

**Android App: Fitness Workout and Exercise
Application Development for Fit hub Fitness Center**

**A Thesis
Presented to the Faculty of
Information and Communications Technology Program
STI College Las Piñas**

**In Partial Fulfilment
of the Requirements for the Degree
Bachelor of Science in Information Technology**

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TITLE OF RESEARCH: **ANDROID APP: FITNESS WORKOUT AND EXERCISE APPLICATION DEVELOPMENT FOR FIT HUB FITNESS CENTER**

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ABSTRACT

Title of research: **ANDROID APP: FITNESS WORKOUT AND EXERCISE APPLICATION DEVELOPMENT FOR FIT HUB FITNESS CENTER**

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Key words: **Fitness workout and exercise**

Fit Hub Fitness Center is a studio type gym located at Vatican Building, Unit 307, 17, Vatican Drive, BF Resort Village, Las Piñas City. Fit hub Fitness Center gave the opportunities to improve their workouts sessions especially on the ability of the client, coaches and customers to easily have their sessions using android application even if they're at home. This project entitled "Android App: Fitness Workout and Exercise Application Development for Fit Hub Fitness Center" is expected to maintain the services of Fit Hub center because of the Covid-19 crisis they're force to closed the gym by the implementation of the government. This proposed system is consisting of the information of the client, coaches and customers/users. Next, the video contents of workouts by the coaches and food recipes recommended from the coaches that are appropriate for the customer/s workout that they want to maintain.

The aim of the project is to give the client a solution for their customers to continue serve and perform their services through the help of the proposed system because of the pandemic we are facing right now. The problem statement relies on how the Android Application could give the client and users a reliable, applicable and convenient.

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INTRODUCTION

Physical fitness refers to the overall health and well-being of the athlete the need for exercising through athletics, jobs, and everyday activities. A healthy diet, daily exercise, and good rest are commonly used for conditioning the body.

An Android device is a piece of software that runs on a smartphone. It's a piece of software designed to run on an Android smartphone or emulator. Android-based apps developed exclusively for touch-screen smartphones and tablets. It focuses on an updated version of the Linux kernel as well as other open-source applications. Google Mobile Services (GMS), a suite of proprietary technologies developed by Google.

It is more important to be as active as possible throughout this COVID-19 pandemic to everyone of all ages & capabilities as many of us are limited to our activities. Even a brief break from sitting, such as 3-5 minutes of walking or yoga, can help to relieve muscle pressure, lower mental tension, and increase blood supply and muscle function. Daily physical exercise will also help you stay focused on your career and stay in contact with friends and family.

Fit Hub Fitness Center is a studio gym that specializes in personalized training and small group classes located on the Vatican Building, Unit 307, 17, Vatican Drive, BF Resort Village, Las Piñas City. Fit hub Fitness Center BFRV Las Piñas now has three coaches including the owner of the gym.

The proponents propose an Android application titled "Android App: Fitness Workout and Exercise Application Development for Fit Hub Fitness Center" that will help and instruct Fit Hub users to improve their physical fitness even though they do not visit the gym. It can encourage clients and others to learn proper exercise using recordings, images, and advice of professions or fitness center trainers and can even prescribe healthy foods for their training. They will be able to quickly access and manage their targets with the aid of this program, even though they are just at home.

Background of the problem

Even though these sudden changes impacted so many other people who regularly exercise their fitness workouts at gyms. The closure of the workout center changed their diet and limited fitness activities and to stay at home. Although the compulsion to staying at home for an extended amount of time presents a threat to fit hub center, the experience of hampered physical activities, limited social contact, confusion, and helplessness contributes to the rise of psychological and physical health problems.

The Fit Hub fitness center carries the brunt of a Covid-19 pandemic. Due to the government's implementation, they need to shut down their fitness center in order to avoid penalties and ensure the safety of their staff and customers. As a result, in a single virtual session, they use virtual workouts with coach of 3 or 4 customers and often have connection issues such that their customers did not follow the step they are doing. With the Covid-19 many of its customers stopped their subscription and we're currently dealing with less subscription.

This problem shows a lack of application software that helps the owner and coaches to lead customers through workouts and training. It seems like it's complicated to use virtual sessions because some customers are connected poorly at home and can miss what coaches instruct them. Technology is not only a matter of technology itself or even of further productivity and discovery of new systems and techniques. Each developer must make a wise choice for future technology in every component of the art.

Overview of the current state of the technology

Nowadays, the development of technology has had a significant impact on almost every area. Without technology, it is hard to imagine a future. Today, the use of mobile phones in our daily lives and events is undeniably unending, owing to the current enormous evolution of mobile phones, which are no longer the ordinary contact system they once were. A Social Media Platform is a web-based and mobile-based Internet Application that enables the creation, access, and exchange of user-generated content. YouTube is an example of a smartphone application; this is a video-sharing site, which allows users to view shared videos from other users and share their videos. The proposed "Android App: Fitness Workout and Exercise Application Development for Fitness Center" includes pictures, videos and descriptions of proper nutrition and achieving body goals. Also, with the support of this Mobile application users could still maintain a healthy lifestyle. This application will show you how to do the proper position of your exercises such as lunges, push-ups, squats, planks, and so on. As well as some advice for your fitness workouts from the gym's coaches and to display nutrition and diet food recipes that will help you easily follow what you're going to eat to maintain your body goals and lifestyle.

Objectives of the study

The general objectives of this research are to develop a mobile application for Physical Fitness that gives users the trust and inspiration to continue working out even while they are at home. Also, to encourage a newcomer to practice by subscribing.

We apply the Specific, Measurable, Achievable, Realistic and Timely (S.M.A.R.T.) to make an effective proposal.

The Specific Objective of the study are as follows:

1. To create a mobile application to help users maintain physical fitness and guide them through accessible video content and nutritional recipes, which can be used at all times, even at home, with mobile phones.
2. To design an application that motivates the user to continue workouts with the help of video materials, dietary recommendations and to monitor their progress in achieving their target.
3. To create a mobile application that will help the user achieve its goal by uploading new workout content and recommendations for dietary recipes in their designated training.
4. To develop an application for the user who wants to achieve their body goals. And by analyzing and ensuring the need they want to improve and setting the activity planner for the training workout and to know how long it will take.

Scope and limitations of the study

The researchers and developers created the project "Android App: Fitness Workout and Exercise Application Development for Fit Hub Fitness Center" to help address the main challenge of the fit hub's owner and coaches. An android app development that can help solve the Fit Hub's owner's and coaches' dilemma as a result of the pandemic. This application can also help your customer and new users keep track of workout exercises quickly and improve their physical and health problems.

Scopes:

1. Authentication Module, in this module, administrators, and clients must fill out a registration form or login form with information such as an email address and a password to continue using the program.
2. Email Verification (OTP) Code Module, this module is to verify that the user will use active emails before the registration of account and proceed to the assessment.
3. Assessment Forms Module, in this module there are three pages or screens with a question of the goal of the user on the first page, and five questions of health status on the second page, and the relevant data on the third page is here where the fitness hub coach must be aware of the height, weight, and BMI result.
4. Assessment Result Module, this module is the output of all the input information in the assessment form, and to guide to know which workout is appropriate for a user's provided by Fit Hub Coaches.
5. Home page Module, this is available to admin, coaches and users. Users can access the application by browsing and viewing the exercise contents. But only the admin can manage the uploading of the video contents of the coaches for the customers.
6. Coaches or trainers Module, it is an admin and coach's module that helps the admin user to update and edit coaches' information such as name and skill

specialties, as well as view videos and photos to assist their user.

7. Customer user account Module, this module is for users and helps them to update and edit details such as their name, age, and phone number.
8. User Activity module in this module, the user may view all the workout plans of the goal that they wanted through the guide of their assigned coach.
9. Nutrition and Diet Recipes Module, where users can view all of their coaches' recommended foods that fit their exercise routine and keep their bodybuilding.
10. Member Module, it is a coach's module that will display all the listed users that will handle the specific coach for the user's workout exercise, and this will be the coach's workout planner that will assign to the user.
11. Latest/Updates Module, this module is to send notifications to a user. It's a reminder for the users of the updated announcement.
12. Back-end cloud database Module, this module is also open to administrators, allowing them to display and back up all uploaded graphics and visual workouts.

Limitations:

1. For android users only.
2. Cannot access application without internet connection.

But the said limitations can be further enhanced by the future developers with more studies, more time and knowledge about the subject not just with the android application but also with the help of psychological studies for the main problem of the study.

LITERATURE REVIEW

Review of related literature, studies or systems

This chapter provides an overview of the previous research on android software development, which is the method of creating apps for smartphones running the Android operating system. This program will assist people in maintaining a healthy lifestyle by following and learning the correct posture by downloading the application on their mobile phones and logging in with an internet connection to view all of the contents and tutorials of their chosen coaches from fit hub's gym.

Foreign Literature

An article by **Erick Van Mechelen (2017)**, Skimble gives you a digital personal trainer through a trainer marketplace. Your digital coach offers video courses so you can learn and stay on track. Based on your preferences, the trainer offers additional workouts as you progress. For the accountability of a personal trainer at less cost, Skimble has become one of the leading apps for Android in fitness.

This article is related to the researchers' proposed application in that it would also enable users to maintain their exercises and fitness routines with the aid of the coaches' material.

An article by **Sneha Bokil (2017)**, Runtastic is geared towards cardio exercises such as running, walking, biking, and hiking. The interface is easy to use and its mapping feature is accurate and impactful. This Android app monitors your running and offers stats, including workout duration, distance covered, and calories burned. It comes with a voice coach, which offers feedback after each kilometer to boost your speed and motivate you towards your goal. There is a dashboard that offers several graphs showing you information regarding your exercise.

This article will be used by researchers to develop a proposed application as a basis for the required standard, and it will satisfy customers such as owner, users, and coaches.

An article by **Tim Jewell (2020)**, Fitness Buddy is like a virtual personal trainer and nutritionist in one, with hundreds of workouts to tackle at home or at the gym, plus personalized meal plans and recipes. All exercises feature clear instructions and videos, and progressive workout plans make this ideal for beginners or advanced lifters.

This article on the best Fitness and Exercise Apps for 2020 is similar to the proposed system since all applications deal with the contents of workouts, exercises, and nutrition diets for the application's users.

Local Literature

SAM Fitness: An Android Wellness Application by Haley Andrews, Nathan Ford, John Haas, Evan Safford (2015), According to the researchers and developers the emerging popularity of so-called “Wellness Apps” (mobile applications designed to assist users in pursuing a healthy lifestyle by encouraging them to make positive lifestyle decisions) has presented an interesting challenge to mobile application developers. Our application incorporates step and sleep tracking algorithms. In addition, the application tracks the user’s mood throughout the day, and, using this data, the user can monitor the correlation between his or her exercise, sleep habits, and overall mood. In this project a Wellness App for the Android platform, SAM Fitness, is developed and tested to track these factors.

The Android Wellness Application is similar to the proposed application in several ways since all apps are based on Android and deal with a safe lifestyle that encourages users to pursue their fitness exercise.

An article by **Shyamli Thakur (2020)**, Jefit is a mobile fitness application with the goal of becoming the ultimate personal work-out tracker. It is one of the finest fitness tracking apps in the industry. Jefit comes with complete detailed instruction, workout planner, exercise log, and a progress tracker. With Jefit, you can easily record your training logs, start your rest time, track your whole workout process, and then analyze your data later on.

This article is relevant to the researchers' proposed application in several ways because

it includes workout and fitness guidelines. However, unlike the proposed application, it focuses on video material from the fit hub's coaches.

An article by **Sabina Sultana (2020)**, Fitness & Bodybuilding this fitness app will let you leave your fitness and bodybuilding instructor. It offers a wide variety of fitness exercises supported by text instruction, interactive images, and videos. This app will keep all the data into a built-in calendar about every workout exercise and let you know how you improve.

This article is similar to the proposed application by the researchers in that both applications deal with text instructions, photos, and video content. However, the proposed application includes nutritious food recipes that will assist you in maintaining your healthy lifestyle.

Synthesis

In this chapter, the researchers conduct some research according to this study entitled “Android App: Fitness Workouts and Exercise Application Development for Fit Hub Fitness Center”. This study is presented by researchers to see and to prove that this project is secure as well as efficient for all people, with the approval and collaboration of the gym instructor and the administration of the Fit hub Fitness Center in BFRV was conducted by BSIT-4.1 students from STI College – Las Piñas. This research was carried out with the gym's owner in the Fit hub Fitness Center because both developers and clients plan to provide the users with the workout content and proceed effectively with the exercises they presented in the proposed system. This study was carried out to discuss their users' ability to cope and continue their physical health and workout exercise.

Based on the Foreign and Local Related Review Literature Study that developers conducted, the differentiation of the developer's method from all other systems in our research is the advanced machinery and techniques that they implement and use for the implementation of their Android system. According to **Erick Van Mechelen** in foreign literature gives an idea to the researchers on how to help and to guide user to keep on exercising by adding video contents from the coaches to keep on their track.

Sneha Bokil & Tim Jewell in the foreign literature inspired the researchers to propose an application that enhance their exercises with the workout contents and on how to handle their foods to burned calories.

Shyamli Thakur & Sabina Sultana in local literature inspired the researcher to propose a mobile application that has text guidance, digital photographs, and videos. And it includes extensive fitness and activity instructions from the coaches.

In local literature SAM Fitness, developed by **Haley Andrews, Nathan Ford, John Haas, and Evan Safford** gave another idea to the researchers to improve the application in the future with their phase to track of the relationship between his or her fitness, sleeping patterns, and overall mood.

It will be a system unlike any other due to the combination of our skills. This application would be user-friendly, and it will assist users in continuing to live a healthier lifestyle even though they are at home.

ANDROID APP: FITNESS WORKOUTS AND EXERCISE APPLICATION DEVELOPMENT FOR FIT HUB FITNESS CENTER

Overview of the project

The researchers aim to introduce a mobile app that enables users to learn and be motivated by their smartphones. This application can assist the user by observing the step-by-step positions of their workout, exercise, and discovering the proper diet and healthy diet food they needed to maintain their physical fitness. The system will make users more passionate and encouraged through adopting content from fit hub gym's coaches to their daily life.

The objectives of the study are to develop, build, and implement a fitness workout and exercise mobile android application that helps people to maintain a healthier lifestyle while using mobile smartphones at home. To create and deploy a file maintenance framework that allows administrators to add, edit and remove files. A module that allowed coaches to handle their contents. This system gives them a strategic advantage because it helps them manage and track their customers who are prepared to get started quickly.

System design specification

Hardware:

This section will discuss the hardware needed to develop and accomplish the proposed system,

The system will be requiring desktop/s or (laptops) and which are connected through Local Area Network (LAN) with at least 3GB hard disk space. Core2Duo 1.6 gHz or faster processor. DirectX9 capable video card, minimum of 2GB RAM, Monitor, Mouse and Classic Keyboard. Including the Android phone or tablet minimum of 32GB Internal Memory, minimum of 2,800mAh battery, built in speaker, Sim card Data Connection and Wi-Fi Router Connection.

Software:

The developers need the following software application in the fulfillment of the system; minimum of Android OS 6.0 Marshmallow to latest android os version, Google Play Store, Android Studio 4.1.2 Beta Channel, Flutter UI 2.0.2 Channel Beta, Data base: Firebase database.

Android OS

Android is a mobile operating system based on the modified Linux kernel and other open-source software, developed primarily for smartphones or tablets. This a free open source software; its source code is known under a Windows Platform principally as the Android Open Source Project (AOSP).

Google Play Store

Google Play Store, which once was Android Market, is a digital distribution service managed and produced by Google. As the official app store, this store offers a way to discover, install and build Google-published Android software (SDK) apps and use certified Android-based apps. Google Play provides music, books, films, and TV shows as a digital media shop. Google Play offers applications either for free or for fee.

Android Studio

Google's official integrated development environment is Android Studio (IDE). It is designed especially for Android development based on JetBrains' IntelliJ software. The Window, macOS, and Linux applications may be downloaded and subscribed for 2020. The Eclipse Android tool is the primary IDE to program native Android apps (E-ADT).

Flutter UI

The channel Flutter refers to the channel for building Flutter. Different release formats differ in topicality and are present in other sources. Flutter canals, therefore, provide a Flutter developer the opportunity to select a version closer to the newest master construction.

Firebase

The original products of Firebase were the Firebase Realtime Database, an API that synchronizes application data between iOS, Android, and Web devices and saves them in the cloud of Firebase. The platform helps software developers to construct collaborative apps in real-time.

METHODOLOGY

This project is the result of the ideas of the project's proponents falling together. First, identify challenges and gather data to support in problem solving. Then, we consider our client's concern and propose ways to develop the business. Since they are affected by the pandemic, they need a workout software application that can help them guide their customers effectively.

SDLC Diagram

The systems development life cycle (SDLC) is a conceptual model used in project management that describes the stages involved in an information system development project, from an initial feasibility study through maintenance of the completed application. The Waterfall Model, was the first Process Model to be introduced. It is very simple to use and to understand. It is a systems development lifecycle (SDLC) model used in information technology.

The Waterfall Model has 6 phases. A software development process in a linear sequential flow and it is a sequential design process in which progress is seen as flowing steadily downwards through the phases.

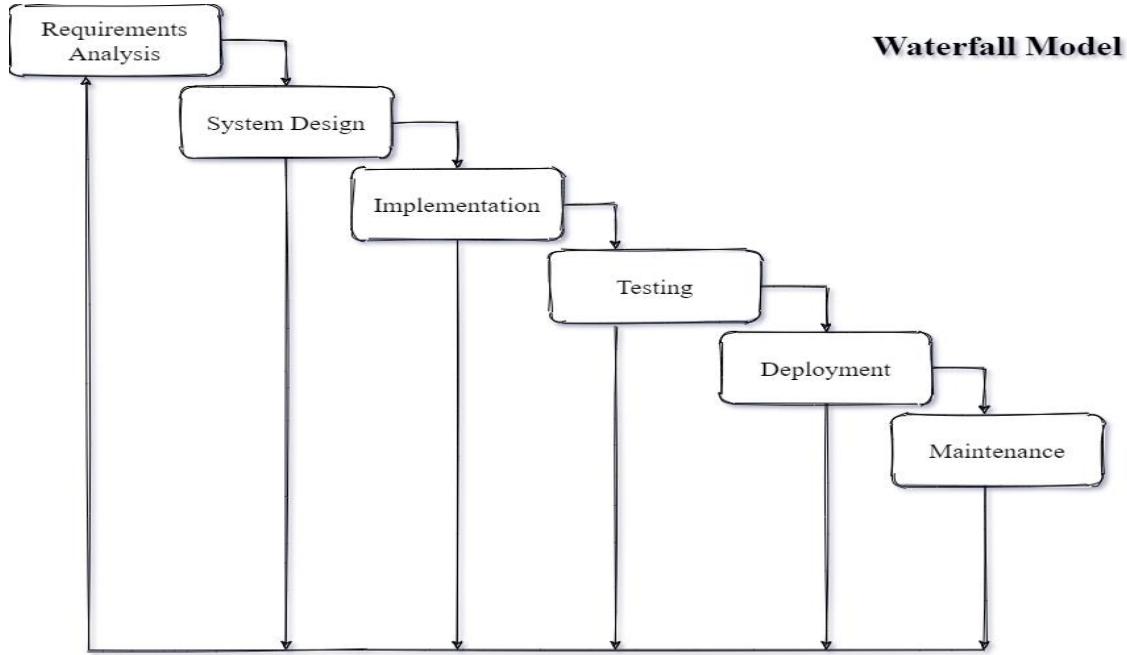


Figure 1.0 Waterfall Model

The phases in Waterfall Model are:

Requirement Analysis: This phase focuses on defining and capturing the needs and problems that a software application is to address and solve. It is the first phase in waterfall development model, setting the stage for the rest of the phases of the software application development.

System Design: This phase looks at how the software will be built and how the system will operate with particular emphasis on hardware, software, network infrastructure, and user interface. The system and software design prepared from the requirement specification which were studied in the first phase.

Implementation: This phase is concerned with the physical construction of the software as set out in the design stage. This phase belongs to the programmers in the Waterfall method, as they take the project requirements and specifications, and code the applications.

Testing: All the units developed in the implementation phase are integrated into a system

after testing of each unit. The software designed, needs to go through constant software testing to find out if there are any flaw or errors. Testing is done so that the client does not face any problem during the installation of the software.

Deployment: Once the functional and non-functional testing is done, the product is deployed in the customer environment or released into the market.

Maintenance: The client is using the developed application. As problems are found due to improper requirements determination or other mistakes in the design process, or due to changes in the users' requirements, changes are made to the system during this phase.

Methods used by the developers according to the Waterfall Model Software Development Life Cycle:

The Requirement Analysis phase helps developers develop a better system that provides ideas for the needs of client. The first thing developers did was seek a target client suited for the research thesis and collect data from the client representative.

The System Design phase helps the developers to build what system based on the information that comes up to the client. The second thing that developers did was to design the system that the client needed.

The Implementation phase helps the developer to specify the project requirements. This phase constructs the physical concern.

The Testing phase allows the developer to see if the system has errors and if the system is flowing and the client is needed.

The Deployment phase allows the developer to know whether their system is ready to be used by the client for launch.

The Maintenance phase is where the developers need to monitor and maintain the functionalities of their system to ensure its efficiency.

Context Flow Diagram

The context diagram helps determine the context and limits of the system to be represented: which objects are modeled within and outside the system, as well as how the structure relates to these external objects. The context diagram is to describes and illustrates the limits of the software system. Context diagram commonly termed a data-flow level 0 diagram. The flow of information can be determined between the system and external entities. The whole system is shown as a single process.



Figure 2.0 Context Flow Diagram of Android App: Fitness Workout and Exercise Application Development

Levels of Data Flow Diagram

A Diagram level 0 is a diagram which only shows the explosion of the major process; external entities, data stores and data flow. Processes on Diagram 0 are not so detailed. Process are divided into general or major processes.

Data Flow Diagram (DFD)

Data Flow Diagram maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination.

Data Flow Diagram 1st Level of Android App: Fitness Workout and Exercise Application Development (ADMIN)

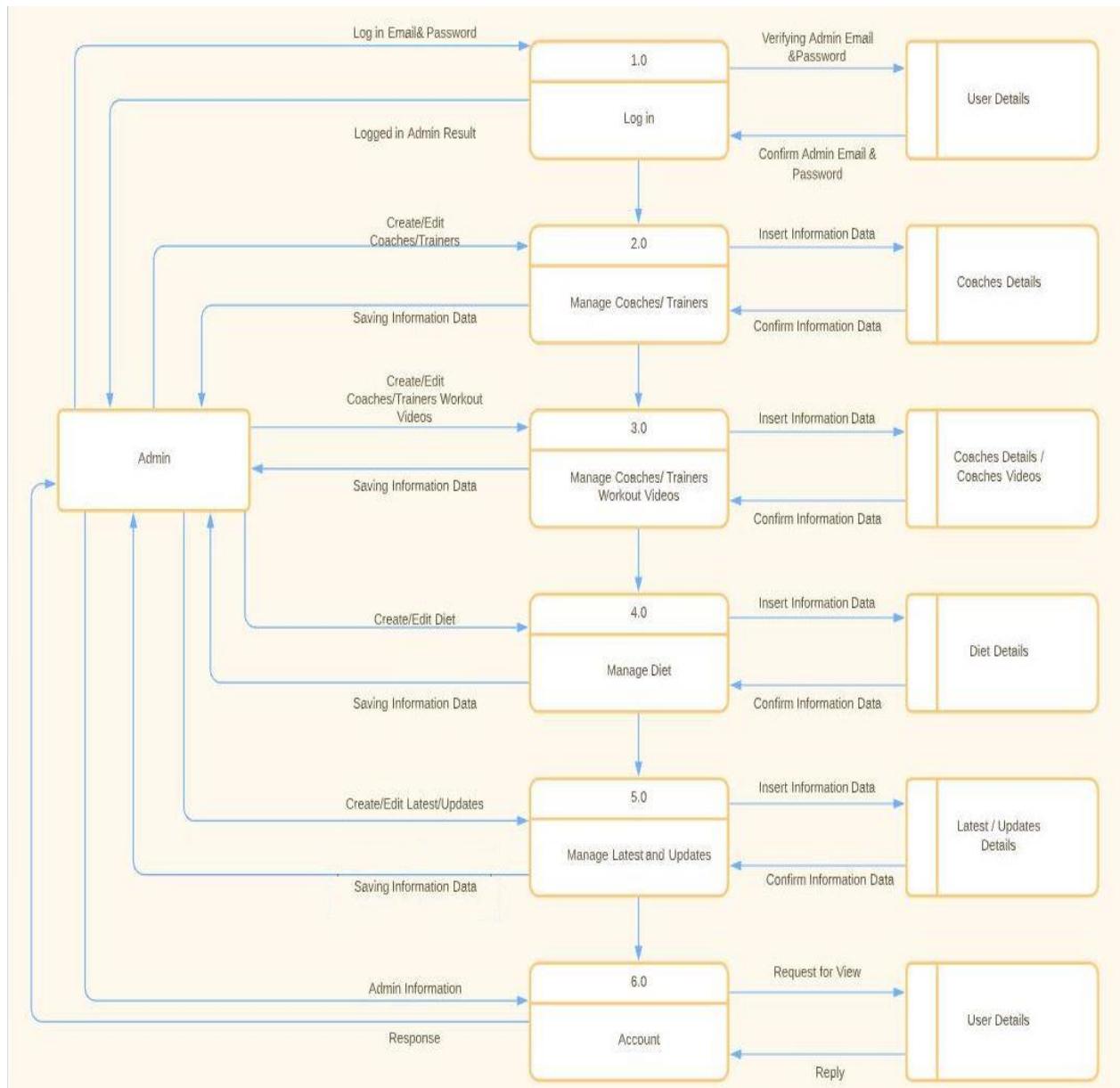


Figure 2.1 Data Flow Diagram 1st Level of Android App: Fitness Workout and Exercise Application Development (ADMIN)

Data Flow Diagram 2nd Level of Android App: Fitness Workout and Exercise Application Development (ADMIN)

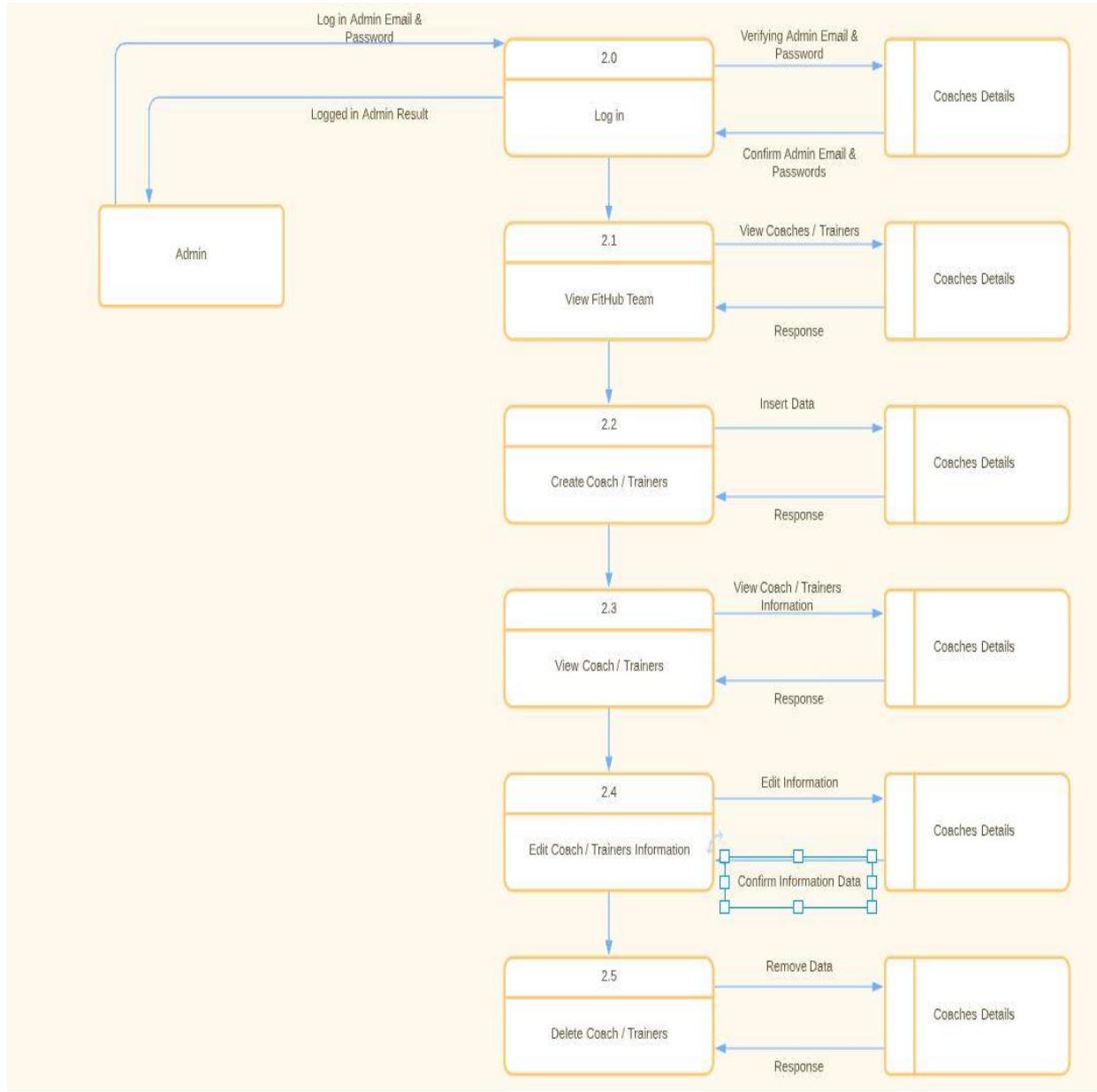


Figure 2.2 Data Flow Diagram 2nd Level Admin (2.0)

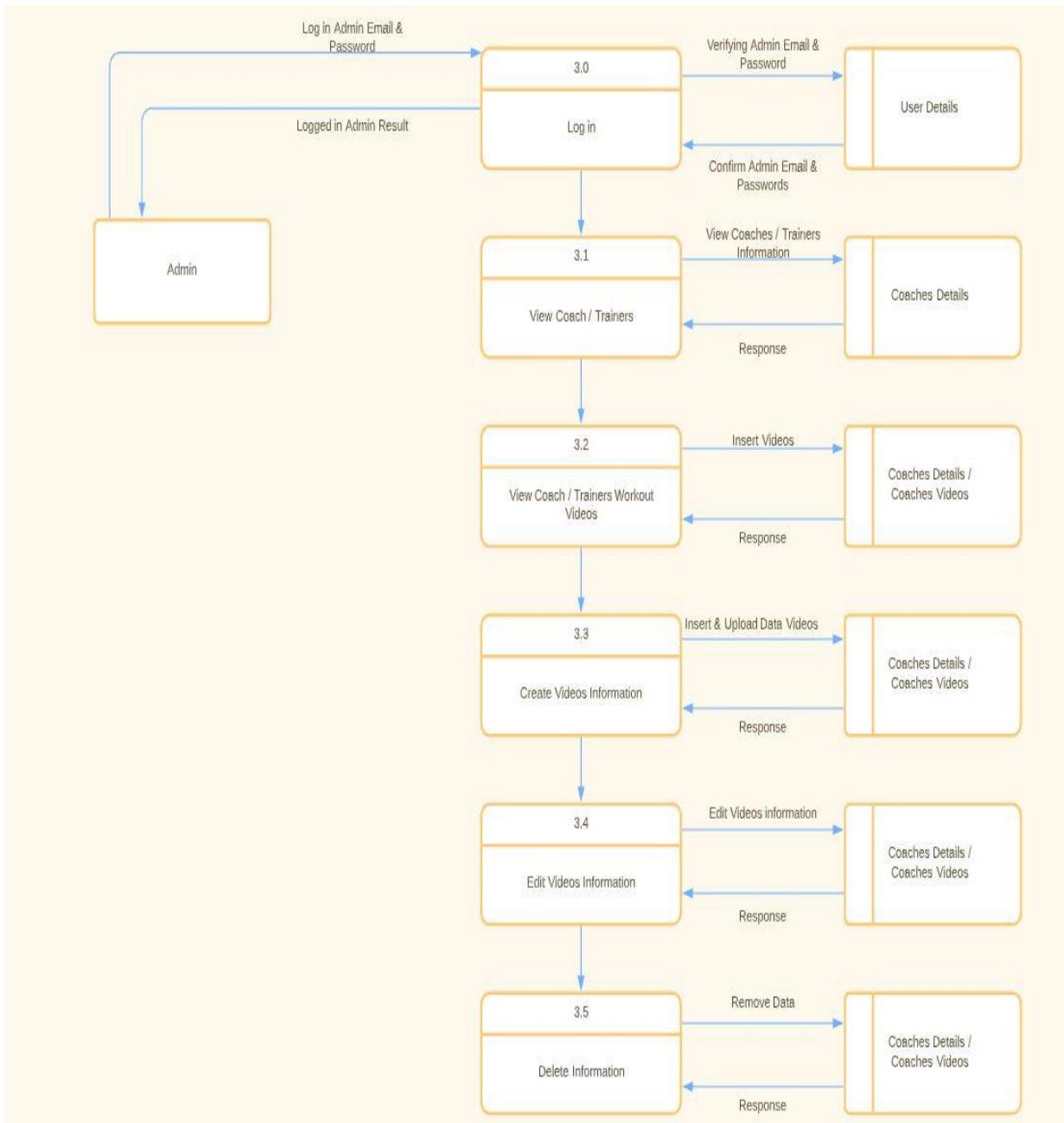


Figure 2.3 Data Flow Diagram 2nd Level Admin (3.0)

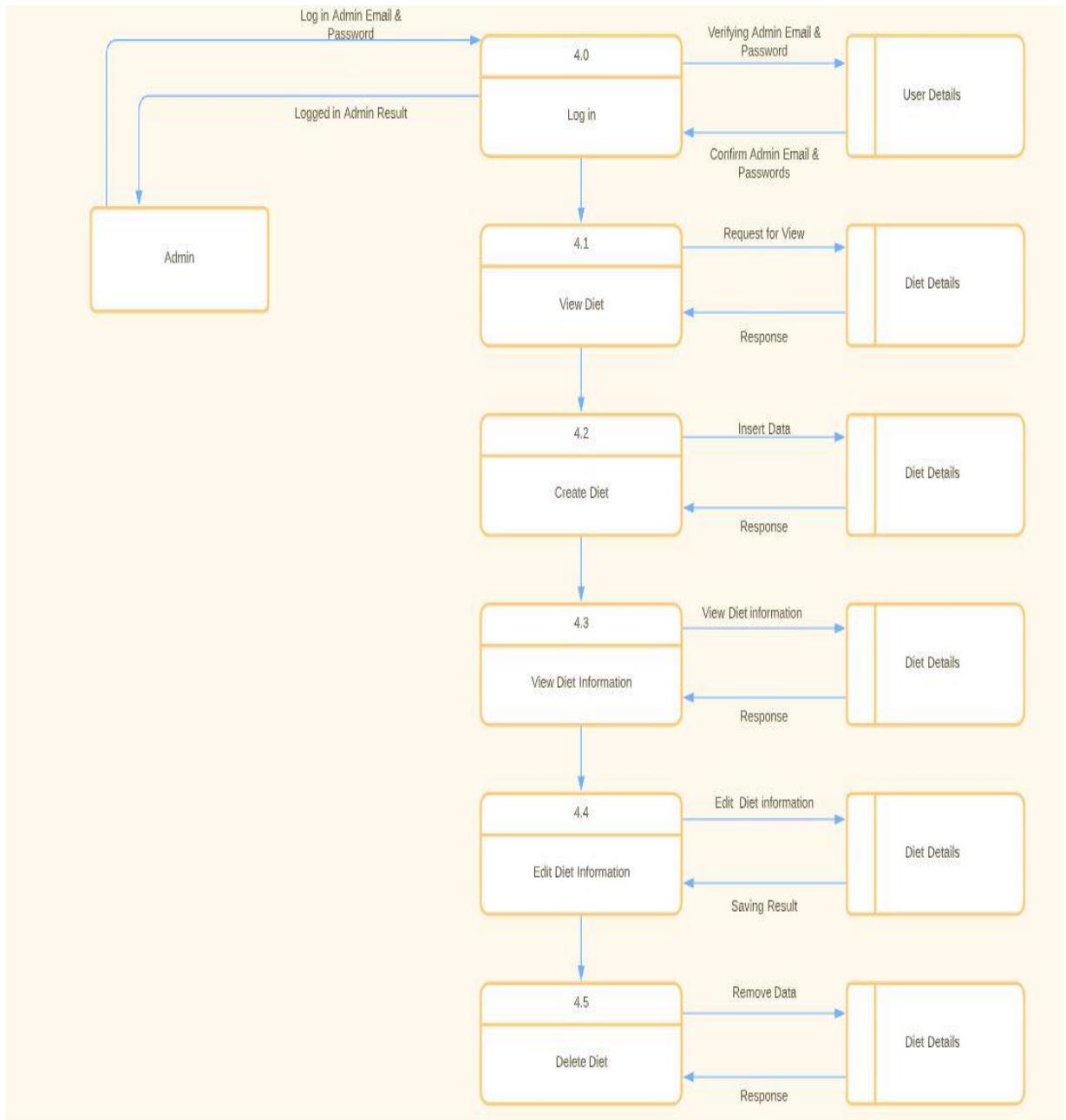


Figure 2.4 Data Flow Diagram 2nd Level Admin (4.0)

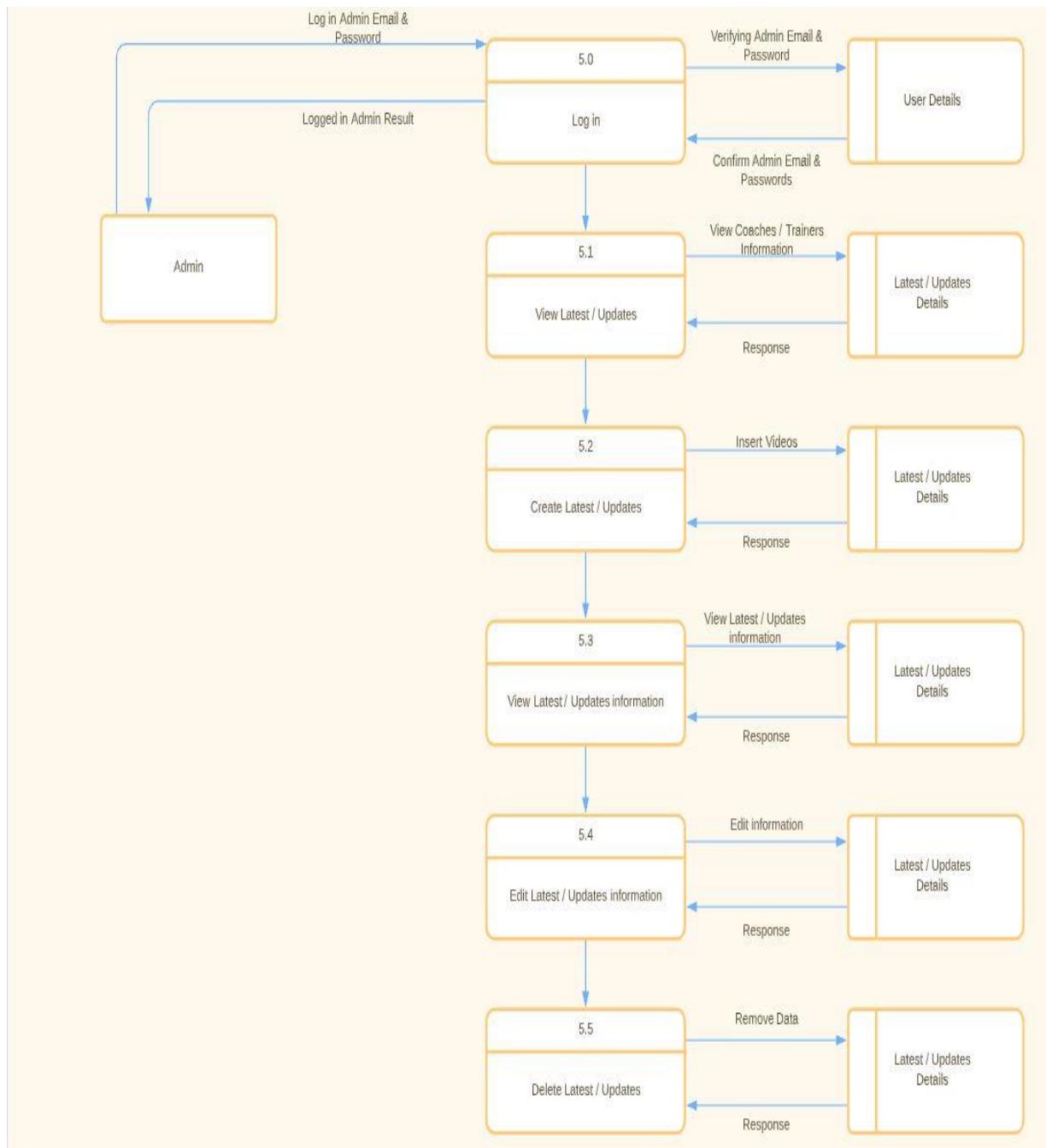


Figure 2.5 Data Flow Diagram 2nd Level Admin (5.0)

Data Flow Diagram 1st Level of Fitness Workout and Exercise Android Application Development (COACH)

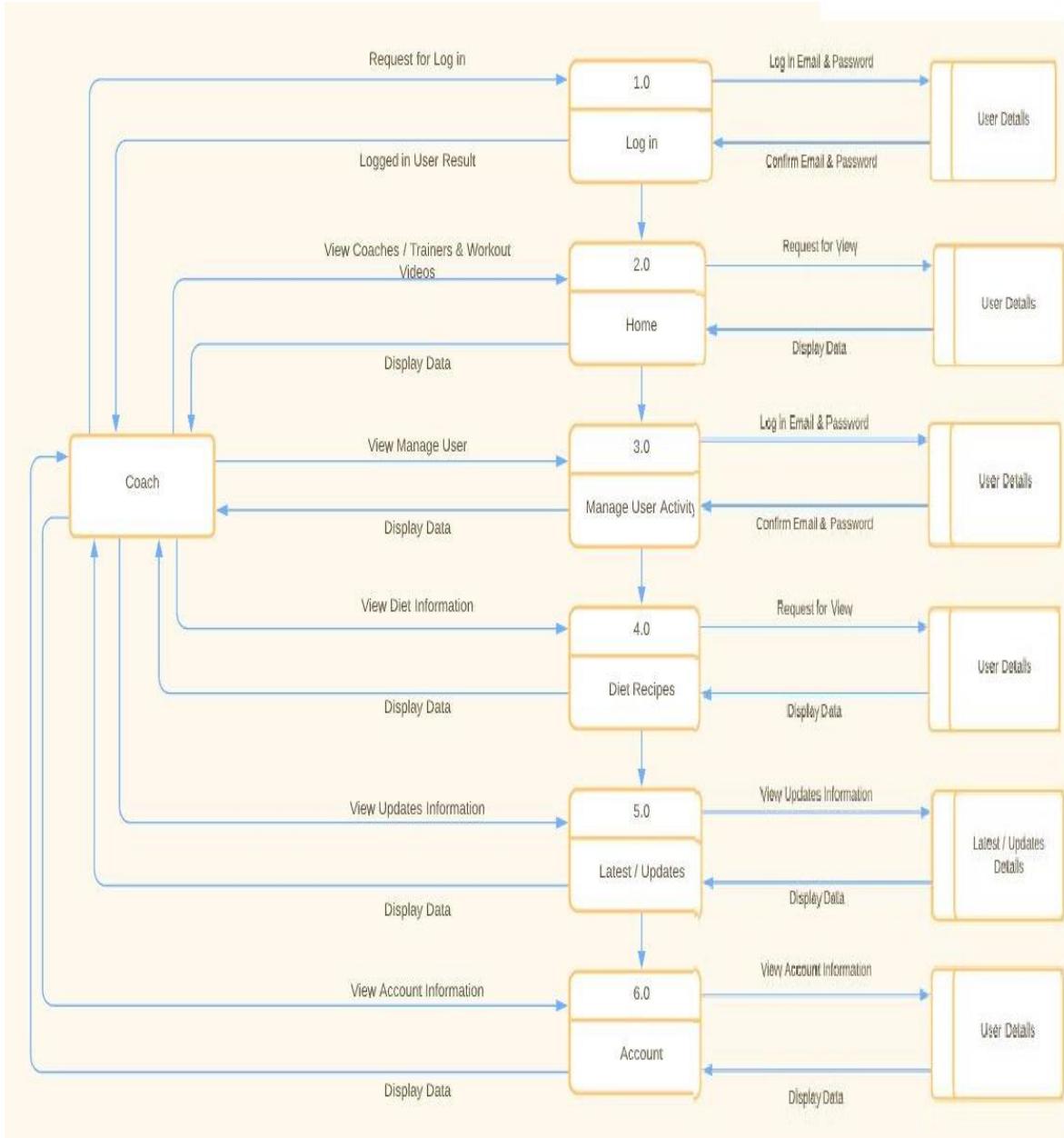


Figure 2.6 Data Flow Diagram 1ST Level of Android App: Fitness Workout and Exercise Application Development (COACH)

Data Flow Diagram 2nd Level of Android App: Fitness Workout and Exercise Application Development (COACH)

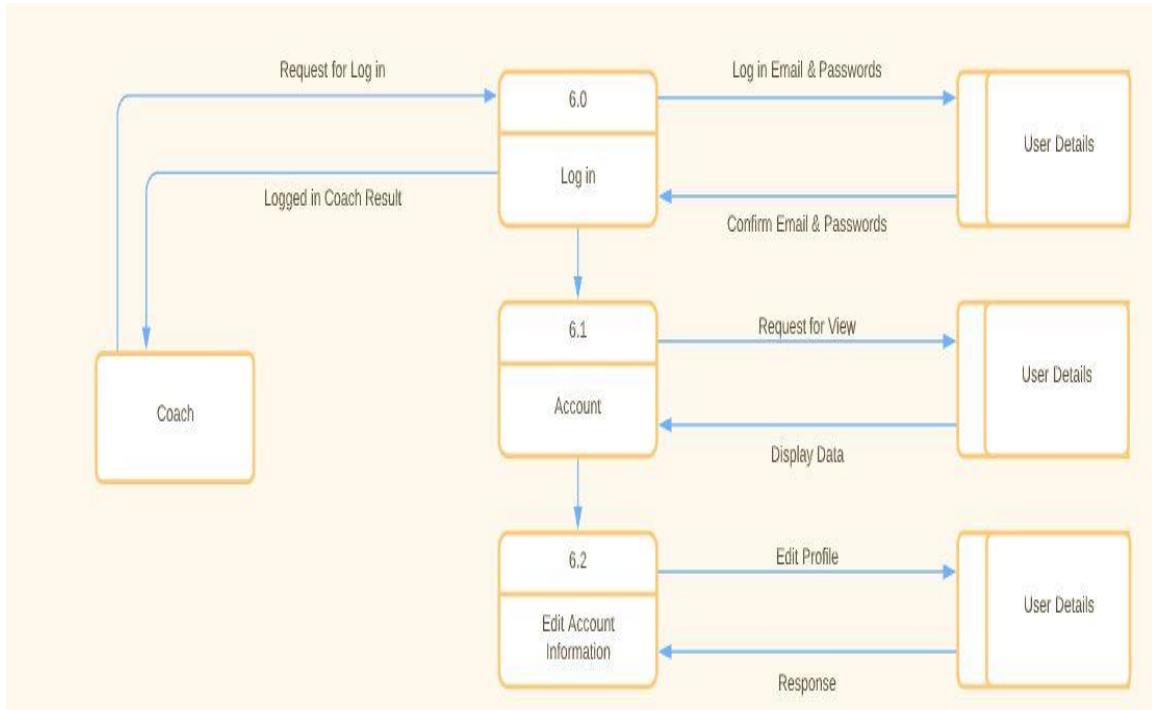


Figure 2.7 Data Flow Diagram 2nd Level Coach (2.0)

Data Flow Diagram 1st Level of Fitness Workout and Exercise Android Application Development (USER)

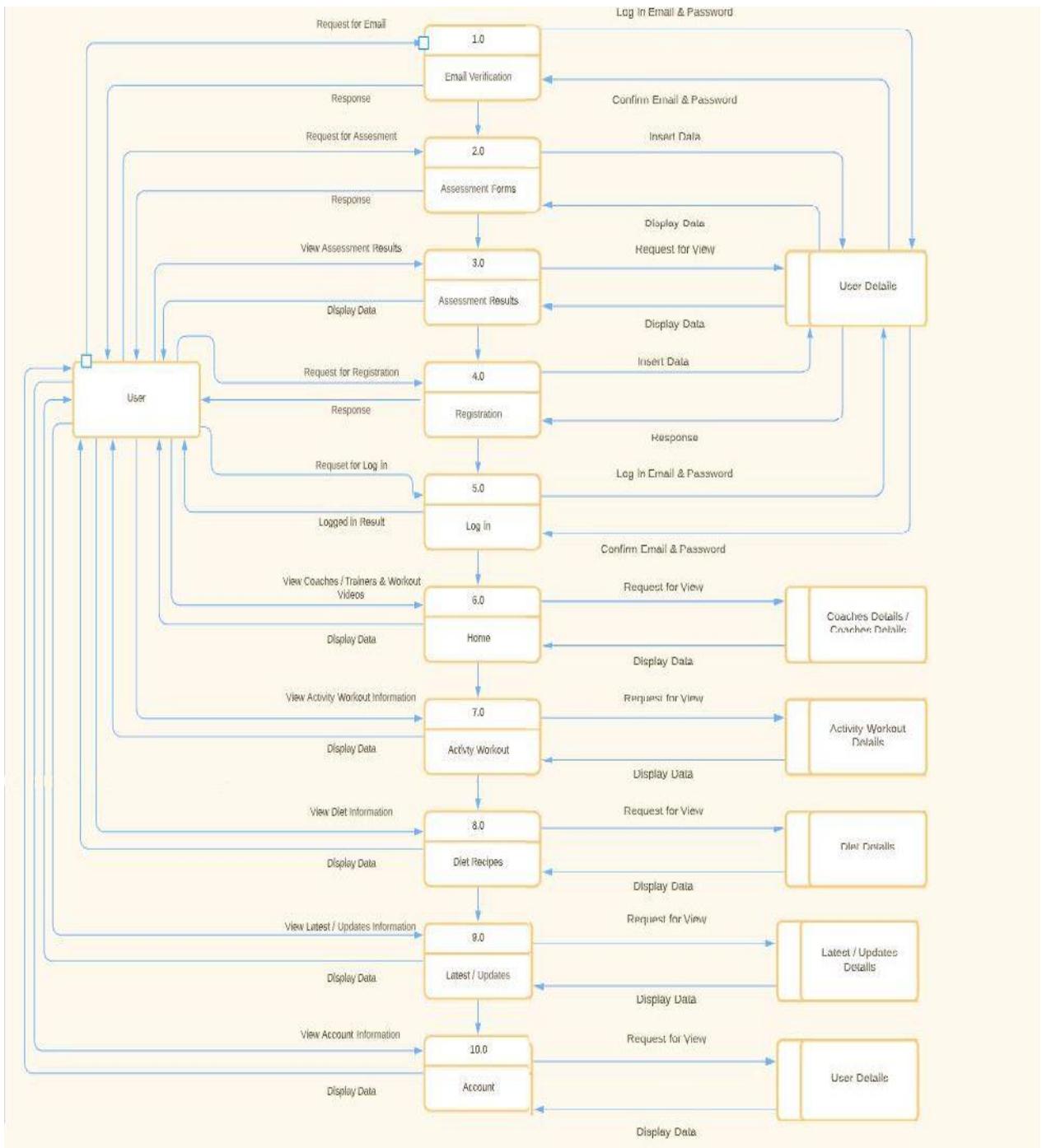


Figure 2.8 Data Flow Diagram 1ST Level of Android App: Fitness Workout and Exercise Application Development (USER)

Data Flow Diagram 2nd Level of Android App: Fitness Workout and Exercise Application Development (USER)

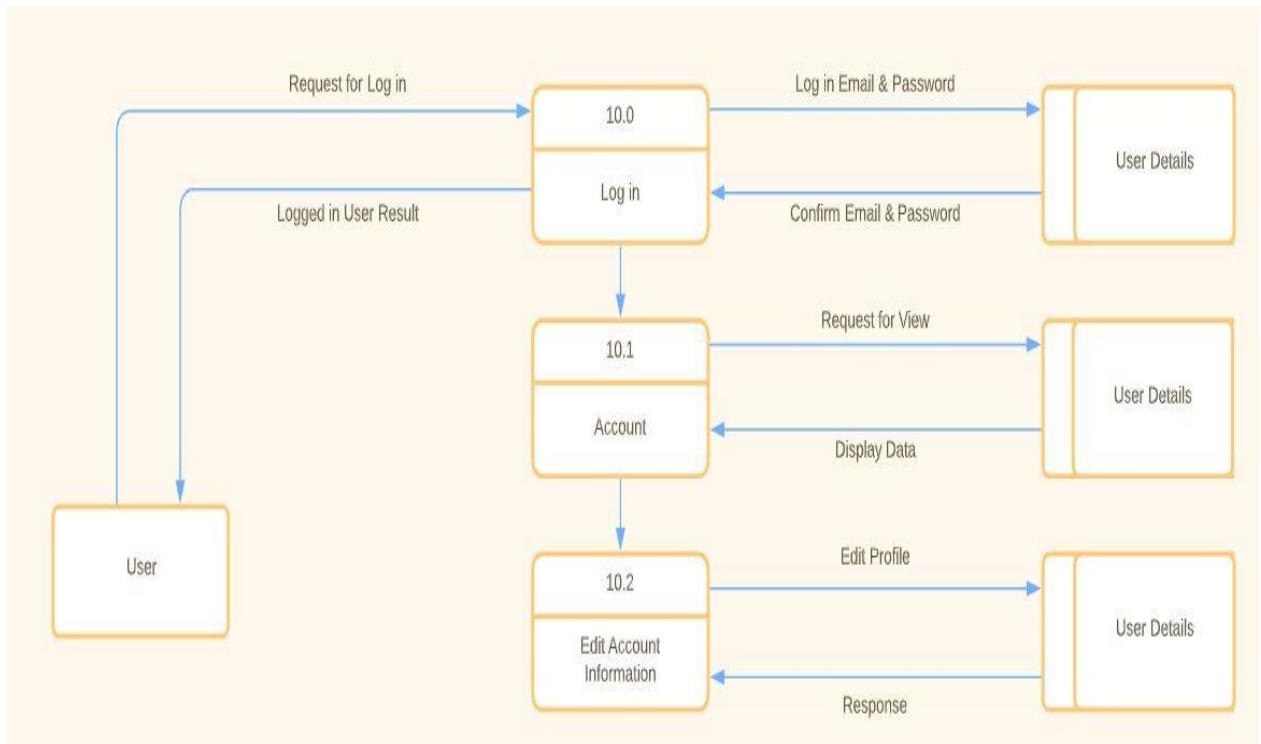


Figure 2.9 Data Flow Diagram 2nd Level User (2.0)

Data Flow Diagram is formed of four symbols:

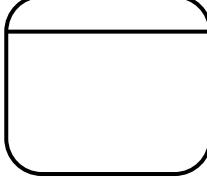
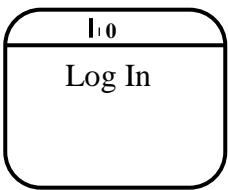
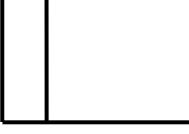
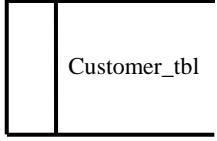
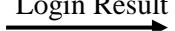
	Symbol	Description	Example
Entity		An entity is an outside system that sends or receives data, communicating with the system being diagrammed. They are the sources and destinations of information entering or leaving the system. They are also known as terminators, sources and sinks or actors. They are typically drawn on the edges of the diagram.	
Process		Any process that changes the data, producing an output. It might perform computations, or sort data based on logic, or direct the data flow based on business rules.	
Data Store		Data storage is the route that data takes between the external entities, processes and data stores. It portrays the interface between the other components and is shown with arrows.	
Data Flow		Dataflow is a term used in computing which has various meanings depending on application and the context in which the term is used. In the context of software architecture, data flow relates to stream processing or reactive programming.	

Table 1.0 Data Flow Diagram Symbols

Entity Relationship Diagram

Entity Relationship Diagram, also known as ERD, ER Diagram or ER model, is a type of structural diagram for use in database design. An ERD contains different symbols and connectors.

An ERD is the high-level database design, which shows the database in the diagrammatic approach. ER Diagram consists of Entities, Attributes, Relationships and Associations.

The following are the basic Entity Relationship Diagram symbolic representation:

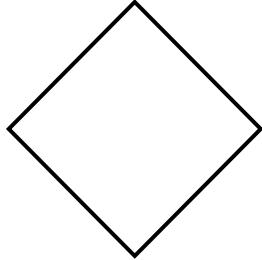
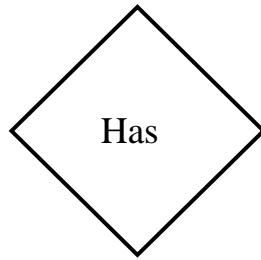
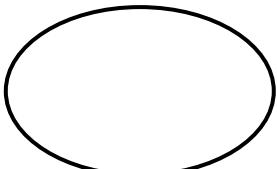
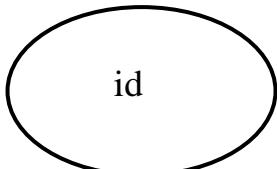
	Symbol	Description	Example
Entity		It illustrates by rectangle shapes, with its name on top and its attributes listed in the body of the entity shape. It is definable thing or concept within a system. In ERD, the term "entity" is often used instead of "table", but they are the same.	
Relationship		It illustrates by diamond shapes, show how entities act upon each other or are associated with each other. Think of relationships as verbs.	
Attributes		It illustrates by oval shapes. A property or characteristic of the entity that holds it. In ERD, the term "attribute" is often used instead of "column" but it is the same. Attribute is also a type that describes the kind of attribute it is, such as varchar for a string, and int for integer.	

Table 2.0 Entity Relationship Diagram Symbols

Cardinality notation can then define the attributes of the relationship between the entities. Cardinalities can denote that an entity is optional or mandatory. In the context of ERD, it is the number of instances of one entity that can, or must, be associated with each instance of another entity. In general, there may be one-to-one, one-to-many, or many-to-many relationships.

There are few styles to pass on cardinality in an entity relationship diagram, one of it being the Chen diagram.

Chen's notation of the entity-relationship diagram depicts data and domain models using entities, attributes, and relationships. Unlike other ER diagram notations, it shows attributes as standalone boxes, not as a part of entities

The following are the Chen notations:

1 : N	One-to-Many
M : N	Many-to-many
—————	Partial participation
—————	Total participation

Table 3.0 Chen Notation

Entity Relationship Diagram of Android App: Fitness Workout and Exercise Application Development (ADMIN)

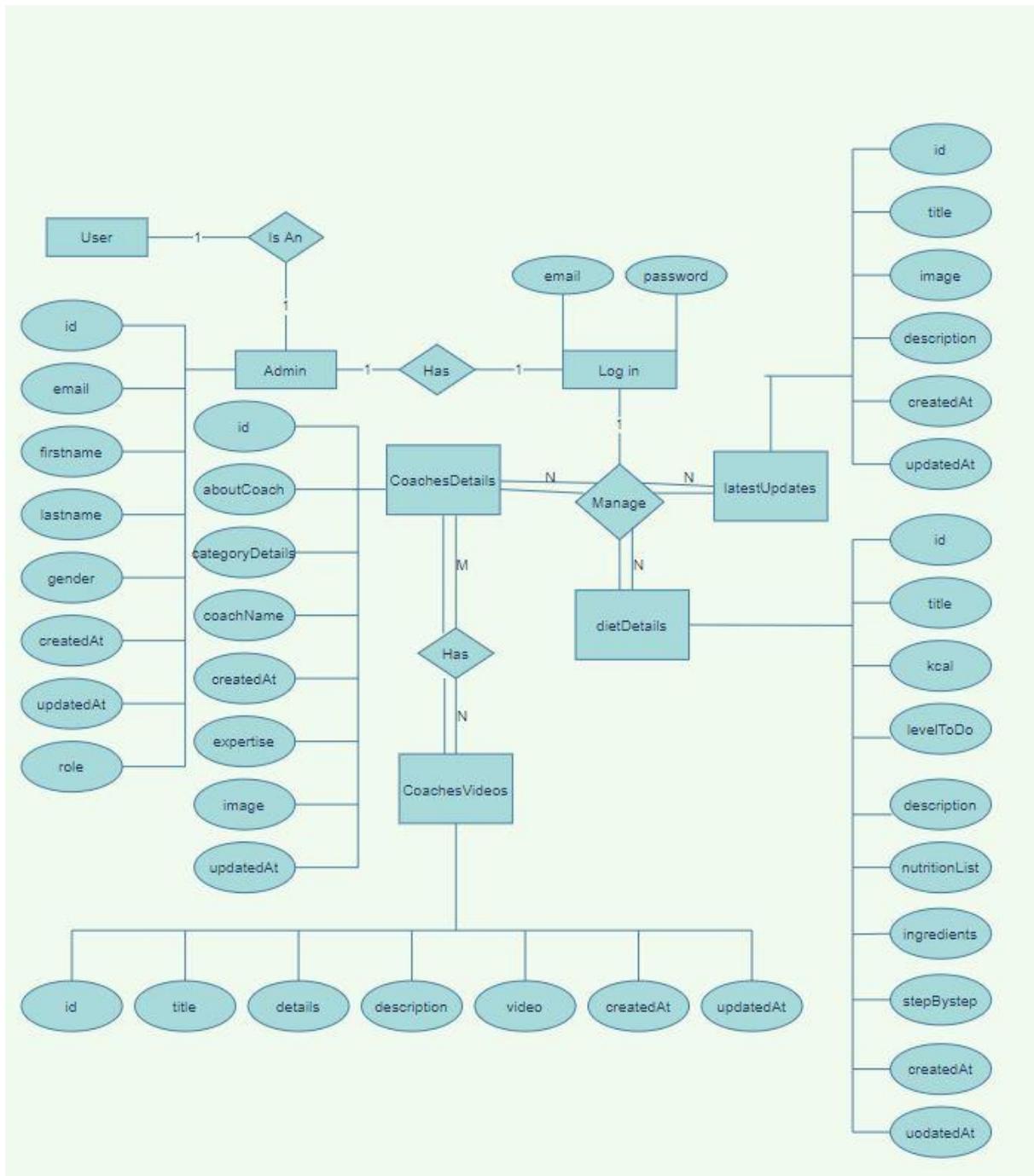


Figure 3.0 Entity Relationship Diagram of Android App: Fitness Workout and Exercise Application Development (ADMIN)

Entity Relationship Diagram of Android App: Fitness Workout and Exercise Application Development (COACH)

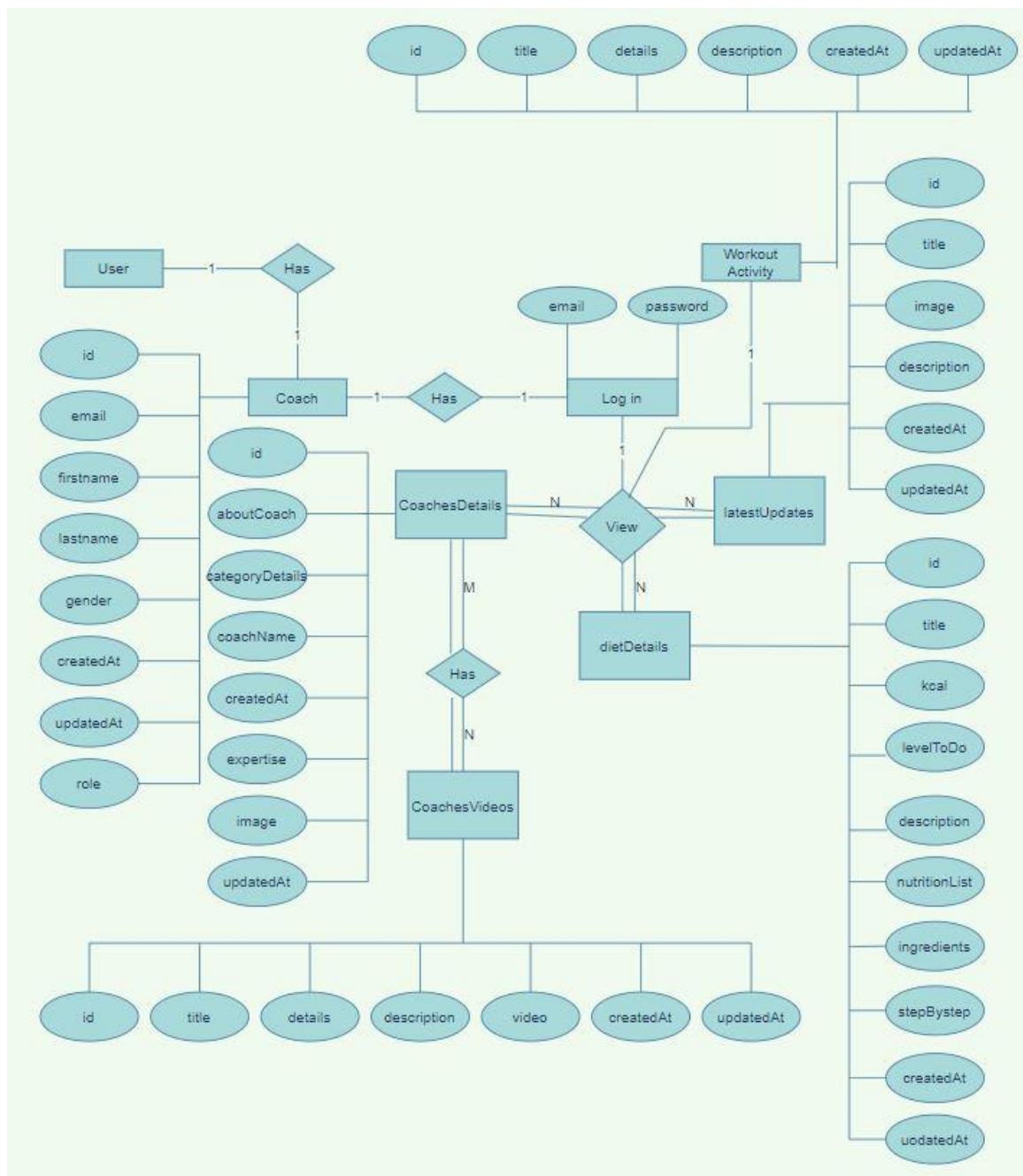


Figure 3.1 Entity Relationship Diagram of Android App: Fitness Workout and Exercise Application Development (COACH)

Entity Relationship Diagram of Android App: Fitness Workout and Exercise Application Development (USER)

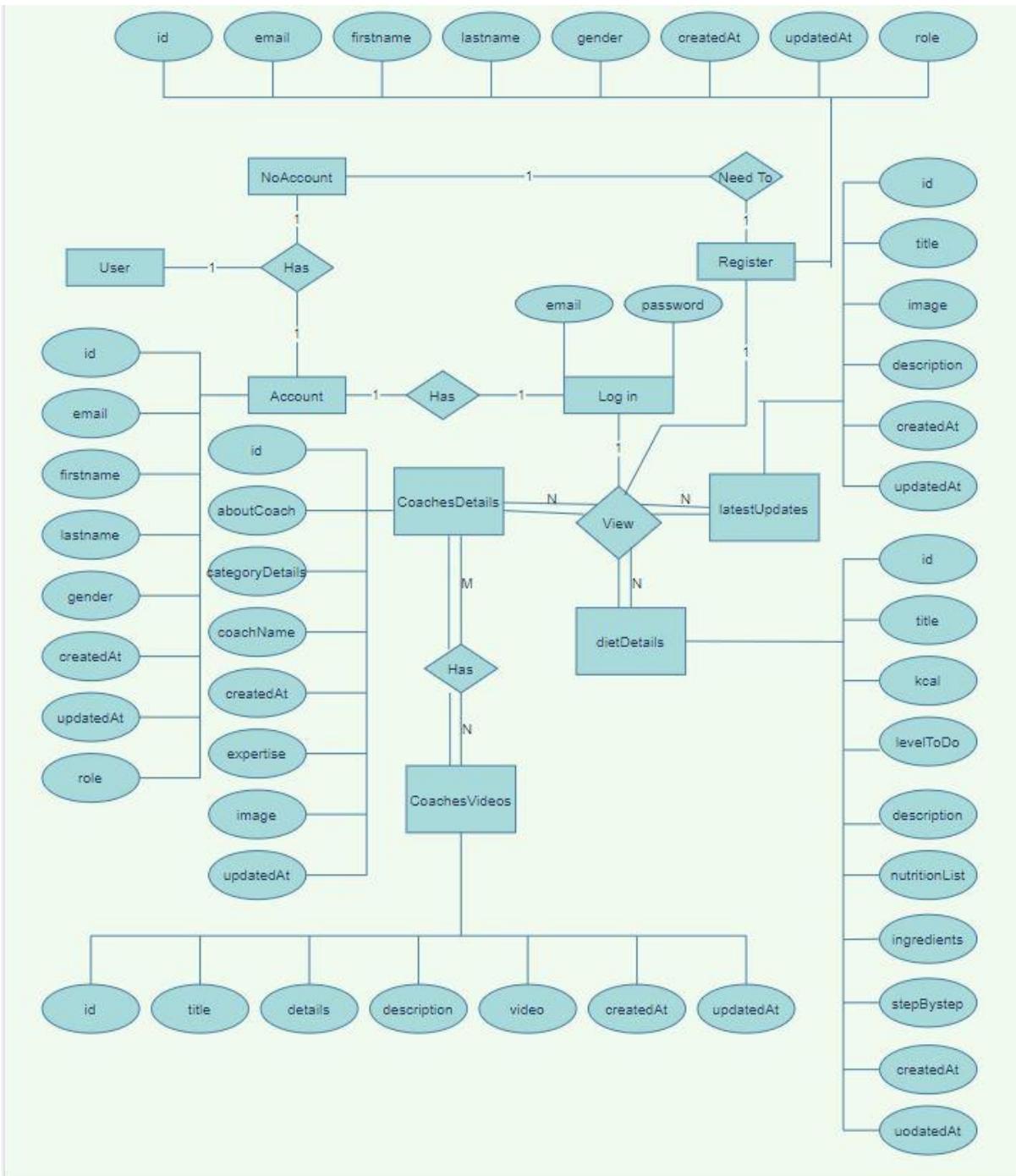
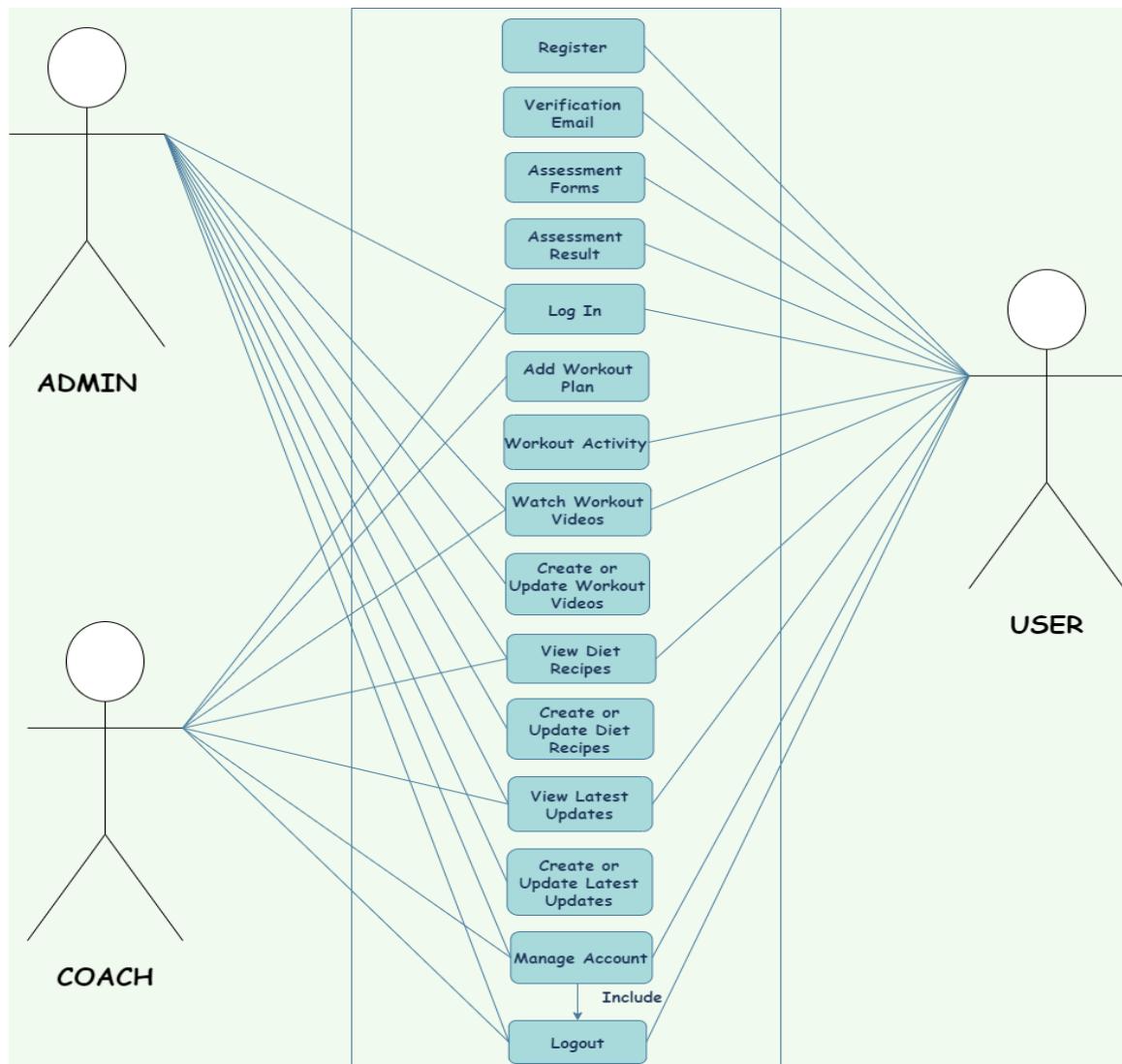


Figure 3.2 Entity Relationship Diagram of Android App: Fitness Workout and Exercise Application Development (USER)

Use Case Diagram

A use case diagram is a graphic depiction of the interactions among the elements of a system.

A use case is a methodology used in system analysis to identify, clarify, and organize system requirements. In this context, the term "system" refers to something being developed or operated, such as a mail-order product sales and service Web site. Use case diagrams are employed in UML (Unified Modeling Language), a standard notation for



the modeling of real-world objects and systems.

Figure 4.0 Use Case Diagram of Android App: Fitness Workout and Exercise Application Development

Activity Diagram

An activity diagram visually presents a series of actions or flow of control in a system similar to a flowchart or a data flow diagram. Activity diagrams are often used in business process modeling. They can also describe the steps in a use case diagram. Activities modeled can be sequential and concurrent.

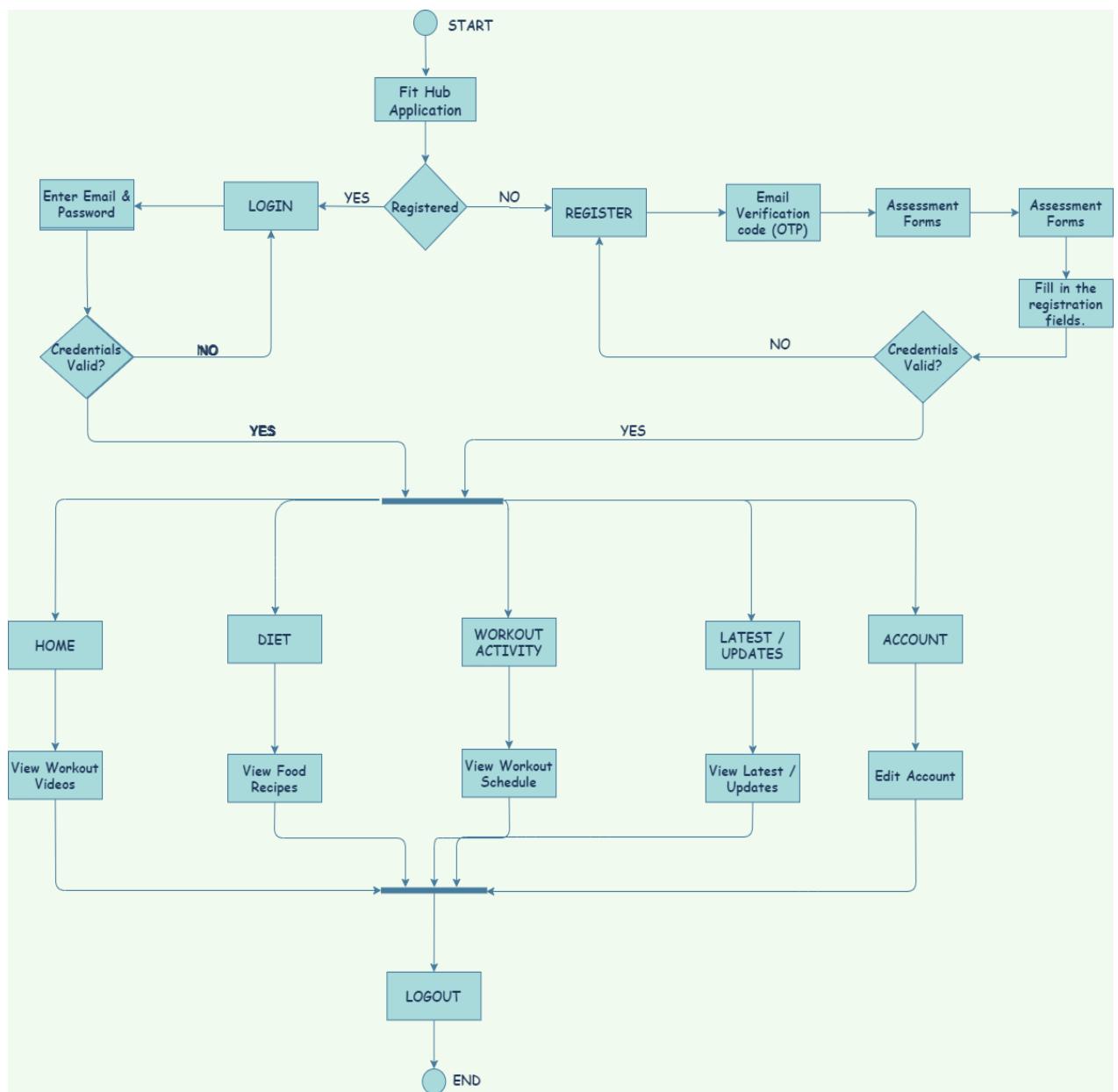


Figure 5.0 Activity Diagram of Android App: Fitness Workout and Exercise Application Development

RESULTS AND DISCUSSIONS

In this chapter, the proponents arrive at the conclusions, recommendations, and results from the respondents' interviews, surveys, and evaluations. These are used to determine the effectiveness and importance of the android application developed.

RESULTS

Summary of Findings

The following are the summary of findings of the study based on the evaluation of the survey:

1. Most respondents have their own android phones.
2. Most respondents use their mobile phones for watching exercises and workouts.
3. Most respondents are like to improve their body goals by using mobile phone.
4. Half of the respondents agreed to stay at home while having their workouts.
5. 17 years old above are aware in workouts and exercises through mobile phones.

DISCUSSIONS

Studies have shown that one of the most important topics today is having difficulty exercising with their chosen gyms. Training and exercises are much more important now as this pandemic of Covid-19 will help strengthen our immune system and make us less infectious.

The researchers observed that the people are having their hard times of their workout sessions which is the reason why the researchers and developers came up with the android application fitness workout and exercise.

CONCLUSIONS AND RECOMMENDATIONS

This document serves as the project baseline and serves as the guide for the development of the project. The project is consisted of a study that includes all the observation and evaluation of the system that the client uses for their business. In the case study conducted by the researchers' and developers', all the experiments and solutions attained in this project shall be consolidated to create a feasible android application system that fits the clients' needs and expectation. The findings in the existing application of the fitness gym led the developers to propose an application suitable for the working environment of the coaches and trainers. The data from the interviews and discussion gathered by the developers' in this research shows the technicalities needed to be improved and fixed. The information acquired from their virtual session demonstrated the major problems that the owner faces as well as its cause and effects. Therefore, the developers created an android application using the research and analysis that have done in this case study.

For future enhancement, the android app can have an upgrade like adding more features such as payment for subscription, reservation, and training logs for the users to helps them enjoy using the application while working outs and achieving their healthy lifestyle at home using the application.

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Indeed Editorial Team 2021

<https://www.indeed.com/career-advice/career-development/how-to-write-smart-goals>

APPENDICES

APPENDIX A. GANTT CHART

LEGEND:



MONTH	APRIL			MAY		JUNE	
ACTIVITY							
REQUIREMENTS ANALYSIS							
Conducting Research	■	■	■	■	■	■	
Assigning activities			■	■	■	■	
Conduct Questionnaire				■	■		
SYSTEM DESIGN							
Layout Design			■	■	■	■	
Design User Interface			■	■	■	■	
IMPLEMENTATION							
Determine system requirements	■	■	■	■	■	■	
Apply research result		■	■	■	■	■	
Adjusted the system based on the client and user requirements				■	■	■	
TESTING							
Reconstruct system				■	■	■	
Debugging system				■	■	■	
DEPLOYMENT							
Compile and Build app as APK file							■
MAINTENANCE							
Determine system issues							

APPENDIX B. ACTUAL THESIS EXPENSES

THESIS EXPENSES

Quantity	Specifics	Approximate Cost	Actual Cost
4	Thesis fee	P810	P3,240
	Transportation Expense	P400	P400
	Food Expense	P589	P589
		TOTAL =	P4,229

Prepared by:

Aila A. Palma

Jefferson O. Pathay

Gerard D. Gagarin

Carlos Kurt Lexus Miguel R. Cuaresma

Noted by:

Fredeliza Palma

Florentina Pathay

Avegel Gagarin

Approved by:

Nestor Miguel T. Pimentel

APPENDIX C. RAW DATA

QUESTIONNAIRE

Title: Android App: Fitness Workout and Exercises Application Development	
Interviewer: Gerard D. Gagarin	Interviewee: Roilan Atterado
Position: Student	Position: Fit Hub Owner
Date:	
Questions	Answers
1.What is the brief history of Fit Hub Fitness Center?	This is a studio gym that specializes in personalized training and its small group session.
2. Is there any branches of Fit Hub Fitness Center?	This is the only branch we have.
3.What are the service(s) of Fit Hub Fitness Center for the customers?	Fitness consultation, team workouts and personal training.
4. Is there any home service(s) of Fit Hub Fitness Center for the customers?	No, we don't allow our coaches and customers to have personal training but we do accept virtual sessions.
5. How many Coaches or Trainers do you have?	We have three coaches including me.
6. Are your Coaches or Trainers skilled?	Yes, I and the coaches are experts in body building, while one of the two is licensed nutritionists.
7.How is Covid19 pandemic affects your business?	This pandemic from Covid19 badly hits our business. We can't open our branch and we burn one by one to maintain the business.
8.What are the procedures for new membership?	For now, we do accept emails, chats and calls for booking a schedule for their virtual session.
9.How do you handle for the member's cancellation while he/she is enrolled for a session this pandemic?	Unfortunately, we can't control what the customers want, whether they want to stay or not, it is in their best interest. Dedication and discipline are the key.
10.Is your existing system can handle e-payment?	We currently accept online transactions. Like Gcash, paymaya, online banking transfer and others.

SURVEY

NAME: _____

AGE: _____

1. Do you have an android phone?
a. Yes b. No

2. Do you prefer to watch workouts and exercises content using your mobile phone?
a. Yes b. No

3. Are you aware using mobile applications?
a. Yes b. No

4. Do you think you can do your workouts and exercises at home?
a. Yes b. No

5. During this pandemic, would you prefer a face to face?
a. Yes b. No

6. Did you subscribe to Fit Hub Fitness Center for a fitness online workout session?
a. Yes b. No

7. Would you like to use and install the Fit Hub Fitness Center Android Application that contains of workouts and exercises videos that created by the Fit Hub coaches and also Food Recipes for diets?
a. Yes b. No

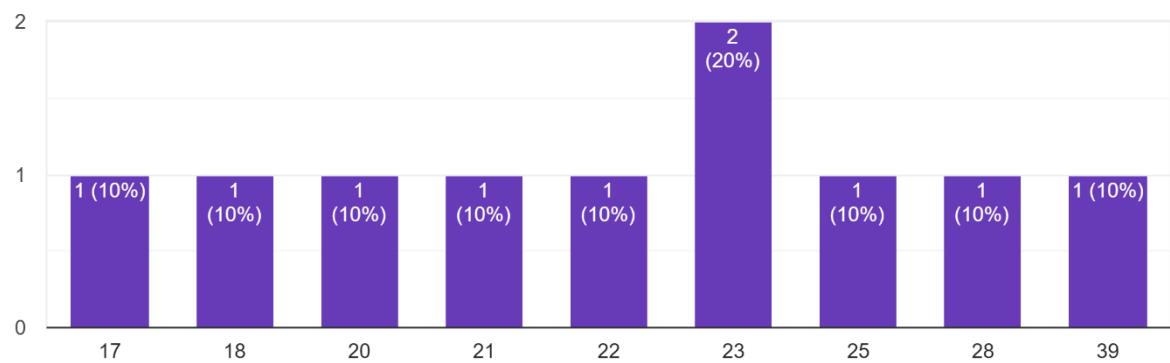
8. Do you think Fit Hub application could help you with your workouts?
a. Yes b. No

Others.

(Please specify if you have other answers.): _____.

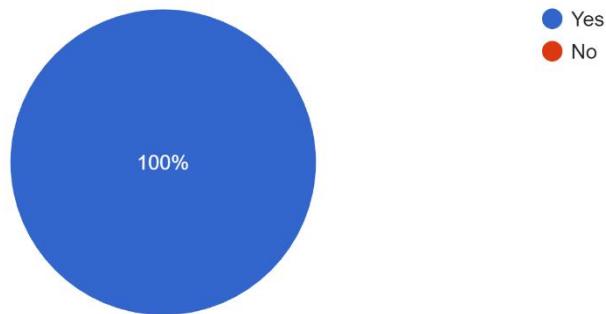
Age

10 responses



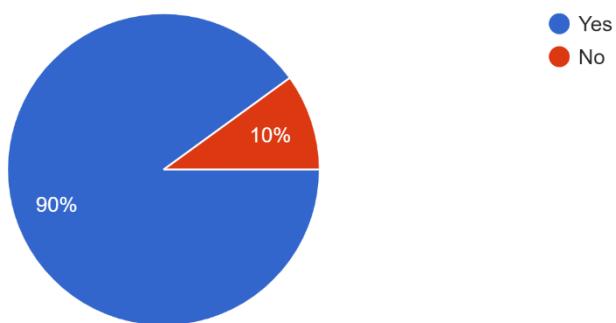
1. Do you have an android phone?

10 responses



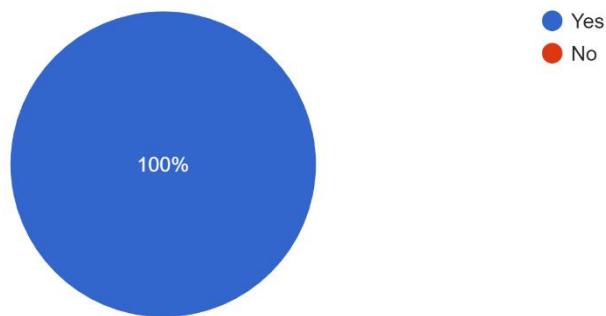
2. Do you prefer to watch workouts and exercises content using your mobile phone?

10 responses



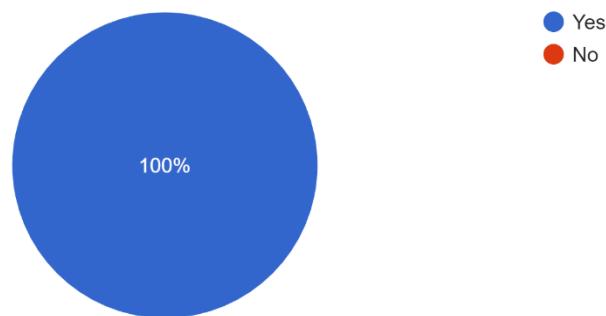
3. Are you aware using mobile applications?

10 responses



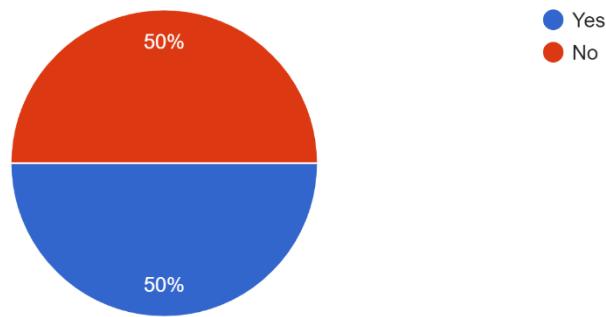
4. Do you think you can do your workouts and exercises at home?

10 responses



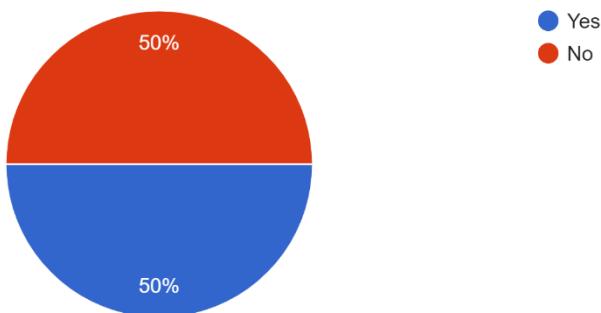
5. During this pandemic, would you prefer a face to face?

10 responses



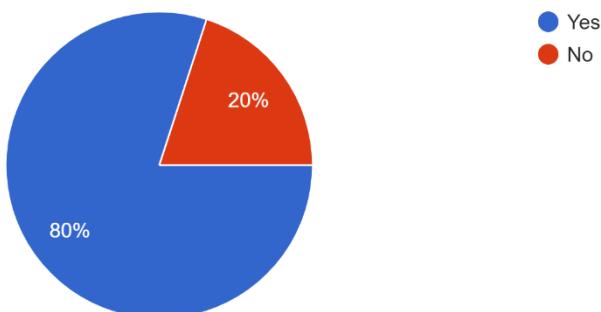
6. Did you subscribe to Fit Hub Fitness Center for a fitness online workout session?

10 responses



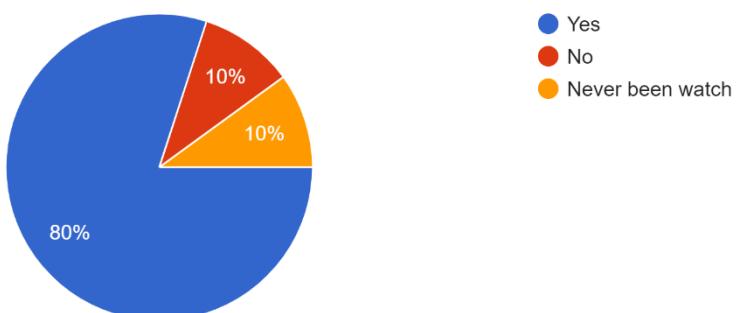
7. Would you like to use and install the Fit Hub Fitness Center Android Application that contains of workouts and exercises videos that created by the Fit Hub coaches and also Food Recipes for diets?

10 responses



8. Do you think Fit Hub application could help you with your workouts?

10 responses



APPENDIX D. ADVISER'S ACCEPTANCE FORM

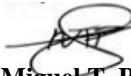
ADVISER'S ACCEPTANCE FORM

NAME OF PROPONENTS: **Aila A. Palma**
Gerard D. Gagarin
Jefferson O. Pathay
Carlos Kurt Lexus Miguel R. Cuaresma

APPROVED RESEARCH TITLE: **Android App: Fitness Workout and Exercise Application Development for Fit Hub Fitness Center**

AREA OF STUDY: **Physical fitness and Exercises**

CONFORME:


Nestor Miguel T. Pimentel
Thesis Adviser

APPROVED BY:

Nestor Miguel T. Pimentel **Date: April 26, 2021**
Thesis Coordinator

NOTED BY:

Jeano Frederick U. Ermitaño
Program Head

APPENDIX E. APPROVAL LETTER

May 5, 2021

Roilan Aterrado
Owner/Coach
Fit Hub Fitness Center
Vatican Building, Unit 307, 17, Vatican Drive, BF Resort Village
Las Piñas City, 1740 Metro Manila
+639217229934

Dear Mr. Aterrado,

Good day!

Technology has been changing so fast. Almost all establishments adopt with every change of it, to cope with its market demands. Like private businesses, we believe that fitness gyms must also improve its processes by acquiring systems that may enhance its efficiency in fitness workouts.

In view thereof, we, Bachelor of Science in Information Technology students of STI College, request to study the process of coaching and instructing your customers. Wherein, we intend later on to propose a Fitness Workout and Exercise Mobile Android Application Development. This is to partially fulfill the requirement for the Degree of Bachelor of Science in Information Technology.

Furthermore, we would like to seek the approval of your good office to conduct a study/research; through a series of interviews, distribution of questionnaires, observation of operations, request for sample reports in your office and proposing a system to be presented in our IT Special Project course.

Rest assured that any information given to the undertakings are treated confidentially and processes of the system are the only things to be presented during the defense.

We are hoping for your consideration.
Thank you very much and Godspeed!

Respectfully yours,

Jefferson Pathay, Gerard Gagarin,
Aila Palma, Carlos Kurt Lexus Miguel R. Cuaresma

Noted by:

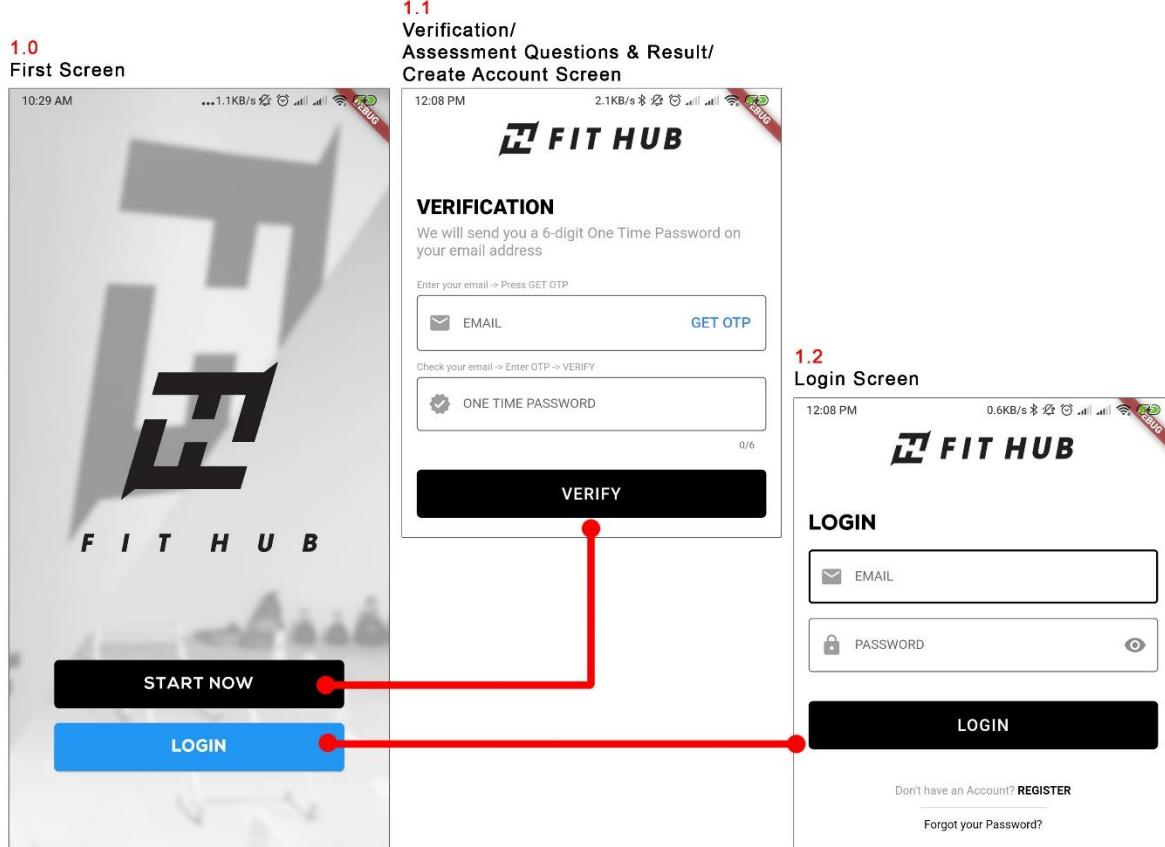

Prof. Nestor Miguel Pimentel
Thesis Adviser

I HEREBY APPROVED OF THE
ABOVE REQUEST FROM THESE
STUDENTS TO GATHER DATA
FROM MY BUSINESS, AND I
ALSO ACCEPTED THE SYSTEM THEY
PROPOSED.


ROILAN T. ATERRADO
05/05/21
(FIT HUB FITNESS CENTER)

APPENDIX F. USER'S MANUAL

Guide on how to use FIT HUB Fitness Workout and Exercise Application Development



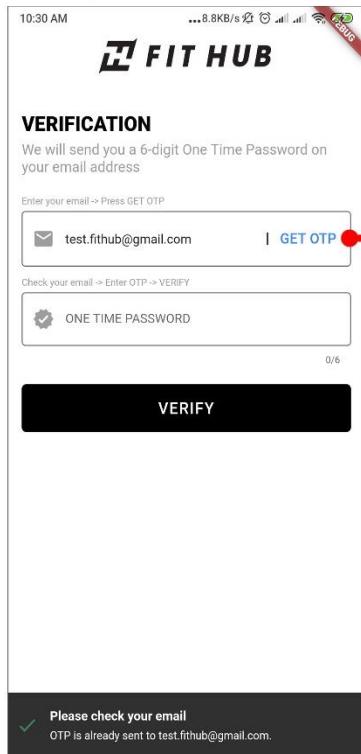
1.0 First Screen

When the user has already installed the FIT HUB application, and they open the app this section is the first screen of the app where they can start to create an account by clicking the START NOW button and they navigate to 1.1 Verification Screen or if they had already an account they need to click the LOGIN button to **navigate them into 1.2 Login Screen.**

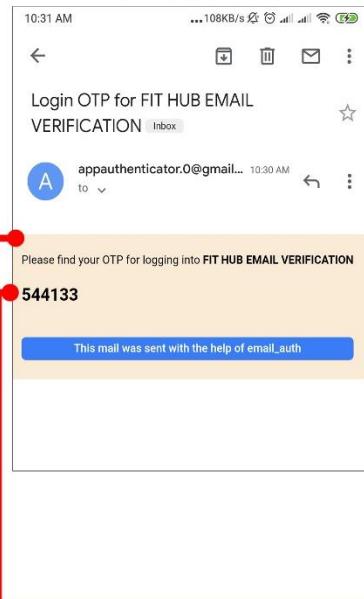
Verification for New User

1.1

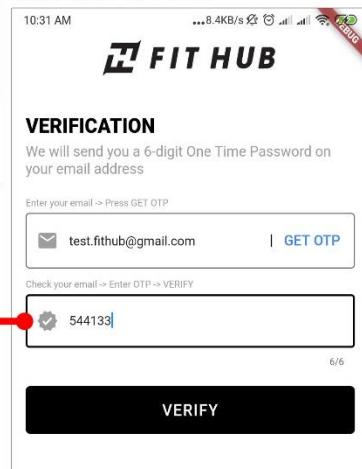
Verification



Email OTP Code Received



Enter Email OTP Code



1.1 Verification

In this section, if the user is new in this app, they need to verify the email will they use to have an access to the whole application. To verify their email, they need to enter their email and click to GET OTP button to send the OTP code in their email. When the OTP code is successfully sent to the email, they need to copy the code and paste it in the OTP text form field and VERIFY. After successfully verified the email and OTP code they navigate to the **1.1.1 First Assessment Questions** Screen and so on.

Assessment Questionnaires

1.1.1 First Assessment Questions Screen

After the user verified their email, they navigate to this section; they need to choose what they are goal to use this app., and the date when they want to start. After to choose, they navigate to the **1.1.2 Second Assessment Questions** Screen to answer the question about their health status, and after this section, they need to click the CONTINUE button to navigate into **1.1.3 Third Question Screen**.

Assessment Questionnaires

1.1.3
3rd Assessment Questions Screen

The screenshot shows the third assessment screen. At the top, it says "JUST A FEW MORE STEPS AND YOU'RE DONE!". Below that, it asks "What's your gender" with options "MALE" (selected) and "FEMALE". It then asks "What is your age?" with the answer "24". Next, it asks "What is your height in meter(m)?", with the answer "1.6". Finally, it asks "What is your current weight in kilogram(kg)?", with the answer "58". At the bottom is a "CONTINUE" button.

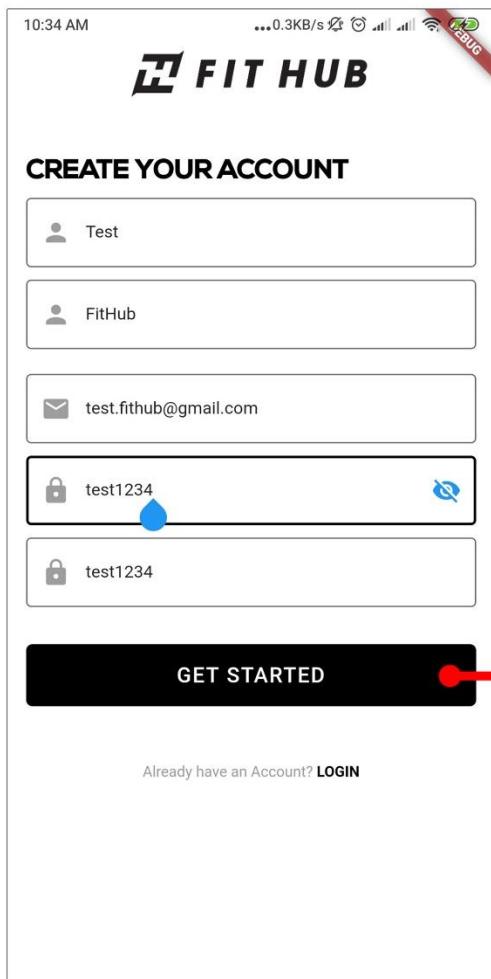
1.1.4
Assessment Result Screen

The screenshot shows the assessment result screen. At the top, it says "YOUR ASSESSMENT RESULT!" and provides a guide for the coach. Below that, it shows the goal "MUSCLE GAIN" and the target date "JUN 10, 2021". It then displays the user's information: "Gender: MALE", "Age: 24", "Body Mass Index: 22.66 | Normal Weight", "Height: 1.6 m", and "Weight: 58 kg". On the right side, there is a section for "Health Status" with several questions and "NO" as the result for all. At the bottom is a "CONTINUE" button.

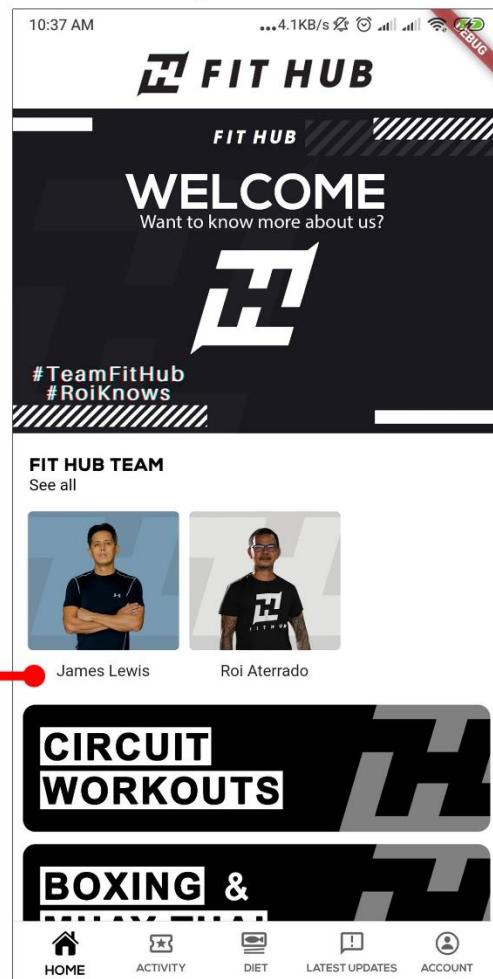
1.1.3 Third Assessment Questions Screen

This section is the final questions for the assessment, after answering this question, the user will navigate to the **1.1.4 Assessment Result Screen**, where all the answer from the question will displayed and they need to review it. After to review the result they need to click the **CONTINUE** button and the user will navigate to the **1.1.5 Create Account Screen**.

1.1.5 Create Account Screen



2.0 User Home Page



1.1.5 Create Account Screen

This section is where they need to create account and after creating an account, they will navigate to the **2.0 User Home Page** where it displays the Home Banner, Coaches Profile and Workout Videos.

2.0 User Home Page

WELCOME
Want to know more about us?
#TeamFitHub #RoiKnows

Want to know more about us?

FIT HUB is a fitness center gym based in Las Pinas City, owned by Coach Rollan Aterrado.

FIT HUB is a fitness workout & exercise Mobile Android Application available for Android devices users. We brought together our FIT HUB coaches to help our customers and possible users of our android app.

You will find three sections in FIT HUB App to help you achieve your goals. HOME has workout exercise videos that you can watch individually and, coaches profiles of FIT HUB and various competency levels from Beginner, Intermediate, and Advanced workouts. DIET is full, healthy recipes, and LATEST UPDATES, the latest announcement and updates or Events and Promos in FIT HUB Fitness Center.

CIRCUIT WORKOUTS

BOXING & MUAY THAI

CROSSFIT WORKOUTS

ALL VIDEOS

James Lewis
Roi Aterrado

DETAILS

BOXING **MUAY THAI** **ADVANCED**

STRENGTH **BEGINNER TO ADVANCED**

ABOUT JAMES LEWIS

Coach James is an all-around trainer, he is competitive CrossFit athlete, he has been in the fitness industry for 17 years. His mission is to learn how to help the FIT HUB customers be fit and healthy.

VIDEOS FROM JAMES LEWIS

CIRCUIT WORKOUTS

3 Set, 5 Station Circuit Workout
Intermediate | by James Lewis

Warm-Up Exercise for Circuit Workouts
Intermediate | by James Lewis

Learn to Punch: Basic Boxing Punches
Beginner | by James Lewis

3 Set, 5 Station Circuit Workout
Intermediate | by James Lewis

Warm-Up and Stretching Exercise For CrossFit Workouts
Beginner | by James Lewis

Warm-Up Exercise for Circuit Workouts
Intermediate | by James Lewis

CrossFit: "Cindy" AMRAP
Intermediate | by James Lewis

Boxing Warm-Up Exercise
Beginner | by James Lewis

3 SET, 5 STATION CIRCUIT WORKOUT
By James Lewis

INTERMEDIATE CIRCUIT WORKOUT

DETAILS

CIRCUIT **30S SECONDS** **BEGINNER**

INTERMEDIATE

DESCRIPTION

For the beginners this workout is good for you. All you need is complete all 3 set, you don't need to hurry, just you need is listen to the countdown to start your Circuit workout.

2.1 User Activity Page

2.1 User Activity Page

The screenshots illustrate the flow of the User Activity Page:

- Screenshot 1: Home Screen (10:52 AM)**
Shows 'ACTIVITY' at the top. Below are sections for 'YOUR ASSESSMENT RESULT' and 'COMPLETED WORKOUT PLANS'. Under 'ON GOING WORKOUT PLANS', three items are listed: Muscle Gain (Jun 10, 2021), Muscle Gain (Jun 11, 2021), and Muscle Gain (Jun 12, 2021). Navigation icons at the bottom include HOME, ACTIVITY, DIET, LATEST UPDATES, and ACCOUNT.
- Screenshot 2: Assigned Coach (10:52 AM)**
Shows 'FIT HUB' at the top. Below is 'ASSIGNED COACH' with 'Your Coach: JAMES LEWIS'. A message from James Lewis states: 'Hello, I'm your coach for gaining muscle, I'll be checking your assessment result and I'll be given to you the workout plan between 8:00AM to 3:00PM everyday.' Below is 'YOUR ASSESSMENT RESULT' with fields for Goal (MUSCLE GAIN), Target Date to Start (JUN 10, 2021), Gender (MALE), Age (24), Height (1.6 m), Weight (58 kg), Body Mass Index (22.66 | Normal Weight), and Health Status. Navigation icons at the bottom include HOME, ACTIVITY, DIET, LATEST UPDATES, and ACCOUNT.
- Screenshot 3: Workout Plan Details (10:53 AM)**
Shows 'WORKOUT PLAN DETAILS' for 'DAY 1 Muscle Gain'. It includes a large calendar icon with the number '1', the start date (Jun 10, 2021), and a message from the coach: 'Hi, this is your first day of your workout, hope you finished these and let me know any of result or feedback.' Below are 'WORKOUT INSTRUCTIONS' with steps: 'WATCH AND FOLLOW THE WARM-UP CIRCUIT WORKOUT VIDEO. TITLE 'WARM-UP EXERCISE FOR CIRCUIT WORKOUTS'', 'AFTER THE WARM-UP VIDEO, REST FOR 5 MINS.', and 'WATCH AND FOLLOW THE CIRCUIT WORKOUT VIDEO. TITLE '3 SET, 5 STATION CIRCUIT WORKOUT''. Navigation icons at the bottom include HOME, ACTIVITY, DIET, LATEST UPDATES, and ACCOUNT.
- Screenshot 4: Workout Plan Details (10:55 AM)**
Shows 'WORKOUT PLAN DETAILS' with instructions: 'AFTER THE WARM-UP VIDEO, REST FOR 5 MINS.', 'WATCH AND FOLLOW THE CIRCUIT WORKOUT VIDEO. TITLE '3 SET, 5 STATION CIRCUIT WORKOUT''. Below is 'PROVIDE RESULTS FROM THIS WORKOUT' with a note: 'Providing results is to determine by your coach to know what other workout can be given to you for the next activities.' An input field shows 'E.G., WEIGHT, WAISTLINE...' with a plus sign icon. Below are two items: 'MY BICEPS IS HURTING SO MUCH' and 'MY LEGS FEELING NUMB', each with a minus sign icon. Note: 'Make it sure you already finish this workout and providing result before you click to finish.' Navigation icons at the bottom include HOME, ACTIVITY, DIET, LATEST UPDATES, and ACCOUNT.
- Screenshot 5: Workout Plan Details (10:55 AM)**
Shows 'WORKOUT PLAN DETAILS' with instructions: 'AFTER THE WARM-UP VIDEO, REST FOR 5 MINS.', 'WATCH AND FOLLOW THE CIRCUIT WORKOUT VIDEO. TITLE '3 SET, 5 STATION CIRCUIT WORKOUT''. Below is 'PROVIDE RESULTS FROM THIS WORKOUT' with a note: 'Providing results is to determine by your coach to know what other workout can be given to you for the next activities.' An input field shows 'E.G., WEIGHT, WAISTLINE...' with a plus sign icon. Below is a confirmation dialog: 'ARE YOU SURE?' with 'Do you really want to finish these workouts?'. Buttons 'CANCEL' and 'YES' are shown. Note: 'Make it sure you already finish this workout and providing result before you click to finish.' Navigation icons at the bottom include HOME, ACTIVITY, DIET, LATEST UPDATES, and ACCOUNT.
- Screenshot 6: Completed Workout (10:56 AM)**
Shows 'COMPLETED WORKOUT' for 'Muscle Gain' (Jun 10, 2021). It features a large calendar icon with the number '1'. Navigation icons at the bottom include HOME, ACTIVITY, DIET, LATEST UPDATES, and ACCOUNT.

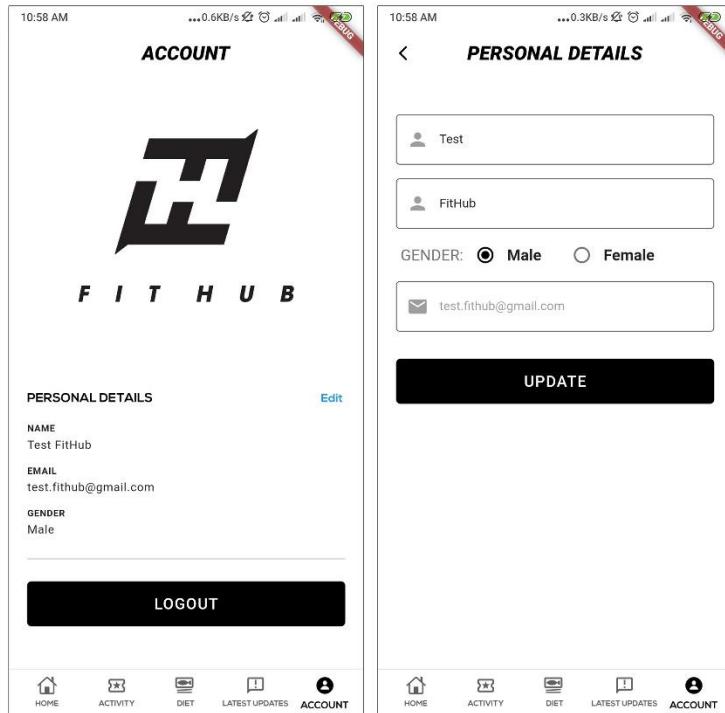
2.1 User Activity Page

In this page, it displays the YOUR ASSESSMENT RESULT button, COMPLETED WORKOUT PLANS and the WORKOUT PLANS that given by their assigned coach for the goal they choose.

2.3 User Latest Updates Page



2.4 User Account Page



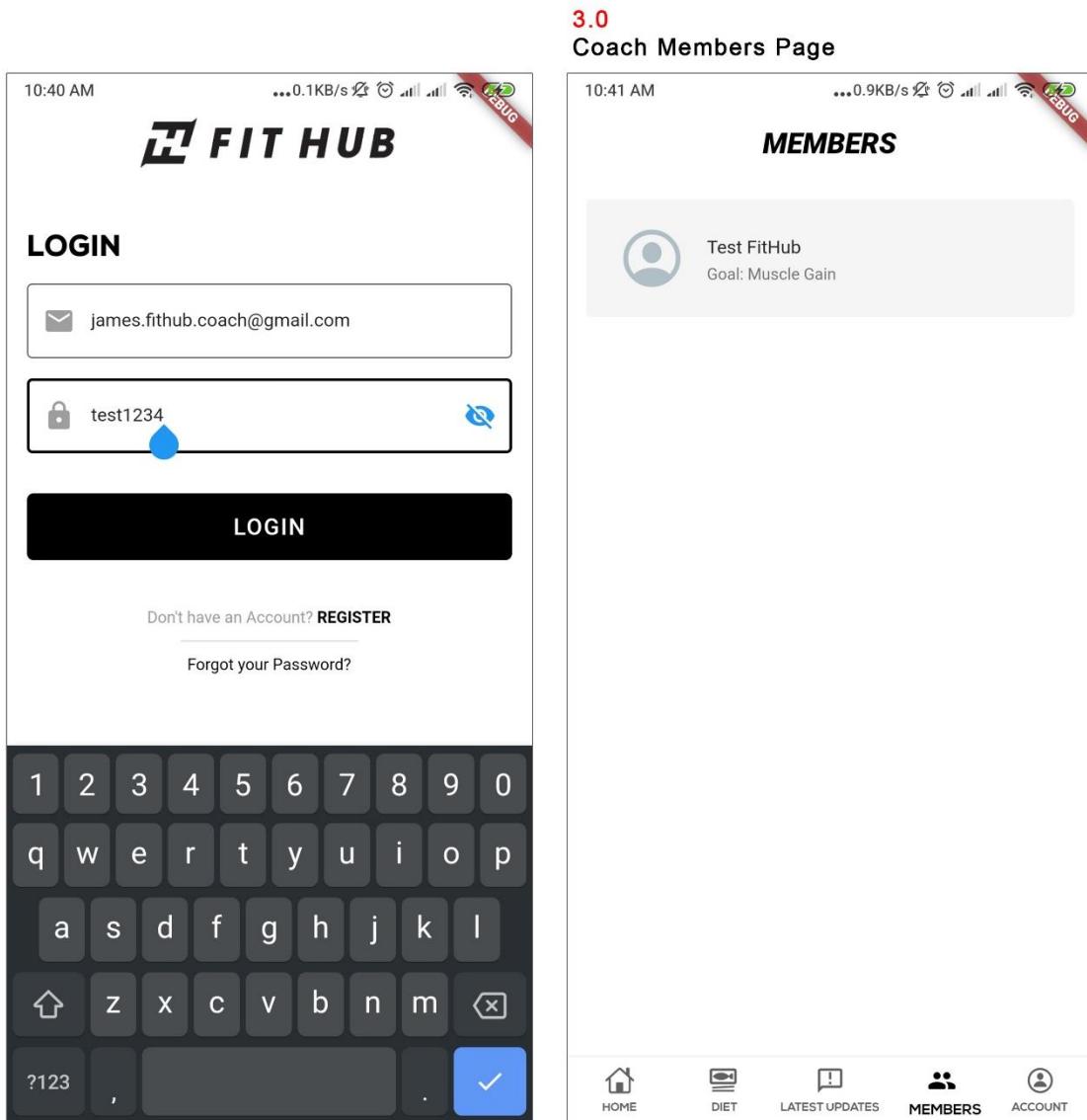
2.3 User Latest Updates Page

In this page, this is where displays the entire announcement and updates from the FIT HUB coaches.

2.4 User Account Page

In this page, it displays the user personal details and they can update it if they want and it shows the LOGOUT button.

FIT HUB Coach Interface



The coach of Fit Hub is the one who gives workout plans for the users, but before they give a workout plan, they need to log in to their coach account and they navigate to the 3.0 Coach Members Page where it displays their members who choose the goal they handle.

FIT HUB Coach Interface

Member Details (Left Screen):

- Name: TEST FITHUB
- ASSESSMENT RESULT
- Goal: MUSCLE GAIN
- Target Date to Start: JUN 10, 2021
- Gender: MALE
- Age: 24
- Height: 1.6 m
- Weight: 58 kg
- Body Mass Index: 22.66 | Normal Weight

Member Details (Right Screen):

- Height: 1.6 m
- Weight: 58 kg
- Body Mass Index: 22.66 | Normal Weight
- Health Status:

 - DO YOU HAVE A HEART CONDITION? NO
 - DO YOU EVER EXPERIENCE UNEXPLAINED PAINS IN YOUR CHEST AT REST DURING WORKOUT/EXERCISE? NO
 - HAVE YOU BEEN TOLD THAT YOU HAVE HIGH BLOOD PRESSURE? NO
 - HAVE YOU BEEN TOLD THAT YOU HAVE HIGH CHOLESTEROL? NO
 - DO YOU HAVE ANY OTHER MEDICAL CONDITIONS THAT MAY MAKE IT DANGEROUS FOR YOU TO PARTICIPATE IN WORKOUT/EXERCISE? NO

- Comments from "Yes" answers: NULL

Workout Plans (Bottom Screens):

The bottom section shows three screens for creating and viewing workout plans.

- ADD WORKOUT PLAN (Left):** Shows a form to add a new plan. It includes fields for DAY (1), DATE TO START (Jun 10, 2021), MESSAGE (Hi, this is your first day of your workout, hope you finished these and let me know any of result or feedback.), and INSTRUCTION (A text input field).
- ADD WORKOUT PLAN (Middle):** Shows a list of steps for a workout plan. Each step has a red minus sign to remove it.
 - WATCH AND FOLLOW THE WARM-UP CIRCUIT WORKOUT VIDEO. TITLE 'WARM-UP EXERCISE FOR CIRCUIT WORKOUTS'
 - AFTER THE WARM-UP VIDEO, REST FOR 5 MINS.
 - WATCH AND FOLLOW THE CIRCUIT WORKOUT VIDEO. TITLE '3 SET, 5 STATION CIRCUIT WORKOUT'
- WORKOUT PLANS (Right):** Shows a list of three existing workout plans named "Muscle Gain" with their respective dates (Jun 10, 2021; Jun 11, 2021; Jun 12, 2021). Each plan has edit and delete icons. A blue circular button with a plus sign is at the bottom right for adding new plans.

Workout Plans (Left Screen):

ADD WORKOUT PLAN:

- DAY: 1
- DATE TO START: Jun 10, 2021
- MESSAGE: Hi, this is your first day of your workout, hope you finished these and let me know any of result or feedback.
- INSTRUCTION: (Text input field)

Workout Plans (Middle Screen):

ADD WORKOUT PLAN:

- WATCH AND FOLLOW THE WARM-UP CIRCUIT WORKOUT VIDEO. TITLE 'WARM-UP EXERCISE FOR CIRCUIT WORKOUTS'
- AFTER THE WARM-UP VIDEO, REST FOR 5 MINS.
- WATCH AND FOLLOW THE CIRCUIT WORKOUT VIDEO. TITLE '3 SET, 5 STATION CIRCUIT WORKOUT'

Workout Plans (Right Screen):

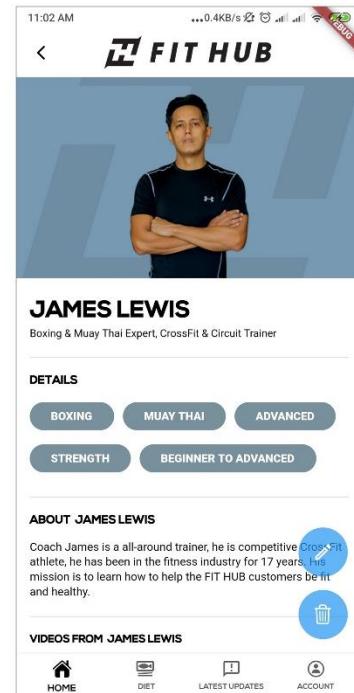
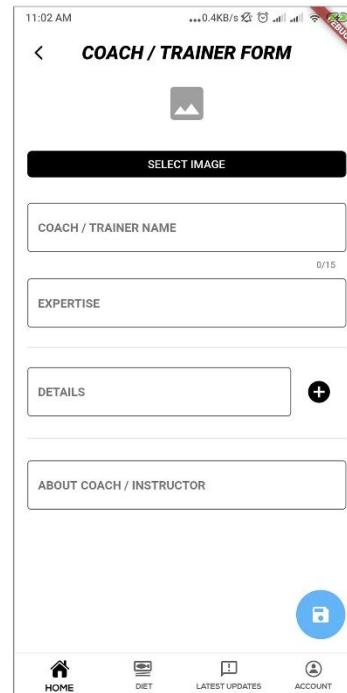
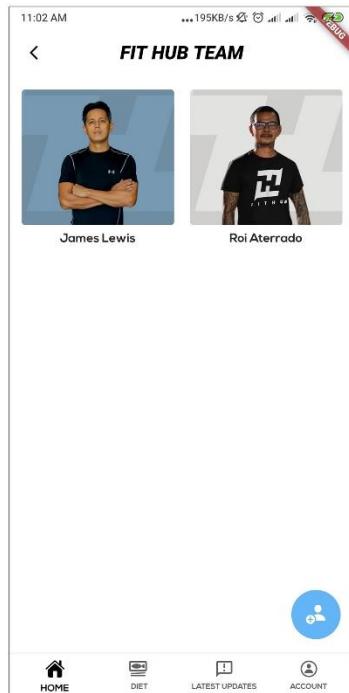
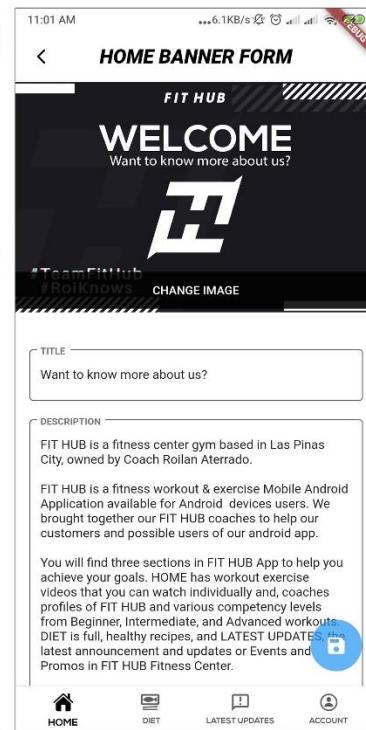
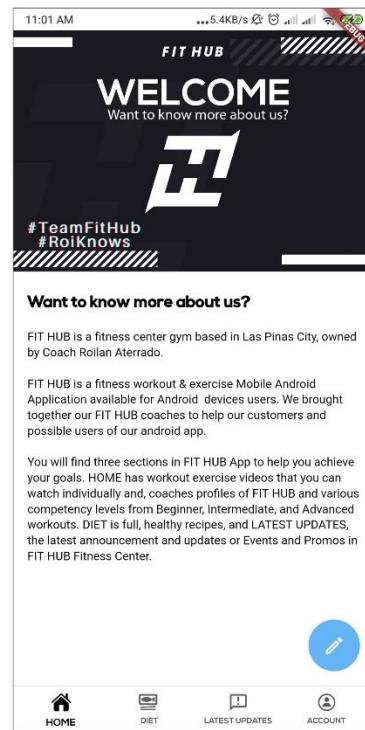
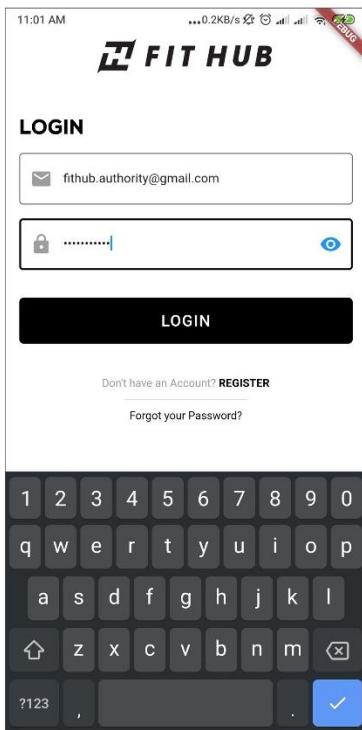
- Muscle Gain (Jun 10, 2021)
- Muscle Gain (Jun 11, 2021)
- Muscle Gain (Jun 12, 2021)

Bottom Buttons:

- HOME
- DIET
- LATEST UPDATES
- MEMBERS
- ACCOUNT

FIT HUB Admin Interface

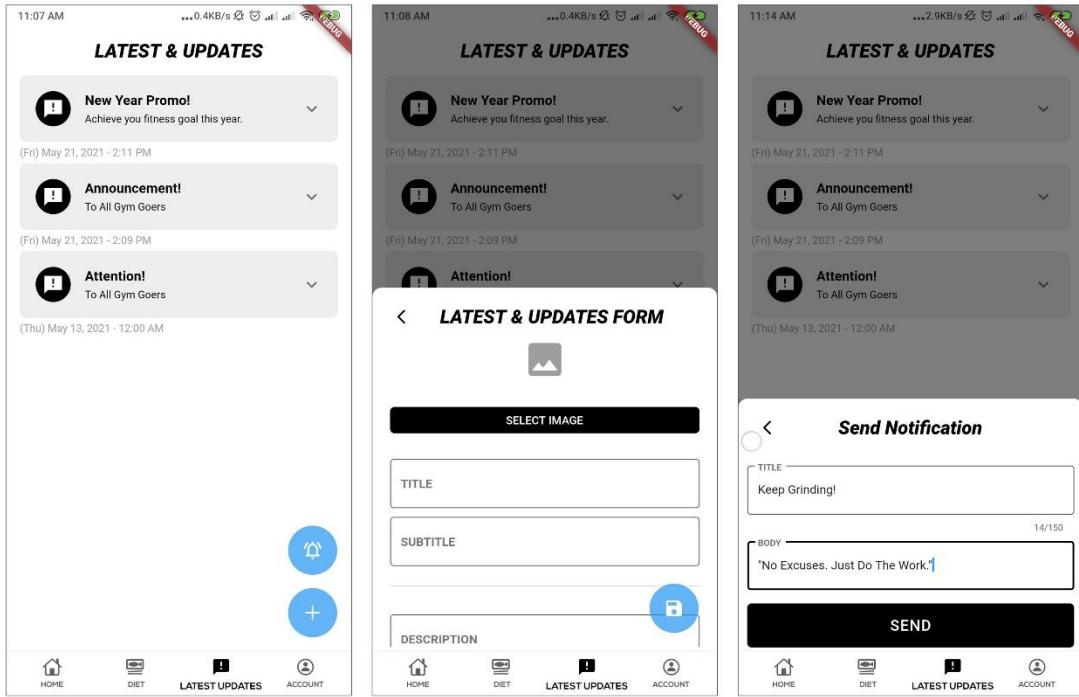
4.0 Admin Interface



FIT HUB Admin Interface

The first screenshot shows the initial form with fields for 'SELECT FIT HUB COACH' (dropdown), 'Category' (dropdown), 'SELECT VIDEO' (button), 'SELECT THUMBNAIL' (button), 'TITLE' (text input), 'LEVEL OF COMPETENCY' (dropdown), and navigation buttons for 'HOME', 'DIET', 'LATEST UPDATES', and 'ACCOUNT'. The second screenshot shows a video player with a play button, a progress bar at 00:00 / 04:31, and a video thumbnail of a man in a gym. Below the video are details: 'LEARN TO PUNCH: BASIC BOXING PUNCHES' by James Lewis, 'BEGINNER BOXING & MUAY THAI', and buttons for 'BOXING' and 'BEGINNER'. The third screenshot shows the same video player and details, with a 'SELECT VIDEO' button below the video thumbnail.

The first screenshot shows the initial form with a 'SELECT CATEGORY' dropdown, 'SELECT THUMBNAIL' button, 'TITLE' text input, 'DESCRIPTION' text input, 'NUTRITION PER SERVING' text input, and navigation buttons. The second screenshot shows a 'NUTRITION PER SERVING' input field with a plus sign and a 'PROCEDURES' input field with a plus sign. The third screenshot shows the 'NUTRITION PER SERVING' input field with nutritional values: '17G PROTEIN', '51G CARBS', '9G FAT', '3G SUGAR', and '348 CAL', each with a minus sign. Below these are 'INGREDIENTS' and 'PROCEDURES' sections with a list of ingredients: '1TBS OLIVE OIL', '1PC BELL PEPPER', '1 CAN TUNA IN WATER, DRAINED', and '1/4 HEAD BOK CHOY, CLEANED AND BLANCHED', each with a minus sign. Navigation buttons are at the bottom.



APPENDIX G. CURRICULUM VITAE OF RESEARCHERS

Curriculum Vitae of
JEFFERSON O. PATHAY
 Blk. 2 Lot 22 Doña Leoncia Ave., Doña
 Leoncia Subdivision, Talon Singko, Las Piñas City
 jeffersonpathay@gmail.com
0999-465-0716



EDUCATIONAL BACKGROUND

Level	Inclusive Dates	Name of school/ Institution
Tertiary	June 2016 - 2021	STI College Las Piñas
TechVoc	June 2014 – 2016	STI College Tagum
High School	June 2010 - 2014	Las Piñas East National High School
Elementary	June 2004 – 2010	Almanza Elementary School, Las Piñas

PROFESSIONAL OR VOLUNTEER EXPERIENCE

Inclusive Dates	Nature of Experience/ Job Title	Name and Address of Company or Organization
January 2015	Layout Artist	Joshua at Workz Printshop
February 2016	Technical Support	CAFGU

AFFILIATIONS

Inclusive Dates	Name of Organization	Position
January 2015	Edwin Malazarte Gregorio	Owner
February 2016	Ltc. Michael A Banua INF (GSC) PA	Commander

SKILLS

SKILLS	Level of Competency	Date Acquired
Flutter Mobile App Developer (Android)	Low	January 2021
Photo & Video Editing	Average	January 2020
Photography & Videography	Average	January 2020
Visual Basic Programming	Low	June 2016
Layout Designing	Average	January 2015

TRAININGS, SEMINARS OR WORKSHOP ATTENDED

Inclusive Dates	Title of Training, Seminar or Workshop
February 2016	Technical Support at Users Training on CAFGU Active Auxiliaries management Information System
June 2016	On the Job Training at PLDT Philcom Tagum
July 2015	Street Art Session
September 2015	IdeaSpace: Eurekafe@Tagum
September 2015	Basic Computer Literacy Training

Curriculum Vitae of
Aila A. Palma
#3 Lilac St., Dandelion, Doña Manuela,
Pamplona Tres, Las Piñas City
ayla.palma24@gmail.com
0915-546-7413



EDUCATIONAL BACKGROUND

Level	Inclusive Dates	Name of school/ Institution
Tertiary	2016 – 2021	STI College Las Piñas
	2015 – 2016	Saint Francis of Assisi College (SFAC)
TechVoc	2015	Las Piñas City Manpower Training Center (TESDA)
High School	2014 – 2015	Las Piñas North National High School (LPNNS)
Elementary	2009 – 2010	Moonwalk Elementary School

PROFESSIONAL OR VOLUNTEER EXPERIENCE

Inclusive Dates	Nature of Experience/ Job Title	Name and Address of Company or Organization
2015	Trainee Office Staff	Bureau of Fire Protection (BFP) Las Piñas City Hall

AFFILIATIONS

Inclusive Dates	Name of Organization	Position
2012 – 2013	Red Cross Youth (RCY)	Committee
2011 – 2012	Mary Immaculate Parish Special School – Book Lovers Club (BLC)	Member

SKILLS

SKILLS	Level of Competency	Date Acquired
Computer Programming	Intermediate	2017
Computer Literate	Competent	2015

TRAININGS, SEMINARS OR WORKSHOP ATTENDED

Inclusive Dates	Title of Training, Seminar or Workshop
2018	Red Cross Orientation for Blood Donation
2018	National Youth Convention (NYC)
2015	On the Job Training

Curriculum Vitae of



Gerard D. Gagarin
15 Ts Cruz Subdivision, Almanza dos, Las Piñas City
gagaringerard@gmail.com
0949-414-3033

EDUCATIONAL BACKGROUND

Level	Inclusive Dates	Name of school/ Institution
Tertiary	2016 – 2021	STI College Las Piñas
	2015 – 2016	Technological University of the Philippines
High School	2011 – 2015	Brittany School of Las Piñas
Elementary	2010 – 2011	Zapote Elementary School

SKILLS

SKILLS	Level of Competency	Date Acquired
Microsoft Office (Word, Power point, Excel)	Average	June 2011
Electrical Technician	Average	June 2015

Curriculum Vitae of
Carlos Kurt Lexus Miguel R. Cuaresma



#6 Soyuz Street Moonwalk Village, Las Piñas city
skyhere14@gmail.com
0917-985-3850

EDUCATIONAL BACKGROUND

Level	Inclusive Dates	Name of school/ Institution
Tertiary	2019 – Present	STI College Las Piñas
	2012 – 2014	University of Perpetual Help System DALTA
High School	2009– 2012	TGWS
Elementary	2003 – 2009	Sunshine Learning Center

SKILLS

SKILLS	Level of Competency	Date Acquired
Photo and Video Editing	Average	November 2020
Visual basic programming	Average	July 2012
Microsoft Office (Word, Power point, Excel)	Average	June 2011