**RECIPE RECOMMENDATION FOR DIET AND NUTRITION MANAGEMENT SYSTEM**

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INTRODUCTION

Today, there are a lot of web sites and tools that introduce and propose for cooking recipes for a diet. However, it is difficult to be on a diet by following those recipes because many of them do not consider users circumstances. The evaluation value of either intake or consumption calorie is assigned to each event in the user’s schedule, and then based on the calculation with the values, some candidates of recipes with calorie to make the user easily lost weight for the objective weight are selected considering the users schedule during the period of a diet.

To propose cooking recipes for diet we introduce there are lot of websites and tools available. To think about users schedule in this study we propose a method to recommend cooking recipes for a diet. It is based on the user’s food preferences we have proposed a recipe recommendation method. Using linear programming with the constraints of carbohydrate, protein, salt and to recommend more healthy recipes among the selected recipes. In this context, we focus on a healthy diet and propose a method to attain it.

In order to reproduce the truly users preferences, we propose a scoring method of cooking recipes based on users food preferences and the quantity of the ingredient in a recipe. In addition, to recommend more healthy recipes among the selected recipes, we use linear programming with the constraints of carbohydrate, lipid, protein, salt and increasing the amount of Vegetable intake.

LITERATURE REVIEW

 The world metabolic syndrome has spread rapidly in Japan. In the case of Japan, it is said that once of two in men of 45 -75 years old and one of five in women of 45 – 75 years old are strongly doubted or have the possibility of receiving the syndrome. It is also said that 47% of Japanese people have got the life style related disease. On the other hand we recognize that Japanese people have enhanced their consciousness for the health, according to the public research about health which news project company conducted. In the report, 83% of Japanese people mind and take care of their health. Along with this, a lot of goods to improve health have appeared. Moreover, several systems for managing user’s health condition have also been studied. Developed as an application for a mobile phone that helps users monitor their caloric balance as a part of weight management. In this context, we focus on a healthy diet and propose a method to achieve it.

PROBLEM DEFINITION

Humans have existed the problem of how to make good food and take nutritious diet that exists for long time. To suggest the standard systems for rating recipes and better recipes suggestion we use modern techniques like machine learning and graph theory

SYSTEM ANALYSIS

When analyzing the system data which are collected the available files, decision points and transactions by the present system.

1. The development of a feasibility study, involving determining whether a project is economically, socially, technologically and organizationally feasible.

2. Conducting fact-finding system end-users require span interviews, questionnaires or visual observations to design the existing system.

EXISTING SYSTEM

1. By using fuzzy mathematical programming in terms of nutrition’s the menu of dishes and the number of dished in each food categories to analyze but not recommend recipe and to suggest only recipes that are within database.

2. To generate new recipe substitute as part of the algorithm we have to find healthier alternative recipes that are currently existed in cookbooks.

3. The recipes had a combination of dishes and a bag of ingredients to improve dietary restrictions or personal preferences.

PROPOSED SYSTEM

By using constrained optimization of linear model, we assign various nutrients values. The database introduces innovative recipes that are better in healthy and tasty too. To achieve the levels of nutrients, coverage of ingredients they conducted experiments on real world and synthetic data set. Based on the quantity of each ingredient we introduce a method for extracting user’s preferences and to reflect.

MODULES

* Registration, Login
* Recipe Candidate
* Nutrition Estimation
* Food Evaluation
* Recipe Recommendation
* Recommended Recipe

The software component or part of the program in a module contains one or routines. It provides some sort of credentials to the registered users in the system by the form of “username” and matching “password”. The objective term are selected from the database based on values. The applications of system theory define an architecture, modules, interfaces and data for a system. The purpose of the system design process is to provide architectural entities defined in models and views of system architecture.

UML Stands for Unified Modeling Language used to define a way to visualize the design and similar to blueprint used in various fields. It has both subject and non-subjective aspects in project description. Entity relationship(ER)-Diagram, Dataflow diagram (DFD) are the tools and techniques used in system designing.

The input is designed in such a way so that it provides security and ease of use with retaining the privacy. The data entry screen is designed in such a way that all the data are manipulated can be performed.

* Designing computer output should proceed in an organized, well thought out manner.
* The right output must be developed while ensuring that each output element is designed so that people will find the system can use easily and effectively.
* When analysis design computer output, they should identify the specific output that is needed to meet the requirements
* Select methods for presenting information.
* Create document, report, or other formats that contains information produced by the system.

Other Server software, such as windows server, requires a commercial license Apache also supports multiple platforms, including Linux, Windows, and Macintosh Operating Systems. Since many Linux distributions are also open-source, the Linux / Apache combination has become the most popular web hosting configurations.

CONCLUSION

 PHP fully meets the objectives of the system “RECIPE RECOMMENDATION FOR A DIET AND NUTRITION MANAGEMENT SYSTEMS “is developed. By this project, we didn’t recommend simple recipes which reduces the calorie intake and users personal every day activities. On the other hand, there are still many points where should we improve our method for practical use.

 For the future work, it can recommend the recipes to improve the health condition of people like metabolic syndrome, high blood pressure etc.