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An Android Application for Healthy Diet for Self Care

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Abstract: Many people do not pay attention to food because of their fast lifestyle and lack of time. To live a healthy lifestyle, consistently choose healthy food, fit more exercise and physical activity into your daily routine is necessary. You also need to avoid unhealthy habits. Non-communicable diseases (NCDs) are the diseases that are not caused by bacteria or infection through touching, but they caused by the result of lifestyle and bad eating habits. A lack of knowledge in nutrition information leads to unhealthy diet. Healthy food is important for the system inside the body. For healthy lifestyle, healthy food and self care both of them is important. "Healthy Diet for Self Care" has purpose is to help users have better eating habits and healthier lifestyle. This application provides functions for users to keep their personal health and daily food records. The development of this application hopes to help people in order to manage their total diet plan. A dietitian is guideline for healthier lifestyle. In this application users will directly get connected to the dietitian. From this way "Healthy Diet for Self Care" tries to reduce non-communicable diseases (NCD) diseases.

Keywords: Android Application, Dietitian, Healthy Diet, Self Care.

I. INTRODUCTION

Recently, there are many people who ignore health concerns especially in their eating habits. This has made the number of diseases found in society, especially non-communicable diseases such as diabetes, hyper tension rapidly increases every year. The patients having these diseases could be reduced by paying more attention to the food that they eat and nutrition that they receive [1]. Good nutrition is important part of healthy lifestyle. Technology devices such as smart phones and tablets have an impact on everyday live. Growth of mobile phones many people tend to use smart phones instead of personal computer [2]. Android is most popular operating system in the world so researches use this opportunity to make use of all of this information by creating an application.

It is easy to development and deployment on to a mobile phone is the main reason of choosing Android to deploy the application [3]. Therefore, Healthy Diet for Self Care is developed to support users, patients with NCDs diseases. User can check their body measurement by having weight and height. System calculates Body mass Index (BMI). Dietitian provide diet plan to user. User directly connected with dietitian by using this application. The ease of development and deployment on to a mobile phone is the main reason of choosing Android to deploy the application.

II. ADVANTEGES

- A. Easy to use.
- B. Guides us how to maintain the diet.
- C. Notification system.

III. RELATED WORK

Natnicha Suthumchai, "An Android Application for Self-Care with Healthy Food" [1]. The number of sicknesses found in the public eye, particularly non transmittable illnesses (NCDs) for example, diabetes, hypertension increment consistently. The quantity of patients having these maladies could be diminished by giving careful consideration to the nourishment that they eat and sustenance that they get. In like manner, the specialists might want to propose Food For Care, an Android application for self-mind with sound sustenance. The principle intention is to enable clients to have better dietary patterns and a more beneficial way of life. It gives capacities to clients to keep their every day individual wellbeing and sustenance records of nourishment admission. The clients can see an examination of nourishment and calories every day application can give a review on sustenance calories and nourishment so they can eat admirably. At last, the improvement of this application wants to enable Thai individuals so as to deal with their

aggregate nourishment and calories taken for a more advantageous way of life and will specifically diminish the quantity of individuals who are getting ailments caused from a confusion of sustenance and nourishment.

Ajit Shikalgar [2], "Fitness and Health Application" has been generally utilized as a perfect colleague for wellbeing and wellness.

In this paper, Ajit Shikalgar proposed a versatile application for wellness checking can help clients to wind up more mindful of their wellbeing.

This application intends to track client's exercises and screen and break down client's wellbeing condition. It likewise gives a few directions and recommendations to the client for keeping up and enhancing his or her wellbeing.

In addition, it gives an appraisal of the hazard that the client may have lack or any turmoil about wellbeing. Information are gathered from client eat less passage, work out, water admission and eating routine database.

Based on any insufficiency or confusion Ajit Shikalgar give eat less tablets to client for enhancing wellbeing and additionally Ajit Shikalgar will give some reference sites to take in more about wellness wellbeing and recommend expert telephone number or authority site for exceptional prompt

Health Wise – "An Android Application for Personal Health and Nutrition Management"[3], the quantities of cell phone clients are expanding at a tremendous rate. As Android wound up mainstream, there is a radical move in the cell phone showcase.

Then again, clients have turned out to be more wellbeing cognizant and dieticians or nourishment specialists are picking up unmistakable quality.

The individuals think about their family's wellbeing. So to unite every one of these ways into one, it appeared that if a client can get data about a nourishment item that the client runs over in a market, a recommendation that can settle on choice whether to purchase the item and utilize it or not.

This should be possible utilizing a cell phone bolstered with Android. This paper portrays the procedure and consequence of such an application "Health Wise"

.Negin Hamzeheinejad "Portable Food Consumption Monitoring Application"[4], Obesity is turning into a genuine medical problem because of the developing number of corpulent individuals in numerous nations.

Food, a portable application to enable people to oversee day by day calorie utilization is displayed and methods for advancing the day by day calorie required is accomplished by offering data of every nourishment and proposals on sustenance and physical exercises that can be done to adjust the measure of calorie admission.

The application is created in light of the Rational Unified Process Model (RUP) framework improvement philosophy which contains four phases including commencement, elaboration, development and change.

Negin Hamzeheinejad displays the plan, usage and assessment of Food for Android cell phones and exhibits its plausibility in observing day by day calorie consumption.

The application breaks down stressing on its availability and acknowledgment test. The outcomes demonstrate that members are happy with the highlights gave by the application. They concurred that the application encourages them to screen their nourishment admissions and subsequently to get in shape.

Siva Naga Suresh Purama "Nutri Demand: Nutritional Requirements Database for Indian Population"[5], this is primarily a result of the nourishment and way of life changes occurring over the ages. Absence of wellbeing cognizance and mindfulness about the healthful prerequisites, absence of legitimate wholesome exhortation/consultancy irritates the issues advance more.

The urban culture and occupied timetables make individuals to give minimum consideration towards sustenance and wellbeing.

All the while, the advancements in PC and correspondence advances are exceedingly great and came to nearly everybody around the world. Thinking about this, the present database Nutria Demand is wanted to computerize the individual dietary prerequisites from the databases progressively.

The supplement prerequisites will be individualized via mechanization which incorporates the information like person's body weight, tallness, BMI, and so on and the finished result will be "Easy to use healthful necessity information recovery framework.

IV. PROBLEM DEFINITION

Our system provides a software application which enables the user to easily and efficiently get healthy diet plan from dietitian.

V. ARCTITECTURE

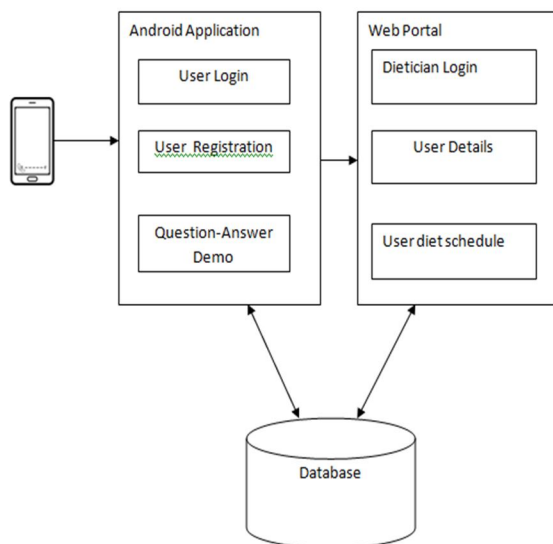


Fig. 1: Architecture Diagram

In this architecture diagram, by using android mobile user register by filling personal information like name, mobile number, age, height, weight. Then user login this application. User fills their personal food intake. All the user information store in SQLite database. Dietitian login from their web portal site. Dietitian analyses user’s data, then creates proper diet plan according to specific user. User get diet plan and it will follow. In the diet plan if user has any query then it will directly ask to dietitian by using feedback box.

VI. EXISTING SYSTEM



In existing system application created with the main purpose which helps users managed their calories consumed per day [1]. The application will also calculate the BMI of the user based on the weight and height entered by the user. Some application expects to make far reaching familiarity with NCDs and decrease dangers of undesirable eating routine towards lessening of NCDs [6]. Particular sustenance databases can be connected to the web arrangement offer local formulas and nourishment things with various cultures.

VII. MODULES AND THEIR FUNCTIONALITIES

A. System Design

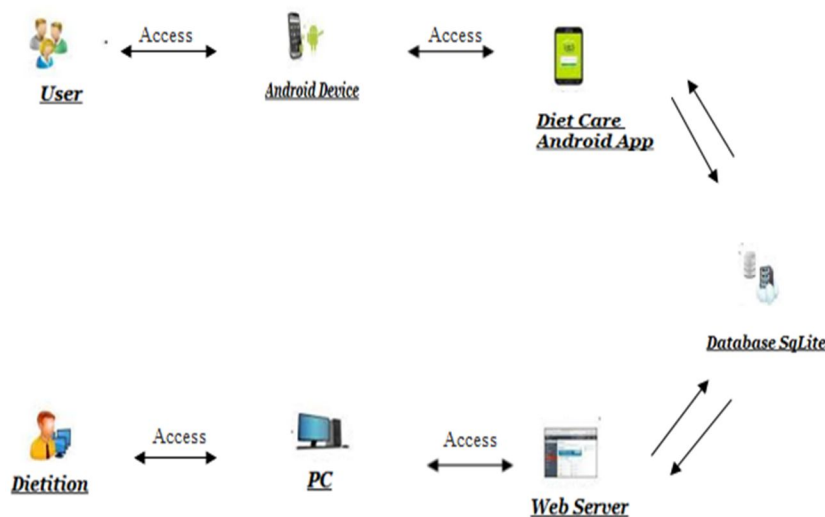


Fig. 2: System Design

As Shown in Fig. 2, the Healthy Diet for Self Care has two main actors, first one are the user who use the application by connecting the Android device with internet connection and dietitian who can use pc or laptop to maintain database.

The Healthy Diet for Self Care Application requires the user to register as member by giving their personal information and login to use the application. User can also fills the answer of questions.

The application has main components as mention below:

- 1) *Registration*: User will register to the application by providing Information like name, email id, age, height, weight, mobile no etc. They can also set a password for logging into his profile.
- 2) *Login*: User will login to his account by entering his username and password. Then user can see question demo and fill it
- 3) *Database*: All personal information of user and his daily food record store in this component. The measurement of body from weight and height BMI is calculated
- 4) *Dietitian*: This component sees user personal information and food intake. Then dietitian analysis this information and give appropriate diet plans to the user.
- 5) *Notification*: This component remainder for user to note the time of food intake.

VIII. GOALD & OBJECTIVES

The main purpose is to help users manages their healthy diet according to their daily diet plan.

To change the habits of people towards buying and consuming unhealthy food.

IX. PROPOSED SYSTEM

A. User Interface

In our system there are two interfaces dietitian and user. User interacts by using android mobile and dietitian connects by using laptop or computer. Firstly, in Fig. 3. Registration pages the user register for the application by filling his name, mobile number, height, weight. In Fig. 4. Login page user login to this application by using email id and password. In User fills their daily record of food intake. It contain general question like breakfast, dinner, lunch food detail.



Fig3.Registration

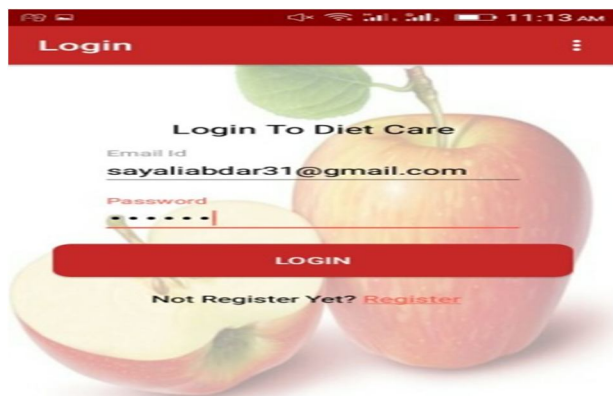
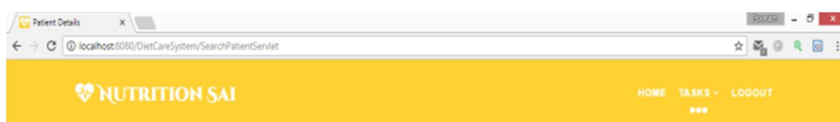


Fig.4. Login

B. Dietitian Interface

In Fig. 5, Dietitian analysis user information. In Fig. 6 Dietitian create diet plan for user. In Fig. 7 user get diet plan, if user has some query related to diet then it will send feedback to the dietitian by using android application.



Patient Details

Patient Id	3
Name	Sayali Adhikrao Abdar
Email	sayaliabdar31@gmail.com
Mobile	8308380911
City	A/p- Sonsal, Tal- Kadegaon, Dist- Sangli
BMI	35.0
Diet Duration(In Weeks)	4

[View Answers](#)

Activate Windows
Go to PC settings to activate Windows.

Fig.5. Dietitian Search Patient

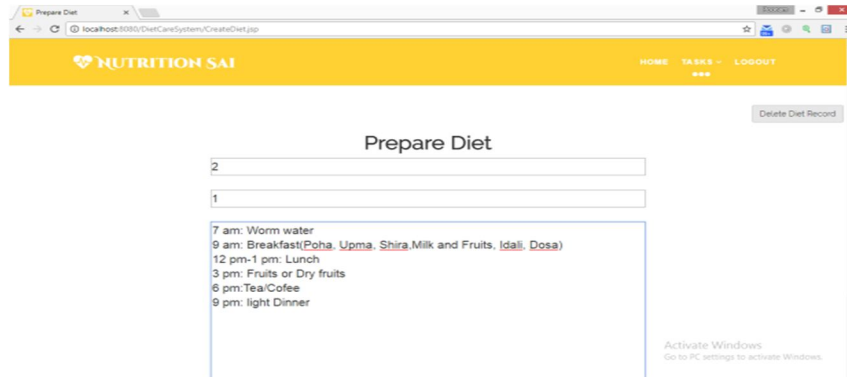


Fig.6.Dietitian Create Diet

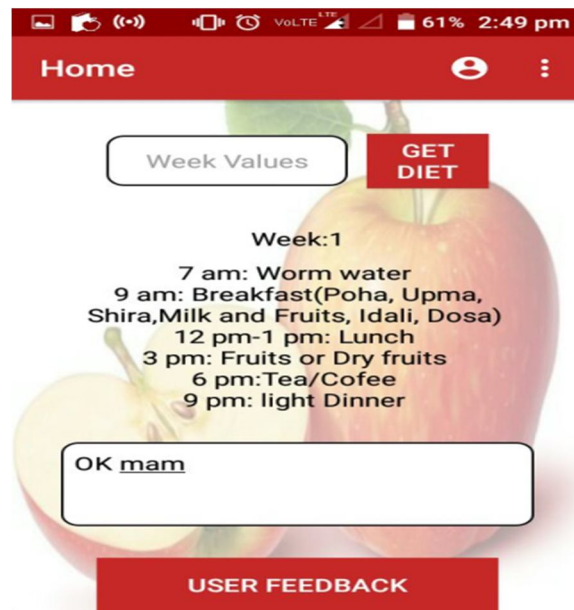


Fig.7.User Receive Diet & Reply Dietitian

X. IMPLEMENTATION

- A. Android Studio 2.3.3: for implementing the main system with JAVA and XML language.
- B. JDK 1.8.0_25: for developing database and server using JAVA, SQL language and stored in web hosting.
- C. Apache Tomcat 8.0.47: for developing real time chat application in android application.
- D. Eclipse: for developing rich client application.

XI. CONCLUSION

Project aims to introduce the idea of self care with healthy food by having an android application that helps improved eating habits of people to do better. “Healthy Diet for Self Care” plays a role as an application that provides user with features such as record of food diet, weekly diet plan, notification. Encouraging human behavioral change towards healthy diets is the huge challenge against modern world. None of the existing theories or models was capable of an influential behavioral change.

XII. ACKNOWLEDGEMENT

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