

A Review on Android Based Fitness Buff Application

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Abstract— The application is aimed at developing a personalized workout device for people who needed to perform exercises in a conformable procedure. Fitness Buff is a mobile application designed with Android technology. Regular exercise has health and physical benefits which are hard to ignore. Diet, Health, physical fitness are the fundamental targets of this Application. The application would be a great relief to people who do not have time to visit fitness centers. Also it will provide cost free exercise guidelines and diet packages. Fitness Buff is a mobile application on android that will enable users to use and view services of different categories, such as take the services. To serve the diverse needs of users, these application offer personalization and also off maintenance of diet and nutrition and control proper mental health besides exercise and workouts. People are always seeking to have a healthy body fitness and they are need to motivate them to it. So we believe that our application to solve this problem in android device users, through help users to manage the health life system in health fitness and nutrition.

Keywords: Fitness, BMI, Diet, Personalization, Application, Exercise, Time, Accessibility

I. INTRODUCTION

Nowadays, mobile is becoming an important tool, it is no longer limited as a communication service only, but exceeds its position to provide modern techniques and many services. Mobile technologies are increasingly growing among years; there have been several new researches and developments in this space. It has been reported by statista.com that more than 46 million people in the world use health and fitness applications in 2014. As a modern health and fitness approach, health and fitness contributes many benefits. The mobile applications allows users to use and view for different health and fitness services from around the world. The mobile applications users can use and view services of different categories, such as view pictures and diet packages and take a services. Using mobile technologies we hope to make the operation of information share more efficient by saving time and communicate faster. The health and fitness market needs as a problem and spread usability of smart phones to facilitate people's needs as opportunity encourage us to make a solution mobile application.

During this hard time of pandemic we all are facing stress and difficulties. And thus, Gyms and fitness studios were forced to close. Development of Fitness application is mainly required by People to make sure that their health is going well and their mental health as well. The main aim of this project will be to facilitate people in Fitness, Exercising, scheduling, set goals, share and improving their knowledge regarding personal fitness/health.

At the meantime, this app will provide them Diet plans, selfcare, tracking their own health through monthly statistics, as well as also help to balance their mental health. The main objective of this project is to achieve physical fitness and improve the level of health of the users by helping and motivate them to doing sports exercise and eating healthy food.

People need to get involved in one activity or another to ward off diseases, improve quality of life, control body weight and keep fit at all times. It has been proven that eating a balanced diet alone is not enough for body fitness. Performing a regular exercise for different parts of the body would keep the muscles of the body in healthy condition and good shape.

II. LITERATURE REVIEW

This introduces and summarizes the related works and similar systems to the project by describing and explaining the problems of these systems.

A. Lifesum :

Lifesum helps user make better food choices, improve your exercise, and reach user health goals. Build healthy habits in small, sustainable steps and make health a part of user lifestyle, not another thing on your to-do list. Lifesum helps you keep track of user food and activity so that you can live healthier and happier.

Advantages

- Reminders to help you drink enough water.
- Feedback to improve the quality of what you eat.
- Advice for the days you might struggle.
- A selection of diets to help you embrace healthy living.
- Overview of your nutrition and exercise habits so you can improve them.
- Body summary to show you how you are progressing (including weight and measurements).

Disadvantage

- It doesn't focus on daily exercise.
- Most of the data is inserted manually.
- Many people don't know how to use.

B. Google Fit:

Google Fit is a health tracking platform developed by Google for the Android operating system. It is a single set of APIs that blends data from multiple apps and devices. Google Fit uses sensors in a user's activity tracker or mobile device to record physical fitness activities (such as walking or cycling), which are measured against the user's fitness goals to provide a comprehensive view of their fitness. Users can choose who their fitness data is shared with as well as delete this information at any time.

Advantages

- A number of apps are integrated with Google Fit. Some examples are Aqualert, Nike, Polar Beat, Running, and Strava.
- Google Fit uses sensors in a user's activity tracker or mobile device to record physical fitness activities (such as walking or cycling)
- Users can choose who their fitness data is shared with as well as delete this information at any time.

Disadvantages

- Google Fit is available to all android users running 4.0 or above.
- Does not support all platform work on android.

C. Myfitnesspal:

MyFitnessPal is a free smartphone app and website that tracks diet and exercise to determine optimal caloric intake and nutrients for the users' goals. In a Consumer Reports diet rating, MyFitnessPal was rated the best free program (with 83 points) in overall satisfaction, "maintenance, calorie awareness, and food variety.

Advantages

- MyFitnessPal had 80 million users at the time.
- The user may enter the name of the food or scan the barcode to find the item in a large database of over 5 million foods.

Disadvantages

- Name of the food or scan the barcode not exist for all country.
- The same food item may contain several variation of the caloric count possibly depending on which country the food item was purchased.

D. S Health:

S Health helps you stay fit by acting as a personal coach, trains and assists in achieving user daily goals. The various training programs helps in improving user overall fitness, health and lifestyle. Whether user walk or run, hike or bike, play indoor or outdoor sports, user can track the various physical exercises and activities in a single step using the various built-in trackers. User can also record the step count activity using Pedometer. S Health helps to create a balanced lifestyle pattern by recording a variety of information like user food, caffeine and water intake details. Provide user daily snacks, food, water and caffeine intake and track your diet and weight on the go while stay comfortable using the sleep & stress tracker.

Advantages

- Manage health and environmental records such as heart rate, blood pressure, blood glucose levels, stress, weight & SpO₂ using built-in sensors and third party devices.
- Trackers enable user to easily and quickly check meaningful data based on user preferences. The intuitive charts, helpful tips and physical exercise programs guide user 10 to achieve your fitness and diet goals.
- Manage your fitness activities, track user weight and monitor your diet using Samsung Galaxy and Gear devices.

Disadvantages

- Inaccurately measured the heart rate.
- Calculation number of steps is not accurate, any vibration of the mobile calculated as a step.
- Most of the data is inserted manually, and the user feels the burden of use the application.
- Determine the number of hours of sleep with a time limit, and is this time gives the user the result of hours of sleep that bad, even though the sleeping hours are sufficient and appropriate.

III. CONCLUSION AND FUTURE SCOPE

The FITNESS BUFF project is developed for people who want to take full control of their body either through their workout instructors or through personal training plans. The project was successfully developed with categories of workouts and their respective descriptions. The users can perform routines contained in the Fitness Buff application. The new application has been developed with so much care and at the same time efficient and less time consuming. System is robust.

Working hard to incorporate more components to the project and try to see other features needed by the application users.

However, one component is the one where the app user would have the opportunity of sharing workout pictures back and forth with their friends and family in a feed post format. Later, the application will include a component that allows a user to contact /consult a Therapist on the application for those that need guidance on the mental health fitness.

The system is designed like it was decided in the design phase. The project gives a good idea on developing a user-friendly application satisfying the user. The system is very flexible and versatile. This application has a user-friendly screen that enables the user to use it without any inconvenience.

Providing a social network for users to be able to communicate with each other. The system developed is able to meet all the basic requirements.

There is always a room for improvement in any software, however efficient the system may be. The important thing is that the system should be flexible enough for future modifications. The system has been factored into different modules to make system adapt to the further changes. Every effort has been made to cover all user requirements and make it user friendly.

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