

# Fitness Android Application Using Flutter

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*Abstract- Gym Owner add the Members details in excel format. The details of Gym Members entry in feesplan wise, so it is taking many files for gym owner. This Project is to allow the staff to add the details in feesplan wise and integrate the details of all feesplan by a Gym owner. The member's details saved in a Google's Firebase. So, the Security is high, don't worry for the privacy issue. This Application consists 5 major parts. Those are members, members details, fees details, paid details, cancel insert members for temporary member remove. This project is helpful to add details, add fees details, fees remainder to members via SMS.*

## I. INTRODUCTION

### 1.1 ABOUT THE PROJECT

The scope of the project is to make easy all the process involved in a Consolidated gym management. This Project is to allow the staff to add the details in feesplan wise and integrate the details of all feesplan by a Gym owner. The member's details saved in a Google's Firebase. So, the Security is high, don't worry for the privacy issue. This Application consists 5 major parts. Those are members, members details, fees details, paid details, cancel insert members for temporary member remove. This project is helpful to add details, add fees details, fees remainder to members via SMS.

The main scope of this project is to develop an android application for Gym owner to store the details of the members, then maintain the fees details.

## II. SYSTEM ANALYSIS

### 2.1 PROPOSED SYSTEM

The Proposed system is an Android Mobile Application, "Shan Fitness" which helps to store the student data easily and see the data. First the home page contains 4 grid tiles. Each is containing a specific detail. Members, Members details, Fees Details, Paid

Details. And then Cancel Insert Members available here. Members grid tile contain Registration form. This grid tile contains add the members in gym. Members Details contains details in table view. It helpful for the Gym Owner to get a members details. Another important part of the app is Fees Details. It is in the home screen. Gym owner add the fees details. It will send a SMS to paid gym members.

## FEATURES OF PROPOSED SYSTEM

In this proposed system, all the details of the gym mentioned are to be added. gym owner can add the member details and High security provided by the google;s firebase.

This project is helpful to add details, add fees details, fees remainder to members via SMS. The updates for members can send through SMS. Fees remainders also available in this. Fees Due payments allowed here.

## III. SYSTEM REQUIREMENTS

### 3.1 SYSTEM SPECIFICATION

#### 3.1.1 Hardware

Configuration Processor: AMD PROCESSOR  
RAM: 4 GB RAM  
Hard Disk: 400 GB  
Monitor: 16"  
Color Monitor Mouse: Laser mouse  
Key Board: Standard 104 Keys

#### 3.1.2 Software

Specification Operating System: Microsoft Windows 8  
Front End: Flutter  
Back End: Firebase

#### IV. PROJECT DESCRIPTION

##### 4.1 PROJECT MODULES

###### 1. User Login/Registration:

If the user wants to use the Shan Fitness, we must install the application and register it by providing login information. As shown in the Figure 11, the login information includes code and password. Once, gym owner registers, the registered information is stored in the server and can be validated, checking for the valid credentials for the next time gym owner logins with the application.

###### 2. Members:

Members grid tile contains Member Registration form. Members grid tile contains add members for the gym. It contains a Gym Member Registration form. It has the fields like name, father's name, age, sex, dob, height, weight, goal, occupation, mode of work, address, whatsapp number, email id, blood group, fees plan, concession fees, membership fees, fitness plan, veg or non\_veg, personal training, medical conditions, food allergy, sleeping time, water intake, photo, address proof, joining date, fees due date. After the form fill click submit to save. After the registration the SMS will send to the member.

###### 3. Members Details

Members Details grid tile contains members details showed in tabular view. Then it can be filtered by feesplan (Monthly, Quarterly, Half Yearly, Annual). Then fees due date filter also used here. In this page, search bar feature available. The total members count display in this page. In table view, the fields are name, date of joining, fees remainder, age, sex, dob, whatsapp number, feesplan, fitness plan, address proof, generate pdf, cancel insert, member delete.

###### 4. Fees Details

Fees Details grid tile contains monthly, quarterly, half yearly, annual plan fees details. It has a dropdown for collect the details. Dropdown options are Lobby, Paid, Cancel Insert. This page has the total paid and not paid count. Then Gym owner can add pay in this lobby section. When Gym Owner click the plus icon in the List tile in lobby. It will send the SMS to the gym members.

###### 5. Paid Details

Paid Members grid tile contains fully paid members details. It has the list view for show the paid members in fees planwise.

###### 6. Cancel Insert Members

Share the material grid is a button. It is for share the material through WhatsApp or other. First click the button, after it will open the gallery of the mobile. When open it, should allow to access the gallery with permission. After choose the material show the share option in the app.

Select the media and send the material through it.

#### V. SYSTEM TESTING

##### 5.1 TESTING

**Black Box testing:** In this project, sample test cases are written and manual testing is done to check the functionality of the application.

**White Box testing:** Once the application meets the user requirements and functionalities according to the test cases, its internal logic are completely tested to ensure that the application does not have any logical errors or issues.

**Unit Testing:** I have tested all the modules of the application individually by running as a test program.

**Integration testing:** After testing the modules individually, tested them by integrating all the sub modules, modules into one application. **System Testing:** It refers to checking whether the system in which the application is built meets the necessary requirements like software support. For example: In this project, I have checked whether the device in which the application developed is compatible with the software (Visual studio Code)

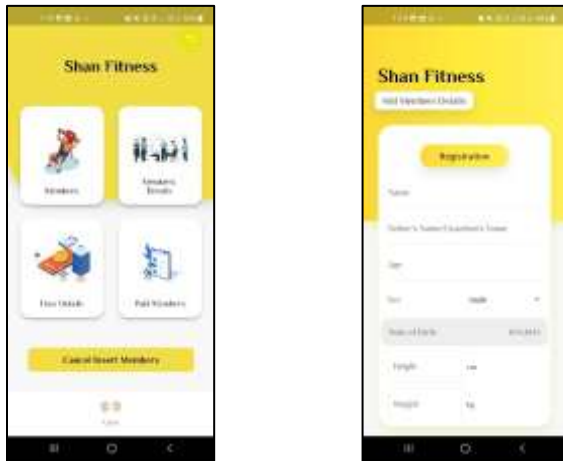
**End to End Testing:** Tested the complete environment of application by connecting the device with different machines, installing as an APK file, with the database and in local network.

**Usability Testing:** Finally, usability testing is performed by testing the application's flow, UI design and how flexible and easy the application is easy to use.

## VI. SYSTEM IMPLEMENTATION

### Members

Members grid tile contains add members for the gym. It contains a Gym Member Registration form. It has the fields like name, father's name, age, sex, dob, height, weight, goal, occupation, mode of work, address, whatsapp number, email id, blood group, fees plan, concession fees, membership fees, fitness plan, veg or non\_veg, personal training, medical conditions, food allergy, sleeping time, water intake, photo, address proof, joining date, fees due date. After the form fill click submit to save. After the registration the SMS will send to the member.



### Members Details

Members Details grid tile contains members details showed in tabular view. Then it can be filtered by feesplan (Monthly, Quarterly, Half Yearly, Annual). Then fees due date filter also used here. In this page, search bar feature available. The total members count display in this page. In table view, the fields are name, date of joining, fees remainder, age, sex, dob, whatsapp number, feesplan, fitness plan, address proof, generate pdf, cancel insert, member delete.

This Grid tile has the feature like fees remainder to the gym members overdue or upcoming due via SMS. It manually handle by gym owner. When user click the whatsapp number it will open the dial pad with number. Another feature is Cancel Insert; it is used for temporary remove the member from members list.

When Gym owner need details about gym members, click the Generate PDF button, it will generate pdf. When user click the name of member, it will redirect the Member Profile. It has the full details about member.



### Member Profile

Member Profile contains full details about member. This page has the feature like edit option (Profile Edit). When user want to profile edit, they must want authenticate via passcode alert.

### Fees Details

Fees Details grid tile contains monthly, quarterly, half yearly, annual plan fees details. It has a dropdown for collect the details. Dropdown options are Lobby, Paid, Cancel Insert. This page has the total paid and not paid count. Then Gym owner can add pay in this lobby section. When Gym Owner click the plus icon in the List tile in lobby. It will send the SMS to the gym members.

Then fees details screen has due fees option, it will be help to the gym owner.



### Paid Members

Paid Members grid tile contains fully paid members details. It has the list view for show the paid members in fees planwise.



### Cancel Insert Members

Cancel Insert Member grid tile contains the temporary removed by the gym owner. When gym owner wants to add main member list, gym owner click the insert option in tabular view. It will give alert passcode for authenticate. If user complete the process, the member will be add in member list.

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