div>
 </section>
Register
<section class="registermodal">
      <div id="modal2" class="modal">
        <div class="modal-content center">
```

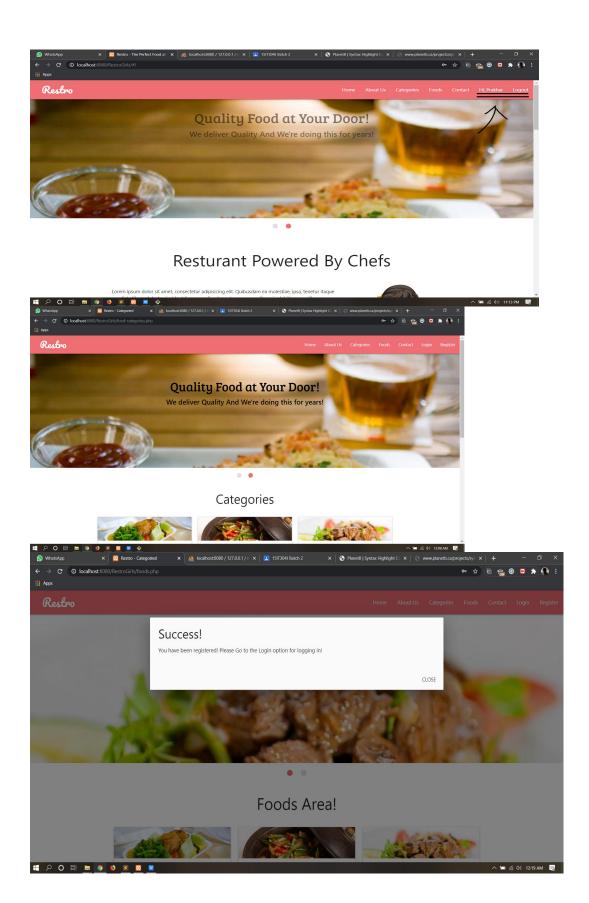
```
<h4>Register Here!</h4>
          <h5><small class="center" id="reg_error" style="color:
red;"></small></h5>
          <form>
            <div class="row">
            <div class="input-field col s12">
            <input onkeypress="return isAlphaNumSpace(event);" id="name_reg"</pre>
type="text" class="validate">
            <label for="name_reg">Full Name</label>
           </div>
           <div class="input-field col s12">
            <input onkeypress="return isEmail(event);" id="email_reg"</pre>
type="email" class="validate">
            <label for="email reg">Email</label>
           </div>
        </div>
        <div class="row">
               <div class="input-field col s6">
            <input id="password_reg" type="password" class="validate">
```

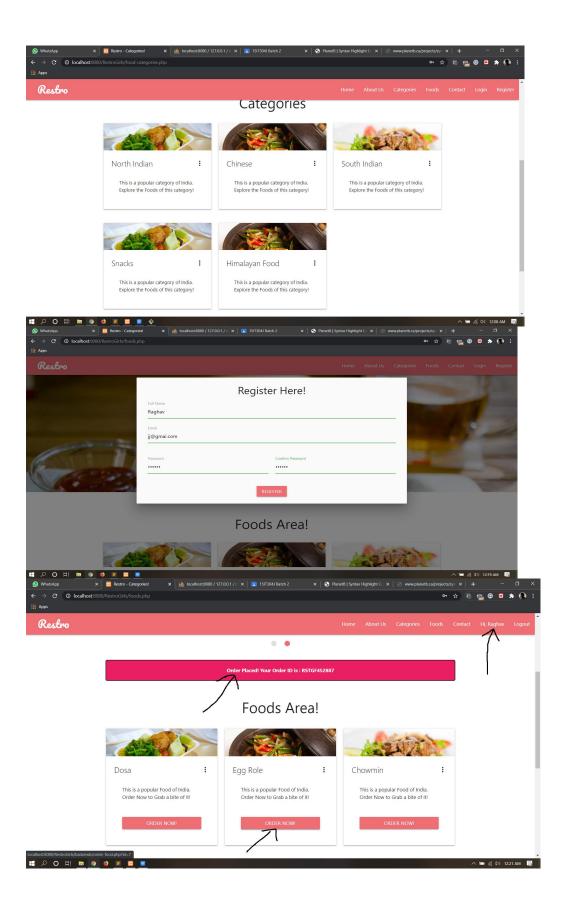
```
<label for="password_reg">Password</label>
          </div>
          <div class="input-field col s6">
           <input id="con_password_reg" type="password" class="validate">
           <label for="con_password_reg">Confirm Password</label>
          </div>
             </div>
             <a href="javascript:void(0)" id="submit_reg" class="waves-effect"
waves-light btn" style="background: #ee6e73 !important;">Register</a>
         </form>
        </div>
       </div>
</section>
```

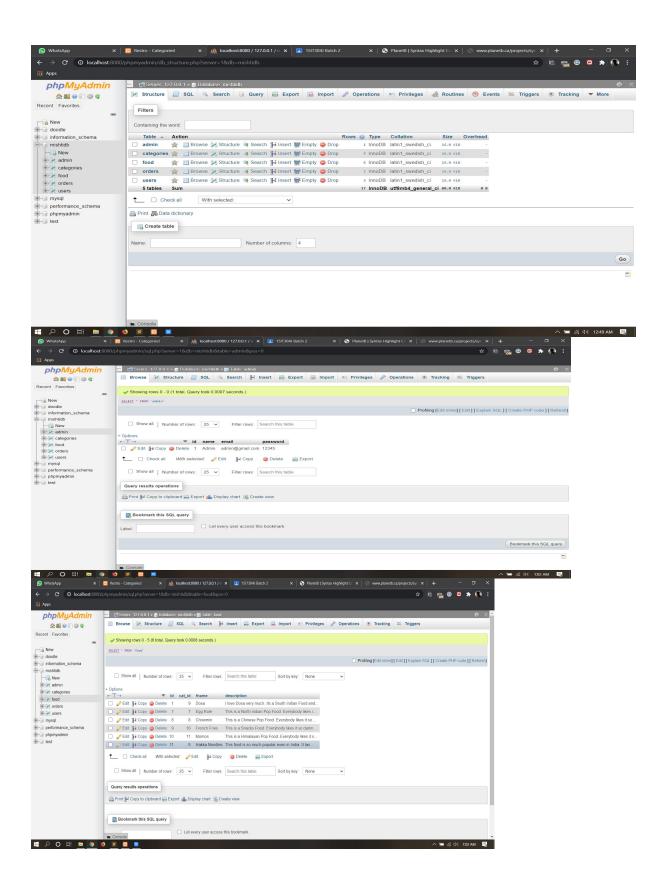
Screen Shots(Output)

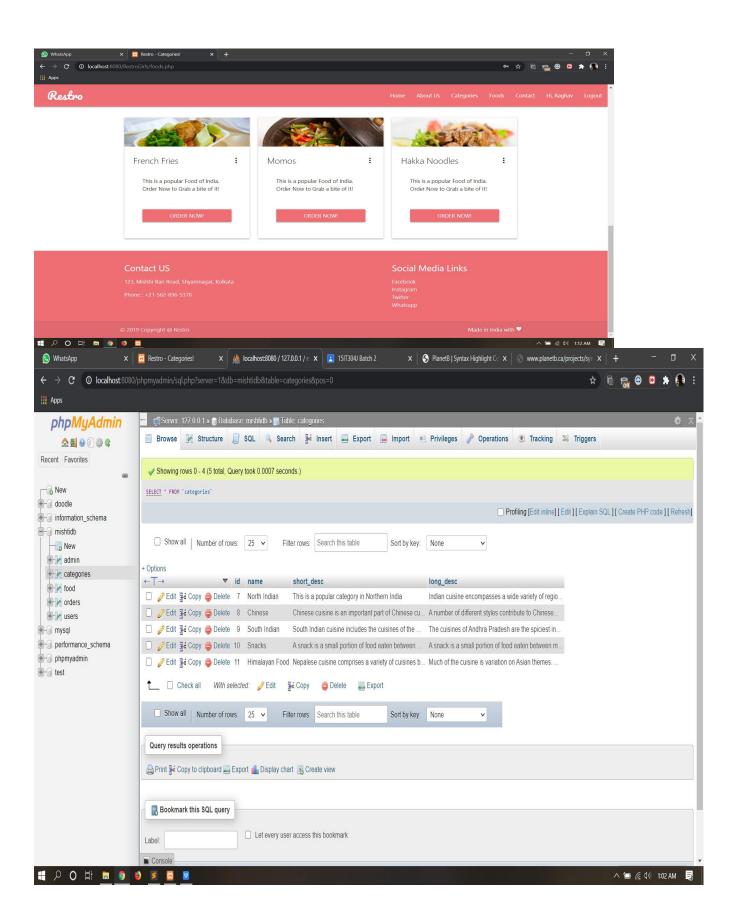


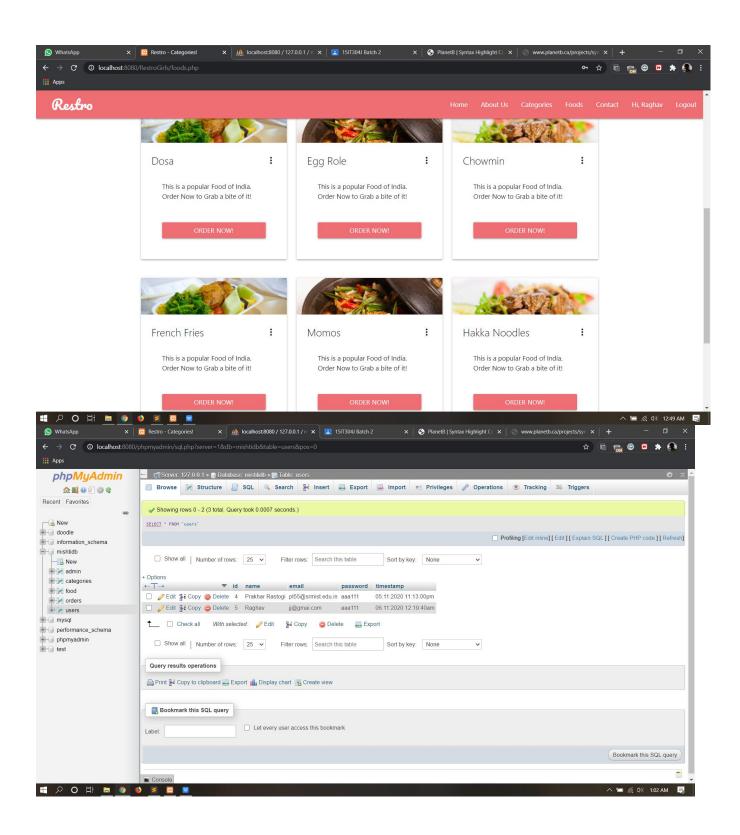












Conclusion

We have designed our very own web page. Not only have we learned the design aspects of web development, but we have also learned how to program in HTML. Through evaluating many different web sites, we are aware of what is effective and ineffective to viewers when designing a website too.

Through this hands-on project we were able to see how well we understood the material presented, and our critical thinking as we developed the restaurant site. We were also able to show our creative side, through the layout and design of our project. As a team we were able to use our problem-solving skills to troubleshoot errors when something did not work the way we intended. Knowing basic HTML/CSS and JavaScript along with PHP is a skill that will help us with blogging, working with Wiki's, Facebook, and much more.

There are many reasons building a website requires that we obtain the right tools and resources. Standardization is one factor. When we use the right tools, we are assured that our pages would be standard and acceptable to every visitor. By using standard resources and tools, our visitors are able to view our web pages no matter what browser they use.

The standard tools used for creating the website will ensure that things such as navigation, menus and layout conform to current practices with which every web user is familiar with. Our pages become attractive if we use the right tools. They can display correctly in the browser and our visitors would be glad to visit again because we appealed to then. Search engines would index our website if the pages conform to their rules.

Now that we are equipped with the right knowledge we can go about our web design with the assurance that we are going to produce something appealing and acceptable to most browsers.

Future Work

The Web Developer bears the responsibility for the coding, design, and layout of the website according to the company's specifications. A website is more important than anything for every business when it comes to reaching clients online. Every business knows today the need to have a website and is trying to design and create the best website to take its products or services online. With incredible progress in launching websites, businesses are searching for people who can build outstanding designs and platforms for their online presence. With the technical expertise widespread today, we are on the road to a technologically transforming future. The technology landscape is evolving with artificial intelligence, computer education, the Internet of Things, and quantum computing. And this is even down to their website relationship.

Our project Restro (A restaurant management website) is a project which makes food ordering, management and diversity easy and simple, food ordering ,choosing what to eat and payments are just one click away. Most future trends will center around artificial intelligence, fast operation, interactivity of web applications, and improved user experience.

The further future work is given or added as, an AI system can be developed to make user interface more effective, simple and easy thus helping user with their choices. A customer-chat bot can be made so that some of the simple difficulties of the user can be solved by robot itself so that developers don't have to look for simple matters each and every time

References

- Internet(W3 Schools, GeekForGeeks, CSS World, etc)
- Head First with web development by Henry Giffs.
- Other books, blogs and daily technical magazines.
- Some research papers on web development.