CHAPTER 1

INTRODUCTION

Creating, organizing, and managing cooking recipes can often be a challenge for both cooking enthusiasts and professionals. The absence of a centralized platform that provides easy access to diverse recipes, ingredient lists, cooking instructions, and categorization leads to inefficiencies and difficulties in meal planning, cooking, and exploring new culinary experiences. The aim of this project is to develop a comprehensive Cooking Recipe Management System that allows users to store, search, manage, and explore various recipes efficiently.

Objective:

Centralize recipes: Store recipes from various sources (online, books, personal collections) in one easily accessible location.
Efficient search and retrieval: Allow users to quickly find recipes based on ingredients, dietary restrictions, cuisine types, cooking methods, or other criteria.
Detailed recipe data: Store comprehensive information about each recipe, including ingredients, quantities, instructions, cooking times, nutritional information, and more.

Scope of the project:

Culinary skills development: The database can offer detailed instructions and cooking techniques, encouraging people to learn new culinary skills and gain confidence in the kitchen. Nutritional education: By including nutritional information and healthy recipe options, the database can contribute to nutritional education and awareness, leading to healthier dietary choices.

CHAPTER 2

SYSTEM REQUIREMENTS

To run this code, we need XAMPP server and phpMyAdmin to store the data and we used vs code for frontend and for connection part.

2.1 Front End Tools:

HTML (Hypertext Markup Language) is used for structuring the content of a web page, defining elements such as headings, paragraphs, images, links, and more. It provides the basic structure of a webpage.

CSS (Cascading Style Sheets) is used for styling the HTML elements, controlling their presentation and layout. CSS allows you to define colours, fonts, spacing, and other visual aspects of your web page. It helps in separating the content from its presentation, making the design more flexible and maintainable.

2.2 Back End Tools:

PHP (Hypertext Preprocessor) is a server-side scripting language commonly used for web development. It is embedded within HTML and can generate dynamic content on web pages. PHP is often used to interact with databases, process forms, and perform various server-side tasks.

DBMS (Database Management System) is software used to manage and organize databases. It provides an interface for storing, retrieving, and managing data efficiently. PHP is frequently used in conjunction with a DBMS to connect to databases, execute queries, and handle data, enabling dynamic and interactive web applications to interact with and retrieve information from a database. Popular databases used with PHP include MySQL.

CHAPTER 3

DESIGN

3.1 Schema Diagram

A Schema diagram is a diagram which contains entities and the attributes that will define the schema.

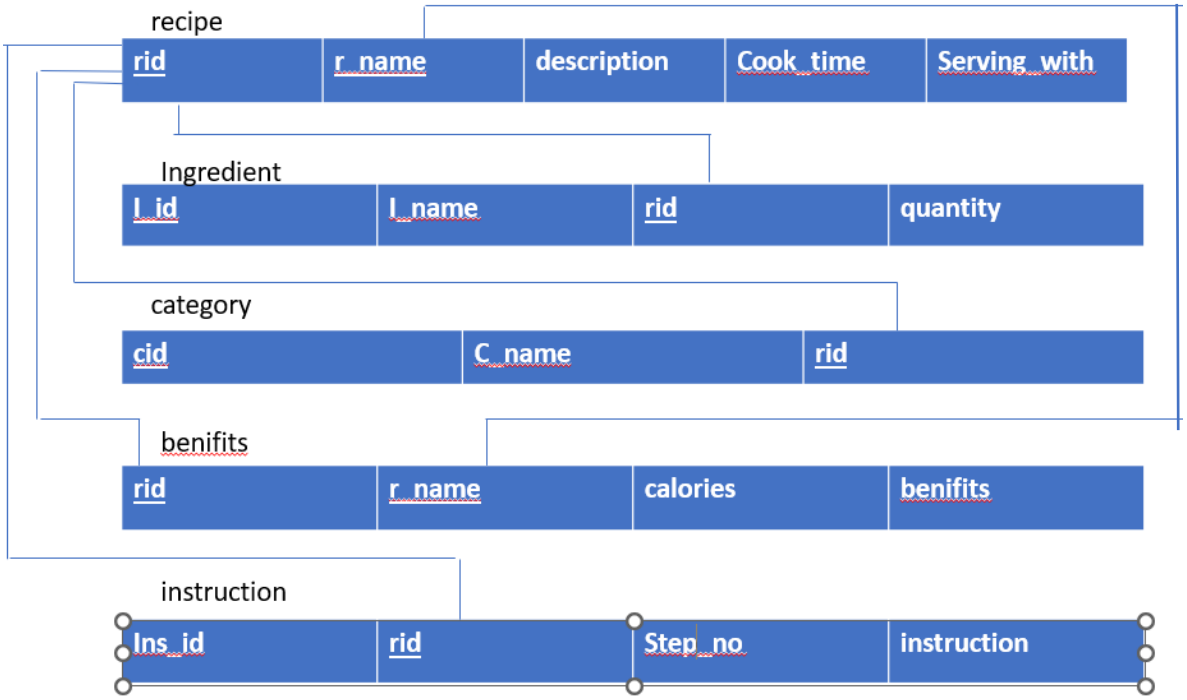


Figure 3.1

3.2 ER Diagram

An entity relationship diagram shows the relationship of entity sets stored in a database.

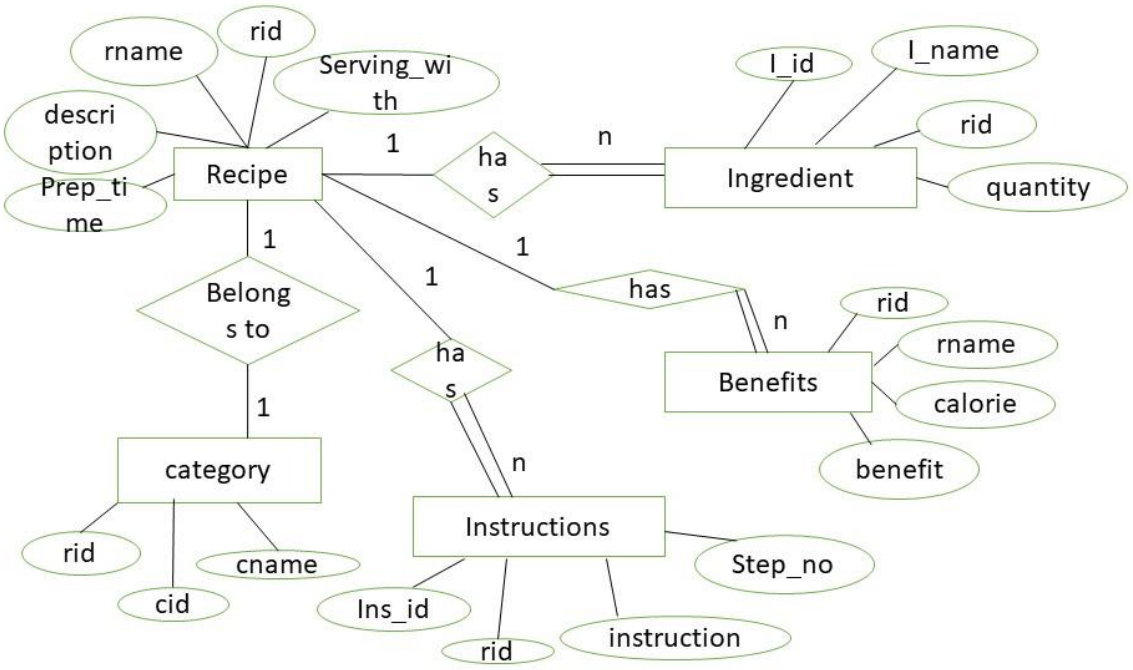


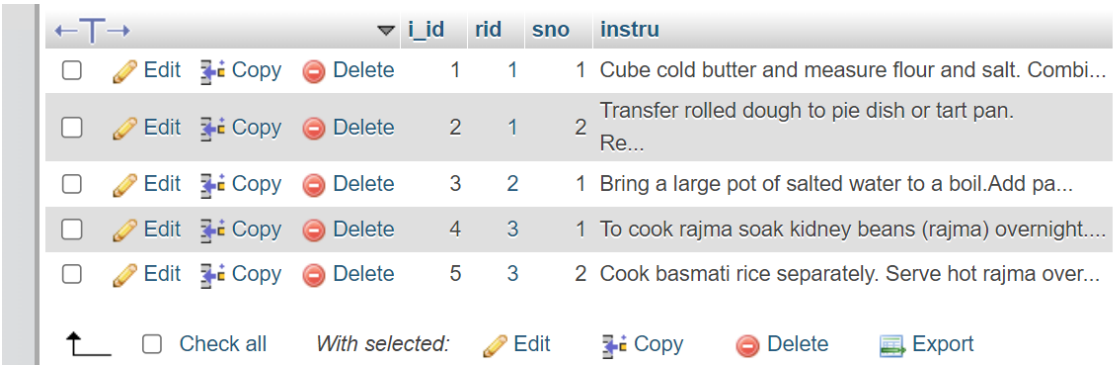
Figure 3.2

3.3 Database Tables

	rid	rname	prep_time	description	serving_with
Edit Copy Delete	1	pastries	30 min	Pastry is a category of baked goods characterized ...	chocolate sauce
Edit Copy Delete	2	Pasta	20 min	Pasta is a collective name for a category of food ...	Toast
Edit Copy Delete	3	Rajmal chawal	1.5 hr	Rajma Chawal is a classic Punjabi dish featuring r...	Sclided onions ,curry
Edit Copy Delete	4	Idli	30 min	made with batter	chutney
Edit Copy Delete	5	oats dosa	30 min	dosa is thin,crispy oats recipe	coconut chutney

Check all *With selected:* Edit Copy Delete Export

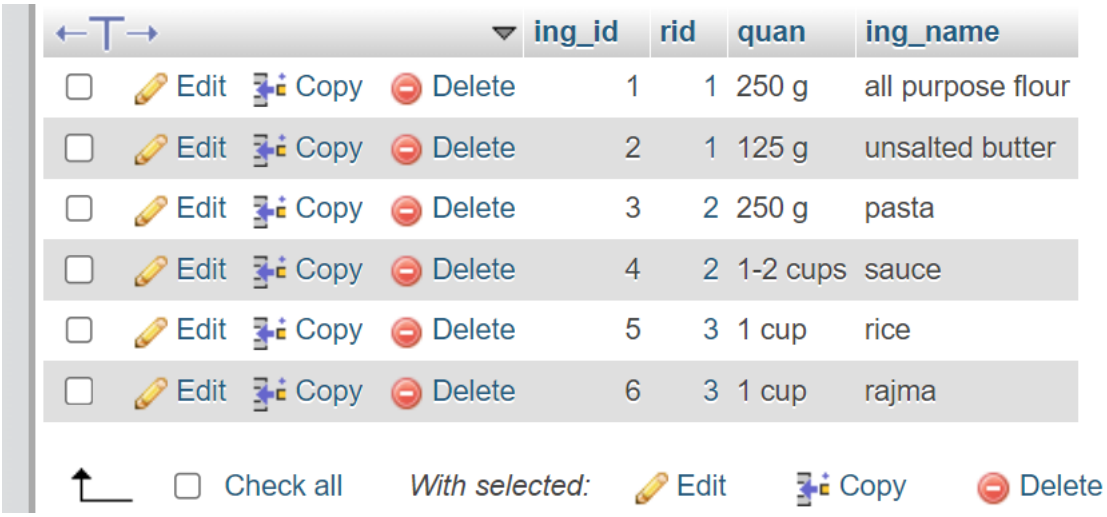
Table 3.3.1 Recipe table



	i_id	rid	sno	instru
Edit Copy Delete	1	1	1	Cube cold butter and measure flour and salt. Combi...
Edit Copy Delete	2	1	2	Transfer rolled dough to pie dish or tart pan. Re...
Edit Copy Delete	3	2	1	Bring a large pot of salted water to a boil.Add pa...
Edit Copy Delete	4	3	1	To cook rajma soak kidney beans (rajma) overnight....
Edit Copy Delete	5	3	2	Cook basmati rice separately. Serve hot rajma over...

Check all *With selected:* Edit Copy Delete Export

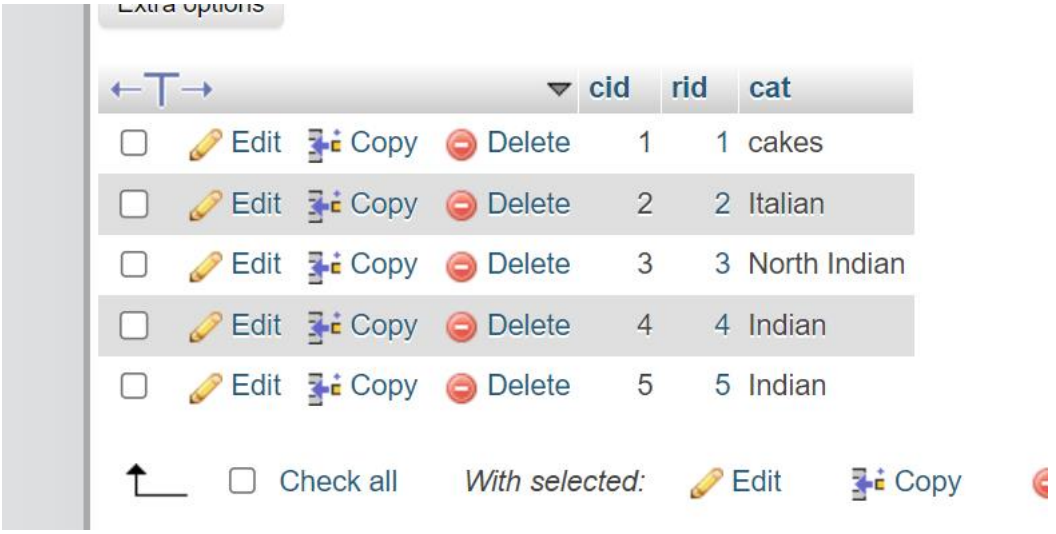
Table 3.3.1 Instruction table



	ing_id	rid	quan	ing_name
Edit Copy Delete	1	1	250 g	all purpose flour
Edit Copy Delete	2	1	125 g	unsalted butter
Edit Copy Delete	3	2	250 g	pasta
Edit Copy Delete	4	2	1-2 cups	sauce
Edit Copy Delete	5	3	1 cup	rice
Edit Copy Delete	6	3	1 cup	rajma

Check all *With selected:* Edit Copy Delete

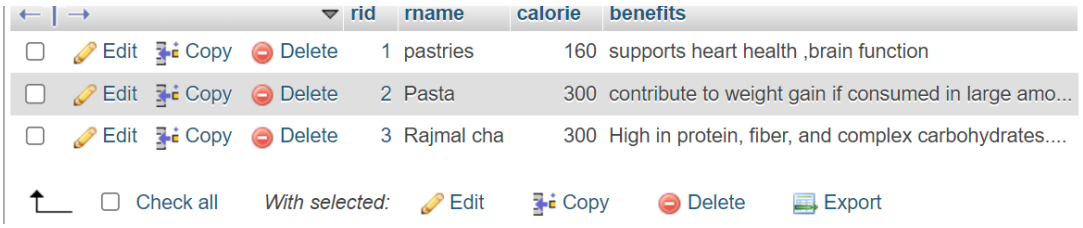
Table 3.3.1 Ingredient table



	cid	rid	cat
Edit Copy Delete	1	1	cakes
Edit Copy Delete	2	2	Italian
Edit Copy Delete	3	3	North Indian
Edit Copy Delete	4	4	Indian
Edit Copy Delete	5	5	Indian

Check all *With selected:* Edit Copy

Table 3.3.1 Category table



	rid	rname	calorie	benefits
Edit Copy Delete	1	pastries	160	supports heart health ,brain function
Edit Copy Delete	2	Pasta	300	contribute to weight gain if consumed in large amo...
Edit Copy Delete	3	Rajmal cha	300	High in protein, fiber, and complex carbohydrates....

Check all *With selected:* Edit Copy Delete Export

Table 3.3.1 Benefit table

CHAPTER 4

IMPLEMENTATION

To run this code, we need XAMPP server and phpMyAdmin to store the data and we used vs code for frontend and for connection part.

```
CREATE TABLE `recipe` (
  `rid` int(11) NOT NULL,
  `rname` varchar(20) NOT NULL,
  `prep_time` varchar(11) DEFAULT NULL,
  `description` varchar(500) DEFAULT NULL,
  `serving_with` varchar(50) DEFAULT NULL
)


INSERT INTO `recipe` (`rid`, `rname`, `prep_time`, `description`,
`serving_with`) VALUES
(1, 'pastries', '30 min', 'Pastry is a category of baked goods
characterized by its flaky, tender, or crumbly texture. Pastry can be used
in both sweet and savory dishes, ranging from pies and tarts to croissants
and pasties', 'chocolate sauce'),
(2, 'Pasta', '20 min', 'Pasta is a collective name for a category of food
made from wheat flour and water', 'Toast'),
(3, 'Rajmal chawal', '1.5 hr', 'Rajma Chawal is a classic Punjabi dish
featuring red kidney beans cooked in a thick and flavorful tomato-based
gravy. It is served with steamed rice.', 'Sclided onions ,curry'),
(4, 'Idli', '30 min', 'made with batter', 'chutney'),
(5, 'oats dosa', '30 min', 'dosa is thin,crispy oats recipe', 'coconut
chutney');

CREATE TABLE `instruction` (
  `i_id` int(11) NOT NULL,
  `rid` int(11) DEFAULT NULL,
  `sno` int(11) DEFAULT NULL,
  `instru` varchar(500) DEFAULT NULL
)
```

```
INSERT INTO `instruction` (`i_id`, `rid`, `sno`, `instru`) VALUES
(1, 1, 1, 'Cube cold butter and measure flour and salt. Combine flour,
salt, and butter until it resembles bread crumbs .Gradually add ice water
until dough forms. Knead gently into a ball, then flatten into a disk.Wrap
dough and refrigerate for at least 30 minutes. On floured surface, roll
dough to desired thickness'),
(2, 1, 2, 'Transfer rolled dough to pie dish or tart pan.\r\nRemove excess
dough and patch any tears. Refrigerate lined pan if recipe calls for
it.\r\n\r\n'),
(3, 2, 1, 'Bring a large pot of salted water to a boil.Add pasta to the
boiling water and stir.Cook pasta according to package instructions until
al dente.Drain cooked pasta in a colander. Serve hot with your favorite
sauce or toppings'),
(4, 3, 1, 'To cook rajma soak kidney beans (rajma) overnight. Boil them
until tender. In a separate pan, sauté onions, tomatoes, and spices. Add
boiled rajma to the mixture. Simmer until the flavors meld.'),
(5, 3, 2, 'Cook basmati rice separately. Serve hot rajma over the cooked
rice. Garnish with fresh coriander.');

CREATE TABLE `benefit` (
  `rid` int(11) NOT NULL,
  `rname` varchar(20) NOT NULL,
  `calorie` int(11) DEFAULT NULL,
  `benefits` varchar(300) DEFAULT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_general_ci;

INSERT INTO `benefit` (`rid`, `rname`, `calorie`, `benefits`) VALUES
(1, 'pastries', 160, 'supports heart health ,brain function'),
(2, 'Pasta', 300, 'contribute to weight gain if consumed in large amount'),
(3, 'Rajmal cha', 300, 'High in protein, fiber, and complex
carbohydrates.Provides essential nutrients like iron, potassium, and
folate.');

CREATE TABLE `category` (
  `cid` int(11) NOT NULL,
  `rid` int(11) DEFAULT NULL,
  `cat` varchar(20) DEFAULT NULL
)

INSERT INTO `category` (`cid`, `rid`, `cat`) VALUES
(1, 1, 'cakes'),
```

```
(2, 2, 'Italian'),
(3, 3, 'North Indian'),
(4, 4, 'Indian'),
(5, 5, 'Indian');

CREATE TABLE `ingredients` (
  `ing_id` int(11) NOT NULL,
  `rid` int(11) DEFAULT NULL,
  `quan` varchar(50) DEFAULT NULL,
  `ing_name` varchar(50) DEFAULT NULL
)

INSERT INTO `ingredients` (`ing_id`, `rid`, `quan`, `ing_name`) VALUES
(1, 1, '250 g ', 'all purpose flour'),
(2, 1, '125 g ', 'unsalted butter'),
(3, 2, '250 g', 'pasta'),
(4, 2, '1-2 cups', 'sauce'),
(5, 3, '1 cup', 'rice'),
(6, 3, '1 cup', 'rajma');

DELIMITER $$
CREATE TRIGGER `count` AFTER INSERT ON `benefit` FOR EACH ROW insert into
recipe values(null,new.rid,'inserted',now())
$$
DELIMITER ;

 Stand-in structure for view `rc`
-- (See below for the actual view)
--
CREATE TABLE `rc` (
`rname` varchar(20)
,`calorie` int(11)
)
CREATE ALGORITHM=UNDEFINED DEFINER=`root`@`localhost` SQL SECURITY DEFINER
VIEW `rc`  AS SELECT `r`.`rname` AS `rname`, `b`.`calorie` AS `calorie`
FROM (`recipe` `r` join `benefit` `b`) WHERE `r`.`rid` = `b`.`rid` ;
```

Connection page

```
<?php

//error_reporting(0);
```

```
$server_name="localhost";
$username="root";
$password="";
$database_name="cooking_recipe";

$conn=mysqli_connect($server_name,$username,$password,$database_name);
//now check the connection
if($conn)
{
    //echo "Connection ok";}
else{
    echo "connection failed";}
?>
```

Form page

```
<?php include("connection.php"); ?>
<html>
<head>
    <title>
        cooking recipe management
    </title>
    <style>
        body{
            background-image:url("i1.jpeg");
            background-repeat: no-repeat;
            background-size: 100% 100%;
        }
        </style>
</head>
<body >
    <div align="center">
        <!--<h1>Details Entry Form</h1>-->
    </div>
<form action="" method="post" >
    <table border="1" align="center"  >
        <tr>
            <td>
            <label>Recipe id</label></td>
            <td><input type="text" name="rid" style="width:300px;"></td>
        </tr>
        <tr>
            <td>
```

```
            <label>Recipe name</label></td>
            <td><input type="text" name="rname" style="width:300px;"></td>
        </tr>
        <tr>
            <td>
            <label>preparation time</label></td>
            <td><input type="text" name="prep_time"
style="width:300px;"></td>
        </tr>
        <tr>
            <td>
            <label>Description</label></td>
            <td ><input type="text" style="width:300px; height: 50px;"
name="description"></td>
        </tr>
        <tr>
            <td>
            <label> serving with</label></td>
            <td><input type="text" name="serving_with"
style="width:300px;"></td>
        </tr>
        <tr>
            <td>
            <label>calorie</label></td>
            <td><input type="text" name="calorie"
style="width:300px;"></td>
        </tr>
        <tr>
            <td>
            <label>Benefit</label></td>
            <td><input type="text" name="benefits"
style="width:300px;"></td>
        </tr>
        <tr>
            <td colspan="2" align="center" ><input type="submit"
name="save" value="Submit" style="font-size:20px"></td>
        </tr>
    </table>
</form>
</body>
</html>
```

```php
<?php

if(isset($_POST['save']))
{
     $rid = $_POST['rid'];
     $rname = $_POST['rname'];
     $prep_time = $_POST['prep_time'];
     $description = $_POST['description'];
     $serving_with = $_POST['serving_with'];
     $calorie = $_POST['calorie'];
     $benefits = $_POST['benefits'];

     $sql_query = "INSERT INTO recipe
(rid,rname,prep_time,description,serving_with)
     VALUES ('$rid','$rname','$prep_time','$description','$serving_with')";

     if (mysqli_query($conn, $sql_query))
     {
        //echo "New Details Entry inserted successfully !";

        echo "<script>alert('New Details Entry inserted successfully !');
location.href='show.php'; </script>";
     }
     else
     {
        echo "Error: " . $sql . "" . mysqli_error($conn);
     }

     $sql_query = "INSERT INTO benefit (rid, rname,  calorie, benefits)
     VALUES ('$rid','$rname','$calorie','$benefits')";

     if (mysqli_query($conn, $sql_query))
     {
        echo "New Details Entry inserted successfully !";
     }
     else
     {
        echo "Error: " . $sql. "" . mysqli_error($conn);
     }

     $conn->close();
     }
```

```
?>
```

Display page

```
<?php
include("connection.php");
//error_reporting(0);
    $sql= 'select * from recipe';
    $result = $conn->query($sql);

?>
<html>
    <head>
    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.
css" integrity="sha384-
ggOyR0iXCbMQv3Xipma34MD+dH/1fQ784/j6cY/iJTQUOhcWr7x9JvoRxT2MZw1T"
crossorigin="anonymous">
    </head>
    <body>
    <h2 align='center'> Recipe Table </h2>
        <table border='3' cellspacing="7">
            <tr>
            <th width="10%">Recipe Id</th>
            <th  width="10%">Recipe Name</th>
            <th  width="10%">Preparation time</th>
            <th  width="50%">Description</th>
            <th  width="10%"> Serving with </th>
            <th width="10%">Operations</th>

    </tr>
  <?php
        if($result->num_rows>0){
            while($row = $result->fetch_assoc())
        {
        ?>
            <tr>
            <td><?php echo $row['rid']; ?></td>
            <td><?php echo $row['rname']; ?></td>
            <td><?php echo $row['prep_time']; ?></td>
            <td><?php echo $row['description']; ?></td>
            <td><?php echo $row['serving_with']; ?></td>
            <td><a href="update_design.php?rid=<?php echo $row['rid'];?>">
```

```
            update</a><a href="delete.php?rid=<?php echo $row['rid'];?>">
            delete</a></td>

            </tr>
        <?php
        }
    }
    ?>
     </body>
</table>
</html>
```

operation

```
<?php
include("connection.php");
error_reporting(0);

if(isset($_GET["rid"]))
$recipe_id=$_GET['rid'];

if(isset($_POST['update'])){
    $rid = $_POST['rid'];
    $rname = $_POST['rname'];
    $prep_time = $_POST['prep_time'];
    $description = $_POST['description'];
    $serving_with = $_POST['serving_with'];
    #echo "prep_time";
    $sql = "UPDATE recipe SET prep_time='$prep_time',
description='$description', serving_with ='$serving_with' WHERE rid =
'$recipe_id'";
    $result = $conn->query($sql);

 if($result == true){
    echo "<script>alert('Record updated successfully !');
location.href='show.php'; </script>";
 }
 else{
echo 'error:'.$sql. '<br>' .$conn->error;
 }
}
```

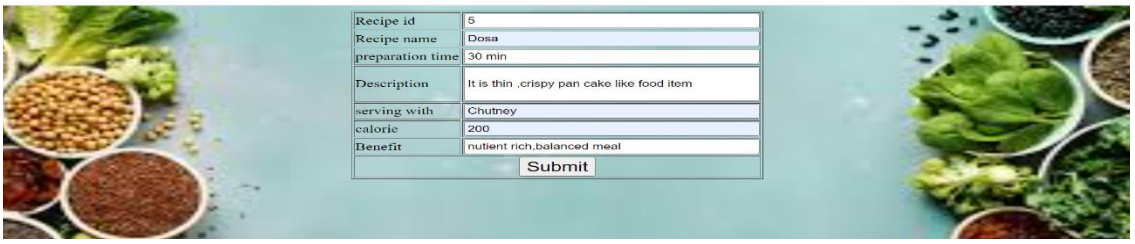
```
if(isset($_GET['rid'])){
    $sql = "SELECT  * from recipe where rid = '$recipe_id' ";
    $result = $conn->query($sql);
    if($result->num_rows>0){
    while($row = $result->fetch_assoc()){
        $rid = $row['rid'];
        $rname = $row['rname'];
        $prep_time = $row['prep_time'];
        $description = $row['description'];
        $serving_with = $row['serving_with']; }
    ?>
<html>
    <head>
    <style>
        body{
            background-image:url("i1.jpeg");
            background-repeat: no-repeat;
            background-size: 100% 100%;
        }
        </style>
    </head>
    <body>
<form action="" method="POST">
     <table border="1" align="center">
         <tr>
             <td>
             <label>Recipe id</label></td>
             <td><input type="text"  style="width:300px;"
name="rid"  value=<?php echo $recipe_id ?>></td>
         <tr>
             <td>
             <label>Recipe name</label></td>
             <td><input type="text"  style="width:300px;" name="rname"
value="<?php echo $rname ?>" ></td>
         </tr>
         <tr>
             <td>
             <label>preparation time</label></td>
             <td><input type="text"   style="width:300px;" name="prep_time"
value="<?php echo $prep_time ?>"></td>
         </tr>
         <tr>
```

```
            <td>
            <label>Description</label></td>
            <td><input type="text"  style="width:300px; height:50px;"
name="description" value="<?php echo $description ?>"></td>
        </tr>
        <tr>
            <td>
            <label> Serving with</label></td>
            <td><input type="text"   style="width:300px;"
name="serving_with" value="<?php echo $serving_with?>"></td>
        </tr>


        <tr>
            <td colspan="2" align="center" ><input type="submit"
name="update" value="Submit" style="font-size:20px"></td>
    </tr>
     </table>
 </form>
    </body>
 </html>
<?php

}
else{
    header('Location: show.php');
}
}
?>

<?php
include("connection.php");
if(isset($_GET['rid'])){
    $recipe_id=$_GET['rid'];
    $sql="DELETE from recipe WHERE rid = '$recipe_id'";
    $result = $conn->query($sql);
    if($result == true){
        echo "<script>alert('Record deleted successfully !');
location.href='show.php'; </script>";
     }
     else{
        echo 'error:'.$sql. '<br>' .$conn->error; }
```

CHAPTER 5

INTERPRETATION OF RESULT

The interaction between frontend and backend ensures that the application allows to perform actions through frontend interface and have those actions accurately reflected in backend system.

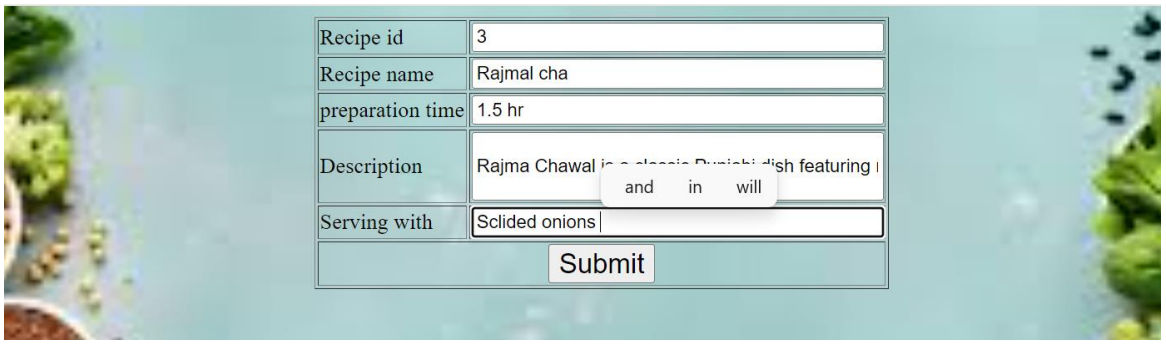


From the above two pictures , we are adding the new recipe to our backend system.

Recipe Table

Recipe Id	Recipe Name	Preparation time	Description	Serving with	Operations
1	pastries	30 min	Pastry is a category of baked goods characterized by its flaky, tender, or crumbly texture. Pastry can be used in both sweet and savory dishes, ranging from pies and tarts to croissants and pasties	chocolate sauce	update delete
2	Pasta	20 min	Pasta is a collective name for a category of food made from wheat flour and water	Toast	update delete
3	Rajmal cha	1.5 hr	Rajma Chawal is a classic Punjabi dish featuring red kidney beans cooked in a thick and flavorful tomato-based gravy. It is served with steamed rice.	Sclided onions and chutney	update delete
4	Idli	50 min	Idli is a soft, steamed rice cake made from a fermented batter of rice and urad dal (black gram).	coconut chutney,sambar	update delete
5	Dosa	30 min	It is thin ,crispy pan cake like food item	Chutney	update delete

The recipe gets added to the table called recipe table.

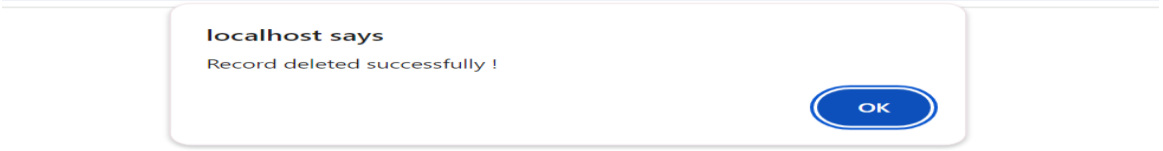


The recipe rid with 3 gets updated with its new values to the serving_with column .

Recipe Table

Recipe Id	Recipe Name	Preparation time	Description	Serving with	Operations
1	pastries	30 min	Pastry is a category of baked goods characterized by its flaky, tender, or crumbly texture. Pastry can be used in both sweet and savory dishes, ranging from pies and tarts to croissants and pasties	chocolate sauce	update delete
2	Pasta	20 min	Pasta is a collective name for a category of food made from wheat flour and water	Toast	update delete
3	Rajmal cha	1.5 hr	Rajma Chawal is a classic Punjabi dish featuring red kidney beans cooked in a thick and flavorful tomato-based gravy. It is served with steamed rice.	Sclided onions	update delete
4	Idli	50 min	Idli is a soft, steamed rice cake made from a fermented batter of rice and urad dal (black gram).	coconut chutney,sambar	update delete
5	Dosa	30 min	It is thin ,crispy pan cake like food item	Chutney	update delete

The updated value is getting reflected in both frontend and backend.



Recipe Id	Recipe Name	Preparation time	Description	Serving with	Operations
1	pastries	30 min	Pastry is a category of baked goods characterized by its flaky, tender, or crumbly texture. Pastry can be used in both sweet and savory dishes, ranging from pies and tarts to croissants and pasties	chocolate sauce	update delete
2	Pasta	20 min	Pasta is a collective name for a category of food made from wheat flour and water	Toast	update delete
3	Rajmal cha	1.5 hr	Rajma Chawal is a classic Punjabi dish featuring red kidney beans cooked in a thick and flavorful tomato-based gravy. It is served with steamed rice.	Sclided onions	update delete
4	Idli	50 min	Idli is a soft, steamed rice cake made from a fermented batter of rice and urad dal (black gram).	coconut chutney,sambar	update delete

The record got deleted from the table.

Trigger:

id	rid	description	dateofinsertion
1	7	inserted	2024-02-29
2	8	inserted	2024-02-29
3	5	inserted	2024-03-05

View:

rname	calorie
pastries	160
Pasta	300
Rajmal chawal	300

CHAPTER 6

CONCLUSION

In conclusion, implementing a Database Management System (DBMS) in a cooking project proves to be invaluable. The DBMS serves as the backbone, efficiently organizing and managing various aspects such as recipes, ingredients, user profiles, and feedback. It enhances accessibility, allowing users to retrieve, update, and store cooking-related information seamlessly. The structured data not only facilitates efficient recipe management but also enables personalized user experiences. With a well-designed DBMS, the cooking project can streamline operations, enhance user satisfaction, and lay the foundation for scalability and future improvements.

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