My Fitness App

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Abstract- Creativity meaning become in the use of optimal technology as solution of human life problems, and in recent year's technology is available and developed to facilitate human beings needs; that not stopped. 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. The project displays videos for exercise, and the preparation of healthy eating. 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. This project is developed using two methodologies they are Prototyping model and Spiral. Project used Android system to spread it dramatically in the world thus access to a large number of people. Through the provision of a hundred people of questionnaire application met the acceptance of the majority.

Indexed Terms- My fitness app, mobile application development, model.

I. INTRODUCTION

Life is full of science and knowledge produced by the minds of men, The God-given all these minds of inspirations, sciences and the rule, where the science is the light of life, and you know the rights of the creator, and how to communicate with users of the community in the field of engineering, medicine, modern technology and etc. 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 contribute many benefits. The mobile applications allow users to use and view for different health and fitness services from around the world. Using mobile technologies, we hope to make the operation of information share more efficient by saving time and communicate faster, this application will help many people to answer their questions, development of knowledge, separate culture.

II. WORK ON LITERATURE SURVEY

This chapter introduces and summarizes the related works and similar systems to the project by describing and explaining the problems of these systems, also comparing between systems functionalities and its advantages and disadvantages and the choice of technology for the MY FITNESS.

- Life sum

Life sum 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.

- 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. Google Fit is a health-tracking platform developed by Google for the Android operating system, Wear OS and Apple

Inc.'s iOS. 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, cycling, etc.), which are measured against the user's fitness goals to provide a comprehensive view of their fitness.

- My fitness pals

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.

III. PROPOSED METHODOLOGY

This chapter describes the methodologies, which used in this project, we used two methodologies to implement MY FITNESS project, methodologies are Prototyping model and Spiral model clarifying its phases, advantages, and why we used these methodologies.

The project can be implemented by two methodologies; each methodology contains set of phases. The first methodology is prototype model includes requirements gathering phase, quick design phase, build prototype phase, user evaluation phase and prototype refinement phase. The second methodology is spiral model include iterative phases of design, implementation, testing and maintenance.

We use prototype model because the requirement of the project is not exhaustive and we need to suggestions and contribution into the project in detail to complete all possible functionality of MY FITNESS project. In addition, prototyping model should be used to desire system needs to have a lot of interaction with the end-users, suitable with Android applications, reduced risk of failure and better fit to customer requirements.

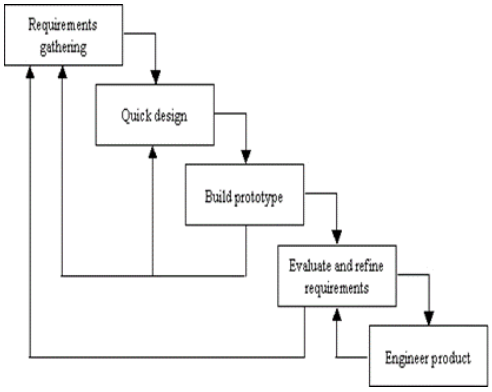
We use spiral model to complete the development phases on the system after reaching the final prototype in order to reach a high-quality product and serves the user's requirements.

- Prototype Model

"The Prototyping Model is a systems development method (SDM) in which a prototype (an early approximation of a final system or product) is built, tested, and then reworked as necessary until an acceptable prototype is finally achieved from which the complete system or product can now be developed. This model works best in scenarios where not all of the project requirements are known in detail ahead of time. An iterative, trial-and-error process takes place between the developers and the users."

The original purpose of a prototype is to allow users of the software to evaluate developers' proposals for the design of the eventual product by actually trying them out, rather than having to interpret and evaluate the design based on descriptions. Prototyping can also be used by end users to describe and prove requirements that developers have not considered, and that can be a key factor in the commercial relationship between developers and their clients. Interaction design in particular makes heavy use of prototyping with that goal.

Using the prototype, the client can get an actual feel of the system. Therefore, this case of model is beneficial in the case when requirements cannot be freeze initially. This prototype is developed based on the currently known requirements. Development of the prototype obviously undergoes design, coding, and testing, but each of these phases is not done very formally or thoroughly. By using this prototype, the client can get an actual feel of the system, because the interactions with the prototype can enable the client to better understand the requirements of the desired system.

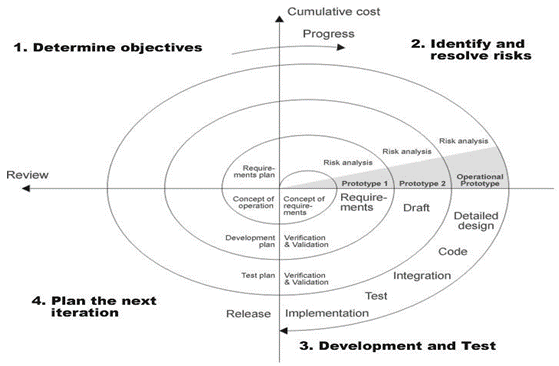


Prototype Model

- Spiral Model

"The spiral model is similar to the incremental model, with more emphasis placed on risk analysis.

The spiral model has four phases: Planning, Risk Analysis, Engineering and Evaluation. A software project repeatedly passes through these phases in iterations (called Spirals in this model). The baseline spiral, starting in the planning phase, requirements are gathered and risk is assessed. Each subsequent spirals builds on the baseline spiral. Requirements are gathered during the planning phase. In the risk analysis phase, a process is undertaken to identify risk and alternate solutions. A prototype is produced at the end of the risk analysis phase. "Software is produced in the engineering phase, along with testing at the end of the phase. The evaluation phase allows the customer to evaluate the output of the project to date before the project continues to the next spiral.



Spiral Model Phases

Prototype Model and Spiral Model Phases

1. Requirements Gathering phase

A prototyping model begins with requirements analysis and the requirements of the system are defined in detail. The user is interviewed in order to know the requirements of the system.

2. Quick Design phase

When requirements are known, a preliminary design or quick design for the system is created. It is not a detailed design and includes only the important aspects of the system, which gives an idea of the system to the user. A quick design helps in developing the prototype. Build prototype phase Information gathered from quick design is modified to form the first prototype, which represents the working model of the required system.

3. User evaluation phase

Next, the proposed system is presented to the user for thorough evaluation of the prototype to recognize its strengths and weaknesses such as what is to be added or removed. Comments and suggestions are collected from the users and provided to the developer.

4. Refining prototype phase

Once the user evaluates the prototype and if he is not satisfied, the current prototype is refined according to the requirements. That is, a new prototype is developed with the additional information provided by the user. The new prototype is evaluated just like the previous prototype. This process continues until all the requirements specified by the user are met.

5. Design

In the design phase the interface designer formally defines the application and rechecks to ensure all bases are covered, we consider all the parameters necessary for building a successful application including design concepts, functionality and timeline. We create static mock ups of most screens for the client before entering the application development phase

6. Implementation

Application development phase begins with designing the user Interface (UI) and then coding it in minimum time. The prototypes of the application are subject to client approval on a regular basis. Server component must be involved, in parallel engage resources to improve development efficiency.

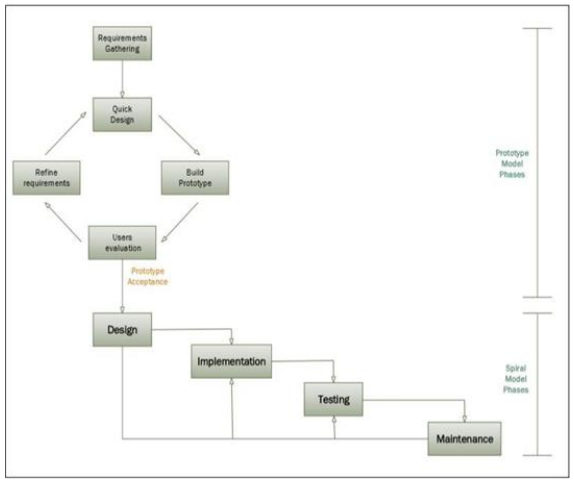
7. Testing

Throughout the whole development phase, the project team follows testing process to check AMAHF application's functionality. They keep in touch with the client during development phase to facilitate monitoring of the project. They have to healthy competition amongst the other terms which strives to achieve quality beyond client requirements.

8. Maintenance

After the clients and end users approve the final product, it is fully put into operation. The most important procedure by this phase is the maintenance process to ensure the software runs without errors. In

addition, we will consider having upgrades and additional feature onto software. If there are new challenges to be tackled by the software, it is advisable to incorporate them at the maintenance phase.



Prototype Model and Spiral Model Phase

IV. SYSTEM ENVIRONMENT

MODULES DESCRIPTION

Registration Management

The system allows user to sign and login to the system.

- The system must validate the user's input during sing up process, such as e-mail address and English characters.
- The system must validate the user's login, so the user can enter valid username and password to login to the system.
- The user can restore his username and password by entering his registered e-mail.

4.2 User Management

The system must be allowed users to management user profile and other things associated users.

1. Users profile

The users can be managed profile such as image profile, add information, mobile number, view profile and other details.

2. Users Achievements
3. Users History

4.3 Diet management

- The user clicks at food (Homemade) button, show interface has a breakfast, lunch and dinner, every meal contains the videos for the preparation of healthy eating at home, after you finish watching the video showing activity ask the user if eating this food or not, if taken show activity for the number of calories you gained from this meal.
- Through the interface Restaurant, is locate the nearest restaurants that offer healthy food for the address of the user using Google Map
- The user can request the appropriate health meal delivery service by using the application.

4.4 Meditation (Yoga)

- The system allows user select yoga status from the home page.
- The user clicks the yoga button, then interface contains several exercise shows, Watched, when finished watching it activity appear asking the user if they make yoga or not, If the user play exercises activity show the number of calories burned through this yoga.
- The user through the yoga interface makes yoga outside the home and at the same time be able to listen to music.

4.5 Weight Management

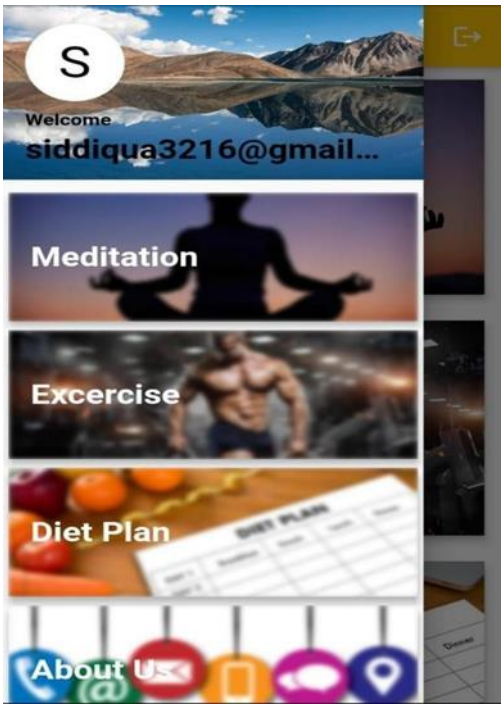
- Display appropriate weight gain or lose for the shape of each body.

4.6 Exercise Management

- Show the current user's body shape, and aims to reach him through the use of application and show also the user's body shape aims to reach it through the use of application.
- The user clicks the exercise button, then interface contains several exercise shows, Watched, when finished watching it activity appear asking the user if they make exercises or not, If the user play exercises activity show the number of calories burned through this exercise.
- The user through the Workout interface makes exercise outside the home and at the same time be able to listen to music.

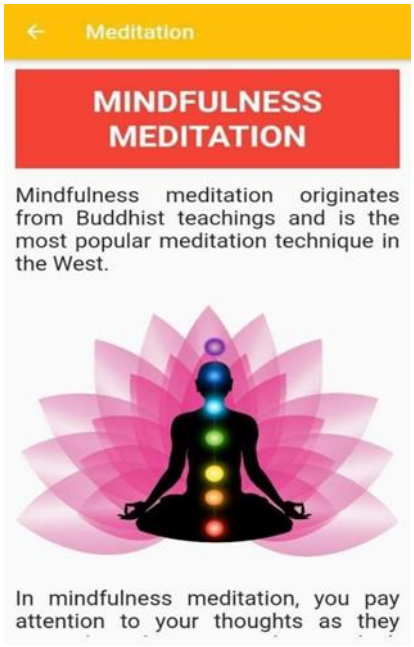
RESULT SCREENSHOT

HOME PAGE

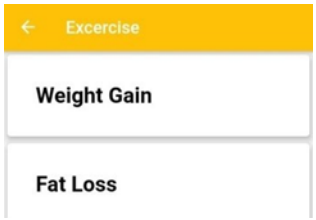


MENU

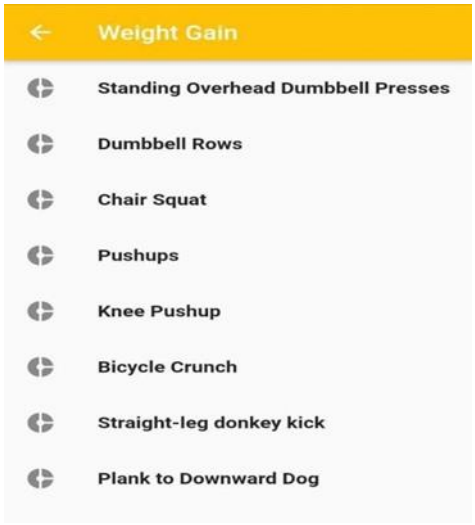
MEDITATION



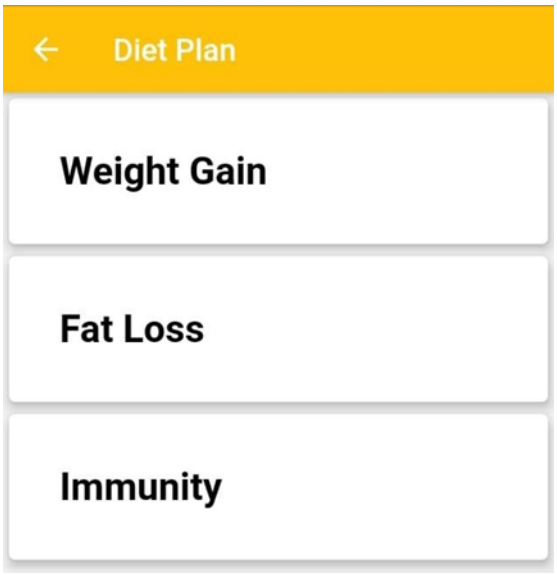
Mindfulness meditation



WEIGHT GAIN

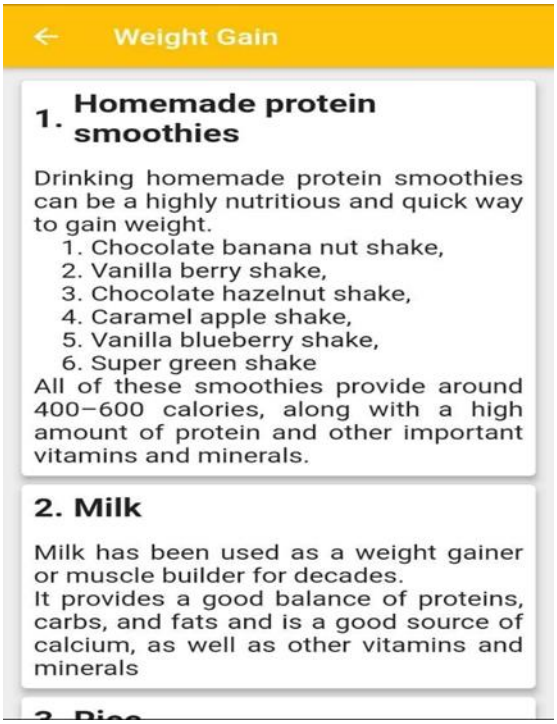


STANDING OVERHEAD DUMBBELL PRESSES



DIET PLAN

EXERCISE



WEIGHT GAIN

CONCLUSION

We have taken enough care to make our project user-friendly and Interactive. We hope that the system should be useful to all users. Looking back towards the experiences that we have achieved during such phase, makes us remember the curve that is seen through which we went during the development of our project.

Our application is meant to satisfy the needs of user's fitness criteria. Several user-friendly interfaces have also been adopted. This package shall prove to be a powerful in satisfying all the requirements of the users. In this application we have tried to add diet and exercise and weight related issues of users and overcome on it.

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