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AN-NAJAH NATIONAL UNIVERSITY



Computer Engineering Department

Software Graduation Project

FIT GYM

students

Thara' Shehadah

Omama Kittaneh

tharashehadeh@gmail.com

omama.kitt2000@gmail.com

Under the supervision of

Dr.Sofyan Samara

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Thara' and Omama .

Disclaimer

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Contents

1	Introduction	8
1.1	Statement of problem:	8
1.2	Project objectives:	8
1.3	Scope of the work:	8
1.4	Importance:	9
1.5	Organization:	9
2	Constraints,Problems and Standards:	10
2.1	Constraints and Problems:	10
2.1.1	Connection to the internet:	10
2.1.2	Short term time:	10
2.1.3	Few resources available:	10
2.1.4	Earlier work:	10
3	Literature Review:	11
4	Technical choices :	12
4.1	Programming Language	12
4.1.1	Front End	12
4.1.2	Back End	12
4.2	Tools	13
5	Methodology:	14
5.1	Main Pages	14
5.1.1	Web Side :	14
5.1.2	Mobile Side:	33
5.2	Database	90
6	Results and discussion	92
7	Conclusion and recommendations	92
7.1	Conclusion	92
7.2	Recommendations	92
7.2.1	Future work :	92

List of Figures

1	Figure 5.1.1:Login admain	14
2	Figure 5.1.2: Member	15
3	Figure 5.1.3: view member	16
4	Figure 5.1.4: Edit Member	17
5	Figure 5.1.5:Member validaty	18
6	Figure 5.1.6:MEMBER PLAN	19
7	Figure 5.1.7:Save Plan Member	20
8	Figure 5.1.8:Veiw member Vaildity	21
9	Figure 5.1.9:Payment	22
10	Figure 5.1.10:Payment	23
11	Figure 5.1.11:add Plan	24
12	Figure 5.1.12:service	25
13	Figure 5.1.13:Add service	26
14	Figure 5.1.14: add Aditional service	27
15	Figure 5.1.15: add Traniner	28
16	Figure 5.1.16:add Trainer	29
17	Figure 5.1.17:search Traniner	30
18	Figure 5.1.18>Edit Admain	31
19	Figure 5.1.18:Save Admain	32
20	Figure 5.1.19: Splash mobile page	33
21	Figure 5.1.20: Introduction to the gym	34
22	Figure 5.1.21: Introduction to the gym	35
23	Figure 5.1.22: Login	36
24	Figure 5.1.23:Register	37
25	Figure 5.1.24: Forgot Password	38
26	Figure 5.1.25:verfiy code	39
27	Figure 5.1.26: Reset Password	40
28	Figure 5.1.27:Personal Information	41
29	Figure 5.1.28: gender	42
30	Figure 5.1.29:Main Page	43
31	Figure 5.1.30: Sidebar	44
32	Figure 5.1.31:Main Page	45
33	Figure 5.1.32:Filtrig	46
34	Figure 5.1.33:Edit Profile	47
35	Figure 5.1.34:Profile Page	48
36	Figure 5.1.35:Sidebar after edit profile	49

37	Figure 5.1.36: GYM Profile	50
38	Figure 5.1.38:Rate	51
39	Figure 5.1.39:GYM Profile	52
40	Figure 5.1.40:GYM Profile	53
41	Figure 5.1.41:GYM Profile	54
42	Figure 5.1.42:Activity Page	55
43	Figure 5.1.43:Activity Page	56
44	Figure 5.1.44: GYM Profile	57
45	Figure 5.1.45: call	58
46	Figure 5.1.46: call	59
47	Figure 5.1.47: Email	60
48	Figure 5.1.48: Email	61
49	Figure 5.1.50:Request Join	62
50	Figure 5.1.51:Request Join	63
51	Figure 5.1.52:Request Review	64
52	Figure 5.1.53: Home	65
53	Figure 5.1.54: Home	66
54	Figure 5.1.54: Add Activity	67
55	Figure 5.1.55: Compose	68
56	Figure 5.1.56: calender	69
57	Figure 5.1.57:Calander	70
58	Figure 5.1.58:Calander	71
59	Figure 5.1.59:Calander	72
60	Figure 5.1.60: Calander	73
61	Figure 5.1.61: Traineer	74
62	Figure 5.1.62: Personal traineer	75
63	Figure 5.1.63: subscrition	76
64	Figure 5.1.64: Exercices	77
65	Figure 5.1.65:Exercices	78
66	Figure 5.1.66:Tracking weight	79
67	Figure 5.1.67:Tracking weight	80
68	Figure 5.1.69:delete weight	81
69	Figure 5.1.70:Tracking weight	82
70	Figure 5.1.71:analysis weight	83
71	Figure 5.1.49:email	84
72	Figure 5.1.72:Diets	85
73	Figure 5.1.73:Diets	86
74	Figure 5.1.74:chatBot	87

75	Figure 5.1.75:Favorite	88
76	Figure 5.1.76:Confirm	89
77	Figure 5.1.75: Mysql tables	90
78	Figure 5.1.76: :Firebase tables	91

Abstract

Day after day, the development of life is increasing in different areas of life, and one of these areas is the field of programming and technology. Smart devices have become an integral part of our daily lives. The development of applications that facilitate our daily lives is very critical, especially given how fast our lives have become. This project aims to facilitate training for trainees in the gym with trainers from their homes. and to submit a form that matches his requests with little time and effort. The fit gym provides various services and features to trainees and coaches . From the gym side, it will be able to add a lot of information about it; manage the join requests; see some analysis; manage its own activities; add pictures; schedule daily training for each person, like : training dates, meal times and chat with trainees On the other hand, trainees can find the best gym that fits what they need by using the filtering feature . Also, they can fill out a form to join the fit gym , see the fit gym's information, save some fit gym for later, and chat with the fit gym. Trainees can also give rates for the gym. There are not many applications similar to ours. However, there are applications similar to ours in some features, but they schedule appointments and times and adhere to them, which helps the person to arrive on time, away from the traffic jams in light of the crises that Palestine suffers from, in addition to avoiding congestion inside the gym, as all of this comes at the time specified. We developed and created this application using PHP (MySQL) and flutter.

1 Introduction

1.1 Statement of problem:

With the development of life, there are many mobile applications that serve different aspects of life such as education, sports, health and so on. FIT GYM is a part of Sport application. Many people find it difficult to find a suitable gym in terms of Price, location and availability of some services in any gym.

1.2 Project objectives:

The main goal of our project is to help the trainee, save time and effort by choosing the gym closest to their location, as well as to help sports clubs display their information. The project consists of two parts: the first is an Android app for trainees. He. She, It allows them to view a lot of information about the sports clubs, such as the address, the gender of the trainee, the installments for each sports club, and the paid services that are available inside the gym, and it also contains pictures of each gym and the activities of the sports club. They can also communicate with the gym by calling them and sending messages to them. They can also Submit a request to join the sports club, and each sports club contains a group of trainers, and each trainer has a page that contains his personal information and also contains a schedule for arranging appointments, and also provides a diet for each trained person, and the second is a web application for the trainer that allows them to modify the trainees' information and their Personal information, accepting or rejecting requests, and contains a payment system to make it easier for them to know their financial amount based on the period and services.

1.3 Scope of the work:

As we mentioned earlier, the (FIT GYM) project focuses on trainees and athletes in Palestine to help find the best sports club and apply to join, so the application facilitates a lot of things for both trainees and trainers. Developing applications in different areas of life makes it easy.

1.4 Importance:

There are some websites for sports clubs in Palestine, but there are no applications that bring all these clubs together. Also, there is no application that allows the trainees to view their information and enable them to communicate with each other. Trainers can also see the progression of the trainees' weights through graphs, which is useful for the trainees. As a result, we have discovered that an app that has these features is essential to save time, be easy, and be free for users.

1.5 Organization:

This report is organized as the following:

Chapter1:an introduction and overview about the importance and the scope of this project.

Chapter2: the problems and constraints that we faced in this project.

Chapter3: literature review.

Chapter4:Technical choices and Programming languages.

Chapter5:Methodology.

Chapter6:Result and discussion.

Chapter7: Conclusion and recommendation.

2 Constraints,Problems and Standards:

2.1 Constraints and Problems:

2.1.1 Connection to the internet:

Our application needs a constant online connection. This is because of the MySQL online database and the Firebase.

2.1.2 Short term time:

The biggest problem we faced was the limited time, where we had to learn flutter,Dart and Firebase, and they are new languages for us, and it took us great effort and time.

2.1.3 Few resources available:

Learning flutter and Dart was not easy; after reading the manual, we had to do a lot of research about what we wanted to do, as well as MySql (MyPH-PAdmin)and firebase.

2.1.4 Earlier work:

We took online courses and watched videos on Dart,Flutter , PHP,Mysql and Firebase to help us with the implementation and development of our project.

3 Literature Review:

Our application- is different from many other applications for sports clubs in Palestine. Although there are some sites specialized only in the sports clubs themselves and They display their information on it. In our application, trainees from any city in Palestine can join the application Our website is online so when trainees join the app they can see many sports clubs and lots of information about them. A chat section allows trainees Coaches will connect with each other and provide scheduling for appointments. As mentioned above, there is no app similar to ours in Palestine, but there is Many sites, especially for the same sports clubs There is an application in the play store "FITNESS-Gym Workout" but it is not in Palestine and it is a small application Similarities with our app.

4 Technical choices :

4.1 Programming Language

4.1.1 Front End

The mobile application is built using the Flutter and Dart language, which is an open-source UI software development kit created by Google. It is used to develop cross-platform applications for Android, and iOS. We built the web application using the HTML, CSS, and Java script which is an open-source front-end component. As a foundation, Flutter can be used to create single-page or mobile applications.

4.1.2 Back End

For the back end, we use:

*MySQL (MyPHPAdmin) with XAMPP server. It is a free and open-source MySQL and MariaDB management tool. It has become one of the most popular MySQL admins Tools, especially for web hosting services, such as a mobile web application mostly developed in PHP. In our app, we used it to register and log in for both trainers and trainees, store all Information about the sports club, trainee form requests, activities,Photos, items saved, scheduled appointments, and diet and information on trainers.

*Firebase: is a Backend-as-a-Service (BaaS).It offers a number of tools and services to enable developers to create high-quality apps, expand their user base, and gain revenue. It is based on Google's technology. Firebase is a NoSQL database application that saves information in JSON-like documents. It offers a cloud-based NoSQL database that enables developers to store and synchronize data between users in real time. The real-time database is a huge entity that allows developers to efficiently handle their apps and users' data in real-time. Only one API is required; the Firebase database will give your application with both current data values and any available changes on that data. In our project, we used Firebase to store chat messages and images in the cloud.

4.2 Tools

*Android Studio:

Android Studio is the official integrated development environment (IDE) for Google's Android operating system, based on JetBrains' IntelliJ IDEA software and tailored exclusively for Android production. It will be accessible as a free download for Windows, macOS, and Linux in 2023, as well as a subscription-based service. It is intended to replace the Eclipse Android Development Tools (E-ADT) as the primary IDE for developing native Android apps.

*Visual Studio Code:

Visual Studio Code is a lightweight but efficient source code editor for Windows, macOS, and Linux that runs on your desktop. It contains built-in support for JavaScript, TypeScript, and flutter, as well as a large ecosystem of extensions for additional languages (such as C++, C, Java, Python, PHP, and Go) and runtimes (such as .NET and Unity).

5 Methodology:

5.1 Main Pages

5.1.1 Web Side :

Login admin:

When the admin wants to join (FIT GYM), the first thing he does is enter the name and password to log into the application as shown in Figure 5.1.1

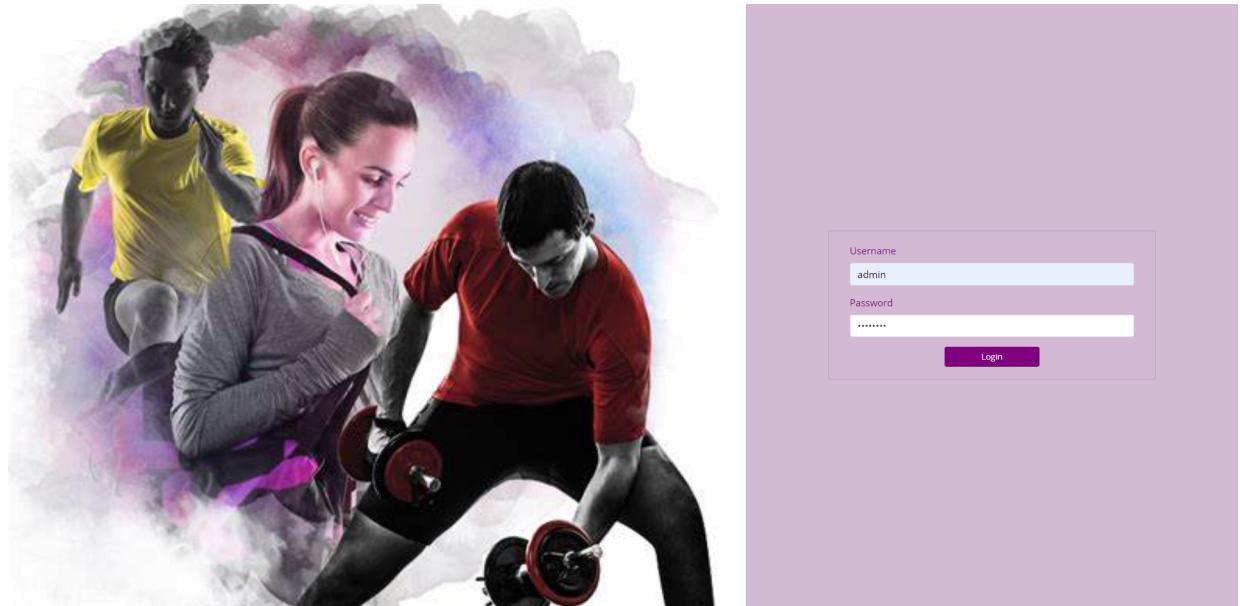


Figure 5.1.1:Login admain

Member:

when the admin login, the next page view all users who apply to join the gym, and the admin can edit and view more detail for each user and remove those who finish with the gym and add a new user.as shown in Figure 5.1.2.

#	Member ID	Name	Email	Contact	Action
1	63576514	Ali, Edit Hus	bghtheh	0593422123	<button>View</button> <button>Edit</button> <button>Delete</button>
2	80961525	Ali, Noor Ahmad	noor	05945766687	<button>View</button> <button>Edit</button> <button>Delete</button>
3	83726764	Hh, Hh Hhh	Omama.kitt2000@gmail.com	0593422128	<button>View</button> <button>Edit</button> <button>Delete</button>
4	59430244	Kitt, Omama Jamal	okitt@gamil.com	0593331112	<button>View</button> <button>Edit</button> <button>Delete</button>
5	5541798	Kittaneh, Omama Jama	Omama.kitt2000@gmail.com	0594523234	<button>View</button> <button>Edit</button> <button>Delete</button>
6	58487246	Okk, Omama Jamal	omkk@sample.com	0594566788	<button>View</button> <button>Edit</button> <button>Delete</button>
7	39303207	Th, Thara Jjcnmcd	thara@gmail.com	0593422345	<button>View</button> <button>Edit</button> <button>Delete</button>

Figure 5.1.2: Member

View Member:

admin can view more details about each user like first name, middle name, last name, gender, email, contact, address, and which plan he registers with for month and two and service he wants. as shown in Figure 5.1.3.

The screenshot shows the 'FTI GYMem' application interface. On the left, there's a sidebar with navigation links: 'Members', 'Membership Validity', 'Plans', 'Service', 'Trainers', and 'Users'. The main content area has a title 'Member Details' with a sub-section 'Membership Plan List'. On the right, there's a sidebar titled 'Administrator' with options 'New', 'Edit', 'Delete', and 'Close'. The 'Membership Plan List' table has columns: Plan, Service, Start, End, and Status. It shows two entries: one for 'meal' starting Nov 08, 2022, ending Dec 08, 2022, marked as 'Closed'; and another for 'meal' starting Jan 12, 2023, ending Feb 12, 2023, marked as 'Active'. Below this is a table listing members with columns: ID, Contact, Name, Email, and Phone. The table shows seven entries. At the bottom, there are buttons for 'View', 'Edit', and 'Delete' for each row, and navigation buttons 'Previous', '1', and 'Next'.

ID	Contact	Name	Email	Phone
3	83726764	Hh, Hh Hhh	Omama.kitt2000@gmail.com	0593422128
4	59430244	Kitt, Omama Jamal	okitt@gmail.com	0593331112
5	5541798	Kittaneh, Omama Jama	Omama.kitt2000@gmail.com	0594523234
6	58487246	Okk, Omama Jamal	omkk@example.com	0594566788
7	39303207	Th, Thara Jjcnnmcd	thara@gmail.com	0593422345

Figure 5.1.3: view member

Edit Member :

a trainer can edit personal details , plan and service for each trainer as shown in Figure 5.1.4.

The screenshot shows a web-based application interface for managing gym members. On the left, a sidebar menu includes 'Members', 'Membership Validity', 'Plans', 'Service', 'Trainers', and 'Users'. The main area has a title 'Manage Member Details' with a checkmark icon. It contains fields for 'ID No.' (63576514), 'Last Name' (ahmad), 'First Name' (ali), 'Middle Name' (hussam), 'Email' (ali@gmail.com), 'Contact #' (0593422123), 'Gender' (Male), and an 'Address' input field. Below these are dropdowns for 'Plan' (1), 'Service' (Meal), and 'Trainer' (Baker). At the bottom are 'Save' and 'Cancel' buttons. To the right, there's a table titled 'Member List' showing 7 entries with columns for '#', 'Member ID', 'Last Name', 'First Name', 'Middle Name', 'Email', 'Contact #', 'Gender', and 'Action' (with 'View', 'Edit', and 'Delete' links). Navigation buttons 'Previous' and 'Next' are at the bottom right of the table.

Figure 5.1.4: Edit Member

member validaty :

this page views each user and his plan and service which he subscription with. as shown in Figure 5.1.5.

#	Member ID	Name	Plan	Package	Status	Action
1	63576514	Ali, Edit Hus	1Months	meal	Active	<button>View</button> <button>Delete</button>

Figure 5.1.5:Member validaty

MEMBER PLAN :

admin can add a new membership plan which views plan and service and trainer for each user and save it. as shown in Figure 5.1.6, 5.1.7.

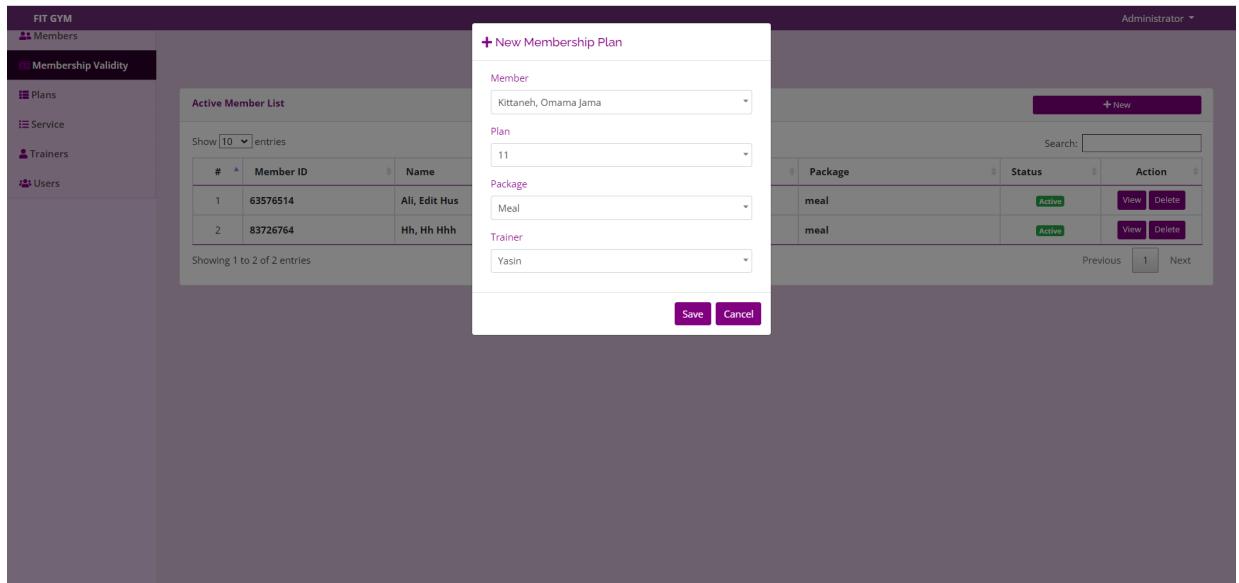


Figure 5.1.6: MEMBER PLAN

FIT GYM		Active Member List						Administrator	
								+ New	
								Search: <input type="text"/>	
#	Member ID	Name	Plan	Package	Status	Action			
1	63576514	Ali, Edit Hus	1Months	meal	Active	View	Delete		
2	83726764	Hh, Hh Hhh	1Months	meal	Active	View	Delete		
3	5541798	Kittaneh, Omama Jama	11Months	meal	Active	View	Delete		

Showing 1 to 3 of 3 entries

Previous [1](#) Next

Figure 5.1.7:Save Plan Member

View member Validity:

The page displays the monthly bill that combines the coach's fees and the subscribed services and adds the bill as paid on the system according to the entered amount. as shown in Figure 5.1.8,5.1.9,5.1.9

The screenshot shows the FIT GYM software interface. On the left, there is a sidebar with navigation links: FIT GYM, Members, Membership Validity, Plans, Service, Trainers, and Users. The 'Membership Validity' link is highlighted. The main area has a dark background with a light gray overlay. A modal window titled 'Member Plan Details' is open, displaying the following information:

#	Member ID	Name
1	63576514	Ali, Edit Hus

Below the table, it says "Showing 1 to 1 of 1 entries". The modal also contains the following details:

Member ID: 63576514
Name: Ali, Edit Hus
Plan: 1 month/s
Package: meal
Trainer: Baker

Plan Membership Fee: 300.00 (One-time amount only)
Package Amount: 50.00
Trainer Fee: 4
Monthly Payable: 54.00

At the bottom of the modal are three buttons: End Plan, Payment, and Close.

On the right side of the interface, there is a table with columns for Package, Status, and Action. One row in the table is highlighted with a green background and the word "meal". The status is "Active" and the action buttons are "View" and "Delete". There are also "Search:" and "+ New" fields at the top of this section. At the bottom, there are buttons for Previous, Next, and a page number indicator (1).

Figure 5.1.8:View member Validity

FIT GYM

Members

Membership Validity

Plans

Service

Trainers

Users

Payments

Date	Amount	Remarks
Jan 13,2023	454	ii

New Payment

Plan Membership Fee:
Package Amount:
Trainer Fee:

Paid Already
50.00
4

Amount Payable:
54.00

Amount
54

Remarks
thanks

Save Payment

Close

Action

View Delete

S 1 Next

Figure 5.1.9:Payment

FIT GYM

- Members
- Membership Validity
- Plans
- Service
- Trainers
- Users

Payments

Date	Amount	Remarks
Jan 13,2023	454	ii
Jan 13,2023	54	thanks

New Payment

Plan Membership Fee:
Package Amount:
Trainer Fee:

Paid Already

50.00
4

Amount Payable:

Amount

Remarks

Save Payment

Close

Action

View **Delete**

1 **Next**

Figure 5.1.10:Payment

add Plan:

the trainer can add plan and service as he want. as shown in Figure 5.1.11.5.1.12,5.1.13,5.1.14

#	Plan	Amount	Action
1	1 month/s	300.00	Edit Delete
2	0 month/s	0.00	Edit Delete
3	11 month/s	3,300.00	Edit Delete
4	2 month/s	600.00	Edit Delete
5	3 month/s	900.00	Edit Delete

Figure 5.1.11:add Plan

FIT Gym

Administrator

Members

Membership Validity

Plans

Service

Trainers

Users

Service Form

Service Name

Description

Amount

Service List

Show 10 entries Search:

#	Service	Amount	Action
1	Service: multi service Description: Program sample + trainer	3,500.00	Edit Delete
2	Service: meal Description: health meal	50.00	Edit Delete

Showing 1 to 2 of 2 entries

Previous **1** Next

Save **Cancel**

Figure 5.1.12:service

FIT Gym

Administrator ▾

Members

Membership Validity

Plans

Service

Trainers

Users

Service Form

Service Name
additional trainer

Description
Exercises to correct back scoliosis

Amount
1000

Service List

Show 10 entries

#	Service	Amount	Action
1	Service: multi service Description: Program sample + trainer	3,500.00	Edit Delete
2	Service: meal Description: health meal	50.00	Edit Delete

Showing 1 to 2 of 2 entries

Previous 1 Next

Save **Cancel**

Figure 5.1.13: Add service

The screenshot shows the FIT Gym software interface. On the left, there is a sidebar with the following navigation options:

- FIT Gym**
- Members**
- Membership Validity**
- Plans**
- Service** (highlighted in dark purple)
- Trainers**
- Users**

The main area is divided into two sections:

- Service Form** (left side):
 - Service Name:
 - Description:
 - Amount:
- Service List** (right side):
 - Show: 10 entries
 - Search:
 - Table:

#	Service	Amount	Action
1	Service: multi service Description: Program sample + trainer	3,500.00	Edit Delete
2	Service: meal Description: health meal	50.00	Edit Delete
3	Service: additional trainer Description: Exercises to correct back scoliosis	1,000.00	Edit Delete

Figure 5.1.14: add Aditonal service

add Trainer :

Add a new trainer for employees and save the details for him in terms of name, email, phone number, and monthly subscription with him and find him easily. as shown in Figure 5.1.15,5.1.16,5.1.17

The screenshot shows the FIT GYM application interface. On the left, there is a sidebar with navigation links: Members, Membership Validity, Plans, Service, Trainers (which is highlighted in dark purple), and Users. The main area has two tabs: 'Trainer Form' and 'List of Trainers'. The 'Trainer Form' tab is active, displaying a form with fields for Name (wael), Email (wael@gmail.com), Contact (0593422123), and Rate (5). Below the form are 'Save' and 'Cancel' buttons. The 'List of Trainers' tab shows a table with 5 entries:

#	Information	Action
1	yasin yasin@gmail.com 0594566788 5.00	Edit Delete
2	Baker Baker@gmail.com 0593422123 4.00	Edit Delete
3	tariq tariq@gmail.com 0593422128 5.00	Edit Delete
4	Ali Ali@gmail.com 0593422128 4.00	Edit Delete
5	Hadi Hadi@gmail.com 0593422128 5.00	Edit Delete

At the bottom, it says 'Showing 1 to 5 of 5 entries' and has buttons for 'Previous' (with page 1), 'Next', and 'Administrator'.

Figure 5.1.15: add Trainer

FIT GYM

Administrator ▾

Members

Membership Validity

Plans

Service

Trainers

Users

Trainer Form

Name

Email

Contact

Rate

Save **Cancel**

List of Trainers

Show 10 entries Search:

#	Information	Action
1	yasin @yasin@gmail.com <i>059456788</i> <i>5.00</i>	Edit Delete
2	Baker @Baker@gmail.com <i>0593422123</i> <i>4.00</i>	Edit Delete
3	tariq @tariq@gmail.com <i>0593422128</i> <i>5.00</i>	Edit Delete
4	Ali @Ali@gmail.com <i>0593422128</i> <i>4.00</i>	Edit Delete
5	Hadi @Hadi@gmail.com <i>0593422128</i> <i>5.00</i>	Edit Delete
6	wael @wael@gmail.com <i>0593422123</i> <i>5.00</i>	Edit Delete

Showing 1 to 6 of 6 entries

Previous **1** Next

Figure 5.1.16:add Trainer

The screenshot shows the FIT GYM application interface. On the left, there is a sidebar with the following menu items:

- Members
- Membership Validity
- Plans
- Service
- Trainers** (highlighted in dark purple)
- Users

The main content area is divided into two sections:

Trainer Form (Left Side):

Name:

Email:

Contact:

Rate:

List of Trainers (Right Side):

Show 10 entries Search: AL

#	Information	Action
4	<p>Ali Ali@gmail.com 0993422128 4.00</p>	Edit Delete

Showing 1 to 1 of 1 entries (filtered from 6 total entries) Previous 1 Next

Figure 5.1.17:search Traniner

Edit admin :

Admin can add new admin for the system and each one can edit his personal information as shown in Figure 5.1.18 ,5.1.19

#	Name	Username	Type	Action
1	Administrator	admin	Admin	<button>Edit</button> <button>Delete</button>

Figure 5.1.18:Edit Admain

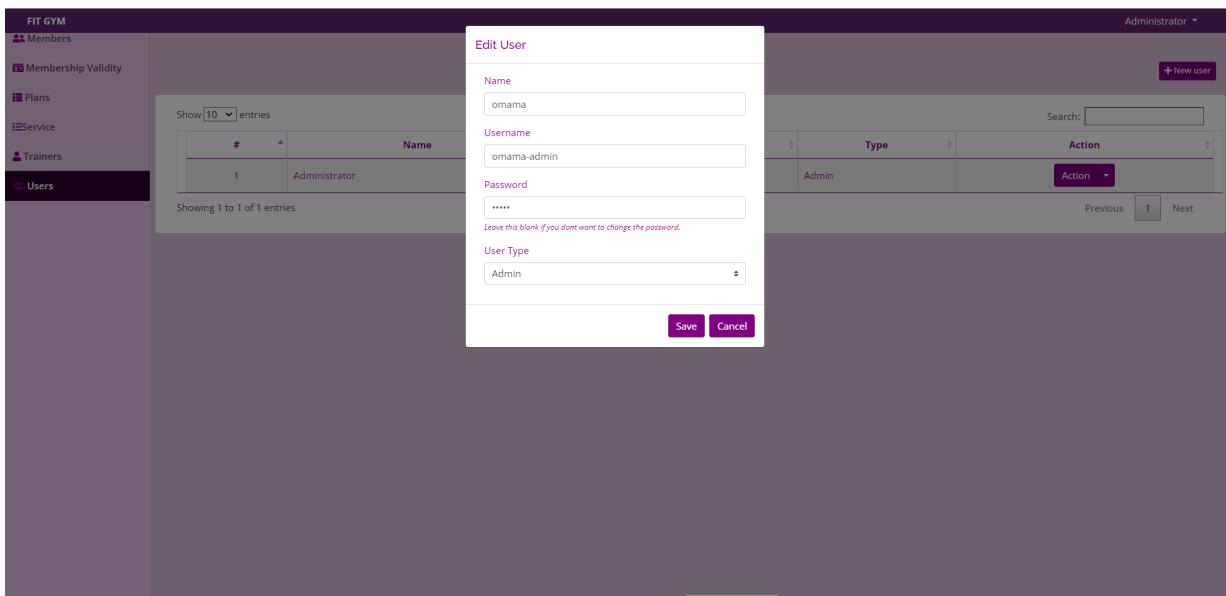


Figure 5.1.18:Save Admain

5.1.2 Mobile Side:

Splash Screen: this screen appears when a user opens the application and then user clicks to Getstart then move to login or sign up as shown in Figure 5.1.19

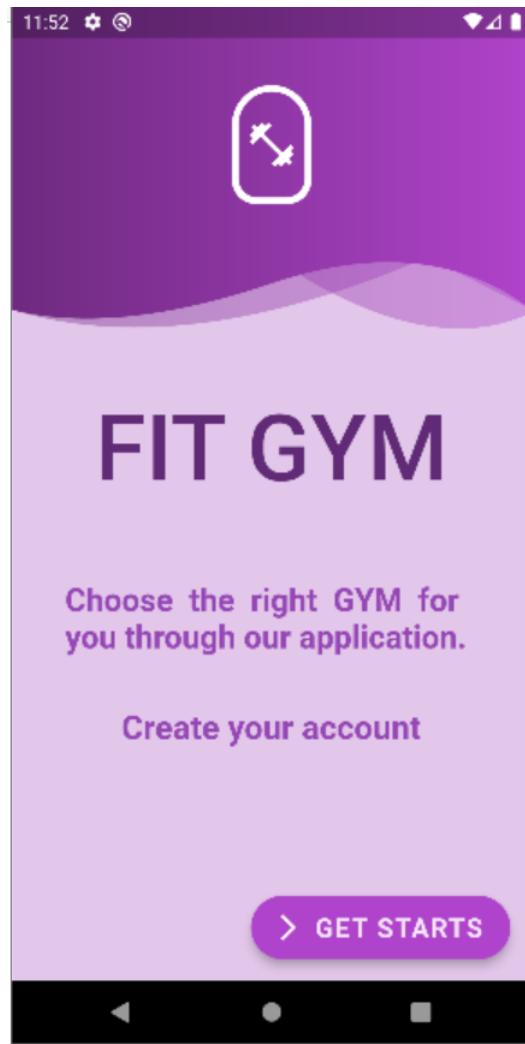


Figure 5.1.19: Splash mobile page

Introducing the FIT GYM

On this pages, the user can identify our gym as shown in Figure 5.1.20,5.1.21

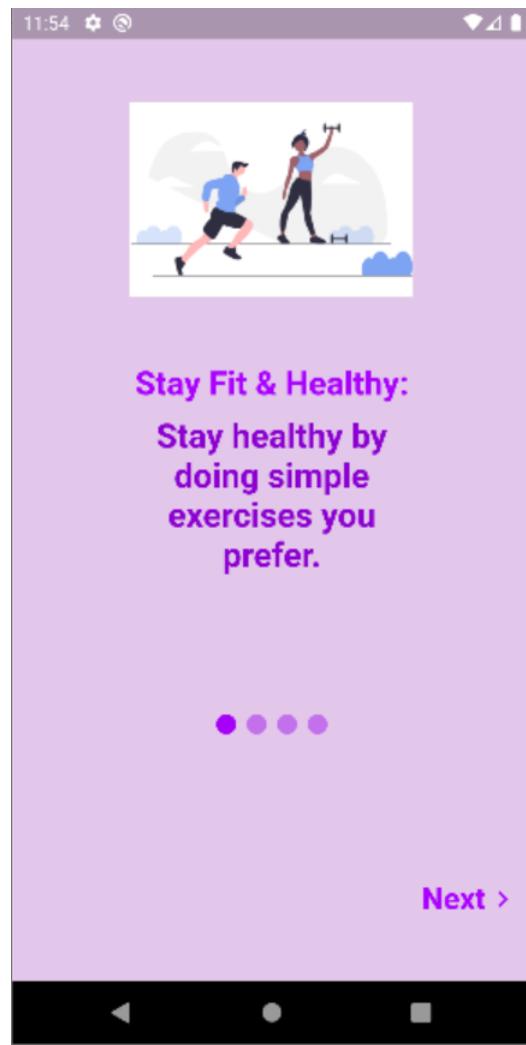


Figure 5.1.20: Introduction to the gym

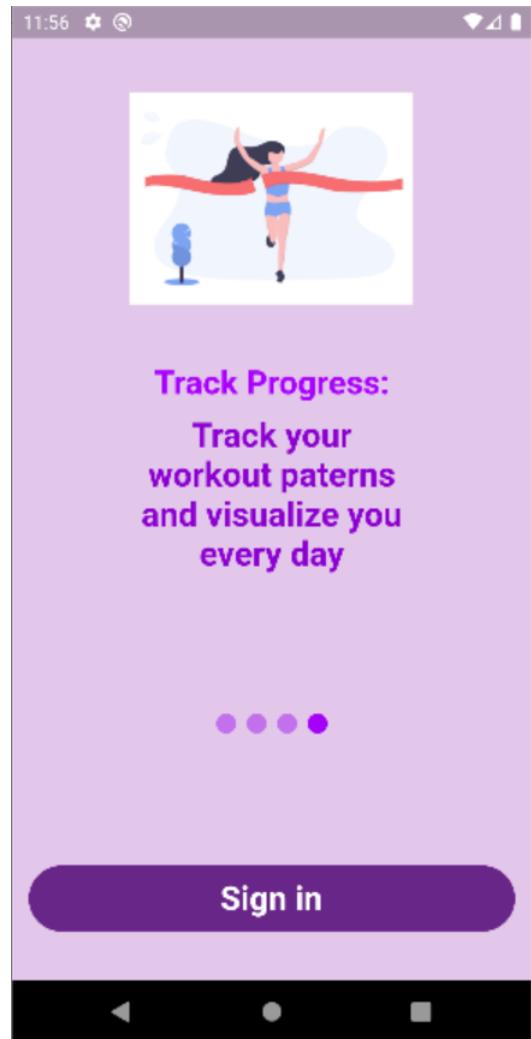


Figure 5.1.21: Introduction to the gym

Login and create an account

When a trainee wants to join (FIT GYM), the first thing he does is create an account from the login page. Then he goes to the application login page by entering his email and password.as shown in Figure 5.1.22 ,5.1.23

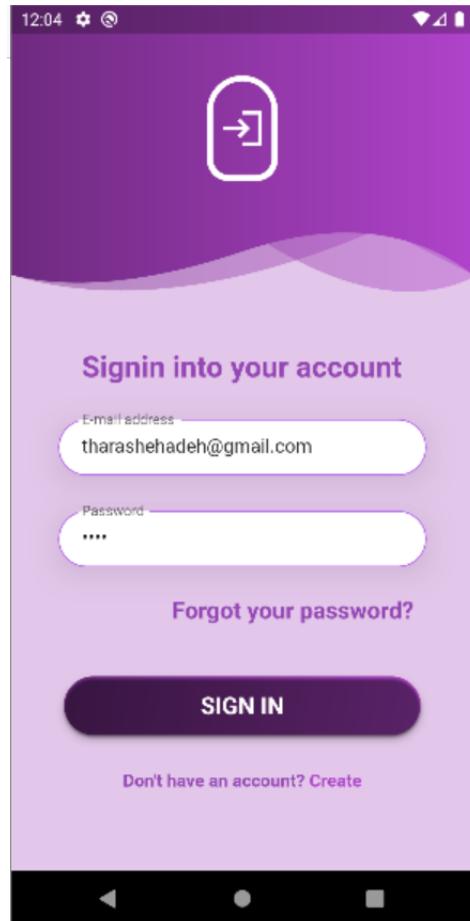


Figure 5.1.22: Login

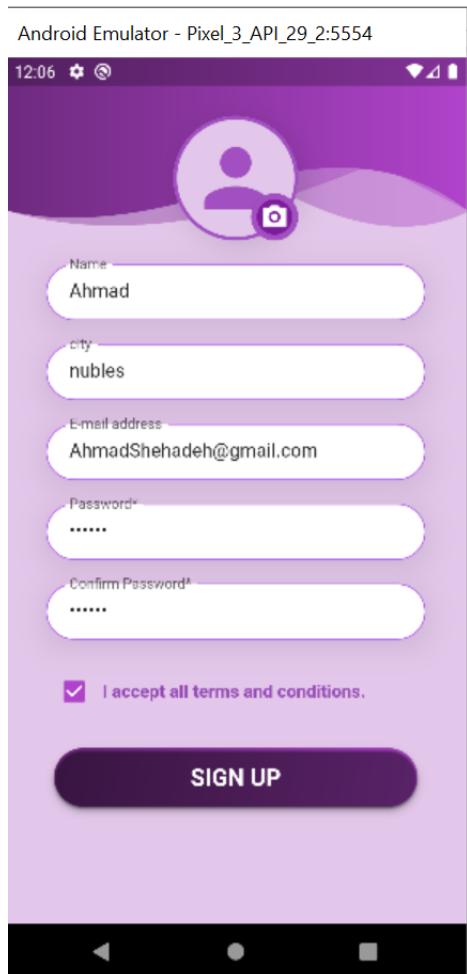


Figure 5.1.23:Register

Authentication

If the trainee does not have an account, go to create an account by registering, then when the information is stored in the database successfully, the application allows the user to log into the application. But, if the user has an account then he goes to log in by email and password and if they correct the app then he allows the user to login to the app.

Forgot Password

When the user forgets his password, he can enter the e-mail, and then a message is sent to the e-mail containing a verify code. This code is entered to generate a new password

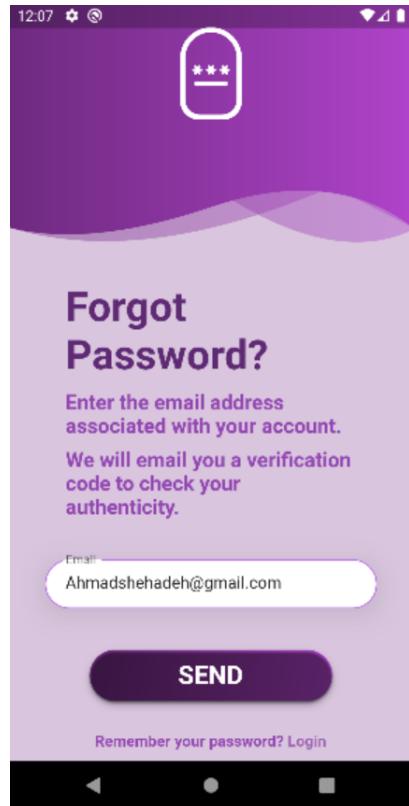


Figure 5.1.24: Forgot Password

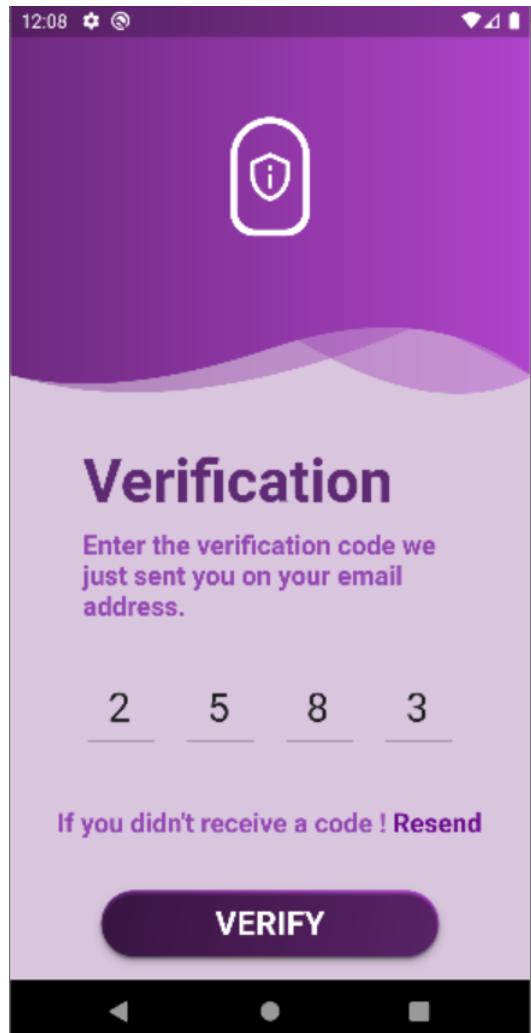


Figure 5.1.25:verfiy code

Reset Password

The user enters personal information to reset the new password, and then log in to the application as shown in Figure 5.1.26

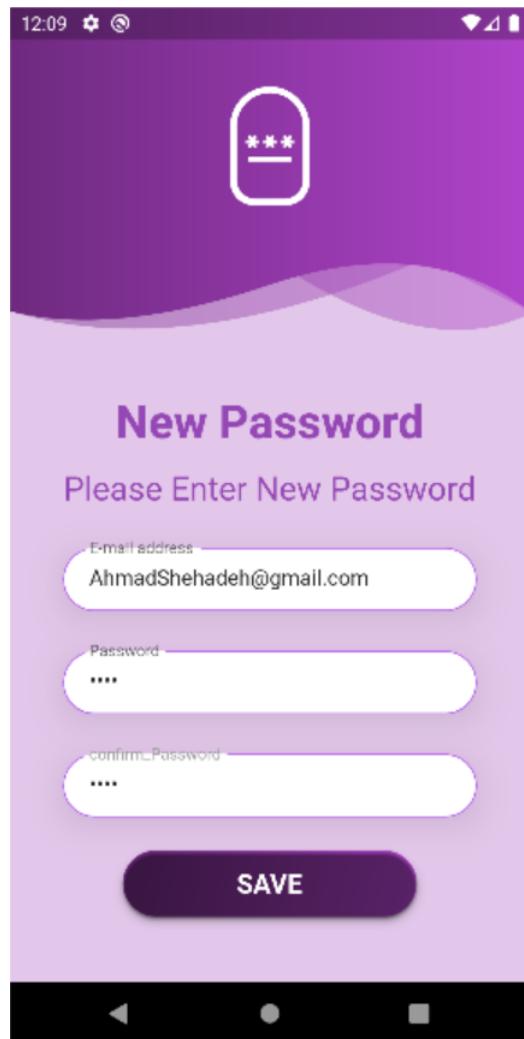


Figure 5.1.26: Reset Password

Personal Information

On this page, the user enters personal information such as height, weight and age, and then the gender of the user and the purpose of choosing the sports club are determined.as shown in Figure 5.1.27, 5.1.28

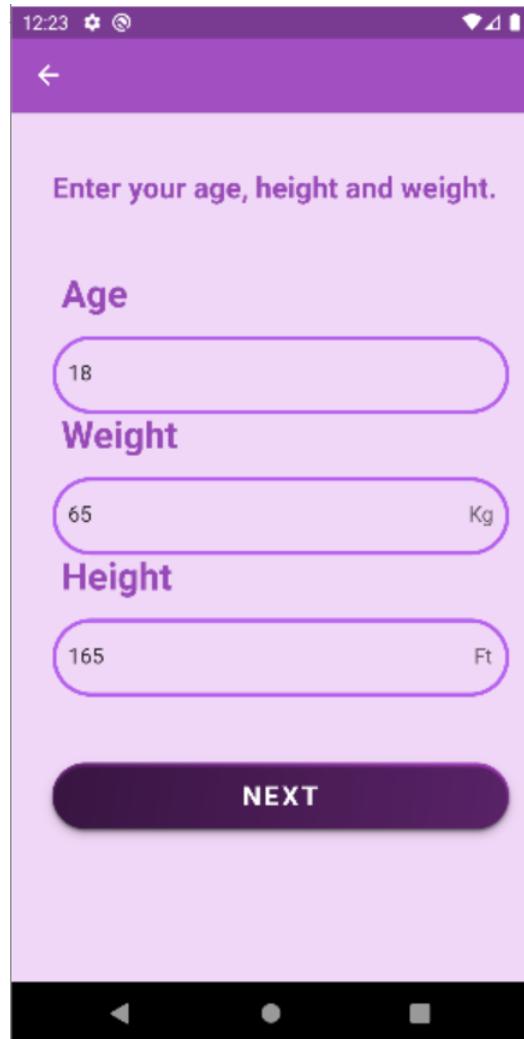


Figure 5.1.27:Personal Information

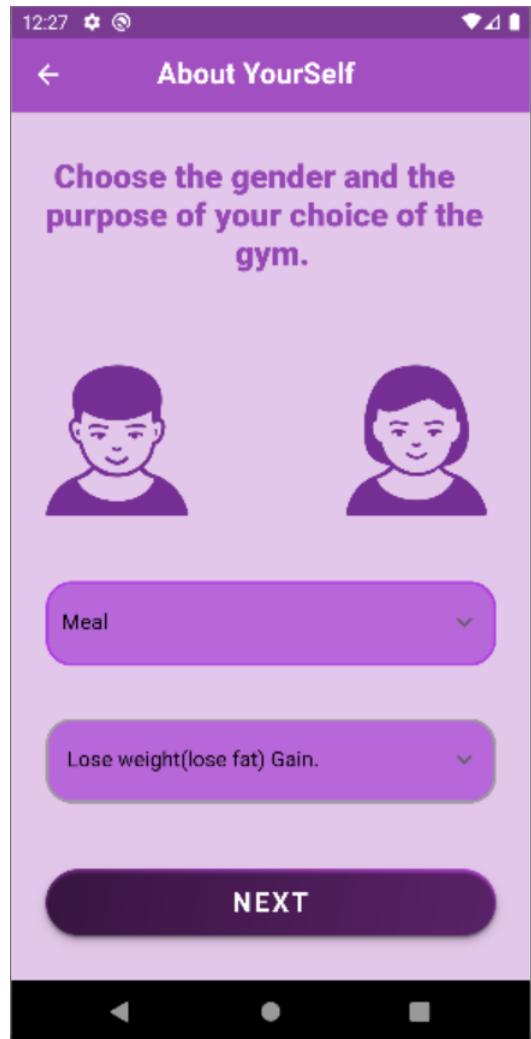


Figure 5.1.28: gender

Main Page

The main page consists of four main sections that you can navigate between them and they are :Home , Messages ,Profile. And there is a sidebar containing parent email and profile picture, home page ,profile page , messages page and logout .as shown in Figure 5.1.29,5.1.30

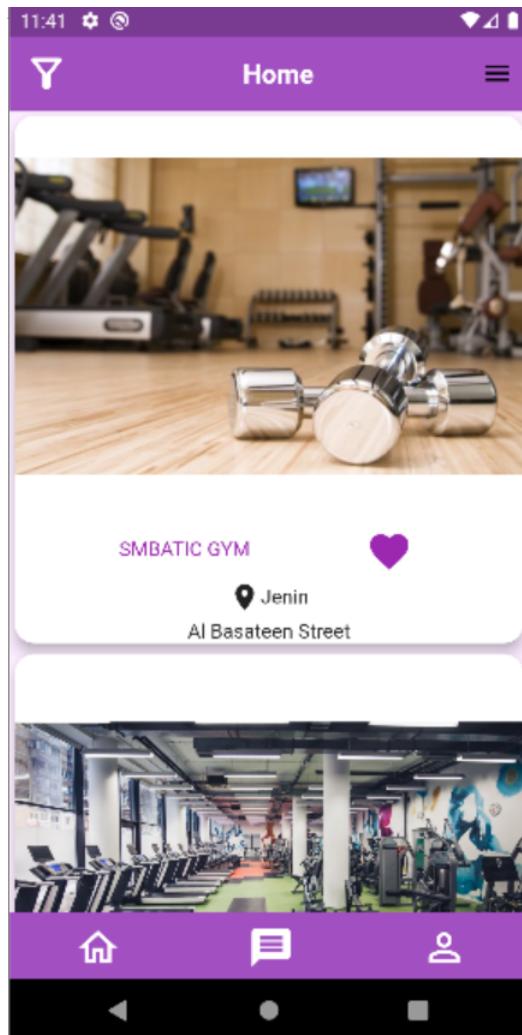


Figure 5.1.29:Main Page

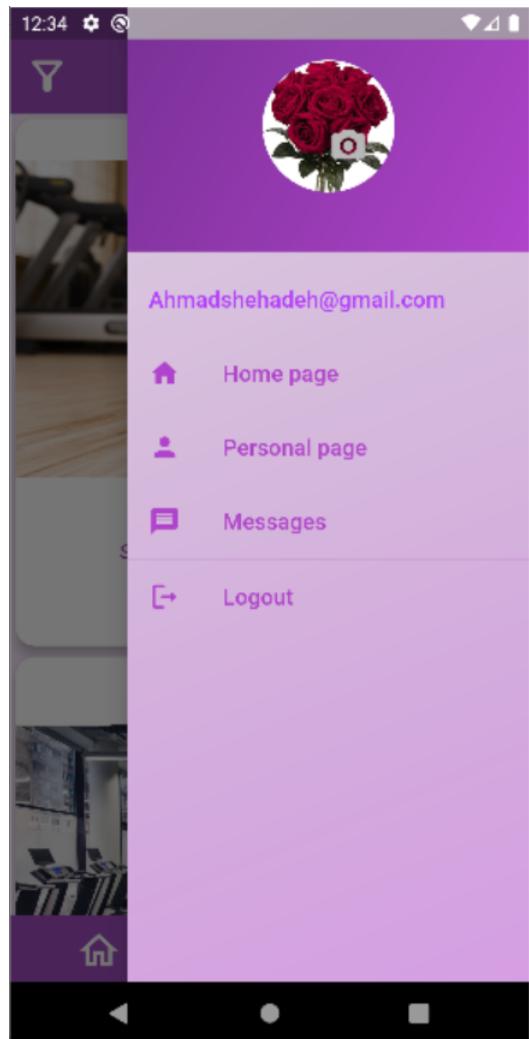


Figure 5.1.30: Sidebar

Home Page

On this page, users can see all gyms that join the website. So he can filter the gyms by many things like city, gender of the trainees, the upper limit of the monthly premium. as shown in Figure 5.1.31

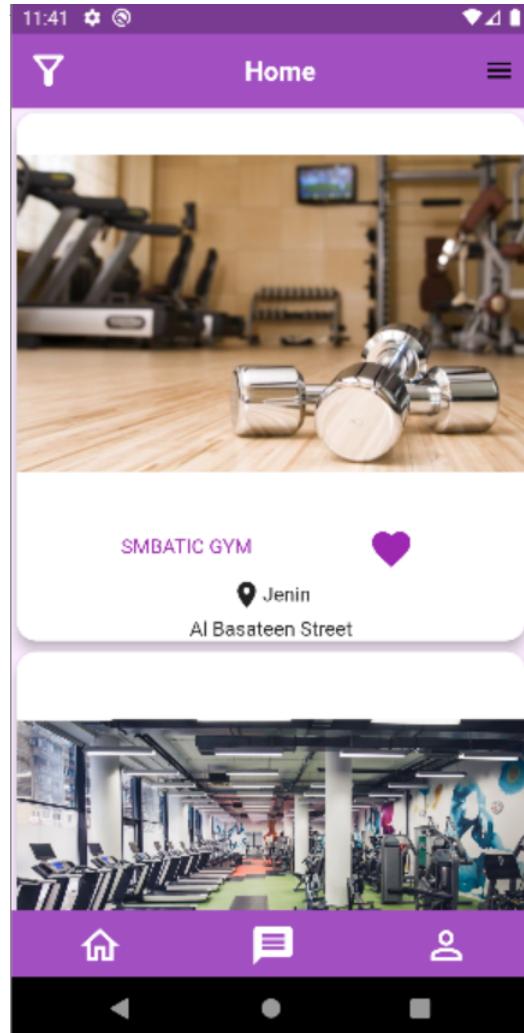


Figure 5.1.31:Main Page

Filtrng

This is an example of filtering the home screen. as shown in Figure 5.1.32

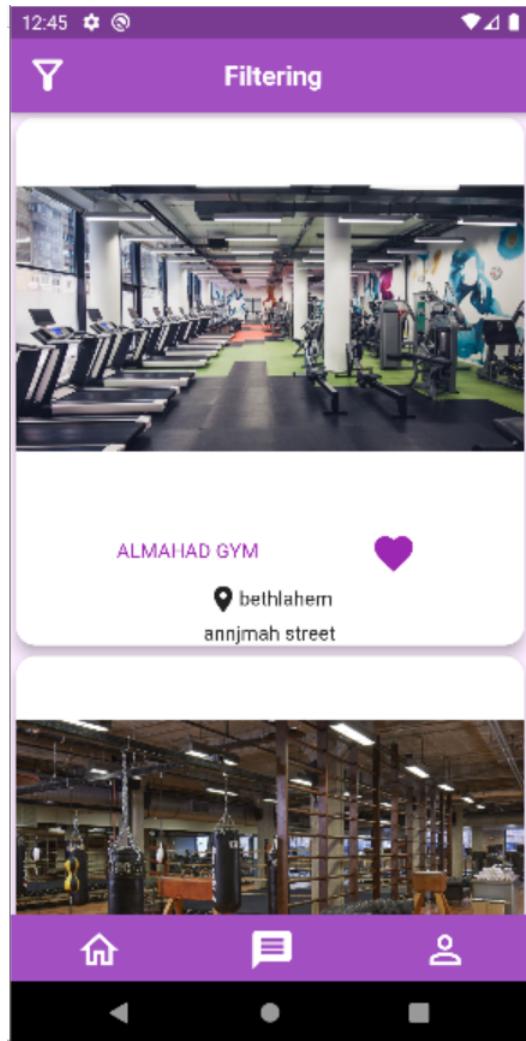


Figure 5.1.32:Filtrng

Profile page

On this page, there is some information about the trainer like name, profile picture, city, email, and some personal information. Also, there are some sent requests and support. Also, a trainer can edit his profile and change his name, email, profile picture, and city. as shown in Figure 5.1.33,5.1.34,5.1.35

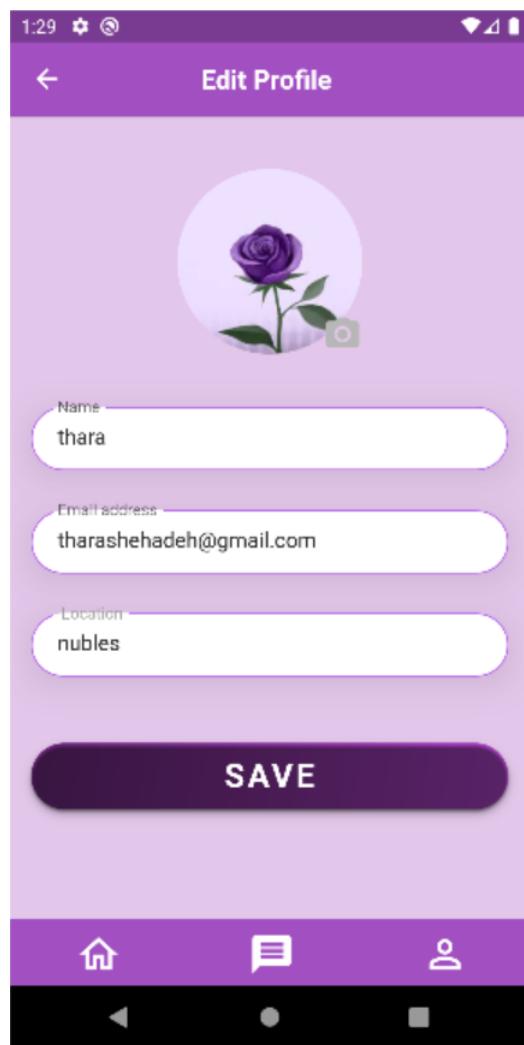


Figure 5.1.33:Edit Profile

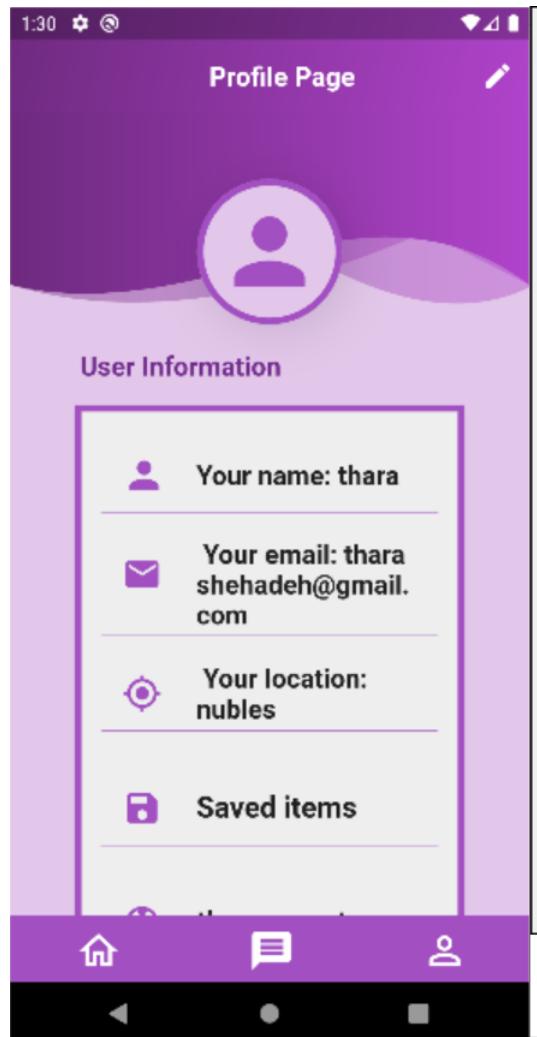


Figure 5.1.34:Profile Page

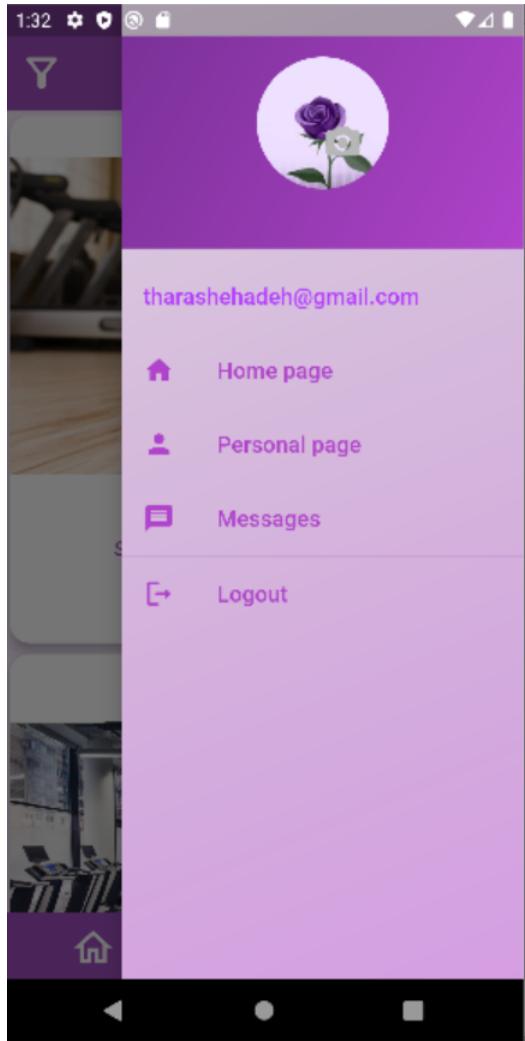


Figure 5.1.35:Sidebar after edit profile

GYM Profile

On this page, there is some information about the trainer like name, profile picture, city, email, and some personal information. Also, there are some sent requests and support. Also, a trainer can edit his profile and change his name, email, profile picture, and city. Also in gym profile you can show activities and its details activities as shown in Figure 5.1.36, 5.1.37, 5.1.38, 5.1.39, 5.1.40, 5.1.41, 5.1.42

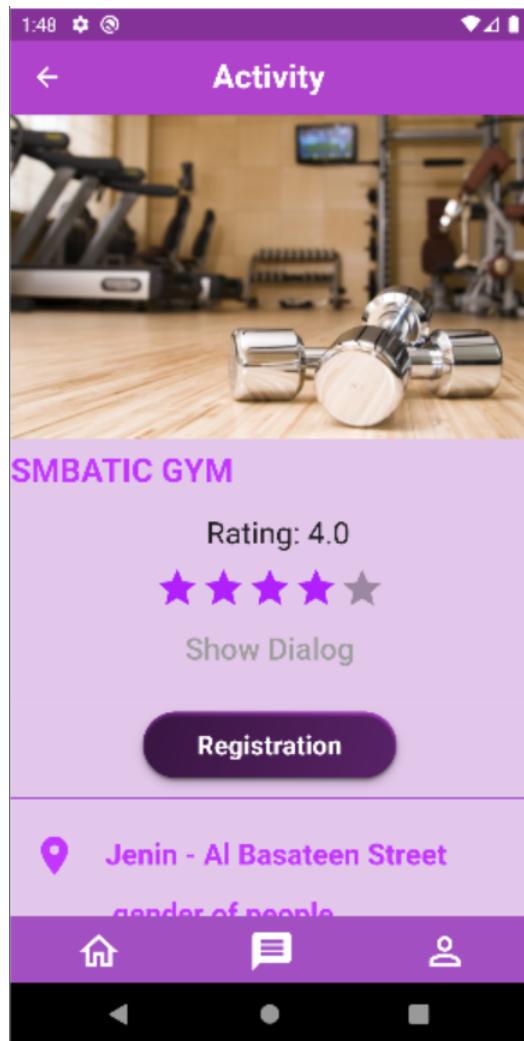


Figure 5.1.36: GYM Profile

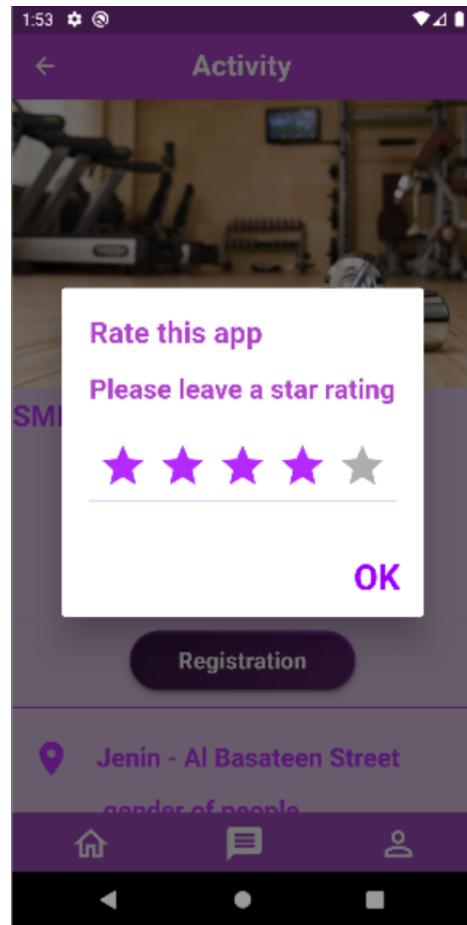


Figure 5.1.38:Rate

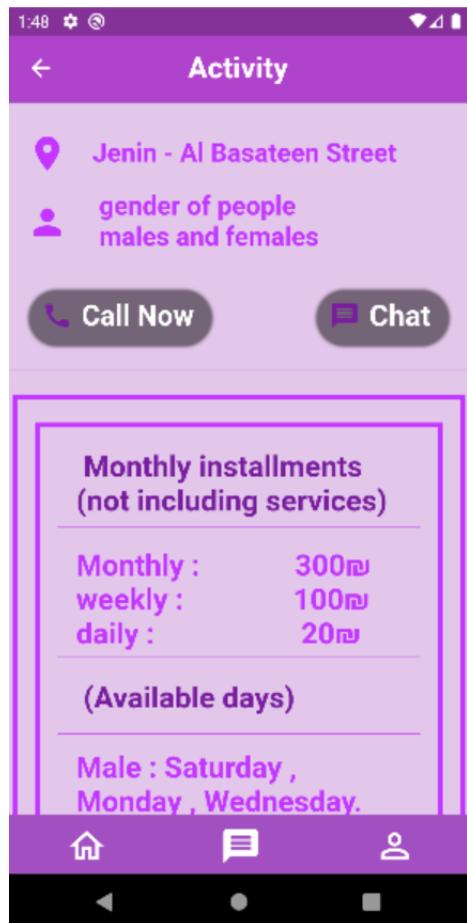


Figure 5.1.39:GYM Profile

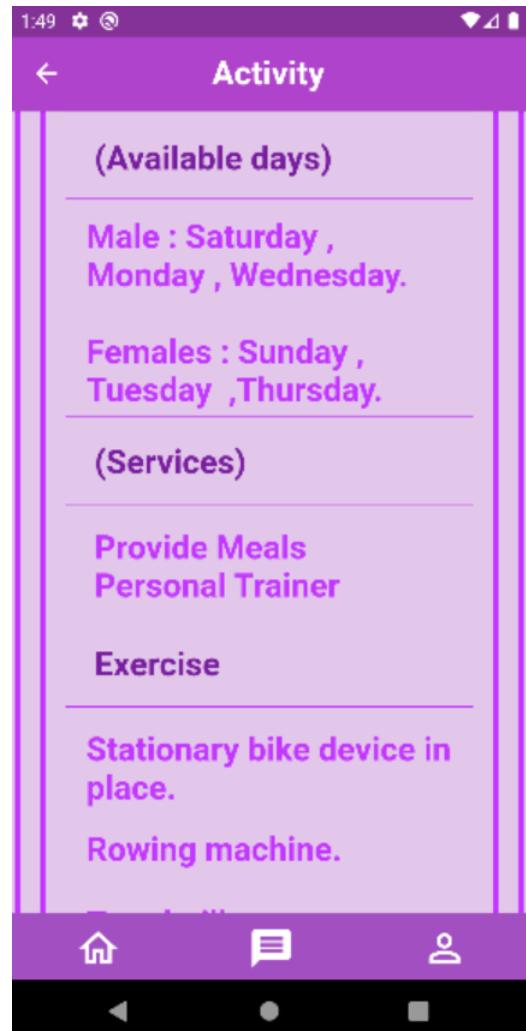


Figure 5.1.40:GYM Profile

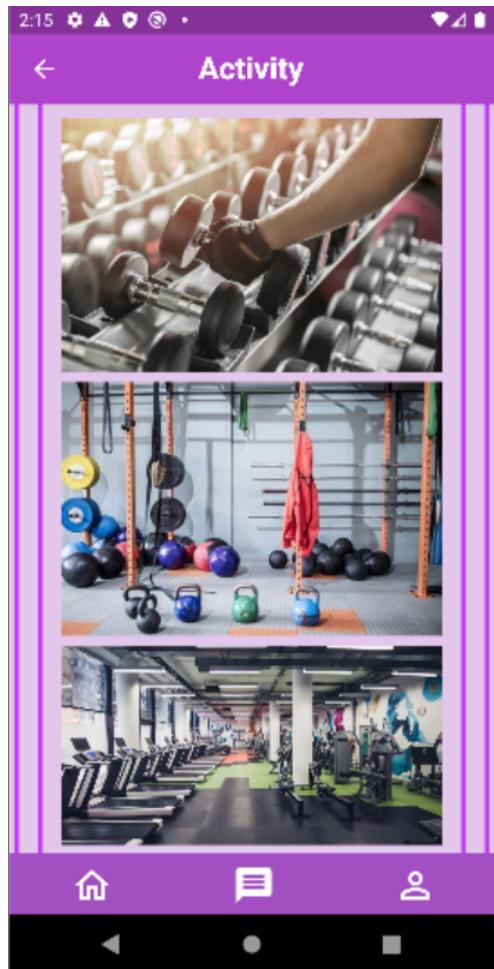


Figure 5.1.41:GYM Profile

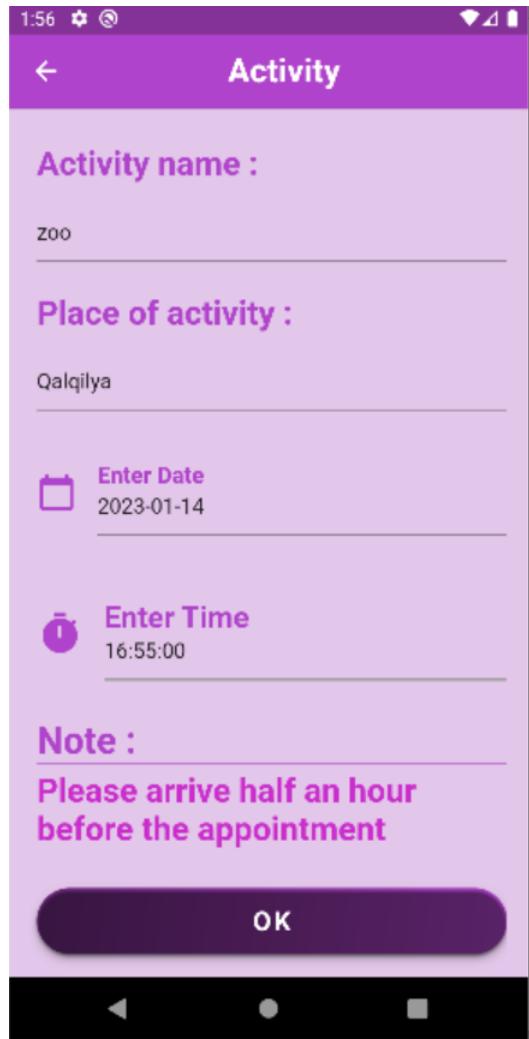


Figure 5.1.42:Activity Page

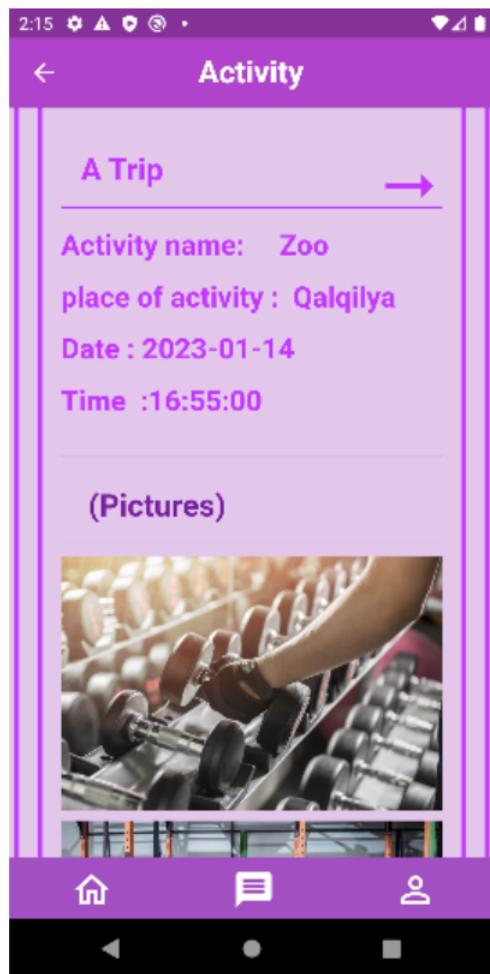


Figure 5.1.43:Activity Page

Call Page

In the Home page if a trainer clicks on “call now” this will take him directly to the phone so this enables him to contact them using their phone number. Also if he clicks a message it will move to a chat page with that Gym . as shown in Figure 5.1.44,5.1.45,5.1.46,

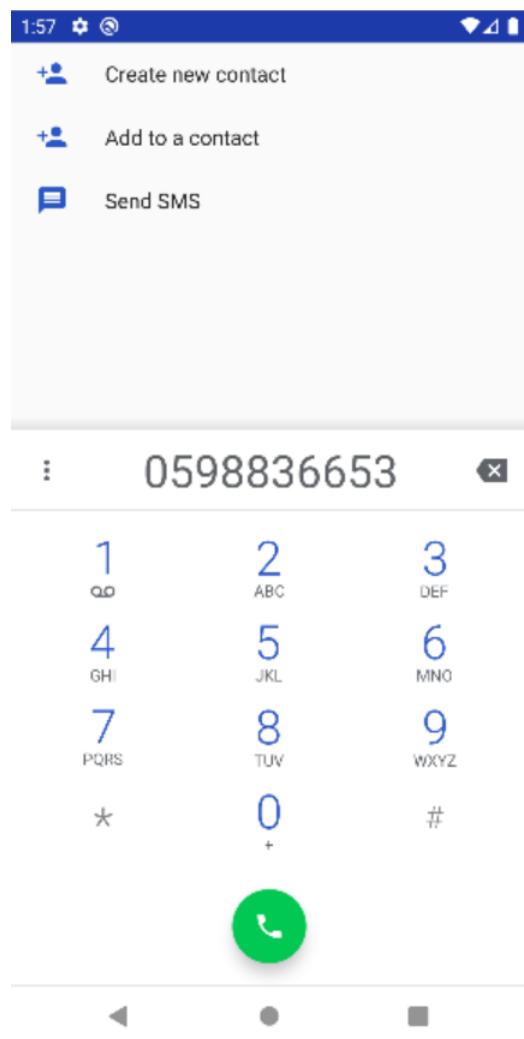


Figure 5.1.44: GYM Profile

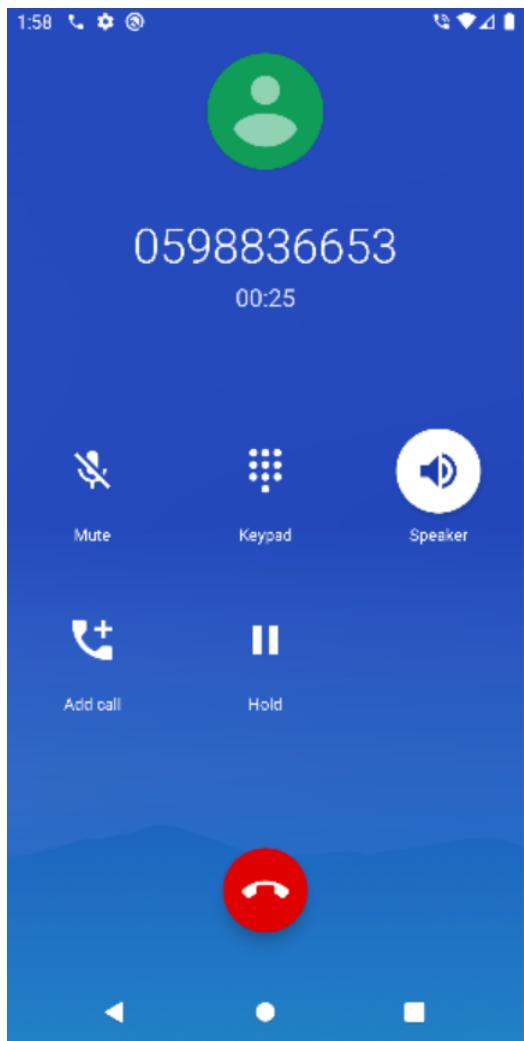


Figure 5.1.45: call

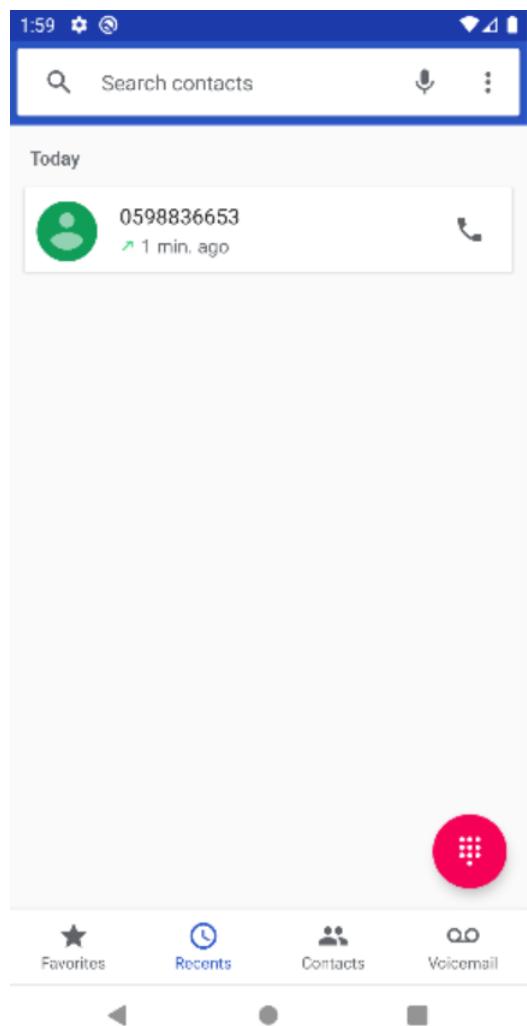


Figure 5.1.46: call

Email

When the user clicks to support on the Home page he can see this page, he can communicate with the trainer or other trainees by entering the e-mail of the person he wants to communicate with, the address and the subject, and then moving to the official e-mail page. as shown in Figure 5.1.47,5.1.48,5.1.49

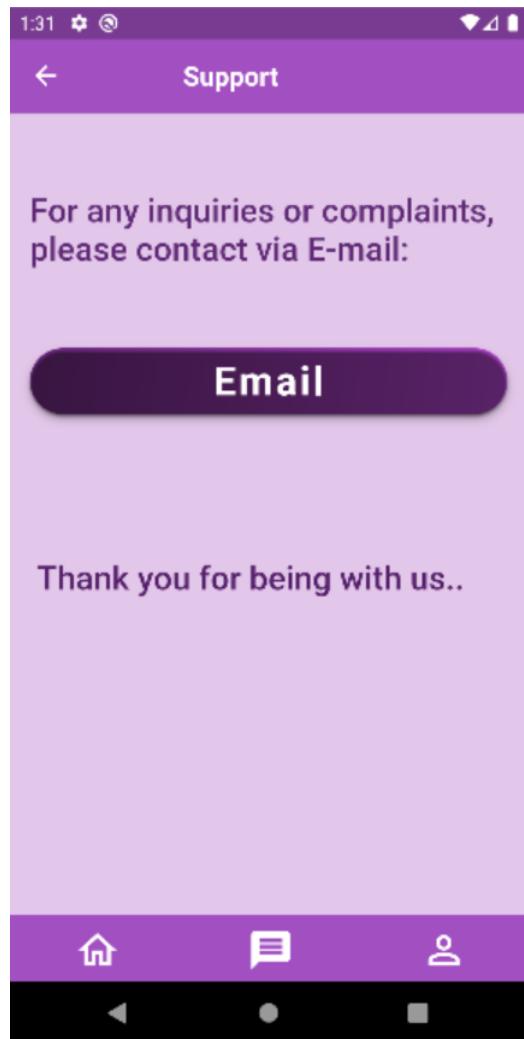


Figure 5.1.47: Email

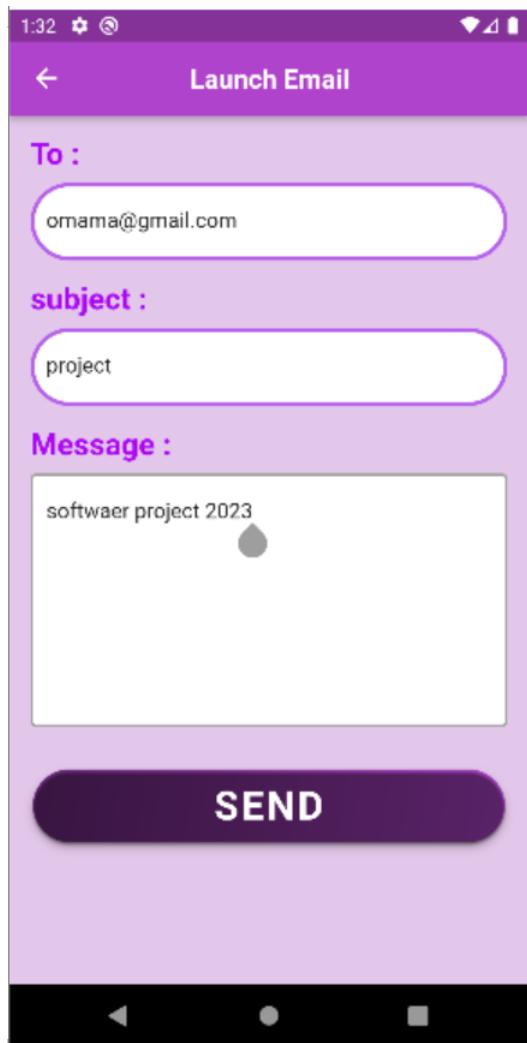


Figure 5.1.48: Email

Request Join

in request join page user can send the request to join the gym and fill the required information . as shown in Figure 5.1.50.5.1.51

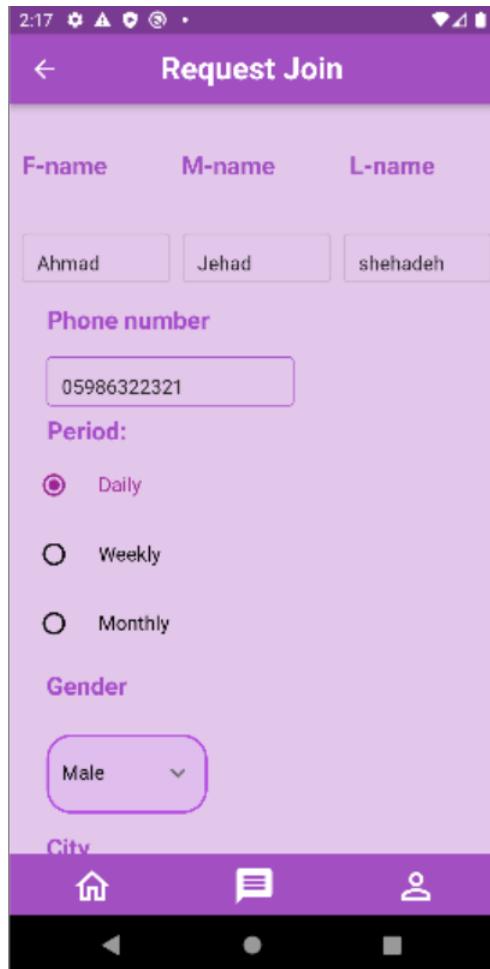


Figure 5.1.50:Request Join

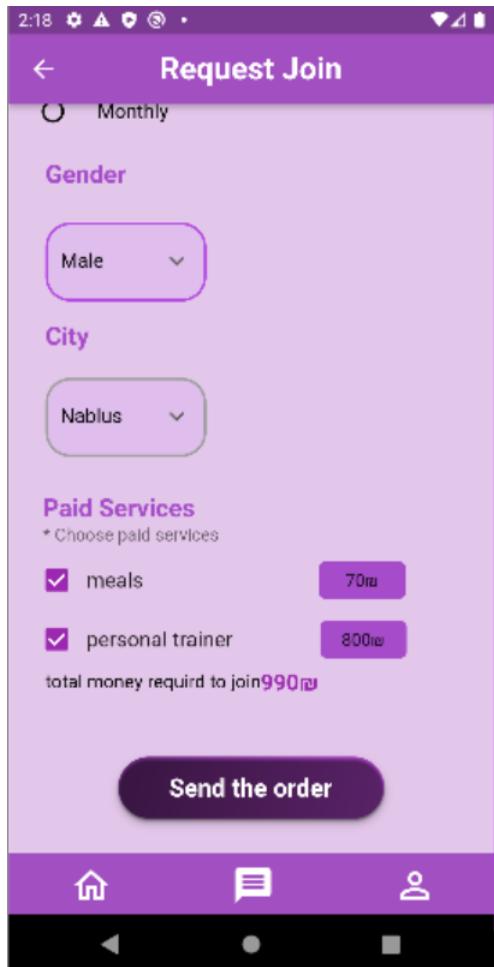


Figure 5.1.51:Request Join

Request Join

message page to confirm joining to the gym as shown in Figure 5.1.52

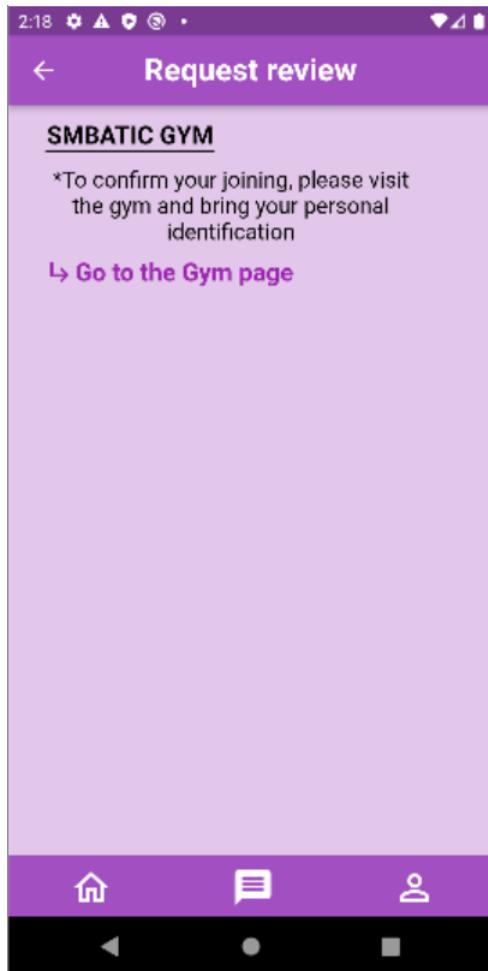


Figure 5.1.52:Request Review

Home

It is the page that proposes to each user the suggested trainers register with and the divided diets each at its own time as shown in Figure 5.1.53,5.1.54

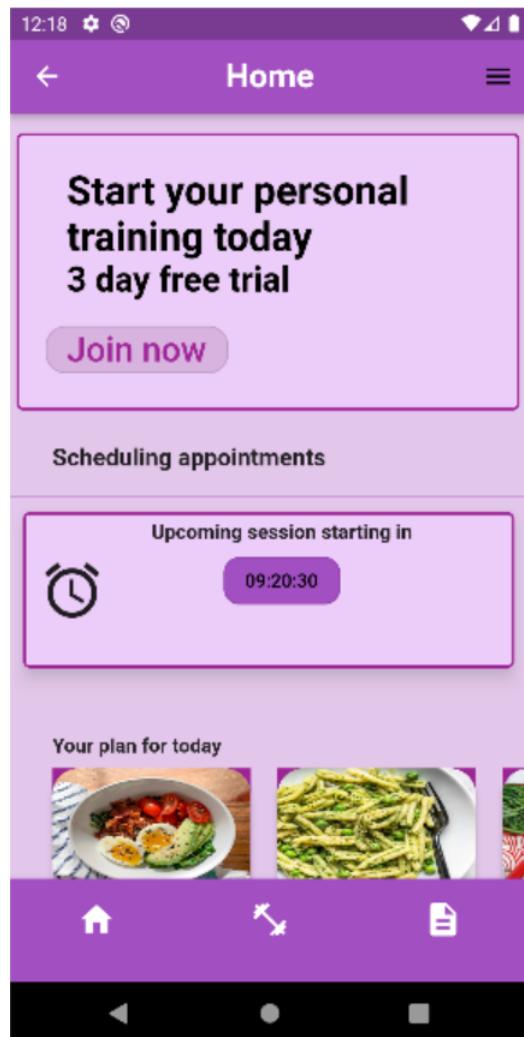


Figure 5.1.53: Home

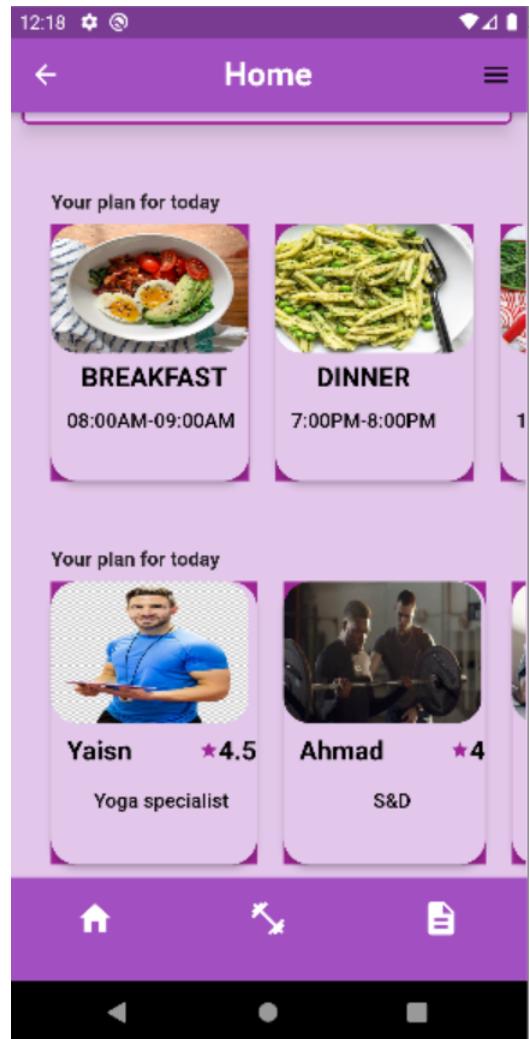


Figure 5.1.54: Home

Add Activity

The trainee can enter the name of the desired training, the training time, and the day, and he can confirm, modify, and delete the appointment, and he can search for a specific date, and all appointments are shown to prevent conflicting appointments as shown in Figure 5.1.54,5.1.55,5.1.56,5.1.57,5.1.58,5.1.59,5.1.60

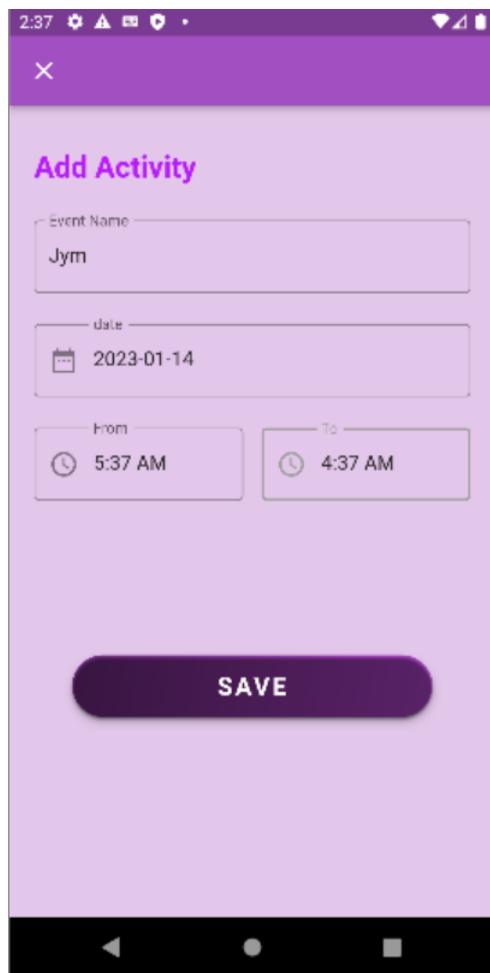


Figure 5.1.54: Add Activity

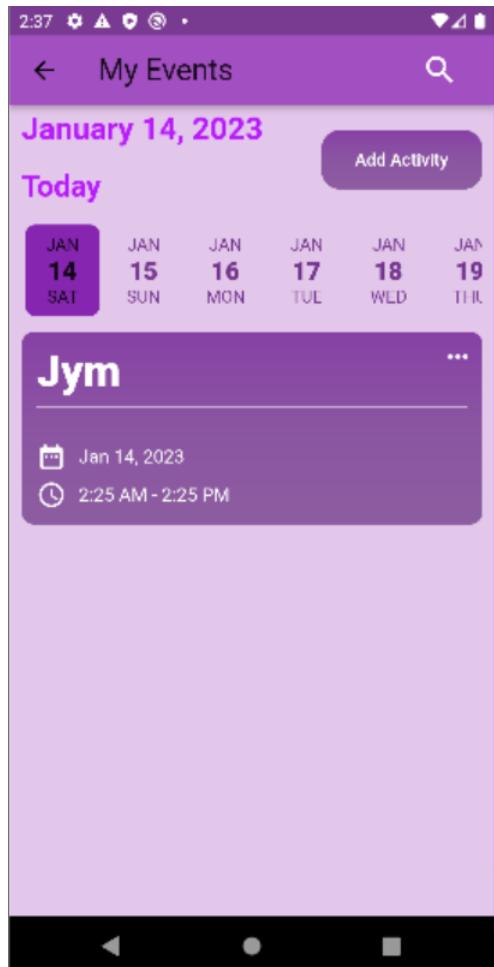


Figure 5.1.55: Compose

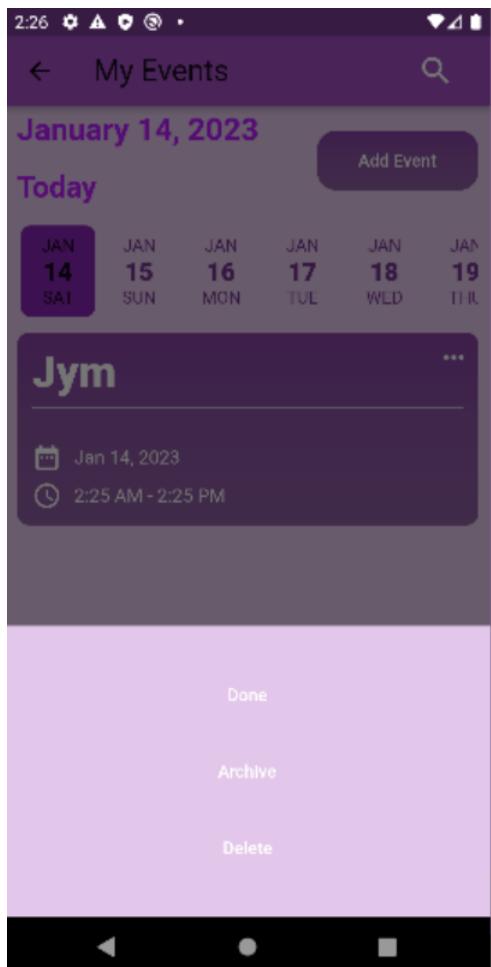


Figure 5.1.56: calender



Figure 5.1.57:Calander

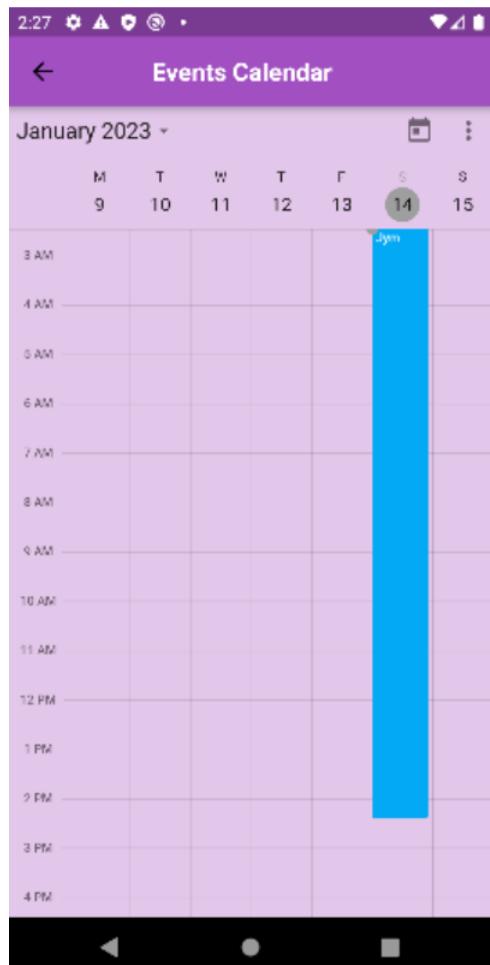


Figure 5.1.58:Calander

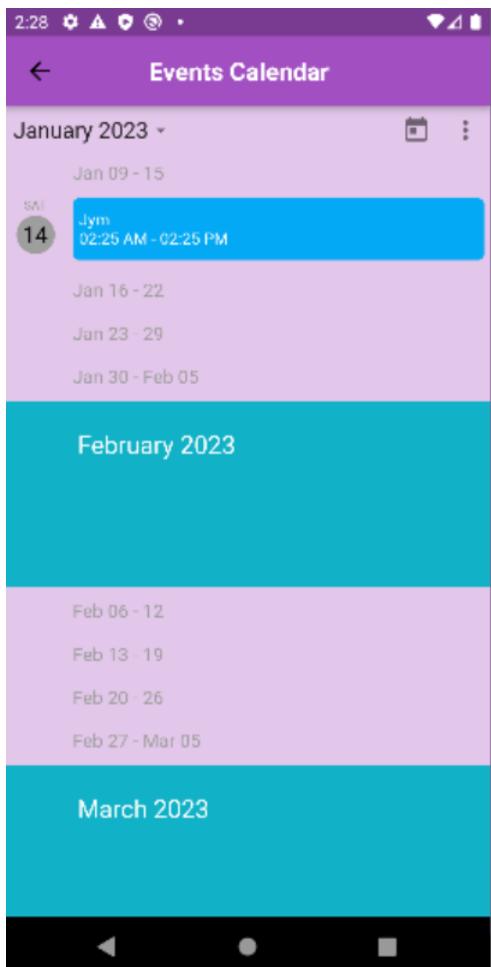


Figure 5.1.59:Calander

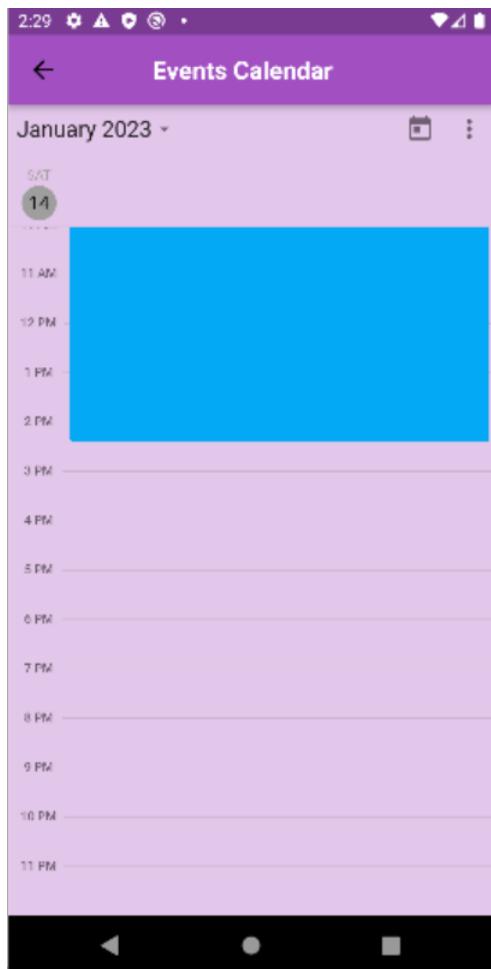


Figure 5.1.60: Calander

Traineer

The trainer's page shows the trainers employed within the gym by name, specialization, and experience. as shown in Figure 5.1.61,5.1.62,5.1.63

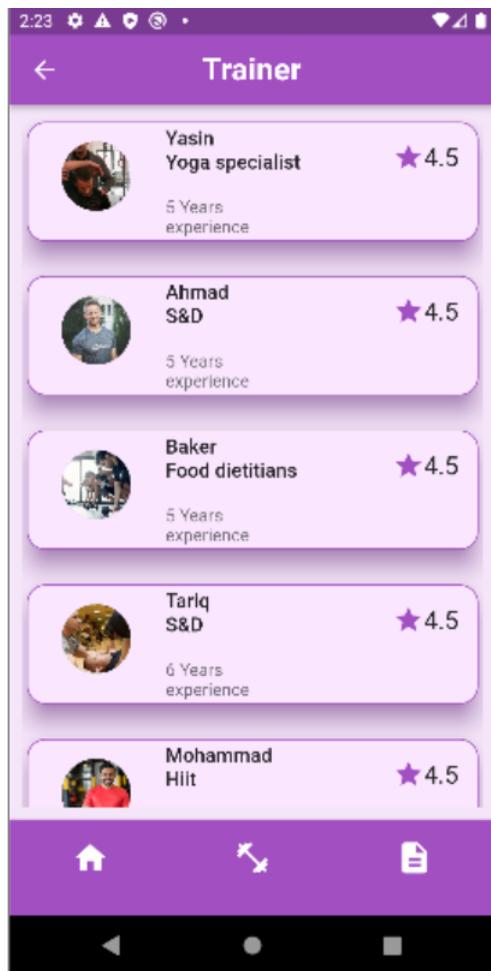


Figure 5.1.61: Traineer

Personal trainee

The profile of each trainer shows in terms of name, specialization, qualifications, achievements, working hours, and language. The user can book with him and communicate with him through chat and call. as shown in Figure 5.1.62

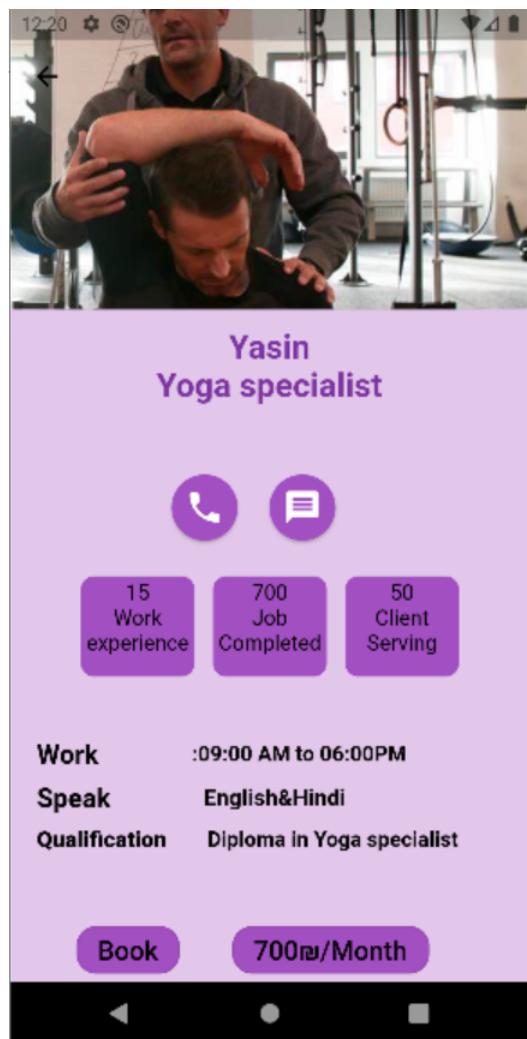


Figure 5.1.62: Personal trainee

subscriptionr

Shows the amount of money for the daily, monthly, and annual subscription and the services covered by the payment system. as shown in Figure 5.1.63

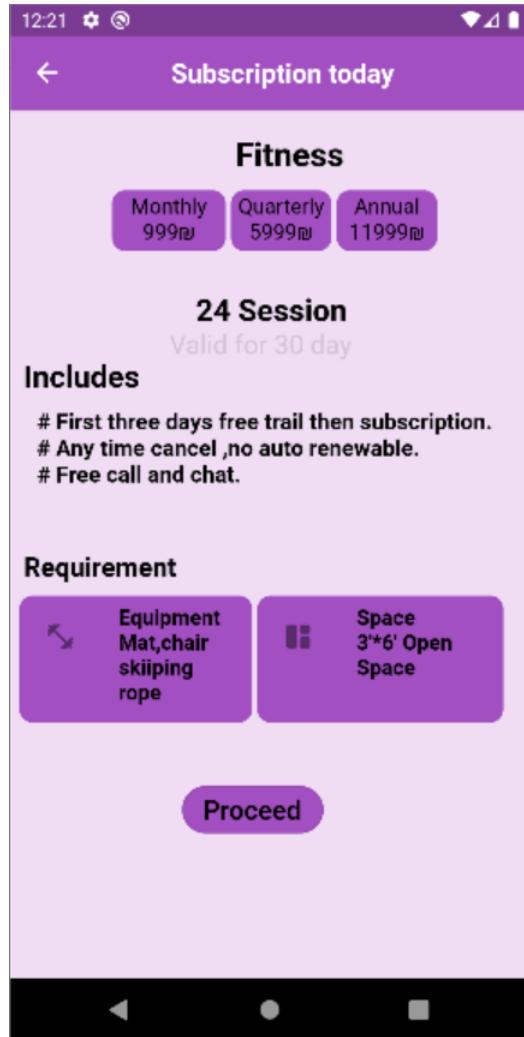


Figure 5.1.63: subscription

Exercices

On this page, the exercises that the trainee must practice, whether inside the gym or at home, are shown as shown in Figure 5.1.64,5.1.65

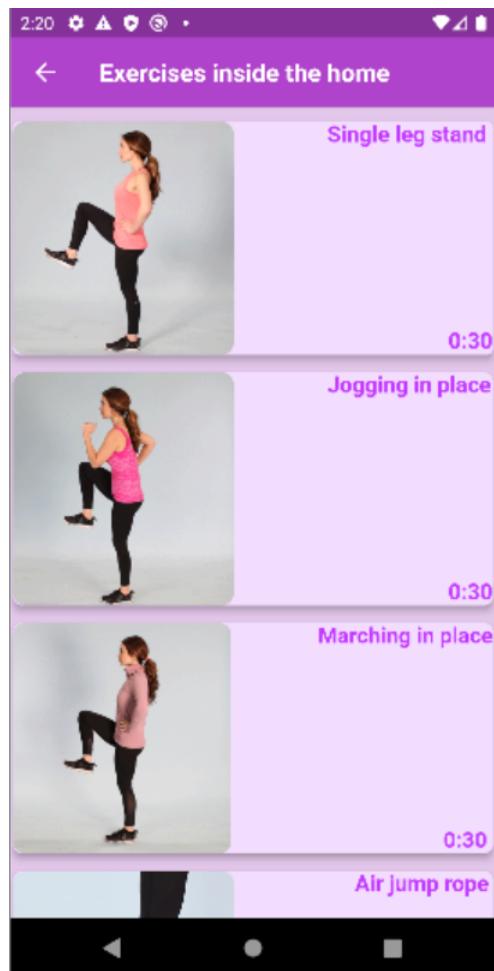


Figure 5.1.64: Exercices

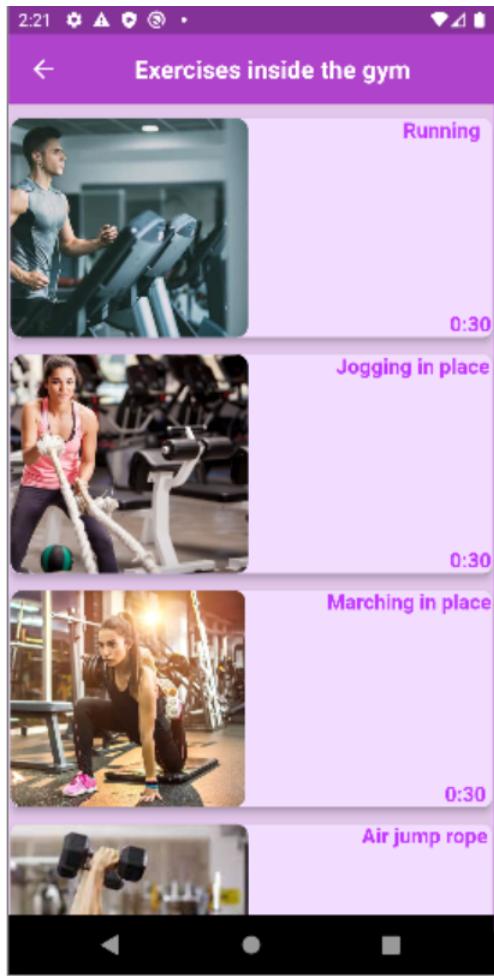


Figure 5.1.65:Exercices

Tracking weight

The user can enter his weight every day to track the development in his weight to reach the required weight, and he can modify and delete the value. as shown in Figure 5.1.66,5.1.67,5.1.68,5.1.69,5.1.70

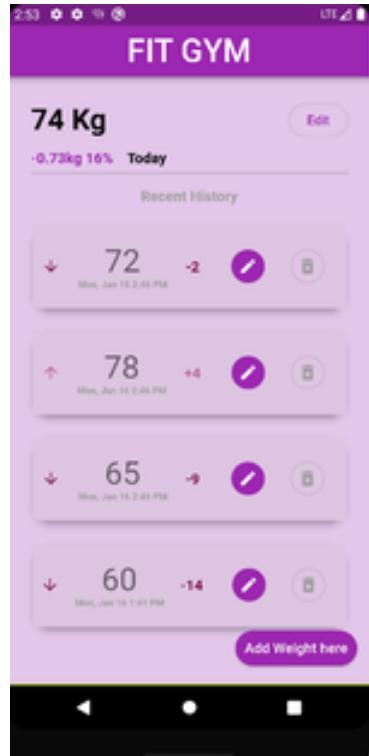


Figure 5.1.66: Tracking weight

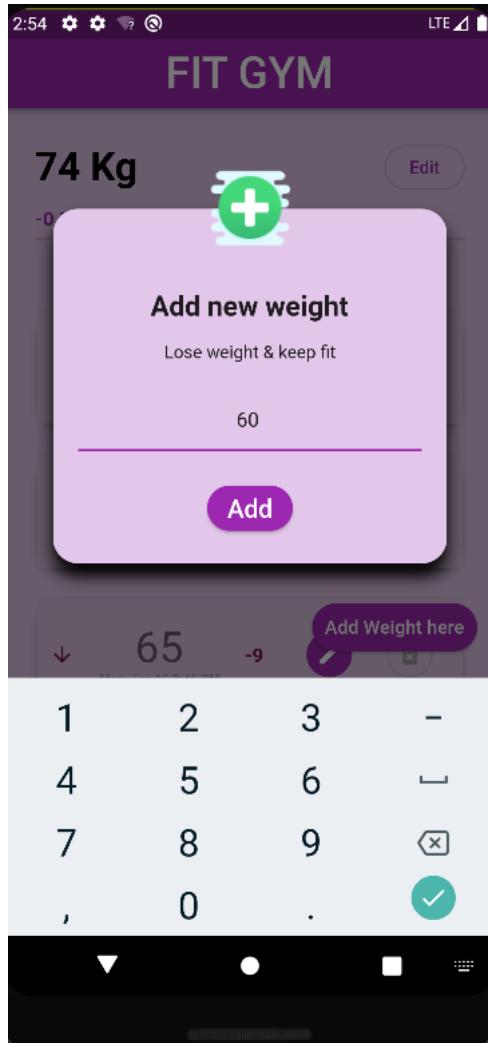


Figure 5.1.67: Tracking weight

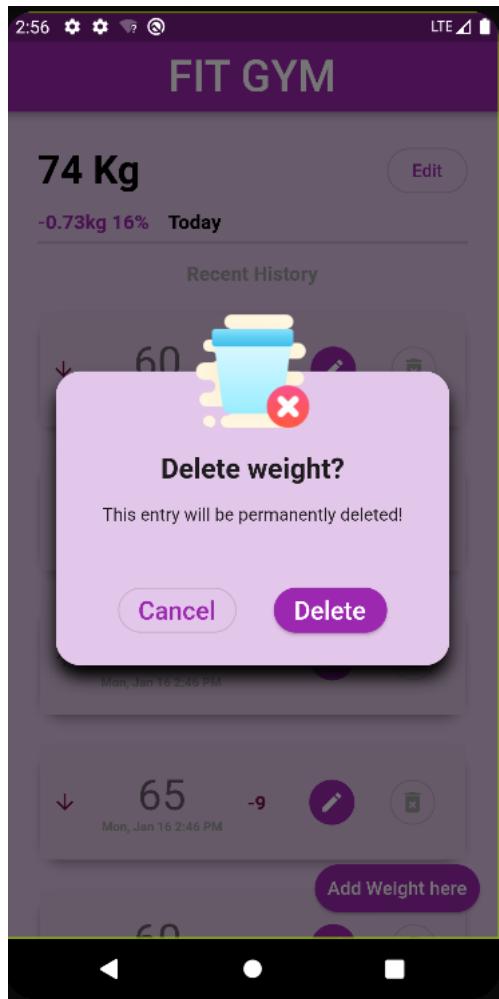


Figure 5.1.69:delete weight

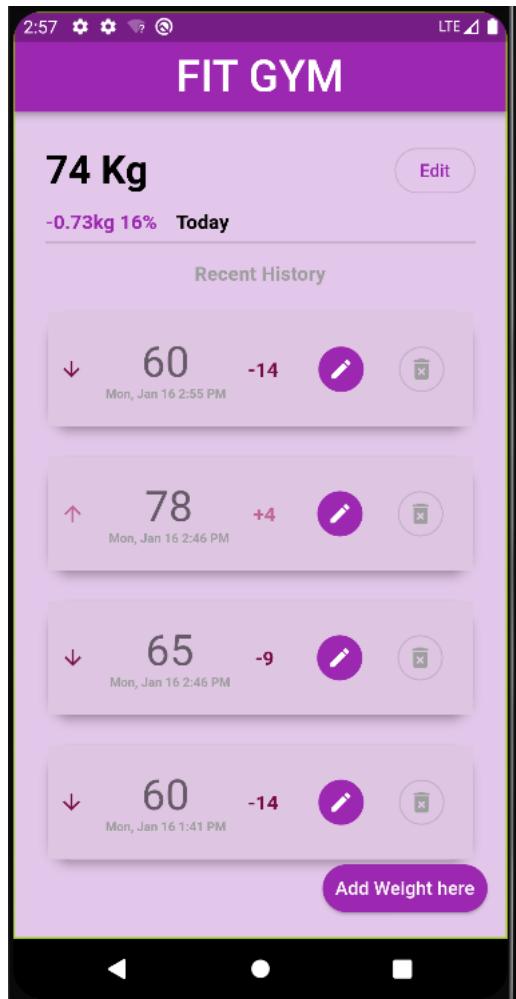


Figure 5.1.70: Tracking weight

analysis weight

It shows the evolution by weight between the largest and smallest entered value over the previous months. as shown in Figure 5.1.71

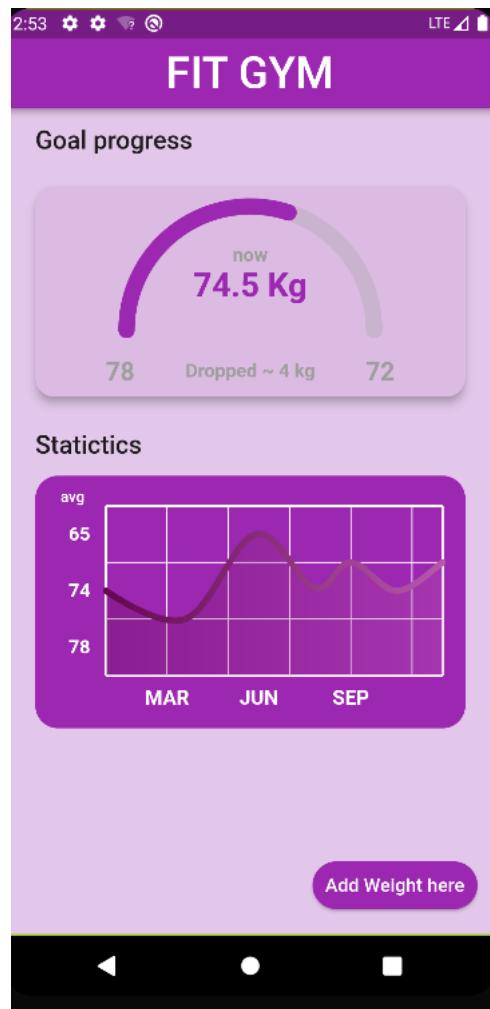


Figure 5.1.71:analysis weight

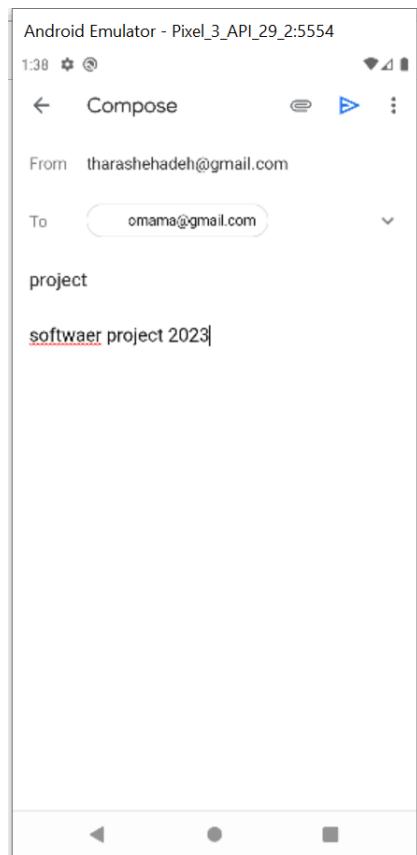


Figure 5.1.49:email

Diets

On this page, meals are displayed so that they are divided into breakfast, lunch and dinner. Each meal has an appointment to be eaten on time, so that these are organized Meals according to the height and weight of the athlete. as shown in Figure 5.1.72

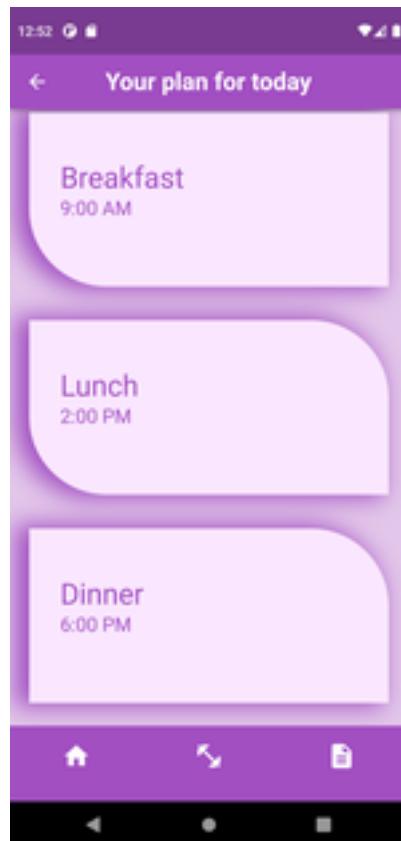


Figure 5.1.72:Diets

Diets

This page displays the food meals so that it displays what needs to be eaten during breakfast, lunch and dinner, the time and duration of each meal, and then the person can evaluate the meal that he ate. as shown in Figure 5.1.73

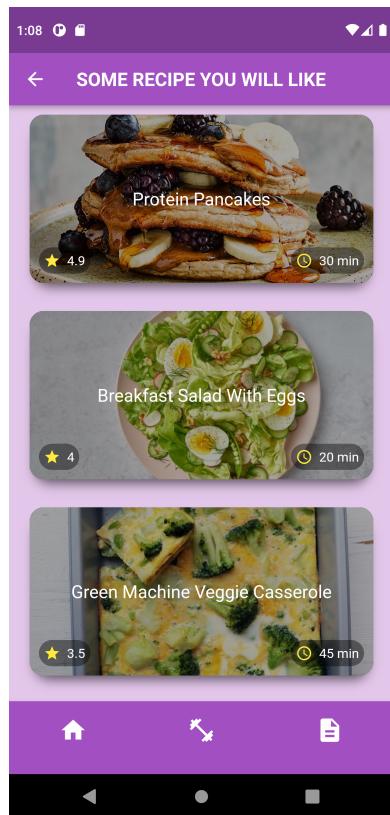


Figure 5.1.73:Diets

chatBot

On this page, the trainee communicates with the trainer when needed, and the trainer responds to him as shown in Figure 5.1.74

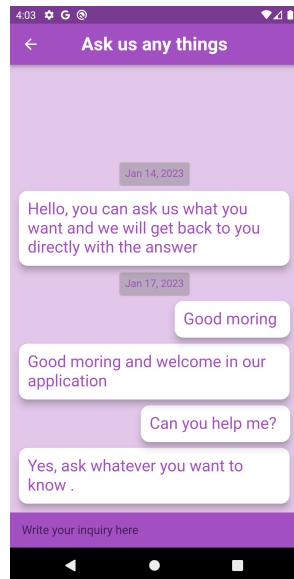


Figure 5.1.74:chatBot

Favorite

This page displays saved items for the user to return to as shown in Figure 5.1.75

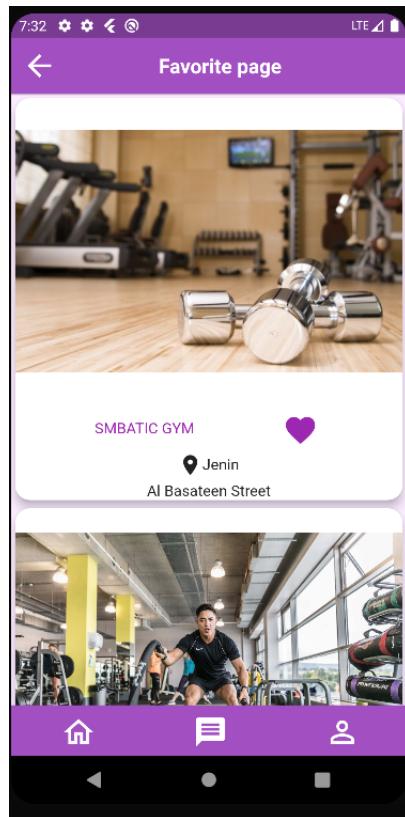


Figure 5.1.75:Favorite

confirm

The trainee confirms the reservation and then presses the confirm button to return to the beginning of the gym application as shown in Figure 5.1.76

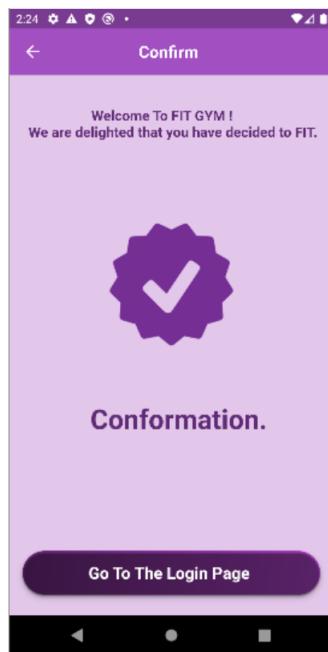
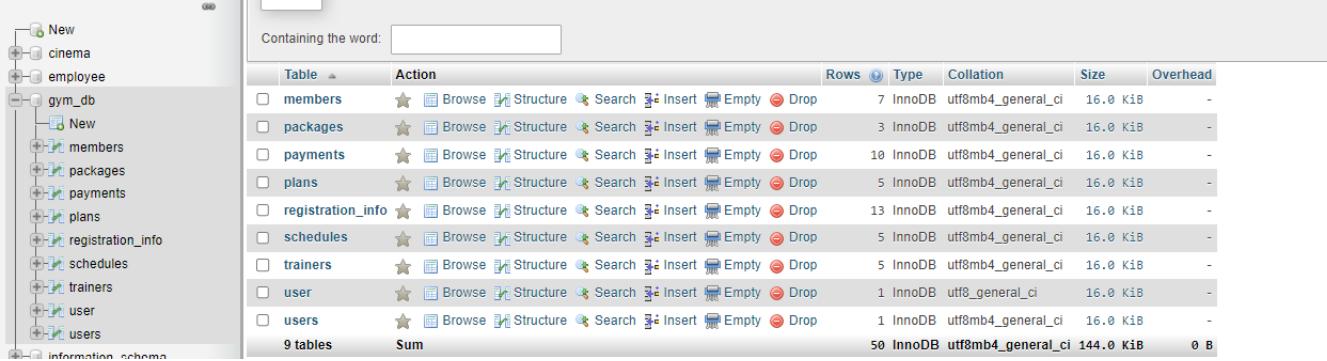


Figure 5.1.76:Confirm

5.2 Database

The main database of the project is implemented by the MySQL database. We have about twenty-four tables to store all the data. Also, we use firebase for chatting and tracking weight. as shown in Figure 5.1.75



The screenshot shows the MySQL Workbench interface. On the left, a tree view displays the database schema with databases like 'New', 'cinema', 'employee', and 'gym_db' expanded, showing their respective tables. The 'gym_db' database is selected. On the right, a table lists the 9 tables in the 'gym_db' schema, including 'members', 'packages', 'payments', 'plans', 'registration_info', 'schedules', 'trainers', 'user', and 'users'. The table includes columns for 'Table', 'Action', 'Rows', 'Type', 'Collation', 'Size', and 'Overhead'. A search bar at the top is set to 'Containing the word: []'.

Table	Action	Rows	Type	Collation	Size	Overhead
members		7	InnoDB	utf8mb4_general_ci	16.0 KiB	-
packages		3	InnoDB	utf8mb4_general_ci	16.0 KiB	-
payments		10	InnoDB	utf8mb4_general_ci	16.0 KiB	-
plans		5	InnoDB	utf8mb4_general_ci	16.0 KiB	-
registration_info		13	InnoDB	utf8mb4_general_ci	16.0 KiB	-
schedules		5	InnoDB	utf8mb4_general_ci	16.0 KiB	-
trainers		5	InnoDB	utf8mb4_general_ci	16.0 KiB	-
user		1	InnoDB	utf8_general_ci	16.0 KiB	-
users		1	InnoDB	utf8mb4_general_ci	16.0 KiB	-
9 tables	Sum	50	InnoDB	utf8mb4_general_ci	144.0 KiB	0 B

Figure 5.1.75: Mysql tables

The screenshot shows the Firebase Cloud Firestore interface for a project named "chatFITGYM". The left sidebar contains navigation links for Project Overview, Authentication, Firestore Database, Build, Release & Monitor, Analytics, Engage, and All products. A "Customize your nav!" section is also present. The main area displays a hierarchical document structure under the "messages" collection. The first document, "8Jvhb8QMC10mjG1zaJ1", is expanded, showing fields: "sender: "ahmad@gmail.com"" and "text: "buy"". There are also options to "Start collection" and "Add field". The top right corner includes links to "Go to docs", a notification bell, and a user profile icon.

Figure 5.1.76: :Firebase tables

6 Results and discussion

This project is a web application and an android mobile application that can access all sports clubs in Palestine that are linked to the application. It's a smart system with an extension Lots of features that allow trainees and trainers to get what they want quickly and Our application keeps users updated with the addition of all sports clubs to the application also every gym in the app provides very useful information for users. Moreover, the chat system is a great way for users and trainers to communicate easily online. Users can also easily find the gym with the features they want by filtering to provide a healthy diet for each user and Weight tracking with graphs to keep abreast of their weight

7 Conclusion and recommendations

7.1 Conclusion

We have gained a lot of useful knowledge and skills since we finished developing our app. Such as handling several dart and flutter packages to complete our work and deal with Interaction and design with Material UI, Firebase handling, and Building a chat system and analysis of weights

7.2 Recommendations

. It is recommended to use Flutter and Dart language to create a cross-platform mobile app because it is simple to learn and has a large number of packages to assist with implementation. it allows you to create a native mobile application with only one codebase. This means that you can use one programming language and one codebase to create two different apps (for iOS and Android).

7.2.1 Future work :

- 1-Adding a video call, which in turn allows the trainer to follow the trainee's exercises from inside his home
- 2-Add map factor for gym route.

References

- [1]<https://docs.flutter.dev/>
- [2]<https://dart.dev/guides>
- [3]<https://dev.mysql.com/doc/refman/8.0/en/>
- [4]<https://www.php.net/docs.php>
- [5]<https://firebase.google.com/docs/>