

MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION

Federal State Autonomous Educational Institution of Higher Education
“South Ural State University (National Research University)”
School of Electrical Engineering and Computer Science
Department of Computer Science

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“ ___ ” _____ 2020

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“ ___ ” _____ 2020

DEVELOPMENT OF WEB APPLICATION FOR FOOD RECIPES

GRADUATE QUALIFICATION WORK
SUSU–02.04.02.2020.308–703.GQW

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“ ___ ” _____ 2020

Chelyabinsk–2020

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TASK

of the master graduate qualification work

For the student of the group CE-229

Alaq Farah Alaa Mohammid

in master direction 02.04.02

“Fundamental Informatics and Information Technologies”

(master program “Database Technologies”)

1. The topic (approved by the order of the rector from 24.04.2020 No. 627)

Development of web application for food recipes

2. The deadline for the completion of the work: 01.06.2020.

3. The source data for the work

3.1. Petcold Ch. Programming for Microsoft Windows 8. 8th ed. Development of applications for Windows Store on C# and XAML. – Master, 2014. – 1008 p.

3.2. Tutorials point. [Electronic Resource] URL: https://www.tutorialspoint.com/PHP/PHP_introduction.htm (the date of access: 01.01.2019).

4. The list of the development issues

4.1. To define the problem statement

4.2. To make a comparative analysis between ASP.NET and PHP

4.3. To choose development tools

4.4. To determine functional and non-functional requirements

4.5. To design the database

4.6. To design and to implement the application

4.7. To test the system.

5. Issuance date of the task: 09.02.2020.

Supervisor

Cand. Sci, Assoc. Prof.

The task is taken to perform

O.N. Ivanova

F.A.M. Alaq

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INTRODUCTION

Topicality of Research

Cookery is an essential life skill that can be learnt any in life. Whether your just embarking on cooking for yourself or a young adult transforming into a budding chef, we'll teach you how to cook with confidence. The class is entirely hands on and taught in small sized groups, so you develop and practice with guidance from our expert chefs and produce your own your family and friends.

You will learn fundamental skills such as chopping, slicing and dicing, get to know your brunoised to your batons and confidently use knives to make cooking easy. You will make a number of delicious yet simple dishes to create a portfolio of recipes you can use on a weekly basis.

The aim. In this project, we must address some important issues in the beginning, our website contains recipes for different foods from different kitchens in the world and also through this site can update the food continuously and also contains instructions to enable the user to send a request to know the recipes for dishes not found in our site. There is also a sign His summary of all his eating and what is the last.

Aims and Objectives of this Project

The goal of the project is to develop an information website for cooking. In order to attain this goal, we must solve the following objectives:

- 1) to study the problem statement and make the comparison between PHP core and PHP framework for website development;
- 2) to develop the structure of the required database for the information wesite;
- 3) to design the web-application;
- 4) to implement the website;
- 5) to test the system.

The practical significance

This project can be useful because it contains good features to help the people for cooking

- 1) secure access for the private data about the users;
- 2) allow every user to request a services;
- 3) allow every register user to see and add recipe;
- 4) saving the time and efforts while working at site;
- 5) unlimited number of users;
- 6) ability for the following development of the site.

Structure of the thesis

The thesis consists of four chapters, introduction, conclusion and reference list.

In the first chapter, the problem statement is given in details, the comparative analysis of the existing analogical applications is given. We describe the used development tool as well there.

In chapter two, there is a description of functional and non-functional requirements use case diagram, database scheme and the design of the application's interfaces.

In chapter three, we show several fragments of source code for implementing the basic functionality of the system and the algorithm of sales calculation and its implementation in the desktop-application.

Chapter Four is devoted to the testing of the application. It contains the results of functional, and usability testing.

The thesis has 43 pages; the list of references contains 19 resources.

1. THE ANALYSIS OF THE SUBJECT AREA

1.1. The problem statement

Eating at home has many points in its favor. It is cheaper to eat at home. It is healthier to eat at home and it is usually much more comfortable. Firstly, eating at home is much less expensive than eating in a restaurant. Obviously, when we eat at home we do the preparation, cooking and serving of the food ourselves and, therefore, do not need to pay the labor costs of cook, waiter and other restaurant staff. Similarly, we have no other overheads to pay for such as restaurant rent and high utility bills. A further cost saving is that we shop for the ingredients of our home-cooked meals ourselves and can choose those which are cheaper in price.

Secondly, eating at home is much better for our health and general wellbeing than dining outside. At home, when cooking for ourselves, we can ensure that what goes into our meals is not bad for us. We can control the amount of oil we use. We can control the amount of salt we use and we can balance our diet to suit our own individual needs. When we eat at a restaurant, none of these things are possible. At home we can also cook just enough food to satisfy us. In a restaurant we are often given too much or too little food on our plate.

Finally, eating at home is much more comfortable than having dinner or lunch in a public place. At home, we can be more relaxed than in a restaurant. We can wear comfortable, casual clothes; even pyjamas. We can sit in a comfortable position on our favorite chair, on the sofa or on the floor. If we wish, we can watch TV or a video, or listen to a radio program. None of these can be done at a restaurant. Furthermore, at home we do not have to worry about disturbing other diners and can talk and laugh as loudly as we want without fear of upsetting people sitting nearby us.

in our website we provides many recipes with their ingredients and nutrition facts , by simply the user can visit this site and learn or check about the recipe that he like to do and if he want to do another recipe that is not exist in the site or ask about anything about recipes so he can simply register to the site by using his personal information and contact with the site and they will answers his request

as soon as possible, also the user after he register he can add a recipe to the site and wait a confirmation from the admin then after the admin agreed to submit his recipe the another users can add comment or rating the recipe.

1.2. Comparative analysis between ASP.NET and PHP

During my work on this task I experienced the issue that engineers consistently face, which structure I picked, which offer to us the capacity to construct increasingly unpredictable, secure, and balanced web applications quicker than any time in recent memory, so I chose to do the similar investigation among ASP.NET and PHP.

As known, in order to compare tools you need to compare the way most common development capabilities are implemented in each of them.

1. PHP generally is much simpler than ASP in terms of usage. PHP was written in C which make coding simple. On the other hand ASP uses a simplified form of Visual Basic language known as VB script (although with .NET you can choose between all the different languages mentioned above). However ASP has a steeper learning curve.

2. One of the big advantages of PHP is the great support of different database systems (with MySQL usually as the first choice). Although connectivity in ASP is much improved since its first versions.

3. ASP.NET is generally faster than PHP (both on Window and on Linux servers) with the exception of File Copy and Attribute operations.

On the other hand loading speed is a big factor. And in that case PHP is faster, because ASP uses an overhead on the server since it uses a COM based architecture (check below the advantage of compiling of ASP).

Related to the previous point, another important statement is that PHP isn't compiled, except at runtime. However, .NET enjoys all the benefits of fast and accurate compilation. However with PHP you can use Zend's PHP Accelerator which is doing more or less the same.

When it comes to databases, MySQL on PHP is a little bit faster than SQL Server on ASP. However, in terms of performance for large scale databases opinions vary.

4. NET programming has more advanced options like multi-threading, asynchronous requests etc. So, when it comes to high end performance programming ASP would probably be a better choice.

5. PHP is open source, which means free to use with tons of users with helpful hints and solutions.

6. PHP enjoys the flexibility of running on various platforms such as Linux, Unix, Windows and Solaris. On the other hand, ASP is primarily related with Windows platform.

To conclude, in my opinion one of the big advantages of PHP is not PHP itself, but all the programmers that have created amazing applications and tools for PHP (e.g. Drupal, Joomla, WordPress, etc.). For me that is the main factor which makes PHP my first choice

However both languages are scripting languages of choice and are equally being used to develop rich websites with database connectivity. It is not very easy to say which one is the winner. But taking into account the current usage status, PHP is mostly preferred [17].

1.3. The used development tools

I have chosen PHP as a programming language for the implementation of my project.

In terms of web page content we have two extremes. At one extreme we have HTML which is completely static. There is very little that can be done with HTML to create dynamic content in a web page. At the other extreme we have scripting languages like JavaScript. JavaScript provides a powerful mechanism for creating interactive and dynamic web pages [18].

You have obviously heard of a number of programming languages out there; you may be wondering why we would want to use PHP as our poison for the web programming. Below are some of the compelling reasons:

- PHP is open source and free;
- Short learning curve compared to other languages such as JSP, ASP etc;
- Large community document;
- Most web hosting servers support PHP by default unlike other languages such as ASP that need IIS. This makes PHP a cost effective choice;
- PHP is regular updated to keep abreast with the latest technology trends;
- Other benefit that you get with PHP is that it's a server side scripting language; this means you only need to install it on the server and client computers requesting for resources from the server do not need to have PHP installed; only a web browser would be enough;

- PHP has in built support for working hand in hand with MySQL; this doesn't mean you can't use PHP with other database management systems. You can still use PHP with:

- Postgres;
- Oracle;
- MS SQL Server;
- ODBC etc.;
- PHP is cross platform; this means you can deploy your application on a number of different operating systems such as windows, Linux, Mac OS etc. [7].

I have chosen MySQL as DBMS for the implementation of my project.

MySQL is the world's most popular open-source database. In fact, today MySQL is a viable competitor to the pricey goliaths such as Oracle and Microsoft SQL Server (and, ironically, MySQL is owned by Oracle).

Like PHP, MySQL offers excellent performance, portability, and reliability, with a moderate learning curve and little to no cost, MySQL is an open-source application, like PHP, meaning that it is free to use or even modify

MySQL is a database management system (DBMS) for relational databases. A database, in the simplest terms, is a collection of data, be it text, numbers, or binary files, stored and kept organized by the DBMS[10].

I have chosen visual studio code as Text editor for the implementation of my project.

Visual Studio Code is a lightweight but powerful source code editor which runs on your desktop and is available for Windows, macOS and Linux. It comes with built-in support for JavaScript, TypeScript and Node.js and has a rich ecosystem of extensions for other languages (such as C++, C#, Java, Python, PHP, Go) and runtimes (such as .NET and Unity) [1].

I have chosen Apache as local host or a local server for the implementation of my project.

Apache is an open-source and free web server programming that powers around 40% of sites far and wide. The official name is Apache HTTP Server, and it's maintained and developed by the Apache Software Foundation [5].

The internet is comprised of many different technologies and not all of them are the same. While Apache is arguably one of the most popular web servers out there on the net, there are many other players and the landscape is always changing. Back in the late 90s and early 2000s, Apache's dominance was very strong, serving over 50 % of the internet's active websites [13].

2. DESIGN OF THE APPLICATION

2.1. Functional and non-functional requirements

A Functional Requirement (FR) is a description of the service that the software must offer. It describes a software system or its component. A function is nothing but inputs to the software system, its behavior, and outputs. It can be a calculation, data manipulation, business process, user interaction, or any other specific functionality which defines what function a system is likely to perform. Functional Requirements are also called Functional [8].

Functional requirements are something any project must have in order not to get fail during the work.

The features that are available for the administrator:

- 1) The admin must be able to manage Users;
- 2) The admin must be able to manage Ingredients;
- 3) The admin must be able to manage recipe;
- 4) The admin must be able to confirm a recipe.

The features that are available for the user.

- 1) the user must be able to manage ingredients;
- 2) the user must be able to manage recipe;
- 3) the user must be able to add feedback.

The features that are available for the guest.

- 1) the guest must be able to see the recipes.

2.2. Use case diagram

Unified Modeling Language (UML) enable IT professionals to model computer applications [19].

Use case diagrams are valuable for visualizing the functional requirements of a system that will translate into design choices and development priorities [14].

This diagram shows nine use cases. There is three type of user: admin, user, guest, represented as actors. These actors are connected with these use cases by

relationships to show the capability for each user in the system. Fig. 1 shows the Use case diagram.

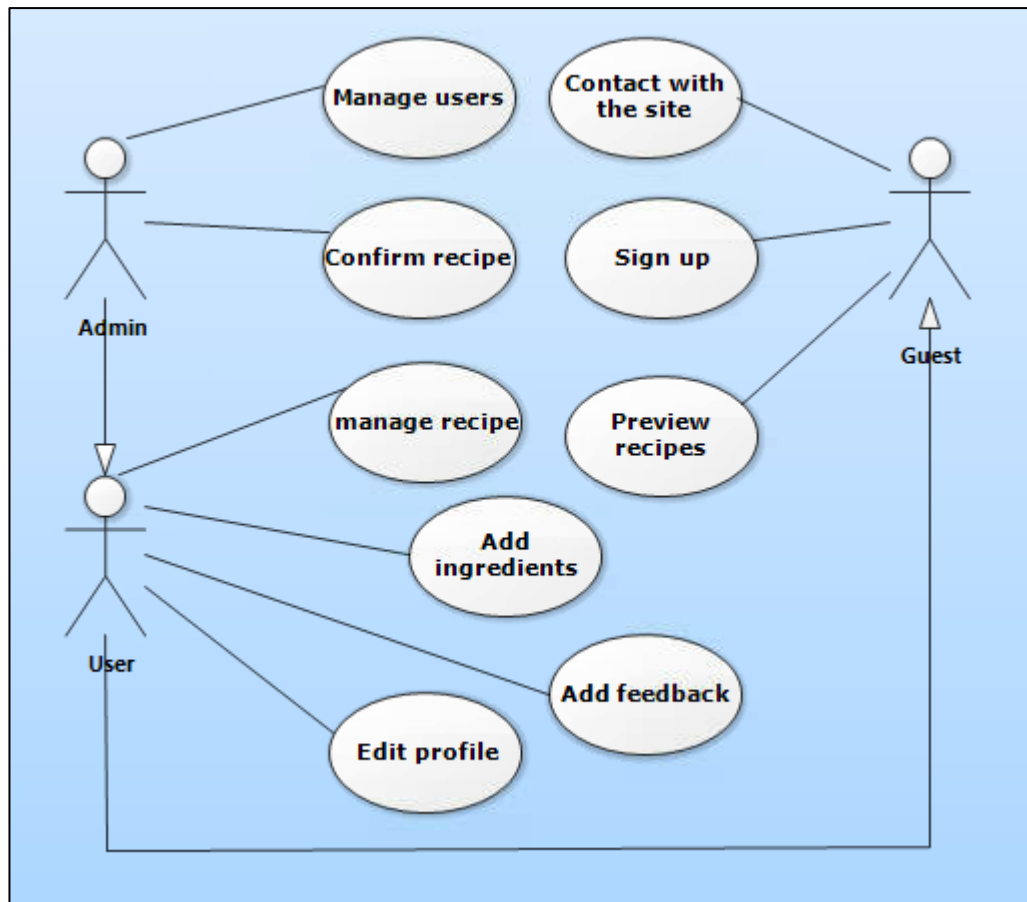


Fig. 1. Use case diagram

2.3. Development of the database

A database-management system (DBMS) is a collection of interrelated data and a set of programs to access those data. This is a collection of related data with an implicit meaning and hence is a database. The collection of data, usually referred to as the database, contains information relevant to an enterprise. The primary goal of a DBMS is to provide a way to store and retrieve database information that is both convenient and efficient. By data, we mean known facts that can be recorded and that have implicit meaning. For example, consider the names, telephone numbers, and addresses of the people you know. You may have recorded this data in an indexed address book, or you may have stored it on a diskette,

using a personal computer and software such as DBASE IV or V, Microsoft ACCESS, or EXCEL. A datum – a unit of data – is a symbol or a set of symbols which is used to represent something. This relationship between symbols and what they represent is the essence of what we mean by information. Hence, information is interpreted data – data supplied with semantics. Knowledge refers to the practical use of information. While information can be transported, stored or shared without many difficulties the same can not be said about knowledge. Knowledge necessarily involves a personal experience. Referring back to the scientific experiment, a third person reading the results will have information about it, while the person who conducted the experiment personally will have knowledge about it. Database systems are designed to manage large bodies of information. Management of data involves both defining structures for storage of information and providing mechanisms for the manipulation of information. In addition, the database system must ensure the safety of the information stored, despite system crashes or attempts at unauthorized access. If data are to be shared among several users, the system must avoid possible anomalous results. Because information is so important in most organizations, computer scientists have developed a large body of concepts and techniques for managing data. These concepts and technique form the focus of this book. This chapter briefly introduces the principles of database systems[2].

MySQL, launched in 1995, has become the most popular open source DBMS.

Another root cause of MySQL's popularity has been the ongoing success of PHPMyAdmin [12]. A well-established MySQL web-based interface.

Therefore, many websites in the world use MySQL as their back-end data repository [11].

We decided to specify the following tables of the database:

- the “feedbacks” table;
- the “recipes” table;
- the “recingredients” table;

- the “Users” table;
- the “categories” table;
- the “ingredients” table;
- the “types” table.

The scheme of the database consists of 10 tables as in the fig 2.

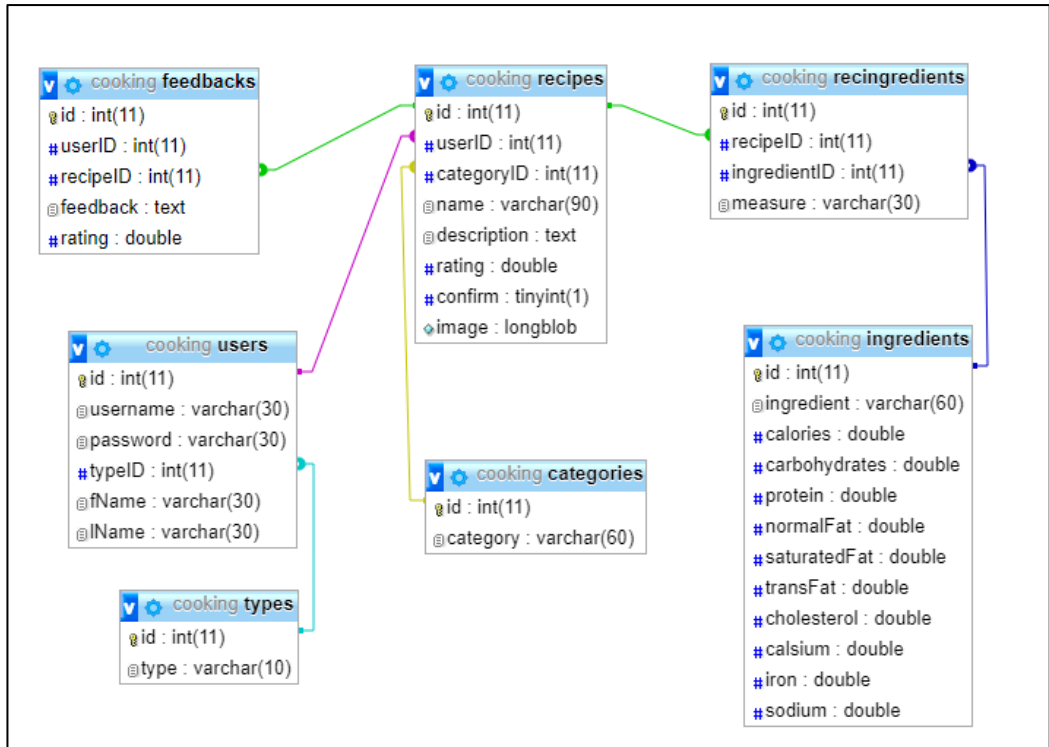


Fig. 2. The scheme of the database

The table “feedbacks” consists of 5 fields and contains the information of the feedbacks in the website as in the fig 3. It consists of the following fields:

id	userID	recipeID	feedback	rating
3	5	14	asd	2
4	5	14	aasdsdsaasddasd	4
5	5	14	Very good	1.5
6	5	15	sasdas	1.5
7	5	15	asdasdsq3e12313dsadsda	4.5
8	5	15	I am new	5
9	5	16	asd	3
10	5	16	asdasd	5
11	5	16	asdasd	2.5
12	5	21	good	3
13	5	22	gooooood	5

Fig. 3. Structure of the table “Feedback”

- ID: the datatype (int);
- User ID: the datatype (int);
- recipe ID: the datatype (int);
- feedback: the datatype (text);
- rating: the datatype (double).

The table “recipes” consists of 8 fields and contains the information of the recipes in the website as in the fig 4. It consists of the following fields:

id	userID	categoryID	name	description	rating	confirm	image
14	5	3	recipe 1	add cook boil eat	2.5	1	[BLOB - 34.7 KiB]
16	5	7	Bread and Jam	get bread spread jam eat	3.5	1	[BLOB - 72.3 KiB]
17	5	7	recipe 4	get ingredients bake eat	0	1	[BLOB - 307.4 KiB]
19	6	4	NEW USER RECIPE	1 2 3	0	1	[BLOB - 319 KiB]
21	5	6	cake	milk sugar eggs	3	1	[BLOB - 34.4 KiB]

Fig. 4. Structure of the table “Recipes ”

- ID: the datatype (int);
- UserID : the datatype (int);
- CategoryID : the datatype (int);
- name: the datatype (varchar);
- description: the datatype (text);
- rating: the datatype (double);
- confirm: the datatype (tinyint);
- imag: the datatype (longblob).

The table “recingredients” consists of 4 fields and contains the information of the recingredients in the website as in the fig 5. It consists of the following fields:

id	recipelID	ingredientID	measure
1	14	1	25
2	14	3	1
5	16	7	100
6	16	8	20
7	17	7	26
8	17	3	26
9	17	2	26
10	16	7	132

Fig. 5. Structure of the table “ Recingredients ”

- ID : the datatype (int);
- RecipeID : the datatype (int);
- ingredientID : the datatype (int).

The table “users” consists of 6 fields and contains the information of the users in the website as in the fig 6. It consists of the following fields:

id	username	password	typeID	fName	lName
5	admin	12345	2	jood	jood
6	user	user	1	user	user
7	farah alaq	12345	1	farah	alaq
8	jalaljalal	12345	1	alaq	alaq
9	alaa	12345	1	alaa	alaa

Fig. 6. Structure of the table “ Users”

- ID: the datatype (int);
- username: the datatype (varchar);
- password: the datatype (varchar);
- typeID: the datatype (int);
- fName: the datatype (varchar);
- iName: the datatype (varchar);

The table “categories” consists of 2 fields and contains the information of the categories in the website as in the fig 7. It consists of the following fields:

id	category
1	Raw (Greens and Fruits)
2	Appetizers, Beverages
3	Soups, Salads
4	Main Dishes
5	Breads, Rolls
6	Desserts
7	Miscellaneous

Fig. 7. Structure of the table “Categories”

- ID : the datatype (int);
- Category : the datatype (varchar);

The table “ingredients” consists of 12 fields and contains the information of the ingredients in the website as in the fig 8. It consists of the following fields:

id	ingredient	calories	carbohydrates	protein	normalFat	saturatedFat	transFat	cholesterol	calcium	iron	sodium
1	Carrot	41	0	0.9	0.2	0	0	0	33	0.3	69
2	Cucumber	21	2	0.2	0.1	0	0	0	10	0.5	5
3	Salt	0	0	0	0	0	0	0	24	0.3	38758
7	White Bread	264	49	9	2	1	0	0	1	0	1
8	Jam	278	10	1	0	0	0	0	1	0	0
9	test ingredient	1	1	1	1	1	1	1	1	1	1

Fig. 8. Structure of the table “Ingredients”

- ID : the datatype (int);
- Ingredient : the datatype (varchar);
- Calories : the datatype (double);
- Carbohydrates : the datatype (double);
- Protein : the datatype (double);
- normalFat : the datatype (double);
- saturatedFat : the datatype (double);
- transFat : the datatype (double);
- cholesterol : the datatype (double);
- calcium : the datatype (double);

- iron : the datatype (double);
- sodium : the datatype (double).

The table “types” consists of 2 fields and contains the information of the types in the website as in the fig 9. It consists of the following fields:

id	type
1	user
2	admin

Fig. 9. Structure of the table “Types”

- ID : the datatype (int);
- Type : the datatype (varchar).

2.4. Development of the interface

The user interface, also known as Human Machine Interface (HMI) or Man-Machine Interface (MMI), is the aggregate of means by which users interact with the system – a particular machine, device, computer program or other complex tool. The part of an interactive computer program sends messages to and receives instructions from a terminal user. User Interface Design and Ergonomics deals with analysis, design, implementation and evaluation of user interface design [15].

We will implement future views of an application. Fig. 11 shows the main page for the web site.

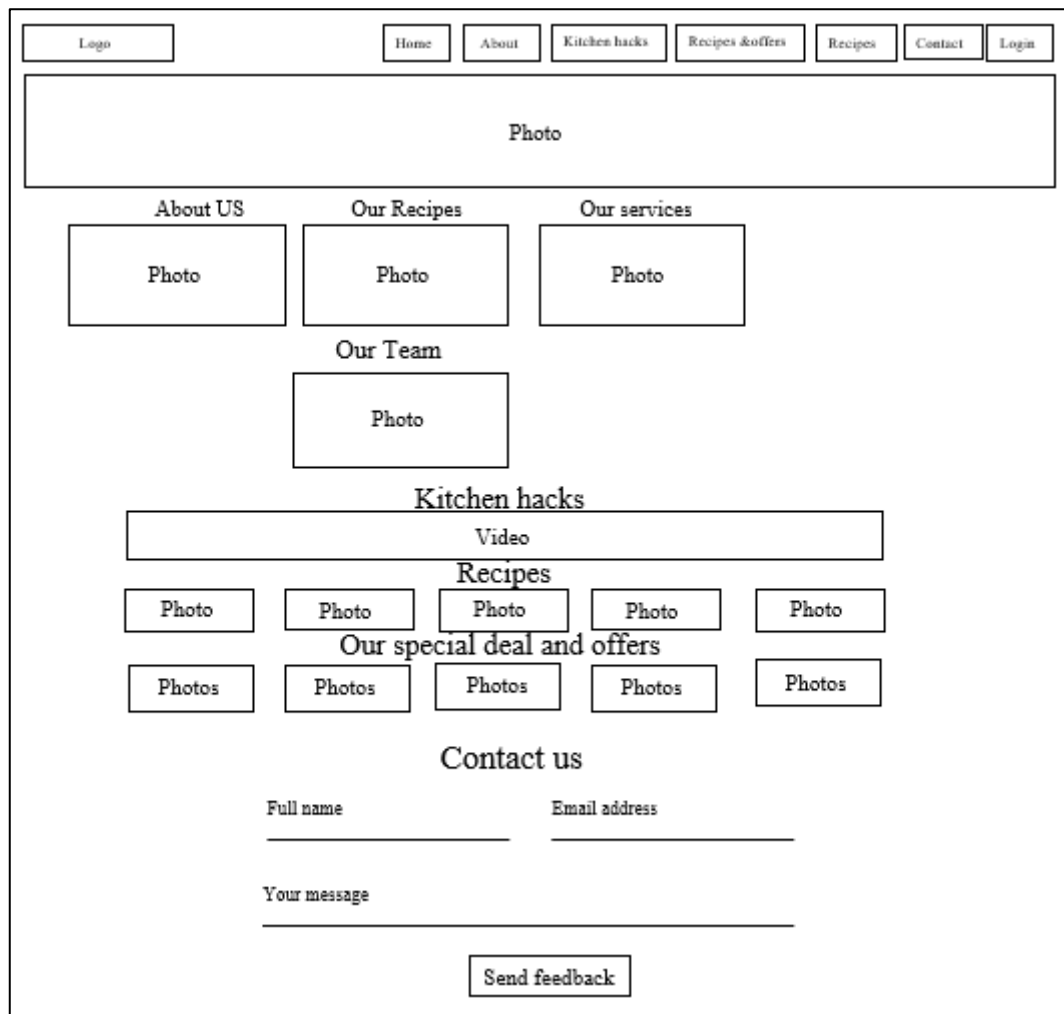


Fig. 10. The main page

Each website contains many interfaces and allows the user to move between the interfaces and to summarize the interfaces in our website this tree and it's a Schema of available interfaces for admin, and user and it contains all the elements in the website and also explains the process of moving from one to another shown below fig. 11. and fig. 12.

Fig. 12 shows the schema of available interfaces for seller.

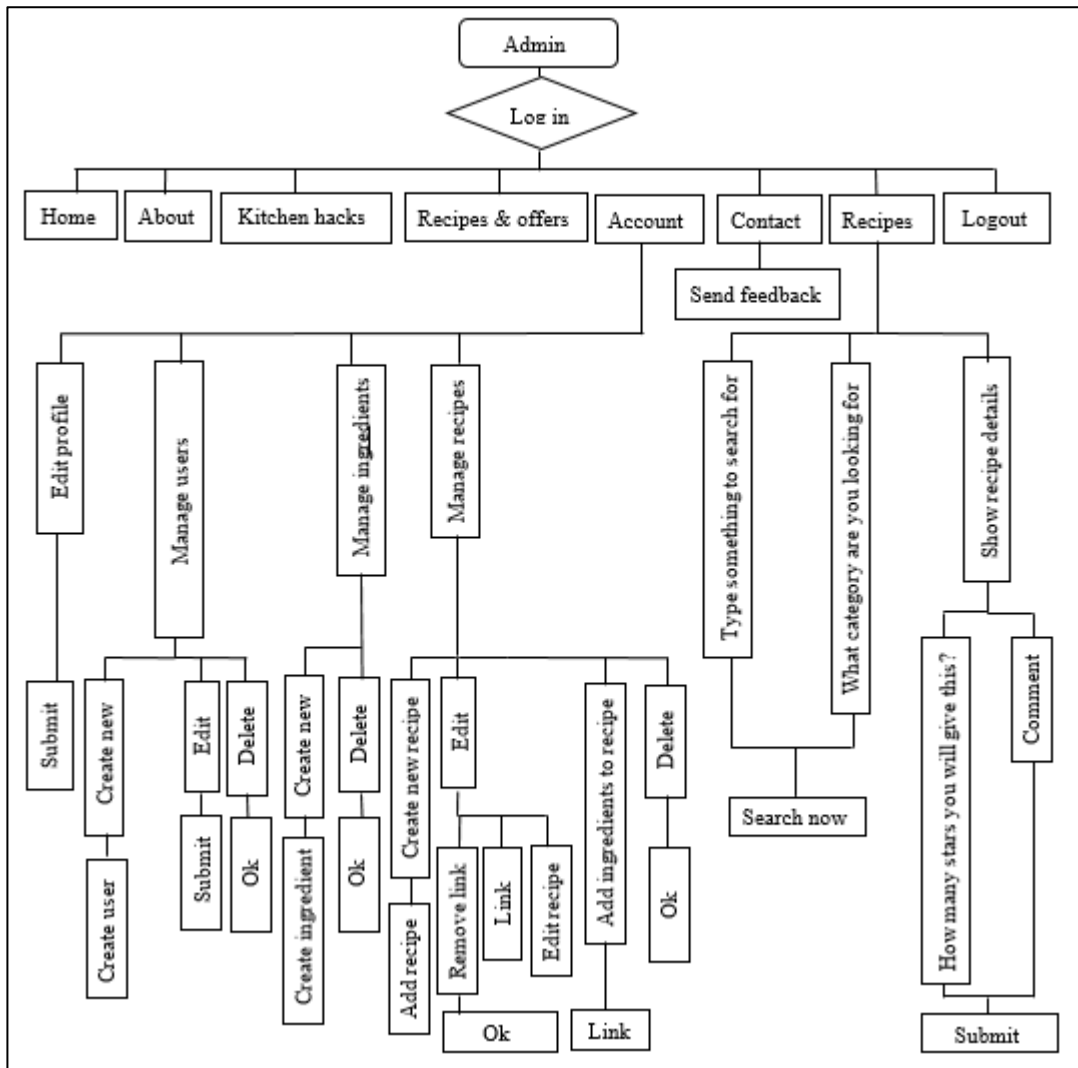


Fig. 11. Schema of available interfaces for admin

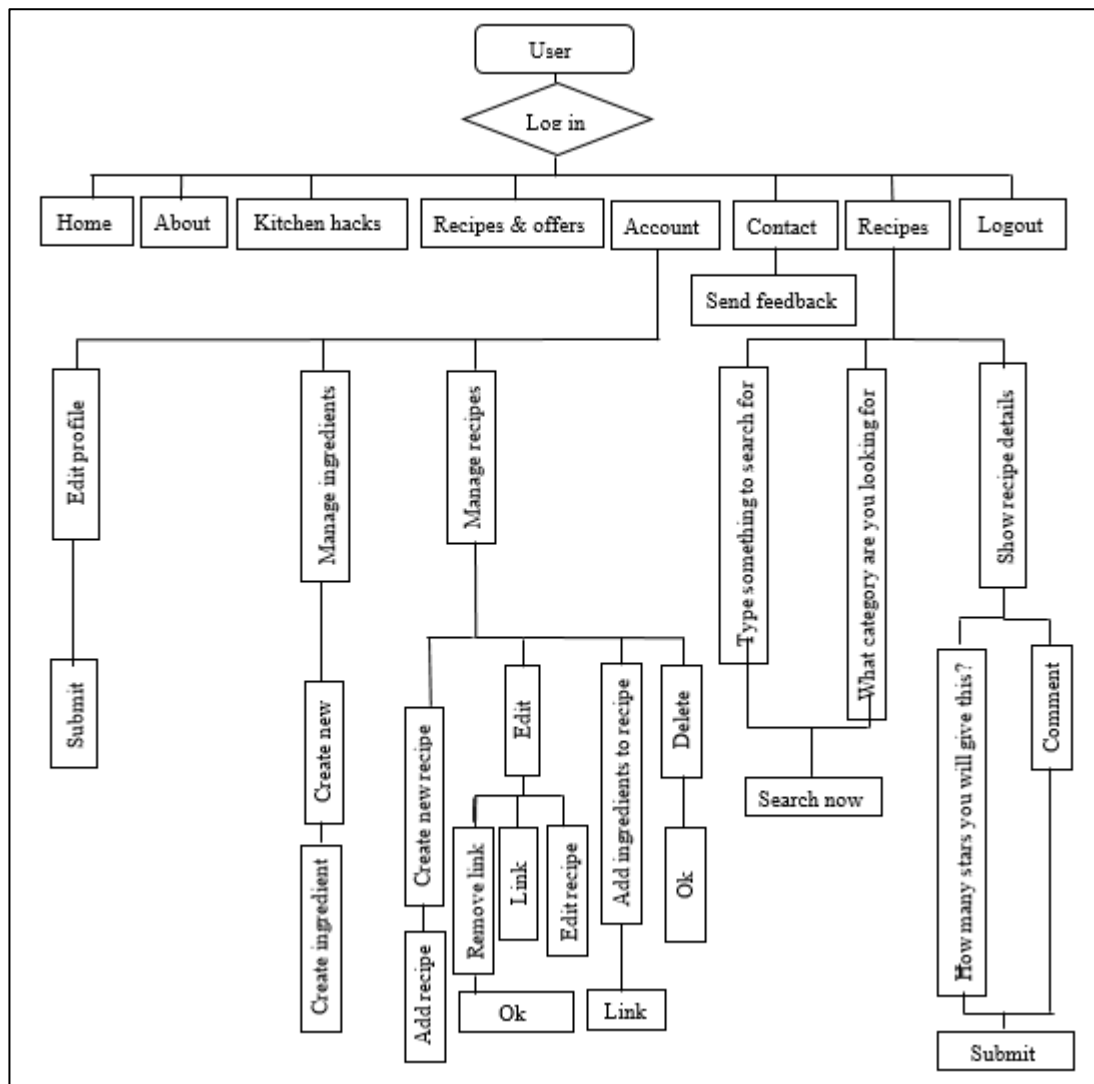


Fig. 12. Schema of available interfaces for user

3. IMPLEMENTATION OF THE WEB APPLICATION

3.1. Architecture of the system

Component diagram is a special kind of diagram in UML. It does not describe the functionality of the system but it describes the components used to make those functionalities [16].

Component diagrams are used to describe the physical artifacts of a system [16]. This artifact includes files, executables, libraries, etc.

PHP core follow the traditional Model-View-Controller design pattern, where we use:

- 1) Controllers to handle user requests and retrieve data, by leveraging Models;
- 2) Models to interact with your database and retrieve your objects' information;
- 3) Views to render pages.

Additionally, routes are used to map URLs to designated controller actions.

Fig. 13 below shows the structural relations between components in the website.

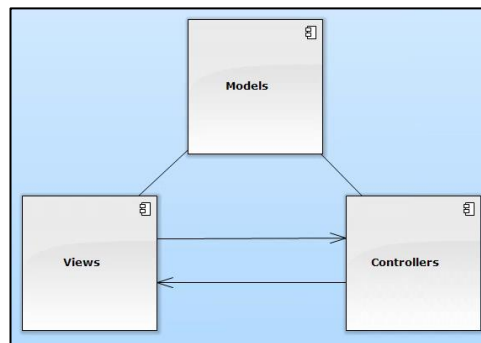


Fig. 13. Component diagram

3.2. Several fragments of PHP-code for implementing the functionality

In this part I will view several fragments of PHP-code for implementing that includes the main functions.

Fig. 14 shows the function for the Contact us in the system

```

<?php
include ('config.php');
$errorMSG = "";
if (empty($_POST["name"])) {
    $errorMSG = "name is required ";
} else {
    $name = $_POST["name"];
}
if (empty($_POST["email"])) {
    $errorMSG .= "email is required ";
} else {
    $email = $_POST["email"];
}
if (empty($_POST["message"])) {
    $errorMSG .= "message is required ";
} else {
    $message = $_POST["message"];
}
$conn = new mysqli($server,$dbusername,$dbpass,$dbname);
if($errorMSG == ""){
    $sql="INSERT INTO `contactus`(`name`, `email`, `message`) VALUES ('$name','$email','$message')";
    $result = $conn->query($sql);
    if ($result==true) {
        echo "success";
    }
    else{
        echo "Couldn't Send your data";
    }
}
else{
    echo"Something went wrong";
}
?>

```

Fig. 14. Function for contact us

Fig. 15 shows the function for login check.

```

<?php
include ('config.php');
$tablename= "users";
$errorMSG = "";
if (empty($_POST["username"])) {
    $errorMSG .= "Username is required ";
}
else{
    $username = $_POST["username"];
}
if (empty($_POST["password"])) {
    $errorMSG .= "Password is required ";
}
else {
    $password = $_POST["password"];
}
$conn = new mysqli($server,$dbusername,$dbpass,$dbname);
$sql="Select * from $tablename where username='$username' and password= '$password'";
$result = $conn->query($sql);
if ($result->num_rows > 0 ){
    $row = $result->fetch_assoc();
    $_SESSION["login"] = true;
    $_SESSION["uid"] = $row["id"];
    $_SESSION["type"] = $row["typeID"];
    $_SESSION["failedAttempts"]=0;
    $_SESSION["blockLogin"]=false;
    echo "success";
}
else {
    if($_SESSION["failedAttempts"]>=$_SESSION["allowedAttempts"]){
        $_SESSION["blockLogin"]=true;
    }
    $_SESSION["failedAttempts"]++;
    echo "The username or password you entered is incorrect";
}
$conn->close();
?>

```

Fig. 15. Function for login check

Fig. 16 shows the function for review and rating.

```

<div class="margin-bottom-40px box-shadow">
  <div class="padding-30px background-white">
    <h3> Review amp; Rating</h3><hr>
    <ul class="commentlist padding-0px margin-0px list-unstyled text-grey-3">
      <?php
        $sql="SELECT `feedbacks`.`feedback`, `feedbacks`.`rating`, `users`.`fName`, `users`.`lName` FROM `feedbacks` LEFT JOIN `recipes`
        ON `feedbacks`.`recipeID` = `recipes`.`id` LEFT JOIN `users` ON `recipes`.`userID` = `users`.`id` WHERE `recipes`.`id`=$recipeID";
        $result = $conn->query($sql);
        if($result->num_rows > 0){
          while ($row = $result->fetch_assoc()){
            $feedback = $row["feedback"];
            $rating = $row["rating"];
            $fname = $row["fName"];
            $lname = $row["lName"];
            $rate = ceil($row["rating"]);
            $nstar = 5-$rate;
            echo
              <li class="border-bottom-1 border-grey-1 margin-bottom-20px">
                <div class="margin-left-85px">
                  <h5>' . $fname.' ' . $lname.'</h5>
                  <div style="display: inline; padding-left: 5px; padding-top: 10px; color: rgb(255, 154, 59);">
                    ';for($i=0 ; $i<$rate ;$i++){
                      echo '<i class="mdi mdi-star"></i>';
                    }
                    for($i=0 ; $i<$nstar ;$i++){
                      echo '<i class="mdi mdi-star-outline"></i>';
                    }
                    echo '<p style="font-size:13px; display:inline;">' . $rating.'</p>
                  </div>
                  <p class="margin-top-15px margin-bottom-20px" style="font-size: 15px;">' . $feedback.'</p>
                </div></li>
              ';
          }
        }
        else
        echo '<p>No Comments Found For this Recipe.</p>'
      ?>
    </ul>
  </div>
</div>

```

Fig. 16. Function for review and rating

Fig. 17 shows the function for remove ingredient.

```

<script>
  function removeIngredient(linkID){
    var action = "removeIng";
    var id = linkID;
    var confirmation = confirm("Are you sure you want to remove this Ingredient from the Recipe?");

    if(confirmation){
      var ajaxData = {"action":action,"id":id};
      ajaxData= JSON.stringify(ajaxData);
      $.ajax({
        type: "POST",
        url: '/assets/php/UpdateRecipes.php',
        data: {data: ajaxData},
        success: function(response){
          alert(response);
          location.reload();
        }
      });
    }
  }
</script>

```

Fig. 17. Function for remove ingredient

Fig. 18 shows the function for confirm recipe.


```
function confirmRecipe(recipeID) {
    var action = "confirm";
    var id = recipeID;
    var confirmation = confirm("Are you sure you want to confirm this recipe?");

    if(confirmation){
        var ajaxData = {"action":action,"id":id};
        ajaxData= JSON.stringify(ajaxData);
        $.ajax({
            type: "POST",
            url: '/assets/php/UpdateRecipes.php',
            data: {data: ajaxData},
            success: function(response) {
                alert(response);
                location.reload();
            }
        });
    }
}
```

Fig. 18. Function for confirm recipe

4. TESTING OF THE WEB APPLICATION

4.1. The used methods of testing

Software testing is defined as an activity to check whether the actual results match the expected results and to ensure that the software system is Defect free. It involves execution of a software component or system component to evaluate one or more properties of interest [4].

Software testing is the art of investigating a software in a systematic fashion so as to find deep-rooted defects in it. In addition to that, software testing also checks the quality and correctness of the software. After the errors are identified, it becomes easier to develop a bug-free and user-friendly software [3].

As software applications get ever more complex and intertwined and with the large number of different platforms and devices that need to get tested, it is more important than ever to have a robust testing methodology for making sure that software products/systems being developed have been fully tested to make sure they meet their specified requirements and can successfully operate in all the anticipated environments with the required usability and security [6].

4.2. Screenshots of the website application

In the main page of the site there are many buttons and each one is responsible for a specific functions as shown in the fig below we see the first button is HOME, ABOUT, KITCHEN HACKS, PREVIEW & OFFERS, RECIPES, CONTACT, LOG IN as shown below (fig. 19).

When clicking on the "ABOUT" button we will notice that the page will scroll down automatically to a new slide in the same page contain a description About us, our Recipes, our Services, Our Team as shown below (fig. 20).

When clicking on the "KITCHEN HANKS" button we will notice that the page will scroll down automatically Some useful Kitchen hack videos as shown below (fig. 21).

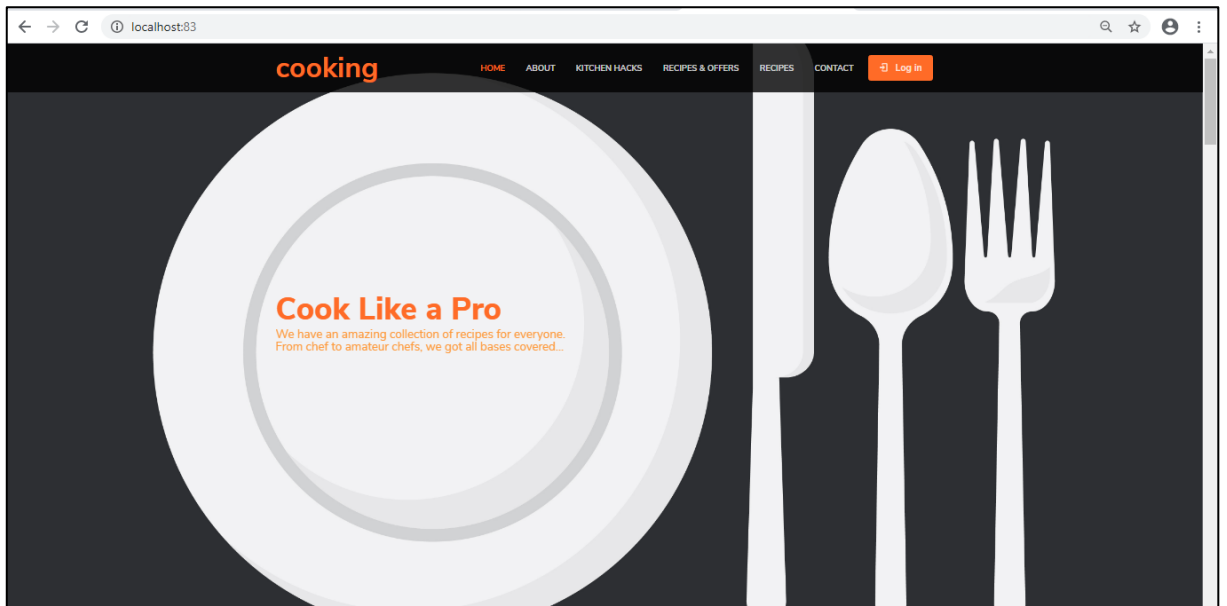


Fig. 19. The home page

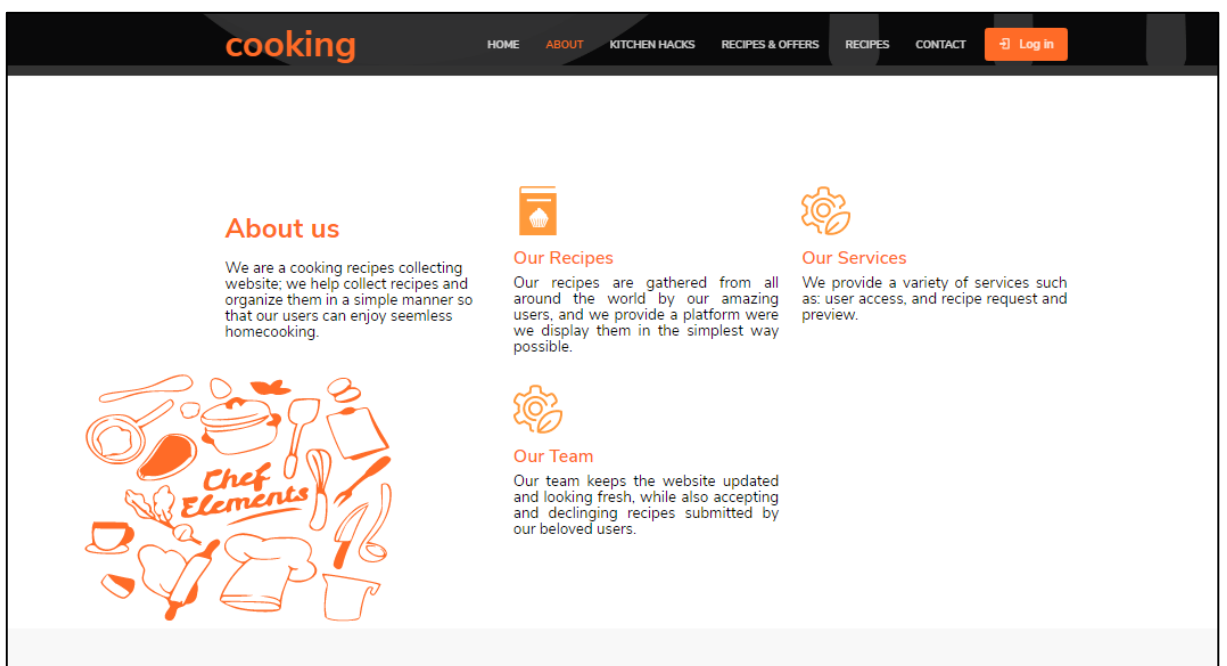


Fig. 20. The about page

When clicking on the "RECIPES & OFFERS" button we will notice that the page will scroll down automatically. Some recipes and offers from different restaurants are shown below.

When clicking on the "RECIPE" button we will notice the appearance of a new page containing recipes, a search bar, and categories as shown below (fig. 22).



Fig. 21. The kitchen hack page

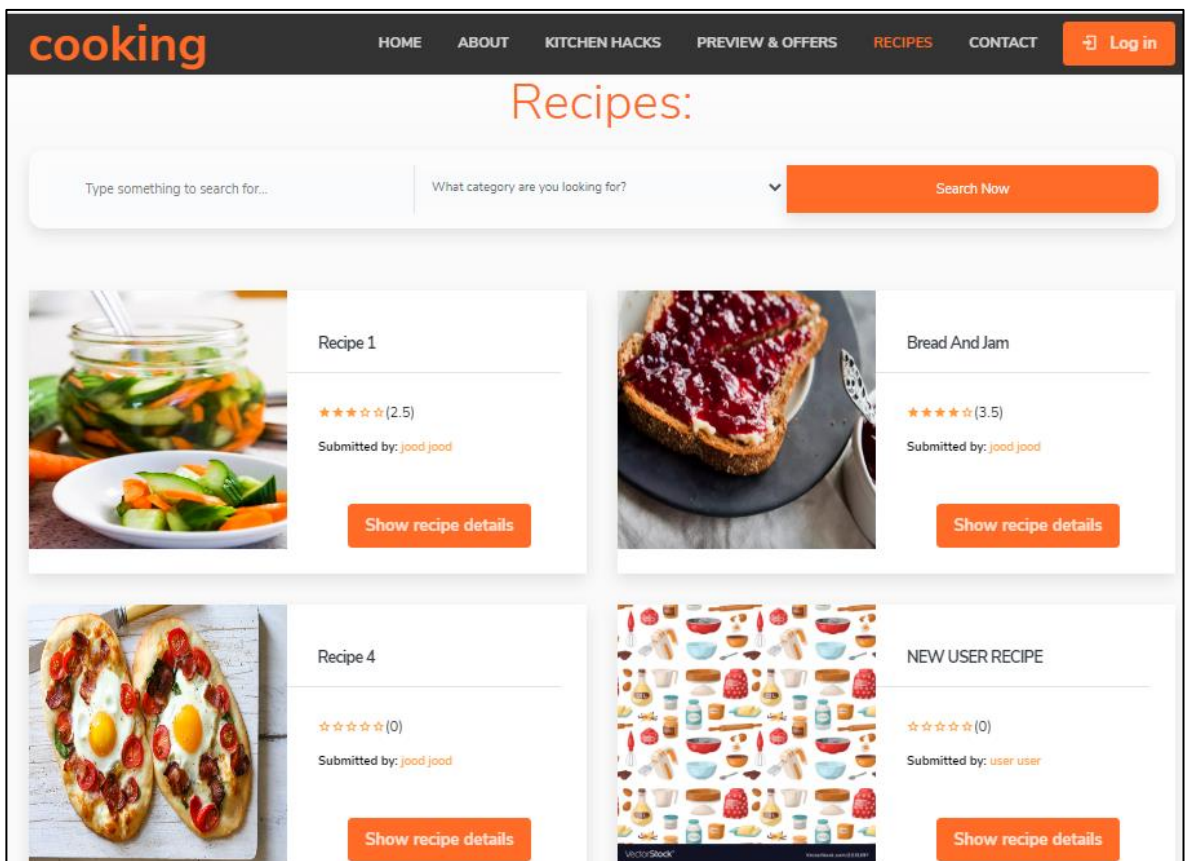


Fig. 22. The recipes page

When the user want to search about recipes he can by simply write the recipe in the search bar and click on the button “search”. Also, he can use categories to find types of recipes.

When clicking on the "show recipe details" button we will notice the appearance of new page contain Ingredients, Method and Nutrition Value (per 100g) as shown below (fig. 23).

It is also at the bottom of the page “Add Review” The user can evaluate the recipe and add a comment as shown below (fig. 25).

When clicking on the "Contact" button we will notice the appearance of new page contain a form consist of 3 fields name, email and message, so the user can fill it and press the button send message to get in touch with the site as shown below (fig. 26).

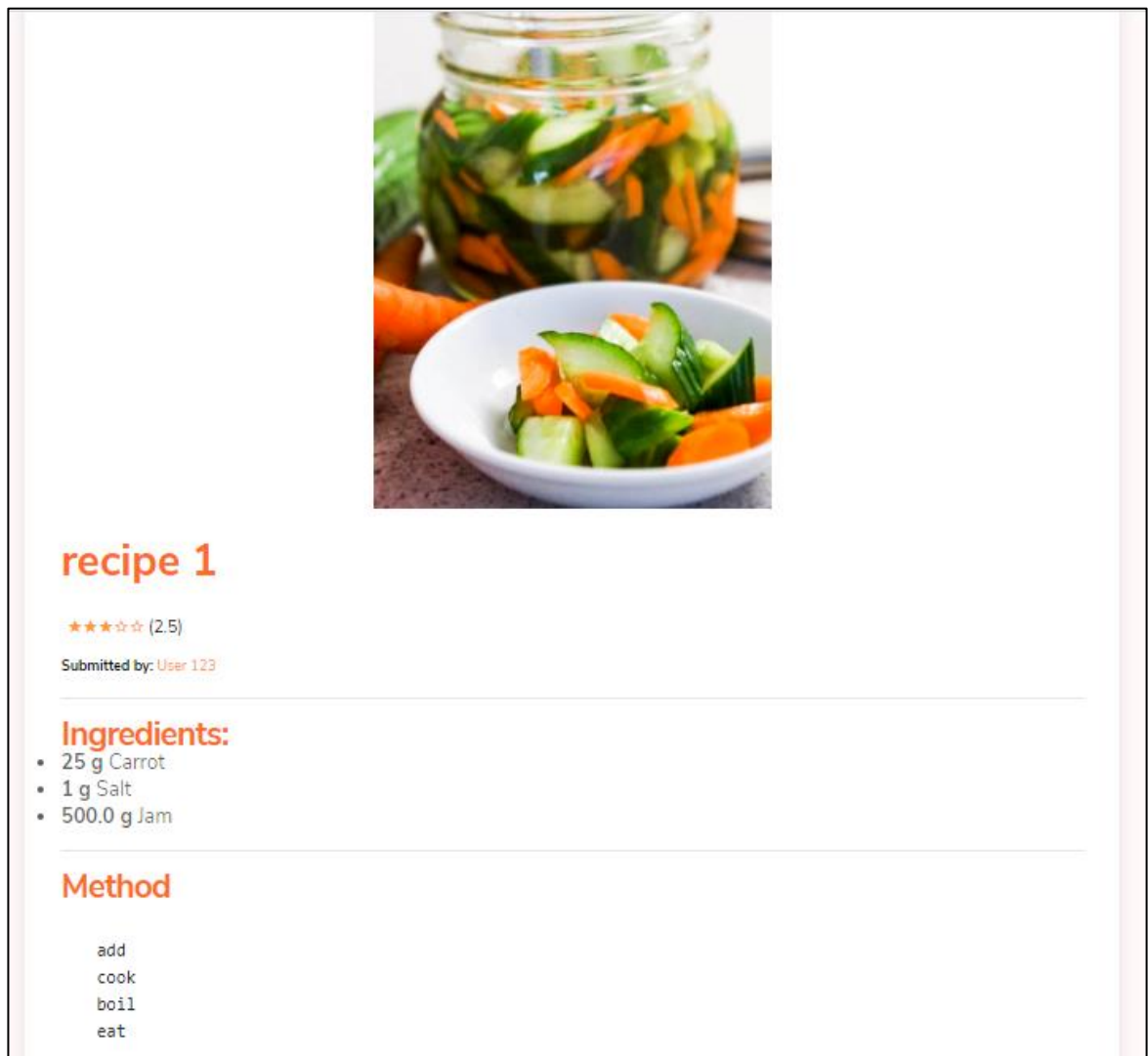


Fig. 23. The single recipes page

Nutrition Value (per 100g)	
Portion Size:	526 g
Calories:	1400.25 cal
Carbohydrates:	50 g
Protein	
Total Protien:	5.225 g
Fats	
Normal Fats:	0.05 g
Saturated Fats:	0 g
Trans Fats:	0 g
Cholesterol:	0 g
Minerals	
Calsium:	13.49 g
Iron:	0.078 g
Sodium:	404.83 g

Fig. 24. The nutrition value

Review & Rating
<p>jood jood ★★★★☆(2) asd.</p>
<p>jood jood ★★★★☆(4) aasdsasdasdasd.</p>
<p>jood jood ★★★★☆(1.5) Very good.</p>

Fig. 25. Add review

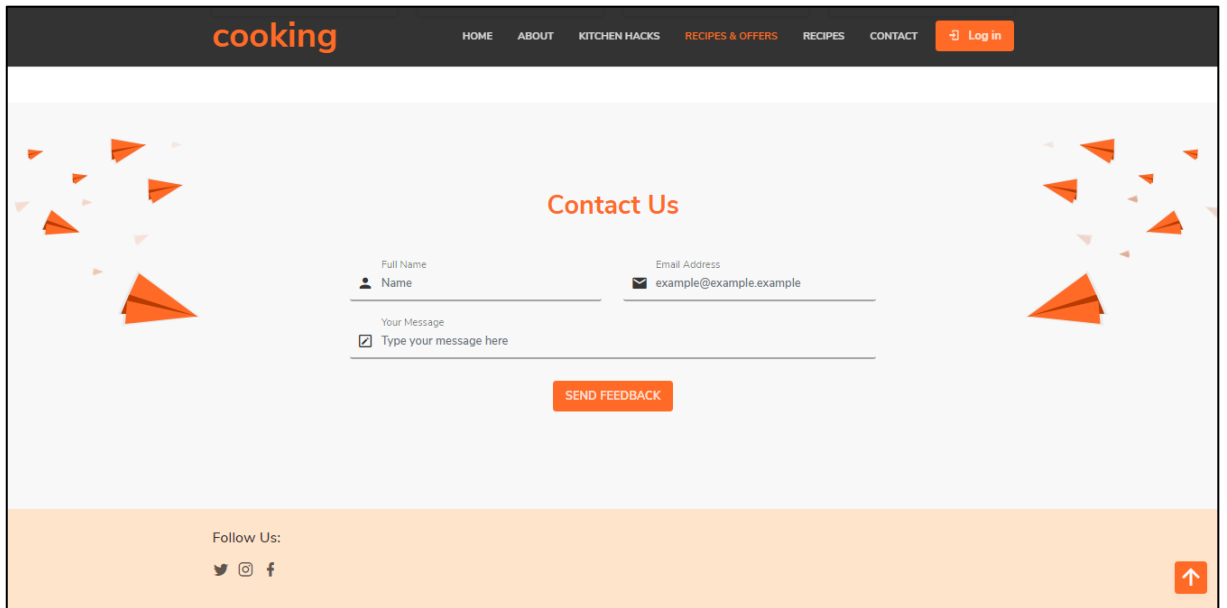


Fig. 26. The contact page

I have in my website two modules the first one is admin, the second one is a user every one of them have function which available for him.

The admin, user can login to the website by entering them special username and password to login in the website as shown below (fig. 27).

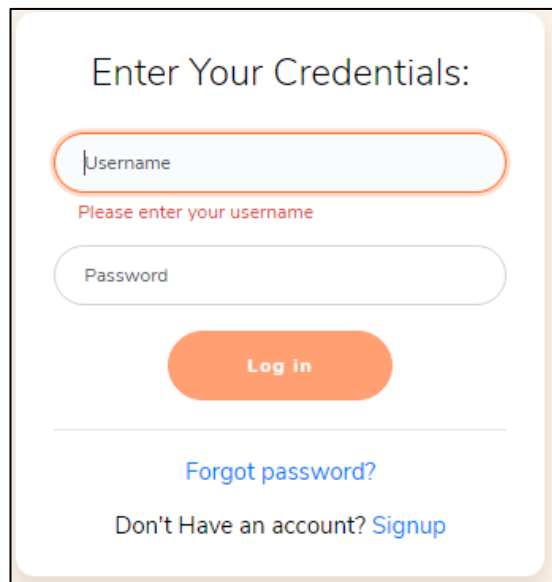


Fig. 27. The log in page

After the admin login in to the website and entered to the homepage he can go to the button "ACCOUNT", we will see in account page many for functions edit profile, manage users, Add Ingredients, Add or Confirm a Recipe as shown in the (fig. 28).

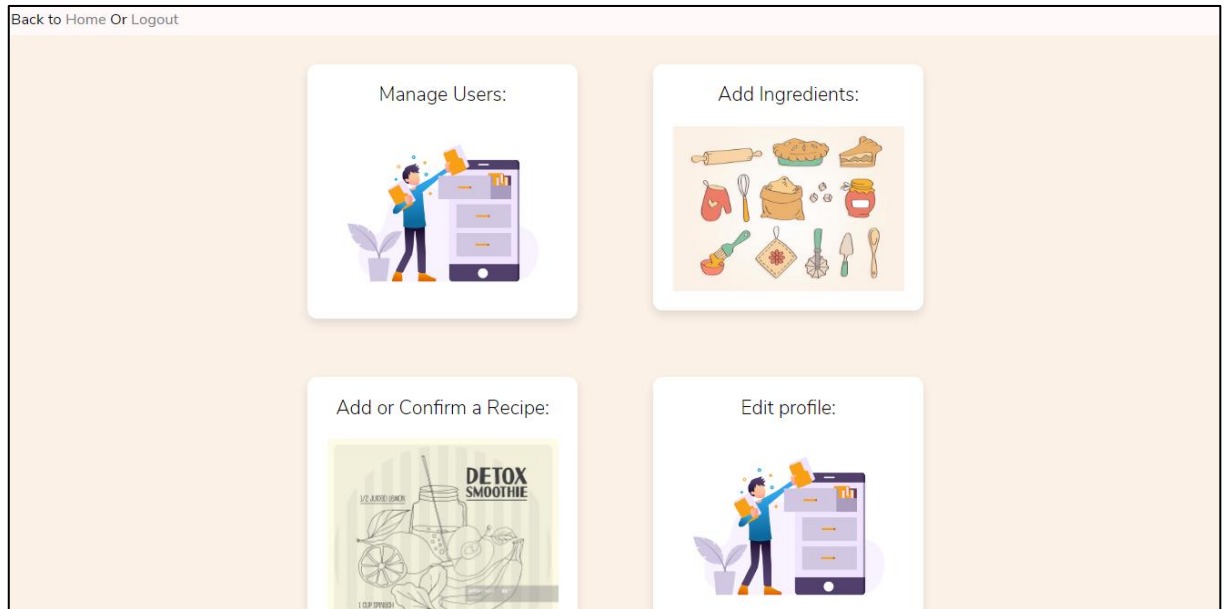


Fig. 28. The admin account page

When the admin clicking on the function "manage users" we will notice the appearance of new page and the admin can add, edit and delete user as shown in the (fig. 29).

Manage Users:

[Create new](#)

User ID	Username	Password	User Role	First Name	Last Name	Options
5	admin	*****	Admin	jood	jood	Delete Edit
6	user	*****	User	user	user	Delete Edit
7	farah alaq	*****	User	farah	alaq	Delete Edit
8	jalaljalal	*****	User	alaq	alaq	Delete Edit
9	alaa	*****	User	alaa	alaa	Delete Edit

Fig. 29. Manage users page

When the admin clicking on the button "Edit" we will notice the appearance of new page. Here the admin can change only the role of the user and the he can press the button "Submit" as shown in the (fig. 30).

Edit the User info then
press Submit:

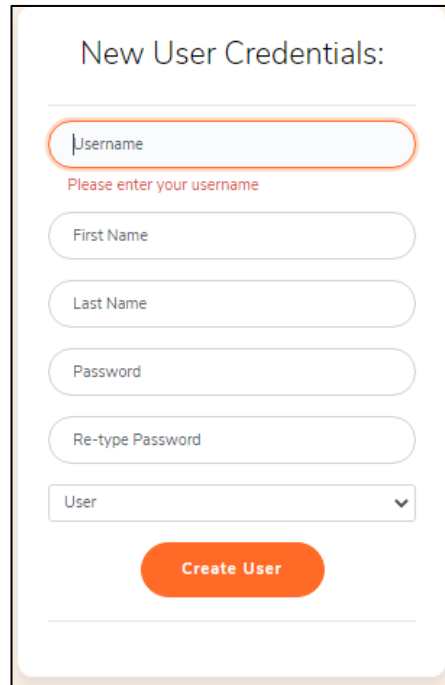
Username: **admin**
 Password: *********
 First Name: **jood**
 Last Name: **jood**
 Role: **Admin**

[Submit](#)

Fig. 30. Edit user page

When the admin clicking on the button “Delete” a new window will open for him and ask him if he want to delete the user.

When the admin clicking on the button “Create new” we will notice the appearance of new page. Here the admin can create new user as shown in fig. 31.



The image shows a web form titled "New User Credentials:". The form contains several input fields: "Username" (with a red error message "Please enter your username" below it), "First Name", "Last Name", "Password", and "Re-type Password". At the bottom, there is a dropdown menu labeled "User" and a red "Create User" button.

Fig. 31. Create new user page

When the admin clicking on the function “Manage Ingredients” we will notice the appearance of new page and the admin can add, edit and delete as shown in the (fig. 32).

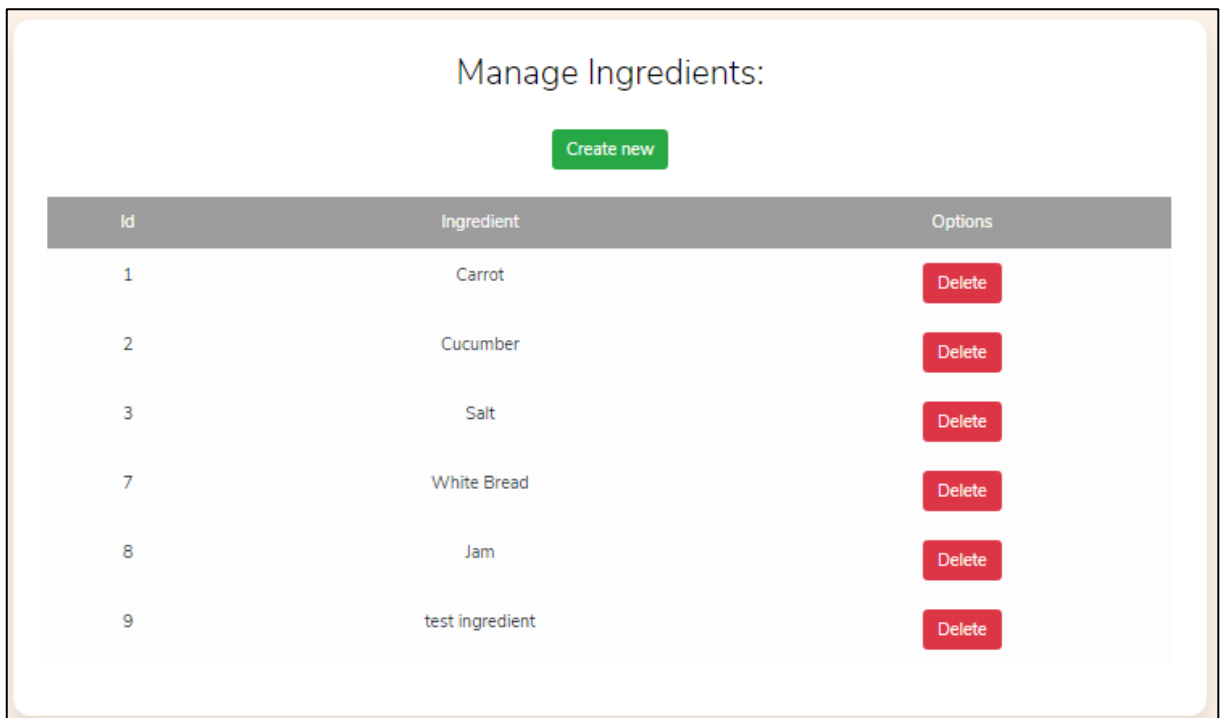


Fig. 32. Manage ingredients page

When the admin clicking on the button "create" we will notice the appearance of new page. Here the admin add ingredient information like name, fat, protein, calories as shown in the (fig. 33).

When the admin clicking on the function "Add or Confirm a Recipe" we will notice the appearance of new page and the admin can create new recipe and ingredients to recipe and edit as shown in the (fig. 34).

When the admin clicking on the button "Delete" a new window will open for him and ask him if he want to delete the user.

When the admin clicking on the button "Edit" we will notice the appearance of new page. Here the admin edit recipe as shown in the (fig. 35).

When the admin clicking on the button "Edit" we will notice the appearance of new page. Here the admin new recipe info and new ingredient to recipe as shown in the (fig. 36).

Add Ingredient Information:

all nutritional values should be (per 100g) to ensure that the calculations on the website are performed correctly

Please enter the Ingredient Name

Fig. 33. Add ingredient information page

Manage Recipes:

Create new Recipe
Add Ingredients To Recipe







Id	Submitted by:	Category	Name	Description	Rating	Confirmed	Image	Options
14	jood jood	Soups, Salads	recipe 1	add cook boil eat	2.5	yes		Delete Edit
16	jood jood	Miscellaneous	Bread and Jam	get bread spread jam eat	3.5	yes		Delete Edit
17	jood jood	Miscellaneous	recipe 4	get ingredients bake eat	0	yes		Delete Edit
19	user user	Main Dishes	NEW USER RECIPE	1 2 3	0	yes		Delete Edit
21	jood jood	Desserts	cake	milk sugar eggs	3	yes		Delete Edit
22	user user	Desserts	cake	put milk with eggs	5	yes		Delete

Fig. 34. Add confirm a Recipe page

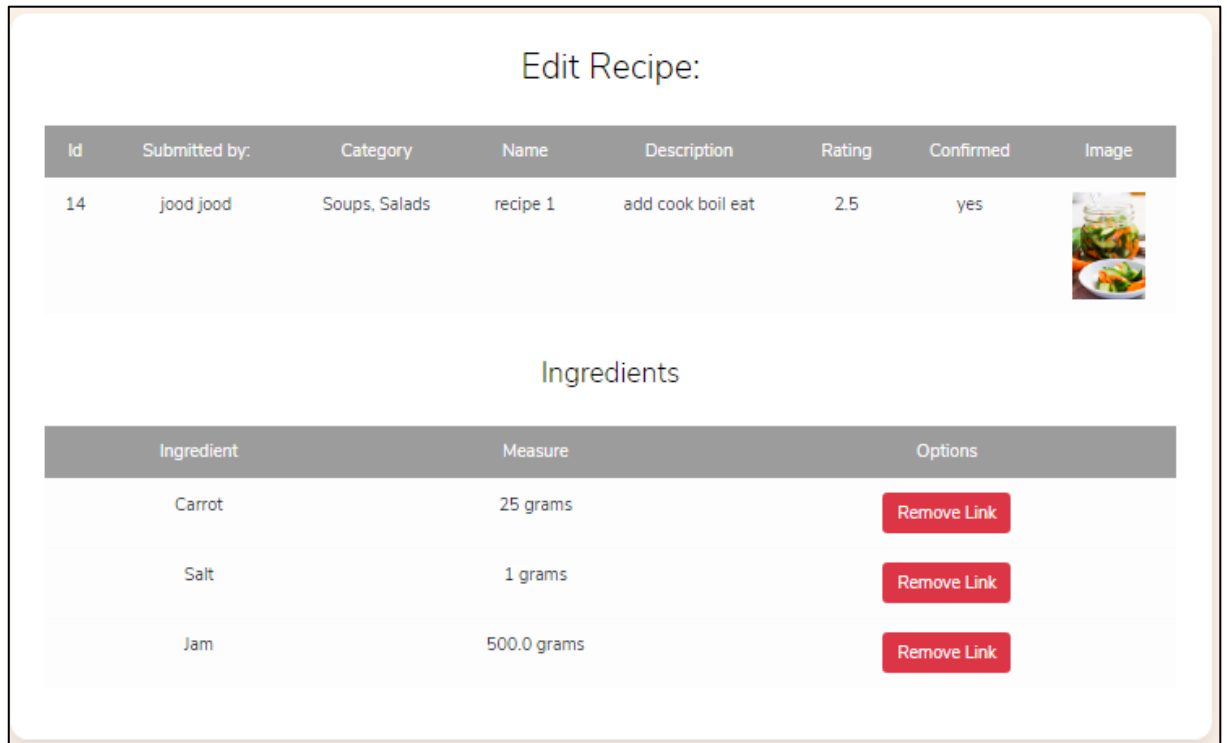


Fig. 35. Edit Recipe page

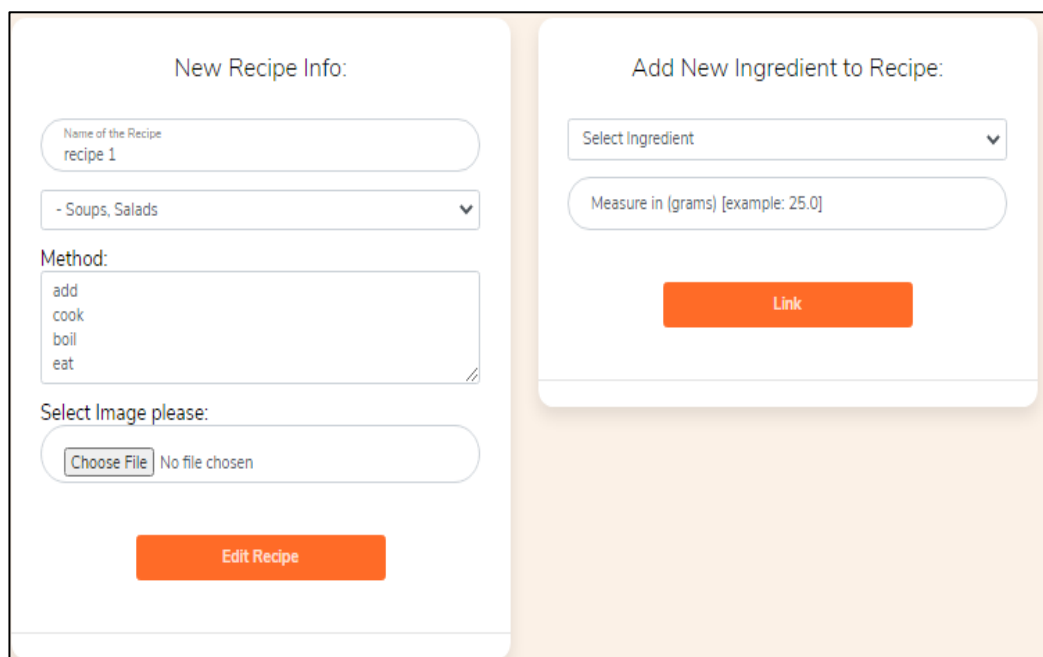
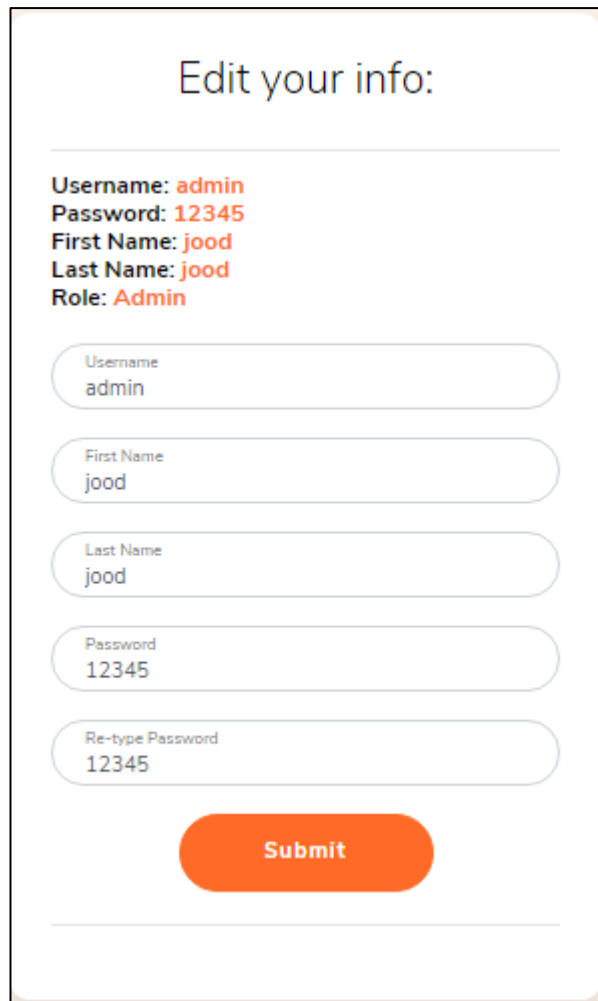


Fig. 36. Edit new Recipe info and new ingredient to recipe

When the admin clicking on the button “Edit profile” we will notice the appearance of new page and the admin can change all the information an all the

fields and the press the button “save” to save the changes that he made as shown in the (fig. 37).



Edit your info:

Username: admin
Password: 12345
First Name: jood
Last Name: jood
Role: Admin

Username
admin

First Name
jood

Last Name
jood

Password
12345

Re-type Password
12345

Submit

Fig. 37. Edit profile

After the users login in to the website and entered to the homepage he can go to the button ”ACCOUNT”, we will see in account page many three functions, add recipe, Add Ingredients, edit profile as shown in the (fig. 38).

The function “Add recipe” It is the same function for the admin. The user have the same ability and his recipe will upload to the site after the admin confirm on it. Also he can delete it before the admin confirm on it.

The function “Edit profile” It’s the same function for the admin and the user have the same ability.

The function “Add ingredients” It’s the same function for the admin and the seller have the same ability.

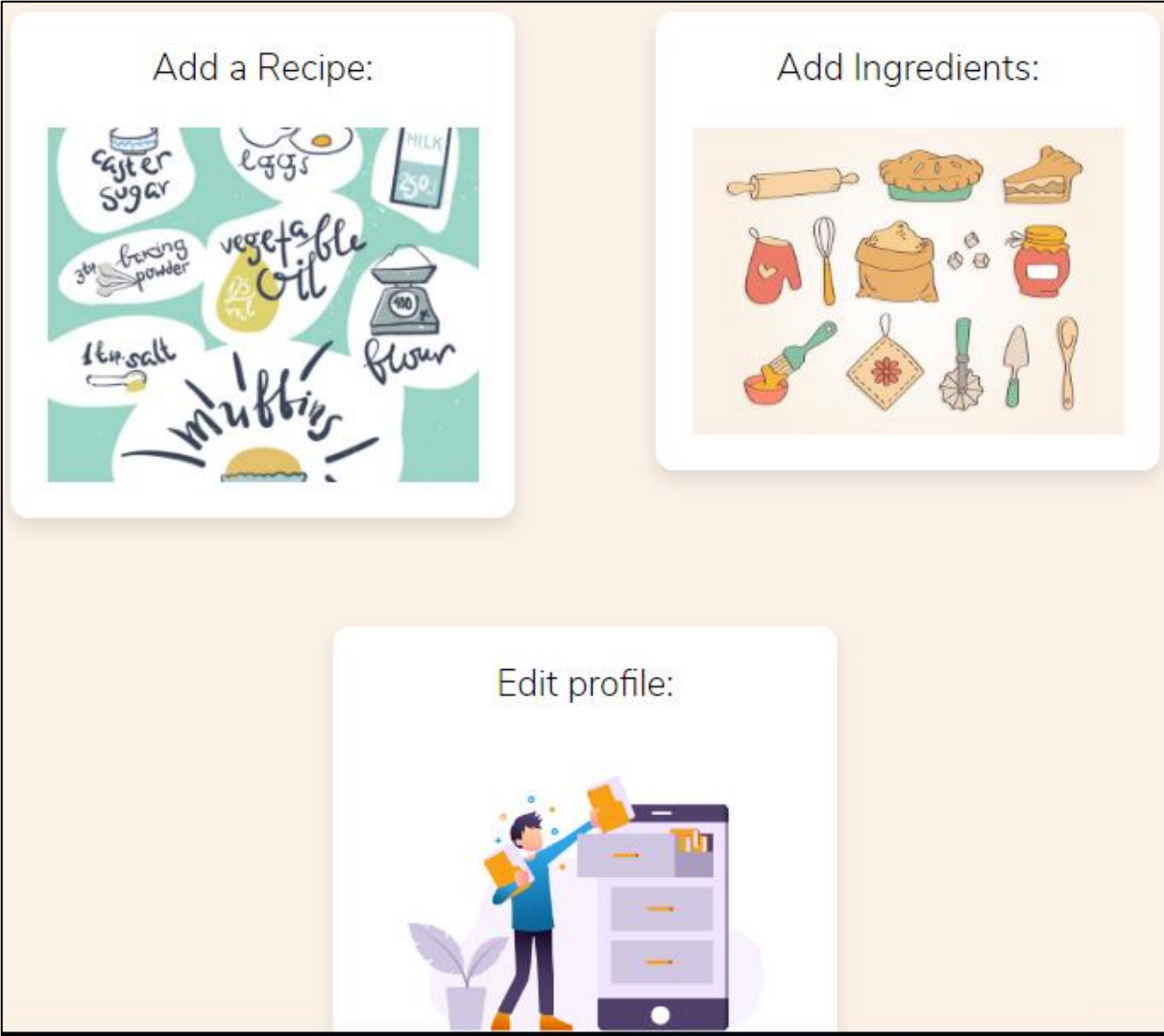


Fig. 38. Admin profile

CONCLUSIONS

The conclusion is intended to help the reader understand why your research should matter to them after they have finished reading the paper. A conclusion is not merely a summary of your points or a re-statement of your research problem but a synthesis of key points. For most essays, one well-developed paragraph is sufficient for a conclusion, although in some cases, a two-or-three paragraph conclusion may be required[9].

The system implemented the basic functions of information website by using laravel, we achieved all the goals and working with Larval was a great.

We have achieved all the main functions required; now the admin can do the following functions:

- manage Users;
- manage Ingredients;
- manage recipe;
- confirm a recipe.

The user can do the following functions:

- manage Ingredients;
- manage recipe;
- add feedback;

The guest can do the following functions:

- see recipes.

During the developing of the web application, we solved the following tasks:

1) the problem statement and make the comparative analysis of the core PHP for website development are studied;

2) the structure of the required database for the information website are developed;

3) the web-application was designed;

4) the website was implemented;

5) the system was tested.

From this system development process, I learned a lot. Previously, I was mostly learning conceptual information, and also had done some piecemeal exercises, which were very different compared to this system design.

This project gave me a great opportunity, and finally joined together conceptual expertise with practice. Through design of this system, I summed up the following experience: First of all, I recognized the importance of the code standard. Especially in some large-scale projects, there would be hundreds or thousands of functions. If codes were written unstandardized, a series of troubles would appear in the debugging and checking stage.

Finally, I recognized the importance of the debugging method. System debugging process is more complex than the development process. In fact, each operation and each submitting a request to the server includes a lot of small pieces of code execution. If the programmer do not use an appropriate debugging method, he/she will be difficult to identify errors in the program.

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