International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 07 Issue: 01 | Jan 2020 www.irjet.net p-ISSN: 2395-0072

Artificial Intelligence Dietician

Aman Mukadam[1], Samruddh Choudhari, Hamid Pasha[3], Prof. Medha Kulkarni[4]

[1]Aman Mukadam Mumbai University
[2]Samruddh Choudhari Mumbai University
[3]Hamid Pasha Mumbai University
[4]Professor Medha Kulkarni, Dept. of Information Technology, PVPPCOE, Maharashtra, India

---

Abstract - *As people across the globe are becoming more interested in watching their weight, eating more healthy food and avoiding junk food, a system that can measure calories and nutrition in every day meals can be very useful for maintaining our health. Food calorie and nutrition measurement system is very beneficial for dietitians and patients to measure and manage the daily food intake. The proposed system is a responsive website which contains the knowledge and data regarding the fitness of a person. We also referred data required to develop the website, from gym exercise book which makes the website a unique one.*

1. INTRODUCTION

Over the fifty years during which artificial intelligence (AI) has been a defined and active field, there have been several literature surveys [1-4]. However, the field is extraordinarily difficult to encapsulate either chronologically or thematically. We suggest that the reason for this is that there has never been a groundswell of effort leading to a recognized achievement. Never-the-less, there is a considerable body of literature which the neophyte must master before attempting to grapple with what has proved thus far to be a hydra-headed monster.

Nowadays, a human being suffering from many health problems such as fitness problem, maintaining proper diet problem, etc. Therefore, we are developing this website for providing special dietician information and proper exercise knowledge for normal persons and for handicap people also. The effective personal dietary guidelines are very essential for managing our health, preventing chronic diseases and the interactive diet planning helps a user to adjust the plan in an easier way. The website is to be produced on Artificial Intelligence and Dietician. Here there are two persons, the admin and user. The user fills the registration form and then login to the website. After login users have to fill personal information including age, weight, height, gender and exercise level. For calculating BMI age, weight, height, gender and exercise level are necessary. On the basis of calculated BMI (Body Mass Index) Artificial Dietician will display the proper dietician for logged user. This application suggests the user to what to do for example diet tips, Exercises, Online Training, etc. Here we are included different exercises like Yoga, Gym exercises, Aerobics, Cardio, Basic workouts, etc. The user can also fire a query to the admin on his/her health-related problems to maintain his/her fitness and the admin can give solutions on user's problems.

Figure 1:- System Architecture

2. METHODS & MATERIALS

2.1 EXISTING SYSTEM

In the existing AI Diet Consultant system, you have to hire a dietitian in order to get advice. Hiring a nutrition doctor will not only waste your time and efforts for calling them, going to them and so on but also cost you very high as their charges per month are very high.

The moment will also arrive when they will not available for you and you have to search for some other dietitian urgently. In this system, a fixed time period is defined for the repetitive scanning of the files in the system. After a specified period, the system calculates checksum for each and every file in the system, irrespective of whether it was accessed. Then the new checksum values are compared with the old or reference checksum values so as to determine if the file in the system is modified or not. For example, in the earlier dietitian has to collect user details for diet. Approving those user details takes lot of time. Dietitian and user have to consult each other directly if any information is needed. If any new user come for diet schedule, dietitian and his staff has to search the user details and they have to find the dietitian schedule for that particular diet. Here searching for eligible diet takes lots of time. And sometimes some users' details may be missed.

1. According to current health survey in India there are more than 70% of people suffer from one or the other disease

2. This is because they don't know how much they should eat

3. People avoid going to nutritionists or diet planner because of their high fees

4. Unaware of amount of fat required by body.

2.2 PROPOSED SYSTEM

The proposed system is fully computerized, which removes all the drawbacks of existing system. In this proposed system of artificial intelligence diet consultant, using the technique of artificial intelligence, you will get access to all the facilities via this application, which is actually provided by a human dietitian. The main advantage of using this standalone web application is that the time required by the people to travel to the dietitian will be reduced and also it reduces the cost of hiring dietitians for some particular purpose. Also, this web application offers more than one diet plan also, for some particular kind of functionalities of human bodies. All the users have some common services like changing password, updating details, searching for details, checking the details, mailing to administrator, and reading the material uploaded by admin if the user is a student. Administrator has to do the services like adding events, achievements and he can reply to the mails sent by users. He can upload materials, search for diet details, and he has the right to approve the same. Some points on proposed system are:

1. It calculates your BMI and tells you which diet to follow.
2. Diet plan varies from person to person and by age.
3. It is easy to use because of its simple interface and speech recognition.

In this site the first landing page incorporates administrations, offices, about us, get in contact, and so on. This serves to client; client can get data of after that client can specifically login to site. On the off chance that client has officially enrolled generally client needs to make a record utilizing Registration Form. The client can fill data like Name, Address, Email-Id, Password, and so forth. From utilizing Email-Id and Password he can login to site. After effectively login client visits to BMI count structure, client needs to enter individual data like age, tallness, weight. By, weight the BMI and BMR is acquired. On the premise of BMI result will be as workout proposal and sustenance recommendation will be acquired from BMR. The workout recommendation will be Online Training it gives exercise recordings to put on or misfortune weight of client. After going to the site, the client can likewise send his input about site utilizing Feedback frame or can fire an inquiry identified with client wellbeing or consume less calories utilizing Query Form and step by step it will demonstrate the outcomes as per the eating routine. On the off chance that client would like to send input can straightforwardly logout from site. At the administrator side, the administrator enrolls the sustenance subtle elements and transfers recordings utilizing Video Upload Form and administrator send answer to clients question through Admin Query Form. Administrator handles all points of interest of client or database recovered from Registration.

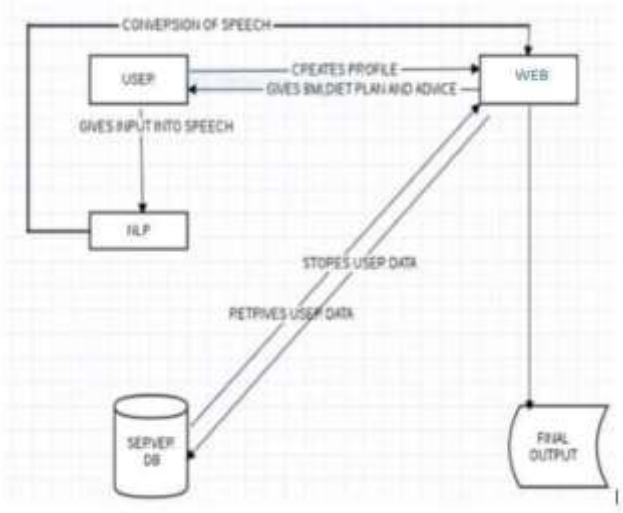

Figure 2:- System Flow Architecture

2.3 MODULES

In this, we design the overview and implementation of the project was discussed. The modules discussed to be implemented are listed with some details.

- Individual user profile
- Diet based search
- Dietitian profile

Individual user profile

- Every user registered in AID will have an individual profile that will contain his entire information various sort of workouts, for example, Aerobics, Yoga, power yoga, fundamental activity, and so forth from the administration and offices.
- A user will have rights to add , update as well as remove information
- The profile will contain personal information, diet habits, interests, hobbies, etc.

Diet based search

- How many dietitians are available in the area can be easily known
- As the need of user can be directly known to dietitian
- The web portal access can also be provided to dietitians for referral of user data directly.

Dietitian Profile

- AID will provide dietitian profiles
- Users need not struggle searching for information on the net, all necessary will be made available at the portal itself.

3. CONCLUSION

"Artificial Intelligence Dietician" allow the user to know about his/her actual diet information i.e. how much user had calories in their body on this basis system displays workout and food suggestions. This software package is a strong enough to withstand regressive facility for the Handicapped Peoples. This software reduces the time span and cost for expert advices for diet. This site is exceptionally valuable to wellbeing cares and dietician. This product diminishes the time compass and cost for master advices for eating routine. In addition, the system will save time instead of going to the human expert. Also, the nutrition system is available all the time and can be used in any place. Our system integrates and captures the nutrition and diet knowledge and information in easy, clear, and understandable way for the users.

REFERENCES

[1] Raman spectroscopy for determining nutritional facts By Moustakas, C. Dept. of Electr. & Comput.Eng., Univ. of Cyprus, Nicosia, Cyprus Pitris, C. and E-ISBN: 978-1-4244-5379-5; Print ISBN: 978-1- 4244-5379-5; INSPEC Accession Number: 11102584.

[2] Jul 10, 2014 - Measuring Calorie and Nutrition from Food Image by Parisa Pouladzadeh,Shervin Shirmohammadi And Rana Almaghrabi and ISSN: 00189456; INSPEC Accession Number: 14432032.

[3] FOODS: A Food-Oriented Ontology-Driven Systemby Snae, C. Dept. of Comput. Sci. & Inf. Technol., Naresuan Univ., Phitsanulok Bruckner, M. and E-ISBN: 978-1-4244-1490-1; Print ISBN: 978-1-4244- 1489-5; INSPEC Accession Number: 10287294.

[4] "I had to lose weight for anorexia treatment", by Awful Spirale to lose, maintain weight, by Elizabeth Sommerfeld.

[5] Becerra-Fernandez, I., Gonzalez, A., & Sabherwal, R. (2004). Knowledge management: Challenges, solutions and technologies. New Jersey: Pearson Education Inc.