

Gym and Diet Monitoring System

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Abstract: In traditional Gym app it does not people only stores data in a page or in a rough database where our app focuses on user need how user can stay healthy by using our app and not miss their fitness regime The proposed app focuses on food tracking and food monitoring that makes our app different from others our app focuses on user daily activities which traditional gym app does not provide such app with as much numbers of functionalities . and many more our gym management app also gets the data of attendance of the user who enters the gym or he can use it while he is giving or teaching any live classes to any other member that make this app user friendly cost friendly and much more easier to use.

Keywords: User Identification, Attendance tracking, Free of cost, User Friendly

I. INTRODUCTION

“Gym and Diet Monitoring System” our project focuses on the basic and the advanced requirement of all gym apps which are already made but those apps are not convenient to do all the task in only one app so we try to make an app or a system which do the same, i.e make sure all the user and the gym clients and gym trainer will be helpful of, The problem we faces that all the latest app does not provide basic functions such as stopwatch and timer and BMI calculator and etc so with the help of this app we encountered this problem and people should get to know that this can be done using a app such as Food counter or Food recognizer which can be done through our app and by latest technologies. Our topic is important because no one has yet covered the more technical innovations for fitness all of these is happening to manually, So our blueprint is to make an app which is yet innovative and user friendly and escapes all the manual things for gym members Our gym app focuses on many user requirements is according to user need we provide them yoga or workout plan which they feel comfortable with and then user can plan which path they have to work such as if they wish they can control their fitness with their diet then we are providing them with BMI calculator with the help of that result they can aquire their diet plan and then they can set time for workout and then also set reminders and attendance for their workout plan.

II. AIM AND OBJECTIVES

The technique used in our app “Gym and diet monitoring” are as follows:

The aim of our project is to build a app which is useful for the users and eliminates all the paper work which is done manually and all in one fitness app in the pocket of our users which comprises all the functionality which different apps offers and those app are yet charging for the functionality they are providing so our app is yet simple but more technically strong which comprises of food recognizer and calories counter And the main objective of the project is to make an app which can solve the problem of today’s day and age where people are not concerned about their fitness so this app is a no excuse for all of the people which they can carry and still be fit for lifetime. And gain all the technical experience with the help of our app.

We will collect and study the successfully gym management strategies, location and their nearby places. And in this we will do online works only not a manual work.

Many work is associated with the app gives user a user friendly experience and also user can use the functionality of our application free of cost. Where other apps in cost more than many other schemes Here we use android studio to create our application and Post it in Google play for further to market our application

III. USER AUTHENTICATION USING FIREBASE

Firestore authentication is used to authenticate the users of applications in a very easy manner. Not only for the users but for the developers also, it provides a very easy flow for the authentication and login process that is present in almost every application.

To authenticate your users, all you need to do is get the authentication credentials from the user and then pass this credential to the Firebase Authentication SDK. These credentials can be email-password or mobile number or any token from identity providers like facebook, google, twitter, github, etc. After passing the credentials, Firebase will verify the credentials and in return, you will get a response that tells you if the authentication is successful or not.

IV. FUNCTIONS CREATED IN OUR APP

BMI calculator

Body Mass Index is a simple calculation using a person's height and weight. The formula is $BMI = \frac{kg}{m^2}$ where kg is a person's weight in kilograms and m² is their height in metres squared. A BMI of 25.0 or more is overweight, while the healthy range is 18.5 to 24.9. BMI applies to most adults 18-65 years. Here our App focus on this point where user can enter his or her details and get the desired Body fat % where he can then track his or her % of Body fat and then they can plan according to there need of diet this model is implemented in our app which most of the other apps lack of

A. The Concept of BMI Calculator

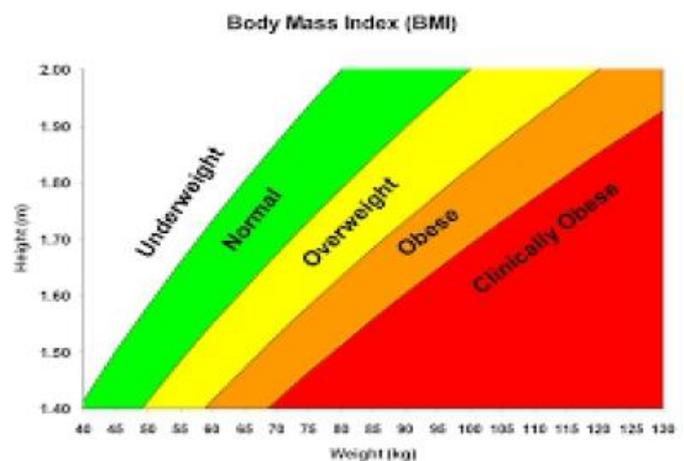


Fig.1 BMI Calculator

B. Yoga App

Yoga's incorporation of meditation and breathing can help improve a person's mental well-being. "Regular yoga practice creates mental clarity and calmness; increases body awareness; relieves chronic stress patterns; relaxes the mind; centers attention; and sharpens concentration," says .

C. Pedometer

The pedometer application tracks steps taken, time elapsed and distance traveled. Some pedometers use an accelerometer to more accurately measure the number of steps taken and distance traveled than a mechanical sensor can provide.

D. Stopwatch

A stopwatch is a hand-held timepiece designed to measure the amount of time that elapses between its activation and deactivation. A large digital version of a stopwatch designed for viewing at a distance, as in a sports stadium, is called a stop clock.

E. Gym App

Fitness apps are applications designed by companies to keep you fit and healthy. The aim of these apps is to make your lifestyle healthier by tracking your workout pattern.

F. Reminder

Reminder software is a type of time management computer software that is designed to alert the user of important events that they have input to the program. Most programs provide a calendar or list view of events, as well as a reminding technique.

V. PROPOSED SYSTEM

In this gym and diet monitoring system total computerization of the activities of the gym to Maintaining records of everything in the automated system. There will be inbuilt software which can detect mistakes immediately. This is fully developed system which will be the supporting for the management of the gym so neglect error is not an option because after it makes itself big form of that. It also needs that type of software which will store information about student, employees, products etc. And all agreement/deal that occur in gym. This is very useful system as it records and maintains all the information related to the people in the gym. The paper work is reduced due to this system and as well as human resource as well. In this system we have computerized all the records and this project is very important and beneficial one. This system also performs many functions for all the user which would be helpful for everyone to carry in one app in our pocket which has all the desired functions which are taken from different apps.

VII. EXPERIMENTAL PROCEDURE

After Signing in the user can have many options through interface where users can track about there fitness there will be two types of users who can operate our app one who is learning about fitness and the one who knows about fitness but those users can also use this app for attendance tracking and for food counting and recognition user can sign in through email ID and Password and after that the user is able to allow to use all the functions which are provided by us. Every work/task/records in the existing system is done on the paper manually which takes much more time. Updating the data and much more records (which is not automated) is very time consuming process . When everything is done manually there are always chances of

human errors and the detection of the process is long process. Present system is not online, so there are many drawbacks for the administration and members.

VIII. PROBLEM STATEMENT

Problem Definition:

The problem in existing gym system is that people are still using it but do not get the desired result and functions they want in their gym app such as food recognition and calories counter And more manually things are getting done in today's gym system so to avoid that our purposed system solves their issue.

Problem Solution:

Gym and diet system is a android project which is used by gym manager and customers. They use this software to save records of customers like related to their fitness, starting period, diet, fees, their personal details because of this work of gym manager get easy and time saving. It can also perform different task such as calories counting and food measuring and food tracking with that it can help us achieve great fit body which lots of existing apps wouldn't offer.

IX. RESULTS

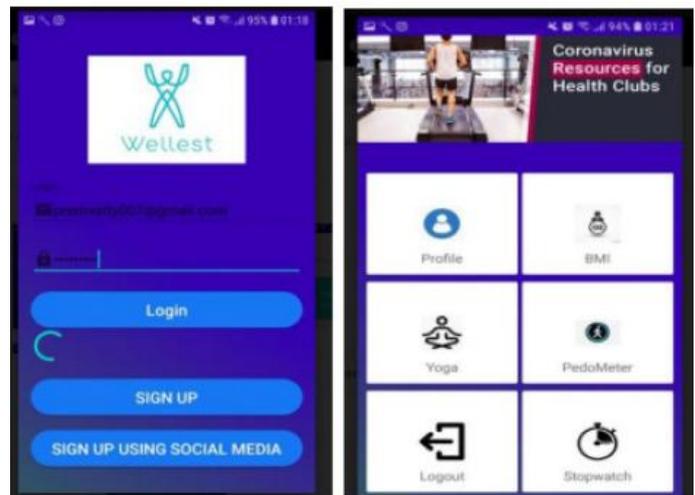


Fig.2 Email Authentication

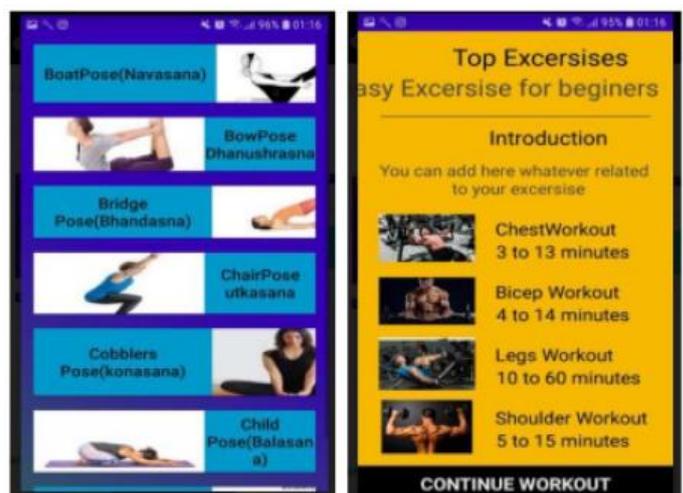


Fig.3 Yoga and Gym interface

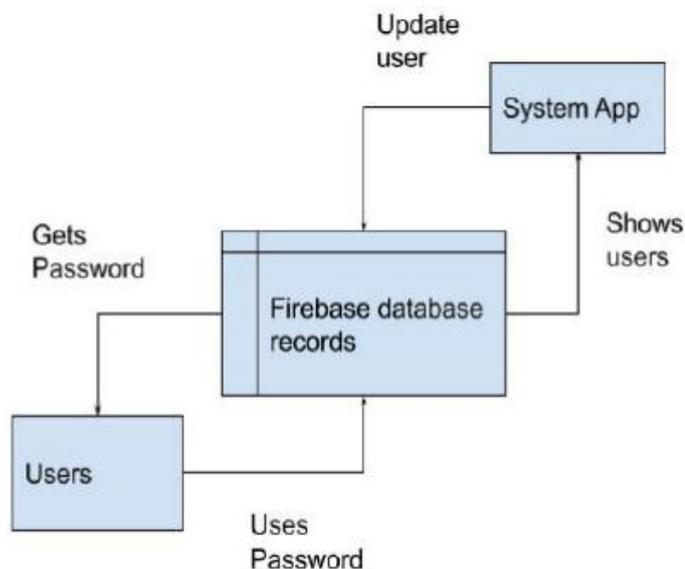


Fig.4 User Database

X. IMPACT ON USERS

Our app provides modern functionalities with user ease and also gym manager needs this app can create a impact on latest user which are really dedicated about their workout and one who is new at this field and also the gym managers or staff can use this app with ease We will collect and study the successfully gym management strategies, location and their nearby places. And in this we will do online works only not a manual work.

XI. CONCLUSION

This Gym Management System is to provide a system which handles the information of the people coming into the gym and maintaining their health care. It even maintains the data of what and all medicines used by the people who join the gym. Gym and diet system is a android project which is used by gym manager and customers. They use this software to save records of customers like related to their fitness, starting period, diet, fees, their personal details because of this work of gym manager get easy and time saving. It can also perform different task such as calories counting and food measuring and food tracking with that it can help us achieve great fit body which lots of existing apps wouldn't offer

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