Tribhuvan University

Faculty of Humanities and Social Sciences

A PROJECT REPORT

ON

COOKBOOK

Submitted to

Department of Computer Application

St. Lawrence College

In partial fulfillment of the requirements for the Bachelors in Computer Application

Submitted by

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September 2022

Under the Supervision of

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Tribhuvan University

Faculty of Humanities and Social Sciences

St. Lawrence College

Supervisor's Recommendation

I hereby recommend that this project prepared under my supervision by AMIT DHAKAL**,** SWETA THAKUR entitled "**COOKBOOK"** in partial fulfillment of the requirements for the degree of Bachelor of Computer Application is recommended for the final evaluation.

_____

Santosh Rijal

Supervisor/Lecter

BCA Department

St. Lawrence College

Chabahil, Kathmandu

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Faculty of Humanities and Social Sciences

St. Lawrence College

LETTER OF APPROVAL

This is to certify that this project prepared by AMIT DHAKAL**,** SWETA THAKUR entitled "COOKBOOK" in partial fulfillment of the requirements for the degree of Bachelor in Computer Application has been evaluated. In our opinion it is satisfactory in the scope and quality as a project for the required degree.

_____ Supervisor, St. Lawrence College Chabahil, Kathmandu	_____ Head of Department BCA and CSIT
_____ **Internal Examiner**	_____ **External Examiner**

ABSTRACT

Cookbook is a web-based application that helps people with accessing different kinds of recipes found within the web application. The main attraction of the website is going to be the fact that the users can find many recipes that can be used for home cooking with basic instructions that they won't have to go through recipe books or any other sort of platform for the same recipe with different instructions. This website will act as a platform where the people can learn to love cooking anywhere in the world with any basic device with the internet. The recipes that can be added in future can be the result of what people's feedback demands and so on the process of development depends on interaction between admin and user’s feedback.

Keywords: Recipe, Cooking, Cookbook.

ACKNOWLEDGEMENT

The completion of this undertaking project could not have been possible without the participation and assistance of so many people whose names may not all be enumerated. Their contributions are sincerely appreciated and gratefully acknowledged. However, we would like to express deep appreciation and indebtedness particularly to some of them.

First of all, we express our gratitude to our respectful Principal and Chairman and Bachelors' Program Director and Head of BCA Department for enabling us to make use of laboratory and other facilities liberally, that helped us a long way in carrying out our project work successfully.

We would like to thank Project Supervisor and Lecturer, St. Lawrence College for their constant supervision, guideline and co- operation throughout the project.

We extend our sincere gratitude to all our friends, seniors and juniors for all the timely help, ideas and encouragement which helped throughout the completion of the project.

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List of Abbreviations

CSS	Cascading Style Sheet
DFD	Data Flow Diagram
ER diagram	Entity Relationship Diagram
HTML	Hyper Text Markup Language
JS	Java Script
PHP	Hypertext Preprocessor
SQL	Structured Query Language
N/A	Not Available

CHAPTER 1: INTRODUCTION

1.1. Introduction:

Cookbook is designed to give knowledge about recipes and correct methods of cooking food.it is the online system through which users can view all the details of recipe, access all the recipes and apply them anywhere with required materials. Users can avoid ordering fast foods and enjoy cooking utilizing their time toward healthy and in the arts of cooking methods. The system will consist of basic recipes and recipes of different cultures which makes learning more interesting and an opportunity to learn new methods that are different from your own cooking methods. [1]

The “Cookbook” has been developed to encourage users to develop a basic level of cooking skills. This software is supported to make it easy for users to understand the meaning of cooking and make a healthy environment for cooking. Moreover, this system is also useful to those who are studying in the field of cooking where they can try and learn new methods and apply them in their own line of work. The application is reduced as much as we can so that users can use its interface with an error free environment and easy to understand user interface. It also provides error messages when invalid login is entered. No formal knowledge is required for the users to use this system. Thus, by this means it is user-friendly. Cookbook, as described above, can lead to error free, secure, reliable, and recipe managed systems. It can assist the user to concentrate on their cooking methods rather than always ordering online for food sources. This is designed to assist in strategic planning and will help users ensure that users cooking methods are equipped with the right level of information and details for your future goals. Those who have busy schedules can also learn quick recipes that don't take much time which they can follow up to their schedules. These systems will ultimately allow you to better manage resources, time and art of cooking. [1]

1.2. Problem Statement

There are various types of system related to recipes with different source of information's. Those systems cover very less information about our national food as well as ingredients that are used in different cultures. This recipe information's are scattered in various types of web-based system which is very time consuming to go through. Our system will include all those recipes which will save time and take feedbacks on which recipes were not included and much more.

1.3. Objective

The main objective behind this project is to provide a user-friendly environment to provide knowledge and give everyone a chance to learn, irrespective of where they are, provided they register themselves with the system.

- To totally remove the paper work and computerize the system.
- To provide information about different kinds of recipes.
- To provide information about various dishes from different cultures of the world.

1.4. Scope and Limitation:

This project is made for all users who want to learn and engage in an online recipe system in Nepal as well as other countries. The proposed product is the E-Learning platform. The system will be used to view and search recipes which are for users. Moreover, the product will manage all the records of cooking method, tools, and ingredients that are required for preparation of recipe. The system also has a login system for users to send feedback and should also have a unique username and password so that nobody can misuse it. This system is limited to adding recipes by admins and can have users added recipes in future. Users can also rate recipes in future, defining how useful recipes are according to their ratings.

1.5. Report organization:

The report is organization into 5 chapters:

1. **Chapter 1: Introduction:**

   In this section, the brief introduction of our project, statement of problem and its objectives are discussed.

2. **Chapter 2: Background Study and Literature Review:**

   The previous work related to our projects and similar works were studied and different feasibility analysis are summarized in this section.

3. **Chapter 3: System Analysis and Design**

   In this section, we have design system architecture, system flow diagram, data flow diagram etc.

4. **Chapter 4: Implementation and Testing:**

   In this section, various implementation methods and tools are discussed and also contains description of testing.

5. **Chapter 5: Conclusion and Future Enhancement:**

   In this section, a conclusion to our project and description about what features can be added in the future has been described.

Chapter 2: Background Study and Literature Review:

2.1. Background Study:

1. “Cookbook” is a web application developed using MySQL for database, PHP as a Back-End and HTML, CSS, JavaScript, jQuery, Ajax as a Front-End tool
2. Users from Nepal as well as other countries can view and learn recipes from cookbook.
3. Users can experience different kinds of methods for preparing foods from recipes.
4. To provide recipes which are easily accessible from home in the pandemic or covid like situations in future as well as in present.

2.2 Literature Review:

The study of the similar project was done related to online based web applications with help of materials like books, magazines and other web applications used for their knowledge regarding the project. Studying their systems and ideas were combined to create a new improved environment project.

This includes the study of their knowledge as well as their system regarding the development of their project to improve and evolve similar types of projects in the terms of security, designs, etc. More research was done on users-based requirements before any review to attract users to visit and use the application for better use.

The knowledge about recipes is found on a large scale through many means such as books, internet, etc. where a paper-based system focuses on the documented information related to our project. These resources are not easily obtained by normal means in this technological age. With an online web-application which combines all the knowledge of a paper-based system with an easy access with few steps at any time and place. [2]

Chapter 3: System Analysis and Design

3.1 Software development Methodology

This project uses the process of Waterfall Methodology. It is a sequential development process that flows like a waterfall through all phases of a project such as analysis, design, development, and testing. It is said that the Waterfall methodology follows the adage to "measure twice, cut once." The success of the Waterfall method depends on the amount and quality of the work done on the front end, documenting everything in advance, including the user interface, user stories, and all the features' variations and outcomes. With the majority of the research done upfront, estimates of the time needed for each requirement are more accurate, and this can provide a more predictable release date.

It's a thorough, structured methodology and one that's been around for a long time, because it works. Some of the industries that regularly use the waterfall model include construction, IT and software development. As an example, the waterfall software development life cycle, or waterfall SDLC, is widely used to manage software engineering projects.

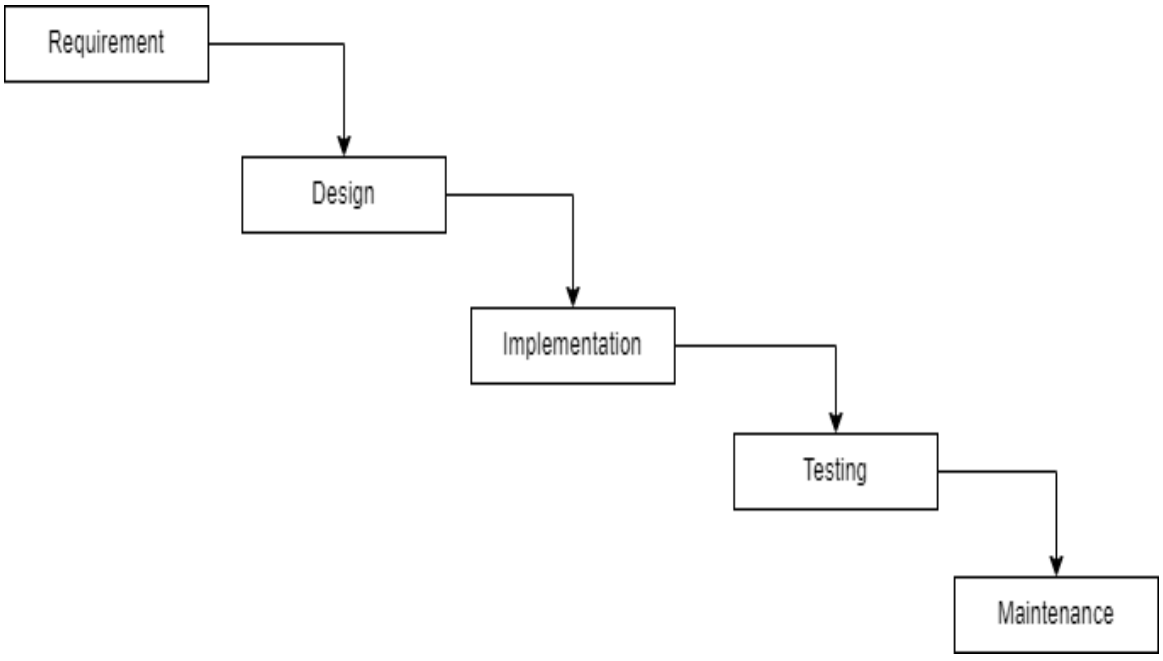


Figure 3.1: Waterfall Methodology

Here, we give some details about how the above steps works: -

● Requirement - where we analyze all needs and document what web application needs to do.

● Design - where we choose the technology, create diagrams and plan web application design

● Implementation - where we figure out how to solve problems and write code.

● Testing - where we make sure the code does what it is supposed to do without breaking anything.

● Maintenance – the customer uses the developed application, Where users may change the requirement or encounter problems are fixed during this process.

3.2 System Analysis

It is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components. System Design is the process of defining the components, modules, interface and data for a system to satisfy specified requirements. Different approaches were used for the system design purposes which are described below.

3.2.1 Requirement Analysis

The requirements are analyzed using use case diagram/list with the following category:

i. Functional Requirements

Requirement analysis is a software engineering technique that is composed of the various tasks that determine the needs or conditions that are to be met for a new or altered product, taking into consideration the possible conflicting requirements of the various users. Functional requirements are those requirements that are used to illustrate the internal working nature of the system, the description of the system, and explanation of each subsystem. It consists of what task the system should perform, the processes involved, which data should the system hold and the interfaces with the user. The functional requirements identified are:

● **User registration and login:** The system should allow new users to register online and should validate successful login.

● **Admin:** Admins should be able to read feedback from users, perform basic add, update and delete recipes.

● **Search Engine:** Easier means for searching recipes from a huge collection of recipes makes it easier to use.

● **Feedback:** It should provide means for users to leave feedback.

Use Case Diagram

A Use case is a description of a set of sequence of actions. Graphically it is rendered as an ellipse with a solid line including only its name. Use case diagram is a behavioral diagram that shows a set of use cases and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary Actor – Sender, Secondary Actor Receiver.

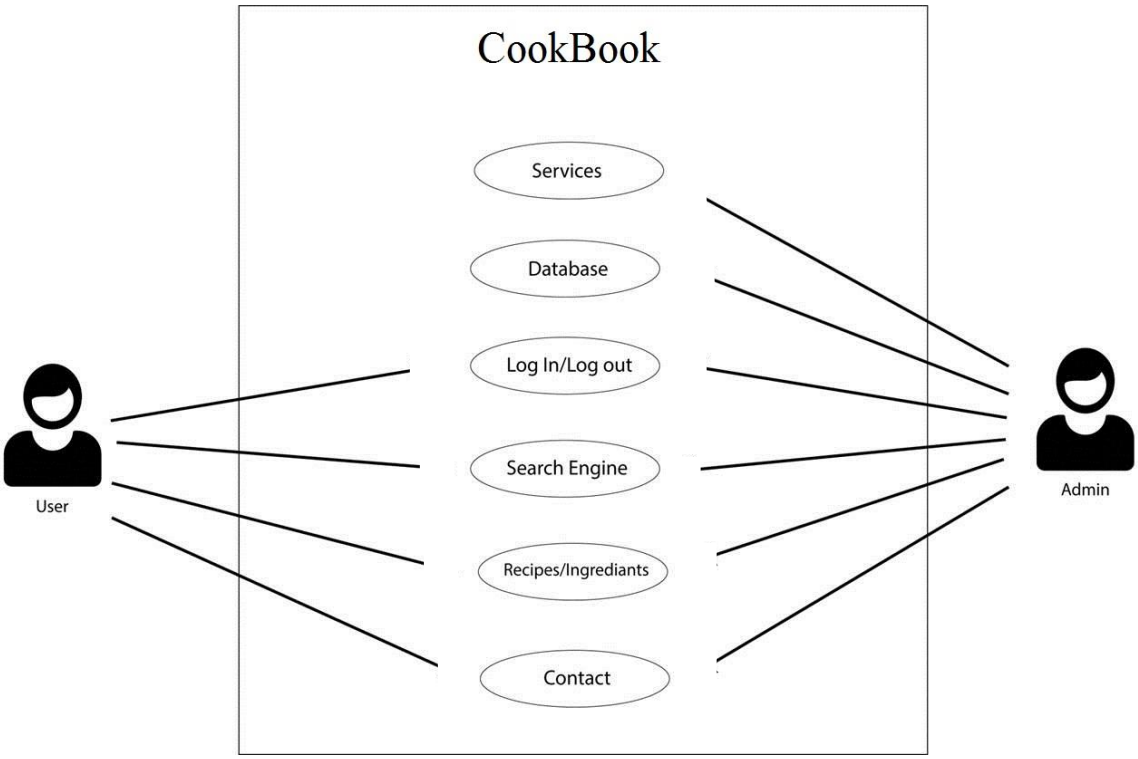


Figure 3.2: Cookbook-Use Case Diagram

ii. Non-Functional Requirements

It describes aspects of the system that are concerned with how the system provides the functional requirements. They are:

a. Security: Users should not face any uneasiness regarding their visit to our web-application as well as proper user id protection with layers of authentications and encryption for better security.

b. Performance and Response time: System should be optimized for better performance with better structure and less stress at both sides of engines with better result without any performance issues. High speed connection is better for fast loading and performance but the application should also be optimized for those who don't have high speed connection.

c. Error handling: Error should be considerably minimized and an appropriate error message that guides the user to recover from an error should be provided. Validation of user's input is highly essential. Also, the standard time taken to recover from an error should be less time consuming.

d. Availability: This system should always be available for access at 24 hours, 7 days a week. System should be available at all stages when a user requests a site with any device with connections.

e. Ease of use: Considering the level of knowledge possessed by the users of this system, a simple but quality user interface should be developed to make it easy to understand and require less training.

3.2.2 Feasibility Analysis

Feasibility Analysis shows how successfully a project can be completed considering the factors that affect it like technology, economy, legal status etc.

Some of the factors considered during the feasibility study of this project are described below:

i.Technical

For the development of the website HTML, CSS and JavaScript will be used as the interface for the frontend as well as backend and core PHP will be used for backend. The database will be created using SQL. In addition, jQuery and Ajax will be used as the frameworks for the interface. For using the system, users require any computing devices like computer, Smartphone etc. and internet access. Hence the system seems to be feasible according to the current technology.

ii.Operational

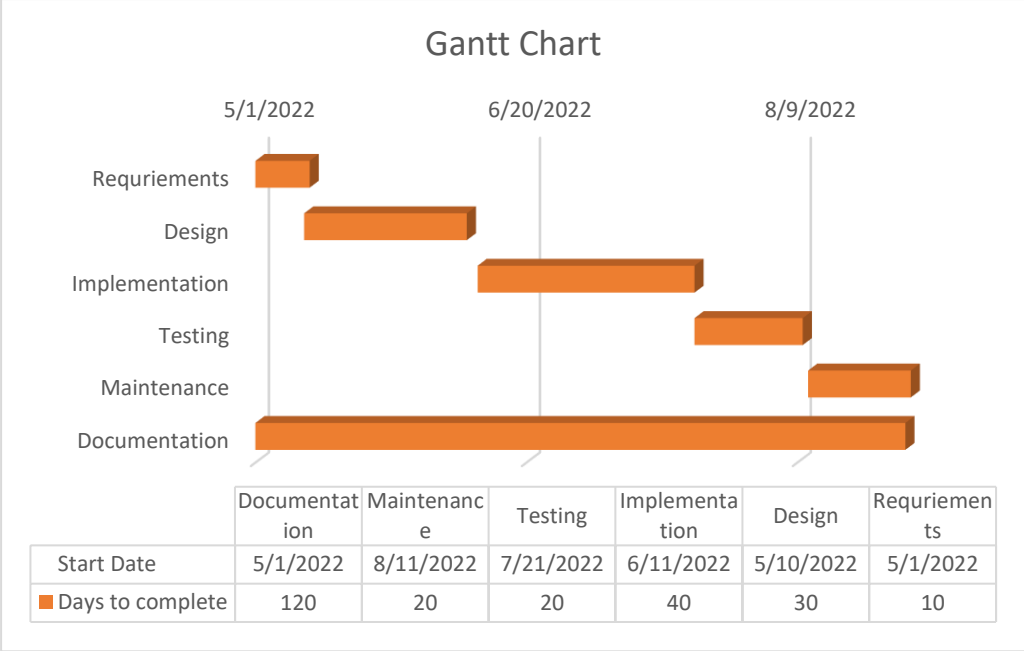
Proposed projects are beneficial only if they are feasible into real world implementation. The system is easy to use as it has a simple user interface. Users can simply use the system via their smart phones or computer. Further, there are no restrictions from government regulations for implementing the system.

iii.Economic

The users do not need to buy the additional software to access the service as they can simply use their mobile phones and computers. Hence the project is feasible economically.

iv.Schedule

In this we schedule our project activity. The end of our project is 11nd of August and we can easily build our project within time and time is easily manageable.



	Documentation	Maintenance	Testing	Implementation	Design	Requriements
Start Date	5/1/2022	8/11/2022	7/21/2022	6/11/2022	5/10/2022	5/1/2022
Days to complete	120	20	20	40	30	10

Figure 3.3: Gantt chart

3.2.3 ER-Diagram

ER Diagram stands for Entity Relationship Diagram that displays the relationship of entity sets stored in a database. In other words, ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships as used for our system:

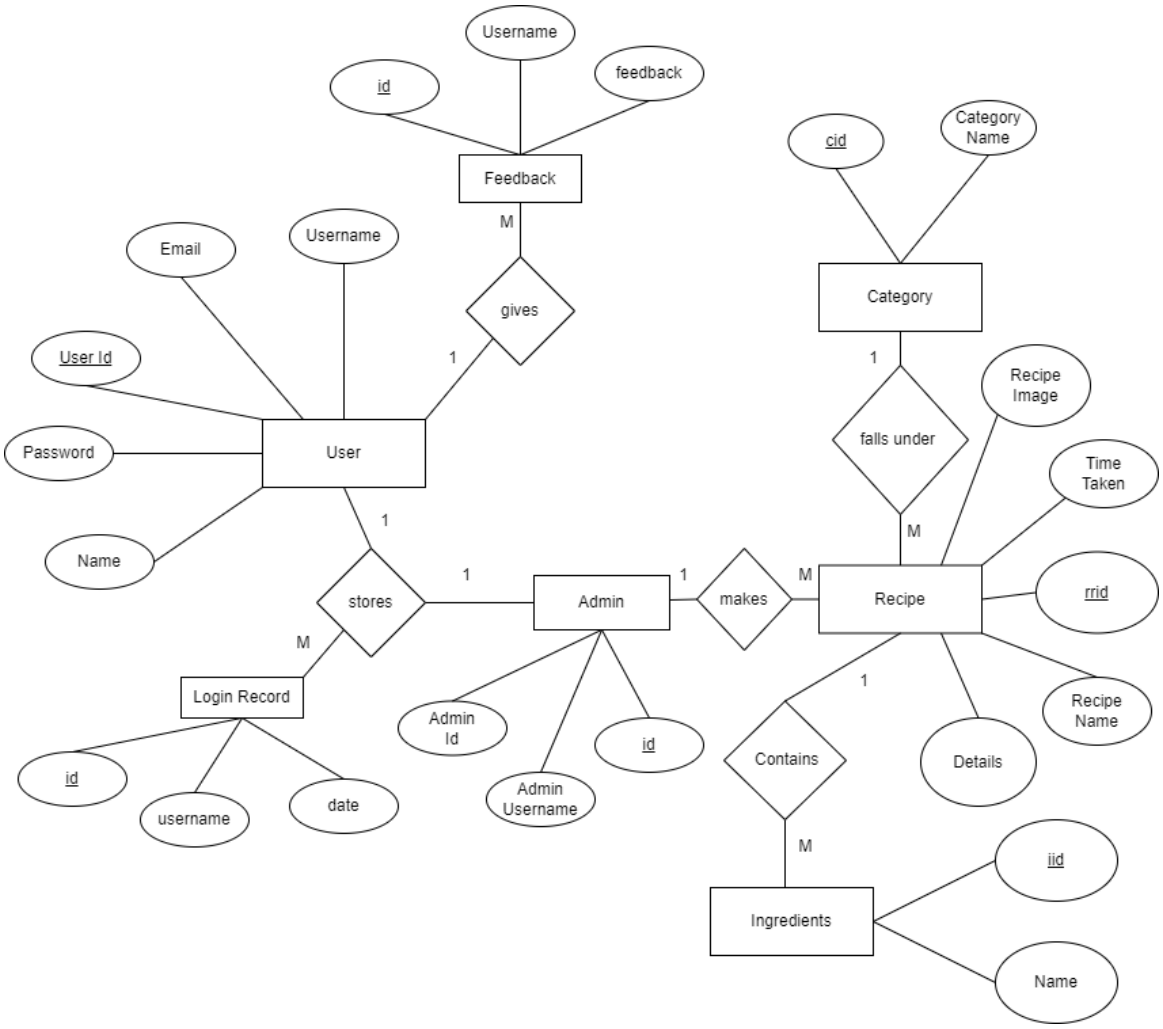


Figure 3.4: ER-Diagram for Cookbook

3.2.4 Process Modeling (DFD)

A Data Flow Diagram is a graphical representation of the flow of data through an information system. It shows how information flows in and out from the system, the sources and destinations of that information, and where that information is stored. Data Flow Diagram models the process of the system.

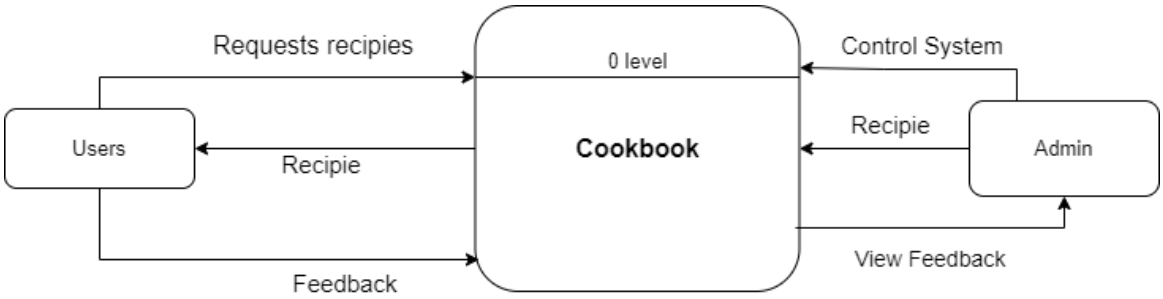


Figure 3.5: Context diagram for Cookbook

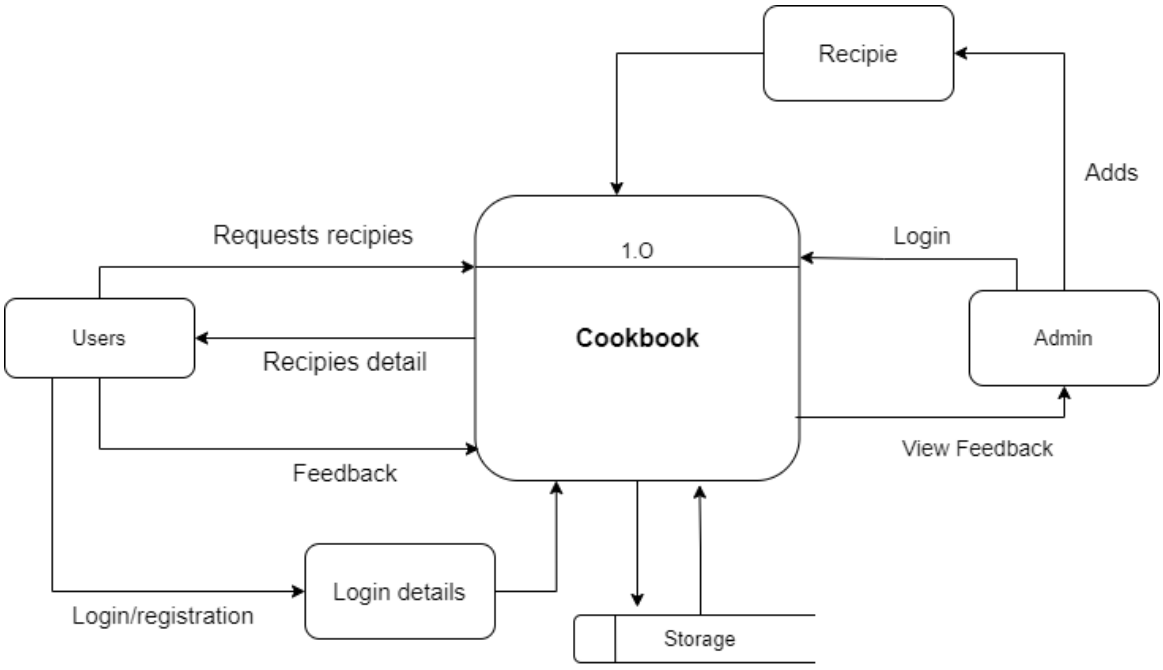


Figure 3.6: Level 1 DFD

3.2.5 Flow Chart

The flowchart shows the steps as boxes of various kinds and their order by connecting the boxes with arrows. This diagrammatic representation illustrates a solution model to a given problem. Flowcharts are used in analyzing, designing, documenting or managing a process or program in various fields**.**

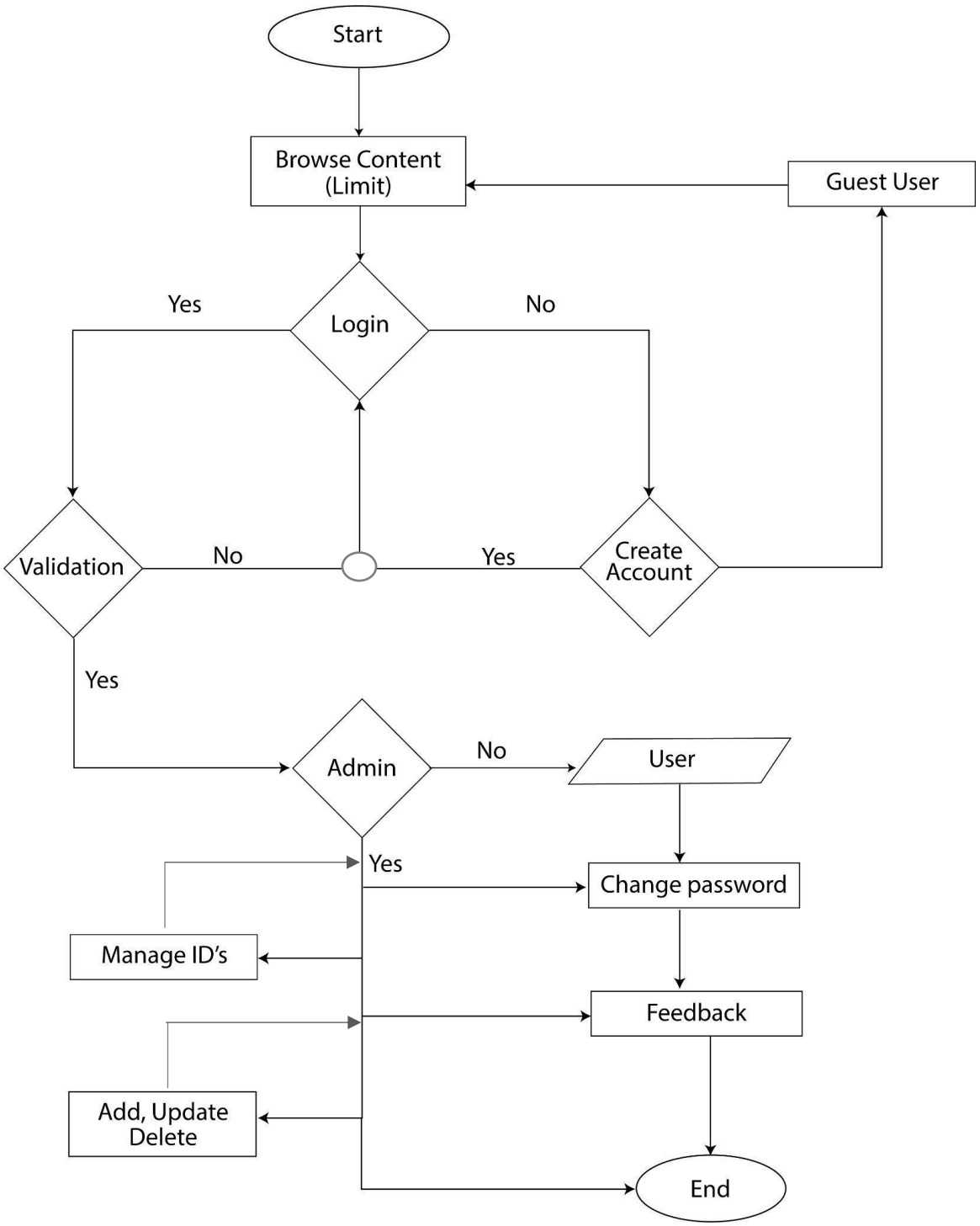


Figure 3.7: Cookbook Flow Chart

Chapter 4: Implementation and Testing

4.1 Implementation

System implementation is the process of building properly working systems, testing it and installing it replacing the old system. In addition, system implementation also includes preparing the system and user documentation, making the users able to use the system properly as well as provide continuous support. The basic steps included in the system implementation process are coding, testing, installation, documentation and training. In this phase the specifications of the project are converted into a working system.

The coding started right after proper analysis of the requirements and theoretical design of the system. Proper documentation work has been done along with the system development till the implementation of the system.

4.1.1. Tools Used

The tools that were used to test the system are as follows:

i. CASE tools

ii. Programming languages

iii. Database platforms

i. CASE tools

CASE tools are a set of software application programs, which are used to automate software development activities.

Now we briefly go through various CASE tools we have used during the development of project

a. Diagram Tools

These tools are used to represent system components, data and control flow among various software components and system structure in a graphical form. We have used draw.io as our diagram tool.

b. Documentation Tools

Documentation in a software project starts prior to the software process, goes through all phases of SDLC and after the completion of the project. Here we have used MS.Office 13 for the documentation of our project.

c. Programming Tools

These tools consist of programming environments IDE. We have used Visual Studio Code as our programming tool.

d. Web Development Tools

Web tools provide live preview of what is being developed and how it will look after completion. We have used Google Chrome as our web development tool.

ii. **Programming languages:** HTML, CSS, JavaScript and PHP will be used as a programming language for this project.

iii. **Database platforms:** We will be using Apache server and MySQL will be used as database management system.

4.1.2 Implementation Details of Modules

Front end tools: The frontend design was created using HTML, CSS, JavaScript. jQuery & Ajax has been used as the framework/plugin.

Back-end tools: SQL was used for creating and managing the database. As the database management system XAMPP was used. For the development part core PHP has been used. Also, different plugins like jQuery have been used to make the working easier.

Online Repository: Google was used as an online data sharing platform. All the members of the group used it for working together.

Documentation tools:

●Microsoft Word: Microsoft Word or MS-WORD (often called Word) is a graphical word processing program that users can use to type. In our project Microsoft Word is used for the documentation process.

●Adobe Illustrator: Adobe Illustrator is a vector graphics editor and design program developed and marketed by Adobe Inc.

4.2 Testing

Once source code has been generated, software must be tested to correct as many errors as possible before delivery to the customer. Our goal is to design a series of test cases that have a high likelihood of finding errors. Following testing techniques are well known and the same strategy is adopted during this project testing.

4.2.1. Test Cases for Unit Testing

Unit test is the smallest testable part of an application like functions, classes, procedures, interfaces. Unit testing is a method by which individual units of source code are tested to determine if they are fit for use.

During the coding phase each function was tested to check whether it works properly or not. Different errors found during unit testing were debugged. Particularly; the user registration process was tested sending the registration details. If the registration details are valid the users are registered and their details are inserted into the database. Another testing module was the login process. If the user's login details are valid then they can login into the system. In this way each function module was tested individually.

Table 1: Testing Home page

SN	Test Case ID	Test Case Name	Test Case Description	Step	Expected Result	Actual Result	Test Case Status Pass/Fa il
01	TC 01	Live Search Engine	Search	Input Search Values	Display Search results.	Display Search Results	Pass
02	TC 02	Data Retrieval for recipes	Data Retrieval	Data formation	Generated Recipe box	Generated Recipe box	Pass
03	TC 03	Animations	Hover Effects and click effects	Proper condition and path formations	Hover Effect and click animations	Hover Effect and click animations	Pass

Table 2: Testing Login form for admin and users.

SN	Test Case id	Test Case Name	Test Case User	Test Case Description	Step	Expected Result	Actual Result	Test Case status Pass/Fail
1.	TC 04	Validate Login	Admin	Enter valid username and password	Enter username and password	Login Successful or an error message "Invalid User or password" must be displayed	Successful Login Directed to Admin Dashboard	Pass
2.	TC 05	Validate Login	Admin	Enter invalid username and password	Enter invalid username and invalid password	An error message "Invalid User or Password" must be displayed	An error message "Invalid User or Password. .." was displayed.	Pass
3.	TC 06	Validate Login	Users	Enter valid username and password	Enter username and password	Login Successful or an error message "Invalid User or Password..." must be displayed.	Successful Login Directed to Teacher page.	Pass

4.	TC 07	Validate Login	Users	Enter invalid username and password	Enter invalid username and invalid password	An error message “Invalid User or Password...” must be displayed.	An error message “Invalid User or Password...” was displayed.	Pass
5.	TC 08	Preview	Admin and User	To check if the admin and Users will be able to visit their respective dashboard	Enter valid username and password	Successfully Visit their own dashboard	Successfully Visit their own dashboard	Pass

4.2.2. Test Cases for System Testing

System testing is done after integration testing in order to ensure that the whole system functions properly. After the integration testing, the entire system working process was checked. The output was as per the system specifications and hence the system was found to work properly.

Table 3: Testing Cookbook system:

SN	Test Case id	Test Case Name	Test Case Description	Step	Expected Result	Actual Result	Test Case status Pass/Fail
1.	TC 04	Security Testing	Checking Security to access system	Login with your registered username and password	Successful Login Directed to User dashboard.	Successful Login Directed to Admin dashboard.	Pass
2.	TC 05	Security Testing	Checking Security to access system	An error message "Invalid User or Password..." must be displayed.	An error message "Invalid User or Password..." must be displayed	An error message "Invalid User or Password. .." was displayed.	Pass
3.	TC 06	Security Testing	Checking Security to access system	Try accessing system with unauthorized links	Redirect to login page	Redirect to login page	Pass

4.	TC 07	Security Testing	Users' nonsense activity to access page	Try typing nonsense on browsers URL tab field like something which isn't available on system	Display 404 error page and suggest to go to initial login page	Display 404 error page and suggest to go to initial login page	Pass
5.	TC 08	Usability Testing	Eliminate Duplicate user data on registration	User Registration with already available username	Message displayed "User already exists"	Message displayed "User already exists"	Pass
6.	TC 09	Admin	Add, update and delete recipes	Admin using admin dashboard to add, update and delete recipe.	Successful add, update and delete recipes.	Successful add, update and delete recipes	Pass
7.	TC 10	Usability Testing	Recipe view	Viewing recipe that user or admin requested	Recipe details	Recipe details.	Pass
8.	TC 11	Loading Testing	Testing load of system	For demo test we have added 10 users and 5 admin	system performs well	System performs well	Pass

9.	TC 12	Regression Testing	Testing new bugs during the development and changes	Development and changes on code.	Bugs found and solved	bugs found and solved	Pass
10.	TC 13	Migration testing	Migrating Project to another PC	Migrating project to another PC	System run successfully	System run successfully	Pass
11.	TC 14	Functional testing	Functional testing	Make sure that functionality of the product is working as per the requirements defined	All requirement fulfilled	All requirement fulfilled	Pass

Chapter 5: Conclusion and Future Recommendations

5.2. Conclusion

The Cookbook is web-based application gathers recipes from all different sources that are scattered throughout the internet and books as well as methods that are used in different cultures which are not online as possible as it can and provides users with an environmental free web application to find recipes in one single platform. Building this system helped our team improve our skills as well as knowledge on systems that are based on recipes and how we could develop improved version of the system in more efficient way. Our system also reduces searching recipes on various platforms which is time consuming. Our project is only a humble venture to satisfy the needs in a consumer's satisfactions.

5.3. Future Recommendations

As we know, projects are never complete and never become error free, we will keep working to make it more user friendly. We have some of the limitations, which will be improved in the future. Since, the project objective has to be achieved pertaining to the time constrained and resource constraint applied in accordance with the defined functionality of the system. The features that are not included in the system can be considered as future enhancements which are as follows:

- Users can add their own recipe.
- Users can communicate with each other to share their ideas about recipes.
- Password recovery system for users that have forgotten their password.

CHAPTER 6: REFERENCES AND BIBLIOGRAPHY

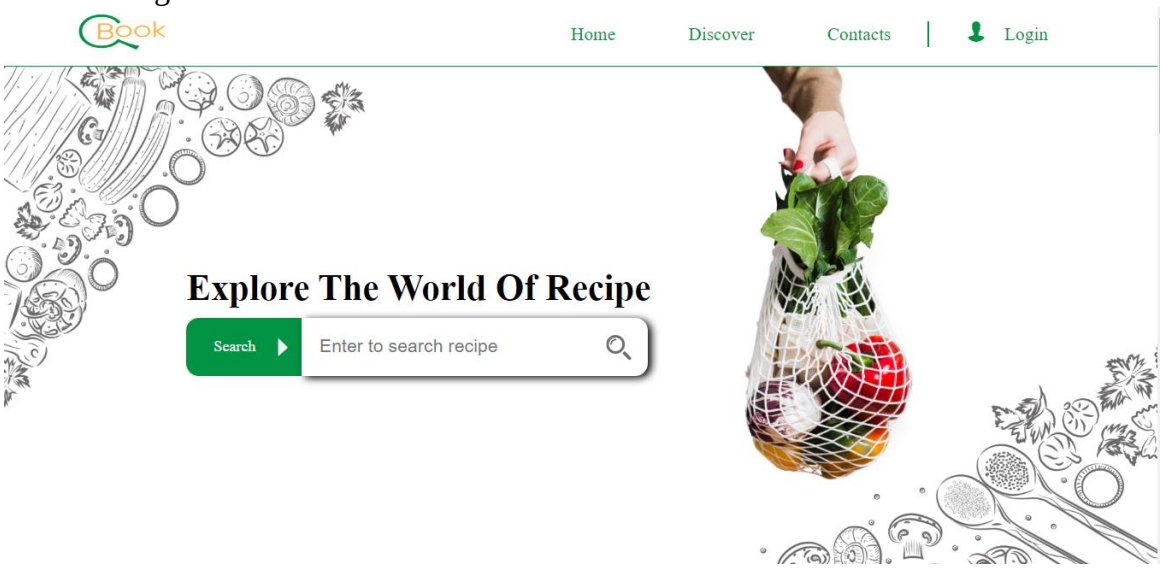
[1] "whatscookingamerica," [Online]. Available: https://whatscookingamerica.net/information/whatisarecipe.htm.

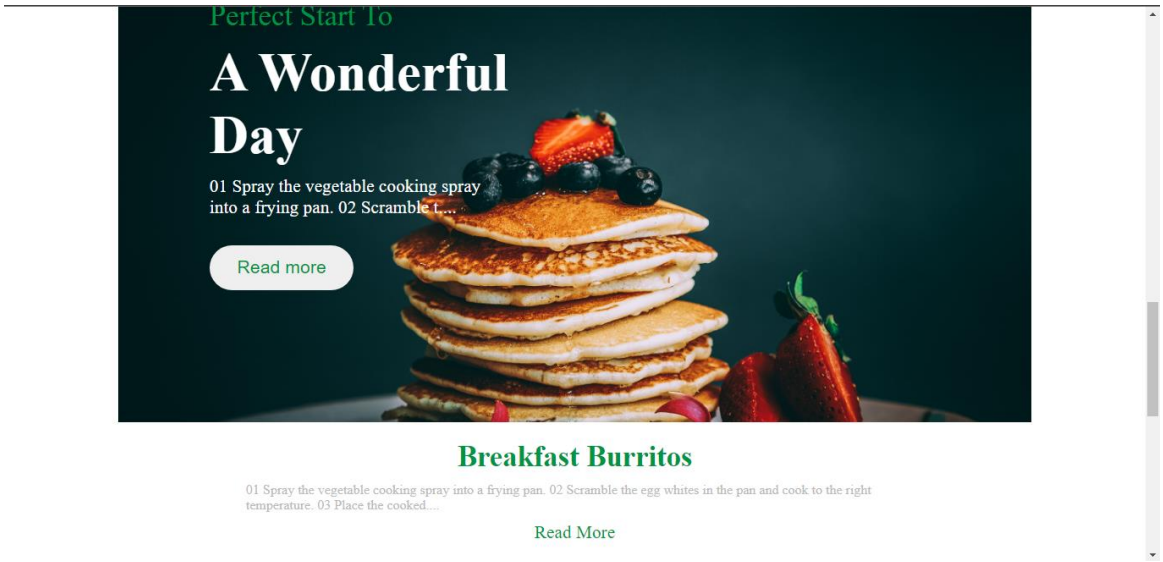
[2] "SAP," [Online]. Available: https://help.sap.com/docs/SAP_ERP_SPV/

Appendices

Screen Shots

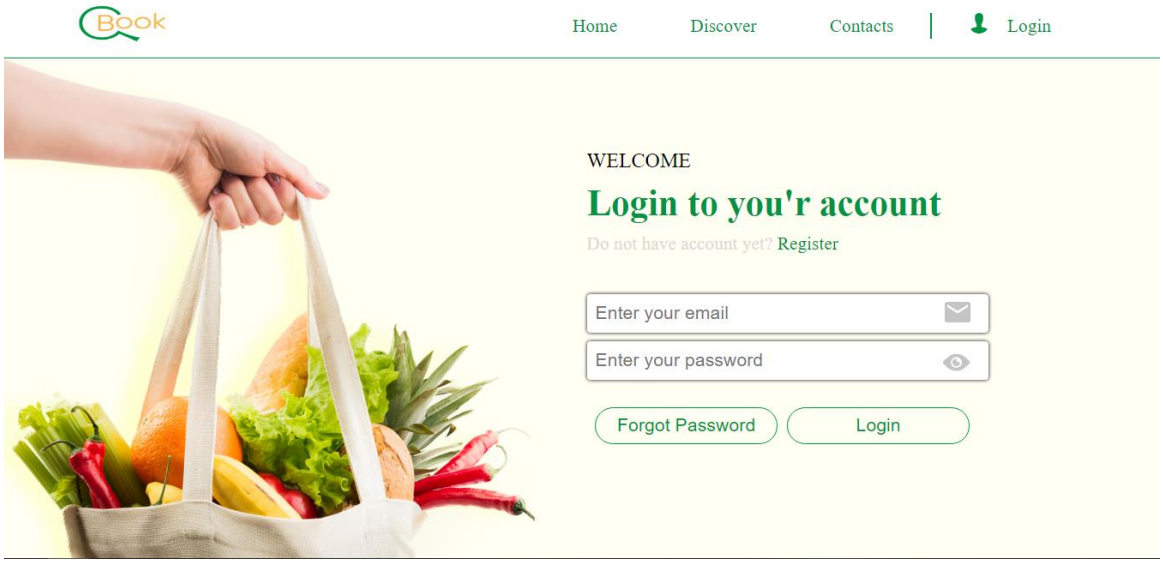
1. Home Page:





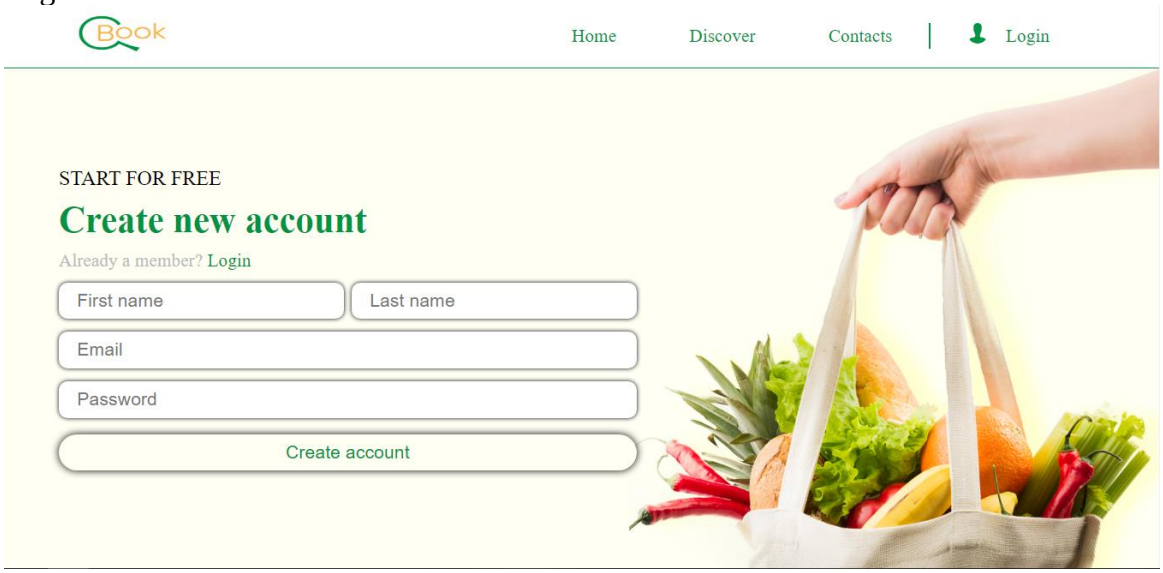
Homepage

Login:



Login Page for user.

Registration Form:

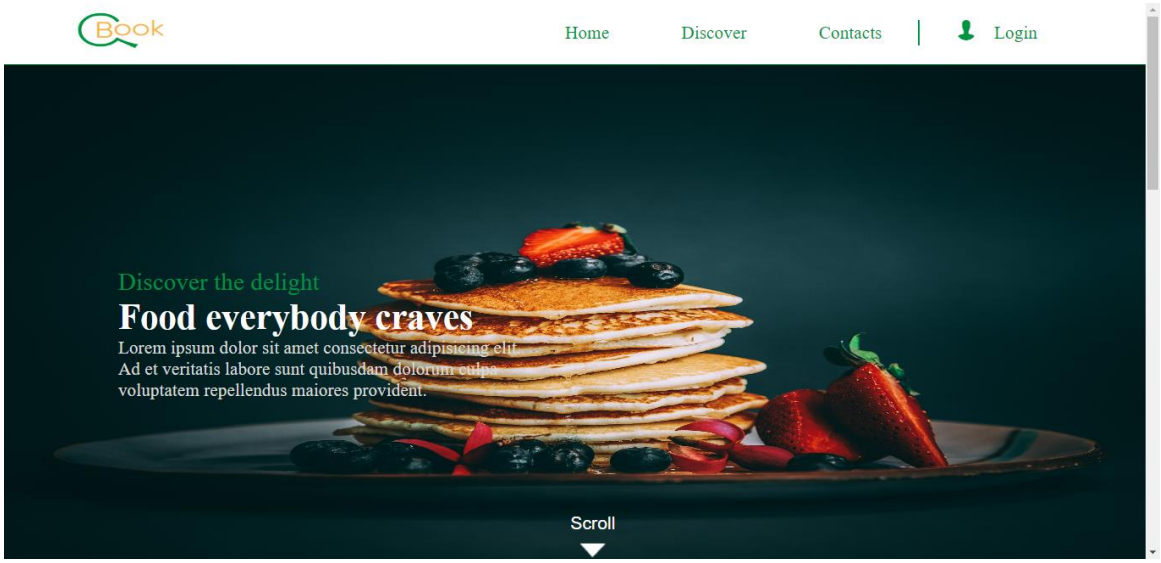


Registration Page.

Recipe view:

Recipe Page

Discover Page:



Discover Page

Source Code

Registration Page Source code:

```
<?php
session_start();
if(isset($_SESSION['username'])){
   header('location:"../#"');
}else{
   $defaultProfile="default.svg";
}

?>


<!DOCTYPE html>
<html lang="en">
<head>
   <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">

   <link rel="stylesheet" type="text/css" href="../css/style.css">
   <title>Cookbook</title>
   <script src="../js/jquery.js"></script>
   <script src="../js/script.js"></script>

</head>
<body>
        <?php
        include_once('./header.php');
        include_once('./main.php');
        include_once('./footer.php');
        ?>

</body>
</html>
```

main.php:

```
<main class="register_main">
   <form onsubmit="userRegister(); return false;" id="registerForm"  method="POST"
class="[ flex ] [ flex_direction_column ]" novalidate><!--  onsubmit="userRegister();
return false;" -->
      <h4>Start for free</h4>
      <h1>Create new account</h1>
      <p>Already a member? <a href="../login/#">Login</a></p>


         <span class="reg_reset">
            <input type="text" name="fname" id="fname" placeholder="First name"
required>
         <input type="text" name="lname" id="lname" placeholder="Last name"
required>
```

```
</span>

        <span><input type="email" name="email" id="email" placeholder="Email"
required></span>

        <span><input type="password" name="password" id="password"
placeholder="Password" required></span>

        <span class="reg_btn"><button type="submit" class="submit"
id="submit">Create account</button>
        </span>

</form>

</main>
```

header.php :

```
<header class="[ flex ] [ flex_direction_column ]">

   <nav class="[ flex ] [ align_center ] [ justify_space_between ] [ header_spacing ]">
      <a herf="#"><img src="../images/logo.png" class="cookbook_logo"
alt="logo"></a>
      <ol class="flex align_center">
         <li><a href="../#">Home</a></li>
         <li><a href="../discover/#">Discover</a></li>
         <li><a id="contact" onclick="contactDirect()">Contacts</a></li>
         <li><span class="profile_pic"><a href="#"><img src="../profile/<?php echo
$defaultProfile;?>" alt="profile picture"></a></span><a
href="../login/#">Login</a></li>
      </ol>
   </nav>
</header>

footer.php:<footer>
   <span>
         <img loading="lazy" src="../images/logo.png" alt="logo" class="footer_logo">
         <p>
            Cookbook strives to provide each
            of its users with their desire
            recipes to create the food they
            desire at home with the
            ingredients readily
            available to the users.
         </p>
   </span>
   <span>
<h4><img loading="lazy" src="../contact/contact.png" alt="contact"></h4>
<p>
   <img loading="lazy" src="../contact/path.png" alt="logo"> Chabhil,3,Kathmandu
```

```
</p>
<p>
<img loading="lazy" src="../contact/mic.png" alt="logo">+977 9880591220,+977
9801109046
</p>
<p>
<img loading="lazy" src="../contact/mail.png" alt="logo">herojk64@gmail.com
</p>
   </span>
</footer>
```

action.php:

```
<?php
   session_start();
   if(isset($_SESSION['username'])){
      echo "<script>window.location.href='../#';</script>";
   }
   if(isset($_POST['fname'])){
   $firstName = $_POST['fname'];
   }else{
      exit('First Name Error');
   }

   if(isset($_POST['lname'])){
   $lastName = $_POST['lname'];
   }else{
      exit('Last Name Error');
   }

   if(isset($_POST['email'])){
   $email = $_POST['email'];
   }else{
      exit('Email Error');
   }

   if(isset($_POST['password'])){
   $pass= $_POST['password'];
   }else{
      exit('Password Error');
   }


   $username = strstr($email, '@', true);

   if($firstName == null || $lastName == null ||  $email == null || $pass == null){
      exit('null');
   }

   $password1 = password_hash($pass,PASSWORD_BCRYPT);
```

```
    $check = "SELECT * FROM `login` WHERE username='$username'";

    include_once('../db.php');



    $datacheck = mysqli_query($con, $check);
    $rows = mysqli_num_rows($datacheck);

    if($rows > 0) {
        mysqli_close($con);
        exit("Registered");
    }

    $query="INSERT INTO `login`
VALUES(NULL,'$firstName','$lastName','$email','$username','$password1')";

    $run = mysqli_query($con,$query);
    if($run){
        echo "Complete";
        mysqli_close($con);
    }else{
        mysqli_close($con);
        exit("Error");
    }

?>
```