

Web Based Recipe Planner For Diet Management

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Abstract- *The web based recipe planner for diet management is a platform designed to help users discover and manage recipes that meet their specific needs and preferences. With this application, users can search for recipes based on various criteria, including keyword, cooking time, number of ingredients, and nutrition information. One of the key features of this application is the ability to search for recipes by keyword. This allows users to easily find recipes that match their tastes and interests, as well as to explore new and interesting dishes. In addition, the application provides detailed nutrition information for each recipe, making it easy for users to track their daily intake and make informed decisions about what they eat. Another important feature of the recipe web application is the ability to save recipes for later reference. Users can create a personal recipe collection, where they can save and organize their favorite recipes. This makes it easy for users to quickly find and revisit the recipes that they have saved, without having to search through the entire database every time. In addition to searching and saving recipes, the application also provides users with the ability to view recipe details, including cooking instructions and ingredient lists. This makes it easy for users to follow recipes and prepare delicious meals, even if they are unfamiliar with the dish. Finally, the recipe web application allows users to share recipes with others via social media or email.*

Keywords- Nutrition, Diet maintenance, cooking time, search, filter, restaurants, user-friendly interface

I. INTRODUCTION

The Recipe Application is a web-based platform that provides a one-stop solution for discovering, filtering, and sharing recipes. The application is designed to cater to the diverse needs of food enthusiasts, whether they are novice cooks or professional chefs. With its robust search and filter features, users can easily find the perfect meal that matches their dietary requirements, cooking preferences, and time constraints. The search engine of the Application is powered by advanced algorithms that allow users to browse through a vast database of recipes based on keywords, ingredients, cooking time, and nutritional values. The search results can be filtered based on dietary requirements such as vegan, gluten-

free, low carb, or high protein. The application also provides users with the option to save their favorite recipes to their account for easy access. One of the key features of Application is the nutritional information provided for each recipe. The application displays detailed nutritional values for each dish, including calories, protein, fat, carbohydrates, and other essential nutrients. This feature is especially useful for individuals who want to keep track of their dietary needs and make healthier food choices. The Application is also designed to make it easy for users to share their favorite recipes with their friends and followers on social media platforms. With just a few clicks, users can post a recipe on their social media accounts. Additionally, users can send recipes to their favorite restaurants, making it easier for restaurants to add new dishes to their menus.

II. LITERATURE SURVEY

TITLE: Social Media and Food

AUTHOR: Marija Ivancevic and Christina J. Pagliarulo

A Review of the Current Landscape and Future Research Directions: This literature survey examines the use of social media in the culinary industry, focusing on how social media platforms have transformed the way people share, discover, and discuss food. The study reviews various social media platforms and their impact on the culinary industry, such as the rise of food bloggers, the use of Instagram for food photography, and the use of Twitter for food-related conversations. The survey also highlights the potential for social media to enhance the culinary experience and promote a sense of community among food enthusiasts. This literature survey is relevant to the Recipe Application Web Application as it aims to enable social sharing options, allowing users to share their favorite recipes with their friends and followers on social media platforms or send recipe recommendations to their favorite restaurants.

TITLE: Nutritional Information in Recipe Websites

AUTHOR: Nida Taufiq, Alyson L. Hilliard, and David M. Kaplan

This literature survey examines the provision of nutritional information in recipe websites. The survey

highlights the importance of providing users with detailed nutritional information for each recipe, such as calorie count, macronutrient breakdown, and allergen information. The study also highlights the challenges faced by recipe websites in providing accurate and up-to-date nutritional information. This literature survey is relevant to the Recipe Application Web Application as it aims to provide users with detailed nutritional information for each recipe, making it easier for them to make informed decisions about their dietary choices.

TITLE: A Study on Recipe Recommendation Systems
AUTHOR: Cheng Luo and Shu Chen.

This literature survey examines the use of recommendation systems in the culinary industry, focusing on recipe recommendation systems. The study reviews various recommendation techniques and algorithms, such as collaborative filtering, content-based filtering, and hybrid approaches. The survey also highlights the importance of considering user preferences and dietary requirements when designing recommendation systems. This literature survey is relevant to the Recipe Application Web Application as it aims to provide users with a comprehensive search and filter system that matches their unique needs and preferences.

4.TITLE: Application of Multi-Objective Evolutionary Algorithms for Planning Healthy and Balanced School Lunches
AUTHOR: Juan-Manuel Ramos-Pérez,Gara Miranda ,Eduardo Segredo,Coromoto León and Casiano Rodríguez-León

A multi-objective formulation of the Menu Planning Problem, which is termed the Multi objective Menu Planning Problem, is presented herein. Menu planning is of great interest in the health field due to the importance of proper nutrition in today's society, and particularly, in school canteens. In addition to considering the cost of the meal plan as the classic objective to be minimized, we also introduce a second objective aimed at minimizing the degree of repetition of courses and food groups that a particular meal plan consists of.

III. EXISTINGSYSTEM

There are several existing nutritional recipe website

Eatingwell: Eating Well is a comprehensive website that provides a wealth of information on healthy eating, nutrition, and cooking. The website is focused on promoting healthy eating habits through the use of delicious and nutritious recipes that are easy to make at home.

One of the standout features of EatingWell is its extensive recipe collection, which includes a wide range of options to suit every taste and dietary need. Whether you're looking for vegetarian or vegan recipes, gluten-free options, or simply healthy meals that taste great, EatingWell has you covered. The recipes are designed to be both healthy and delicious, with a focus on using fresh, whole ingredients to create dishes that are packed with flavor and nutrition.

In addition to its recipes, EatingWell also offers a variety of articles and resources to help readers make informed decisions about their health and nutrition. These resources cover a wide range of topics, including the benefits of different foods and ingredients, tips for healthy eating and meal planning, and information on popular diets such as the Mediterranean diet and the DASH diet.

One of the key strengths of EatingWell is its focus on practicality and simplicity. The website is designed to help readers make healthy eating a part of their everyday lives, with recipes and resources that are easy to understand and implement. Whether you're a beginner cook or an experienced chef, EatingWell has something to offer, with recipes that range from quick and easy weeknight meals to more complex dishes for special occasions.

Nutrition.gov: Nutrition.gov is a comprehensive website that provides a wealth of information on healthy eating, nutrition, and physical activity. The website is designed to help individuals make informed decisions about their health and well-being through the use of evidence-based information and practical resources.

One of the primary goals of Nutrition.gov is to provide accurate and up-to-date information on a wide range of nutrition-related topics. The website covers everything from the basics of healthy eating to more advanced topics such as food safety, dietary supplements, and nutrition for specific populations such as children, pregnant women, and older adults. The information is presented in a clear and concise manner, making it accessible to individuals with varying levels of nutrition knowledge.

In addition to its information on nutrition, Nutrition.gov also provides a variety of resources to help individuals make healthy choices in their everyday lives. These resources include meal planning tools, recipe databases, and physical activity recommendations. The website is designed to help individuals take a comprehensive approach to their health and well-being, with resources that address both nutrition and physical activity.

Another important aspect of Nutrition.gov is its commitment to promoting a healthy and sustainable food system. The website provides information on topics such as sustainable agriculture, reducing food waste, and choosing eco-friendly ingredients. By promoting sustainable and responsible food practices, Nutrition.gov is helping to create a healthier and more sustainable food system for everyone.

DISADVANTAGE:

- The existing focus on healthy eating may not be suitable for individuals with certain medical conditions or dietary needs.
- The existing may be overwhelming or difficult to navigate for individuals who are not familiar with nutrition terminology or concepts. While the website does provide a wealth of information on a variety of nutrition-related topics, some individuals may find the information dense or difficult to understand.

IV. SYSTEM ARCHITECTURE DIAGRAM

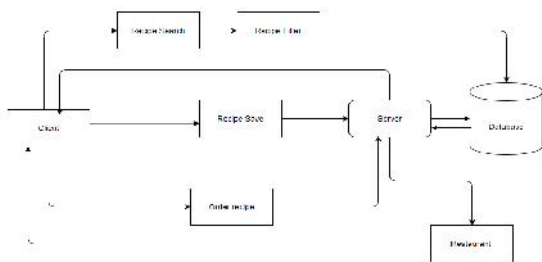


Figure 1 System architecture Diagram

V. PROPOSED SYSTEM

The proposed web application will address the limitations of the existing system by providing a comprehensive recipe search functionality that can return relevant results based on user inputs. The application will allow users to filter recipes by various nutritional values such as calories, protein, fat, and carbohydrates, providing users with a more accurate and personalized search result.

In addition, the proposed system will display complete nutritional values of each recipe, providing users with essential information to make informed decisions about their diet. The application will also provide a user-friendly interface that allows users to save and organize their favorite recipes, making it easier for them to find and prepare their desired meals.

The proposed system will be accessible through different devices such as desktop, mobile or tablet, allowing users to access the application at their convenience. The application will use a reliable database system to store recipe information and user preferences, ensuring data security and easy retrieval of information.

Furthermore, the proposed system will provide options for sharing recipes to social media platforms or order recipe to restaurants, enabling users to share their favorite recipes with their friends and family or order meals from restaurants

Methodology:

The proposed system contains the following modules. These modules were used to make the system more reliable.

Recipe Search: This module allows users to search for recipes based on keywords, cooking time, number of ingredients, and other parameters. It returns a list of matching recipes with a brief description and a thumbnail image.

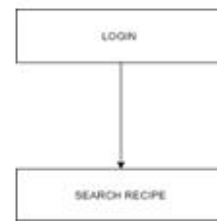


Figure 2 Recipe search module

Recipe Filter: This module allows user to filter their search by nutritional values such as fat, protein ,etc.

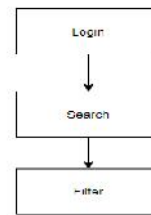


Figure 3 Recipe filter module

Recipe Save: This module allows users to save their favorite recipes for later reference. The saved recipes can be viewed in a separate section of the application.

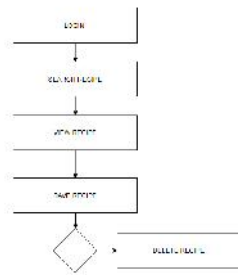


Figure 3 Recipe save module

Recipe Sharing: This module enables users to share recipes with their friends and family through social media platforms, such as Facebook, Twitter, and Email.

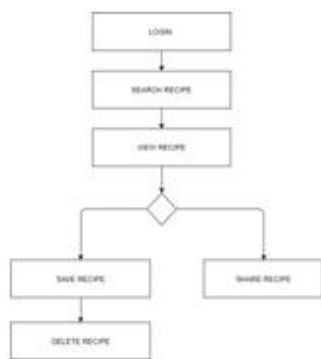


Figure 3 Recipe share module

Place order in restaurants: This module manages the user to place an order to restaurants by sending exact nutritional information.

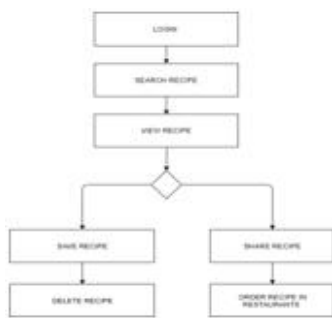


Figure 4 Place order in restaurants module

ADVANTAGE:

- Provides a comprehensive recipe search functionality.
- Allows users to filter recipes based on various nutritional values and cooking time.
- Displays all nutritional values of a recipe for informed and healthy meal planning.

- Offers easy sharing of recipes to social media and orderin restaurants for convenience.
- Supports user accounts and preferences to enhance the user experience.

VI. OUTPUT SCREENSHOT

Dashboard Page:

Dash board page gives the search relevant results in cards format. It contains Search bar and filter option for filtering recipes based on nutritional values.

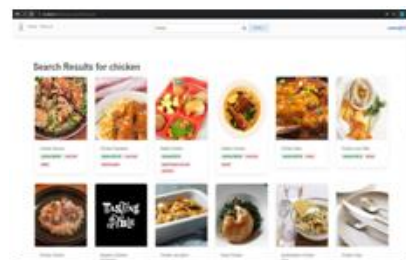


Figure 5 Dashboard page

Recipe Detail Page:

It displays detailed view of selected recipes with all the nutritional values. It contains save and social media share buttons.



Figure 6Recipe detail page

Saved Recipe Page:

It displays Save recipes in card format user can organize their saved recipes. User can delete the saved recipe using delete button under the recipe card.



Figure 7 Save recipe page

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