Artificial Intelligence Dietitian Using Android

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ABSTRACT

This work proposes an intelligent agent, called the personal dietitian agent, based on the user's characteristics and specification. The agent can create a meal plan according to a person's lifestyle and particular health needs. The experts recommend eating a wide variety of foods, including vegetables, whole grains, fruits, non-fat or low-fat dairy products, beans, lean meats, poultry, and fish. However, each person has a unique dietary pattern and have different health issues so a dietitian creates a meal plan depending on each case. The online artificial dietitian is an application with artificial intelligence about human diets. It acts as a diet consultant similar to a real dietitian. This system acts in a similar way as that of a dietitian. A person in order to know its diet plan needs to give some information to the dietitian such as its body type, weight, height and its working hour details. The system asks all this data from the user and processes it to provide the diet plan to the user. Thus the user does not need to visit any dietitian which also saves time and the user can get the required diet plan in just a click.

Keywords: Android Dietitian, Artificial Intelligence Diet.

I. INTRODUCTION

Smart phones and the Internet have revolutionized the communication and with it the lifestyle of people. An increasing number of smart phones and Personal Digital Assistants (PDA) allow people to access the Internet where ever they are and whenever they want. By using internet they can obtain on one hand information on almost everything they wish to. Therefore just by using smart phones user can get diet assistance anytime at free of cost. Artificial dietitian is an application with artificial intelligence about human diets. It acts as a diet consultant similar to a real dietian . This system acts in a similar way as that of a dietitian .A Person in order to know his/her diet plans needs to give some information to the dietitian   such as its body type, weight, height, and working hour details.

Similar way this system also provides the diet plan according to the information entered by the user. The System asks all his data from the user and processes it to provide the diet plan to the user. Thus the user does not need to visit any dietitian which also saves time and the user can get the required diet plan in just a click.

The project also has a login page where in the user is required to register his/her account then they can use the app. This project requires Internet access and thus there is a disadvantage of server failure.

The system give more accurate results as it accepts the data entered by the user and process it depending on some metrices already known to the application on the basis of which a diet plan is generated and ask her the user if the user accepts the diet plan. If not accepted the system may also give an alternatve diet plan.

II. METHODS AND MATERIAL

1. Literature Survey

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 arrives 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 then 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

III. RESULTS AND DISCUSSION
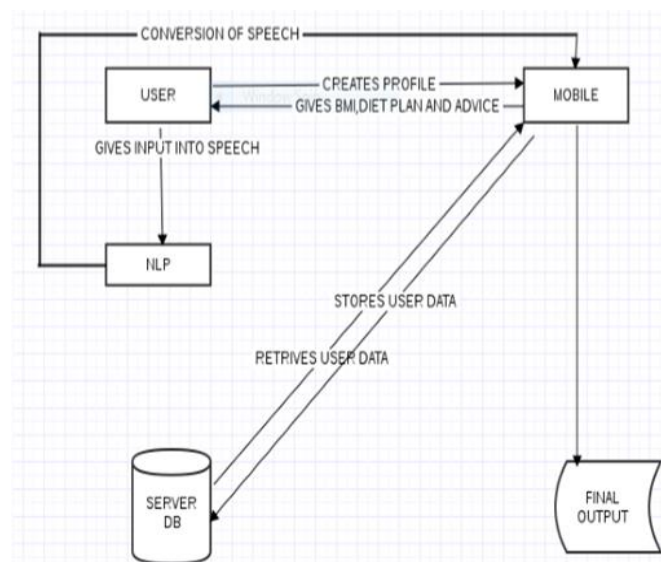
PROPOSED SYSTEM ARCHITECTURE

The proposed system is fully computerized, which removes all the drawbacks of existing system. In this proposed system of android 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 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 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:

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

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

1) Individual user profile
- Every user registered in AID will have an individual profile that will contain his entire information
- A user will have rights to add , update as well as remove information
- The profile will contain personal information, diet habits, interests, hobbies, etc

2) Diet based search
- How many dietitians are available in the area can be easily know
- As the need of user can be directly known to deietitian
- The web portal access can also be provided to dietitians for referral of user data directly

3) 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

IV.CONCLUSION

Our approach for implementing this project is we have implemented the artificial intelligent dietitian using android. Our system comprises of main components such as of a user login, dietitian login and an admin login. The software system allows the user to create their profiles and upload all their details including their BMI onto the system. The admin can check each user details and can remove faulty accounts. The system also consists of a dietitian login where various dietitian visiting the application can access the data.

V. FUTURE SCOPE

The project is easily extensible and can be improved by further incremental releases Of the same. We plan to focus on improving the overall performance of the system. Also, interaction between guider and dietitian through video calling and secure prescription will be focused upon. Some more ways to achieve dietitian will be focused.

VI.REFERENCES

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