

1. INTRODUCTION TO PROJECT

Our Gym Management Software is a gym membership management system. You can keep records on your members, their memberships, and have quick and easy communication between you and your members. The web based “Gym Management System” project is an attempt to stimulate the basic concepts of gym management system. This web application provides lots of functions such data entry of customer, keeping records of all the things about customer's fees, plan, and physical fitness which help to provide good quality of services to customer from Gym managers. The system enables the customer to do the things such as search for monthly plans, choose appropriate diet, choose trainer, save and manage workout related data.

The system provides you Quick Search facility that provides you details about gym plans without login. But if user want to buy plans then it must require login into your account.

The system allows the gym members to schedule their workout time that are suitable for them during the day. The system displays all the plan's details such as plan no, plan name, price and time of workout, plan duration, trainer etc.

Here we provided quick search facility which displays list of available diet plans and system automatically suggests particular diet plan based on member's BMI.

To subscribe to a plan the system asks the customer to enter his details such as name, address, city, state, weight height and contact number. Then it checks the validity of customer data and books the plan and update the gym database and user database.

1.1 Objective of the Gym Management System:

- The main objective of the project is to develop software that facilitates the data storage, data maintenance and its retrieval for the gym in an igneous way .
- To store the record of the customers, the staff that has the privileges to access, modify and delete any record and finally the service, gym provides to its customers. Also, only the admin has the privilege to access any database and make the required changes, if necessary.
- To develop easy-to-use software which handles the customer-staff relationship in an effective manner.
- To develop a user friendly system that requires minimal user training. Most of features and function are similar to those on any windows platform.

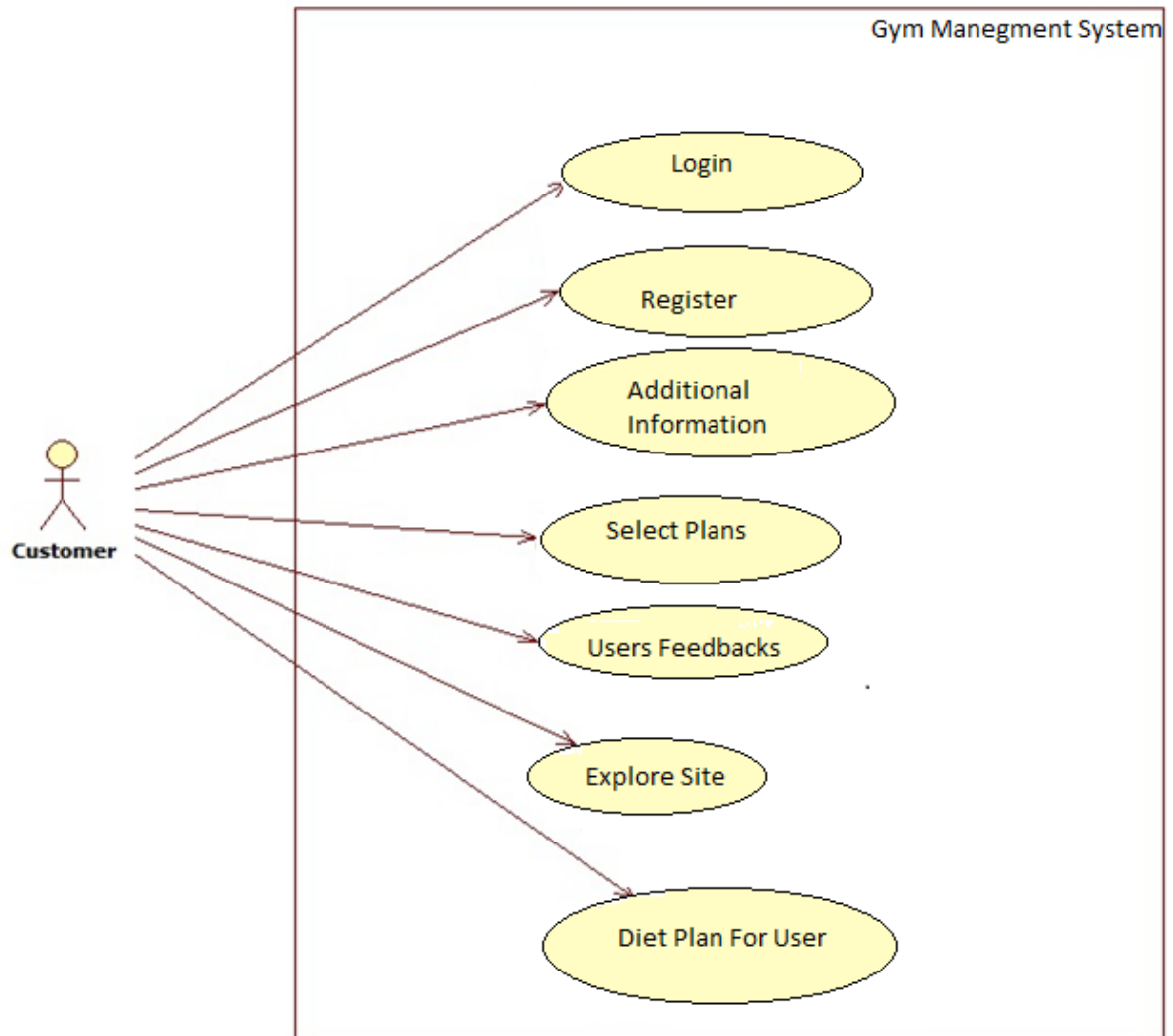
1.2 Limitation of Existing system:

- The existing System such as Gym Master is not as much as user (Customer) friendly as compare to our Proposed System. The communication with members is not well in Existing System
- All the data is handled by Gym manager. Customers don't get full accessibility to Gym center and all permissions are allowed only for Gym manager.
- Today's System cannot take effort out of finances and debt collection. Today's systems are time taking software and cannot be easily install in operating system like Linux, Vista, Mc-OS, and Novel. And also need high configuration of PC. Normal PC's cannot install in it. Lot of memory space is required for installing existing software.

1.3 Some salient features:

1. Product and Component based
2. Creating & Changing Gyms at ease
3. Query Gym List to any depth
4. Reporting & Charting in more comprehensive way
5. User Accounts to control the access and maintain security
6. Simple Status & Resolutions
7. Multi-level Priorities & Severities.
8. Targets & Milestones for guiding the programmers
9. Attachments & Additional Comments for more information
10. Robust database back-end

2. User Panel



2.1 Explore

Here we provided explore facility for any user to search gym schedules without login into account .This will provide user an option for searching various plans and comparing their prices and timings.

In explore new user can see trainer's brief information, gym contact information, and the plans offered by gym and also some recent feedbacks of current existing members.

2.2 User Account

After logging in a user (either a registered user or a guest), the system shall show user their profile along with other options on their dashboard. Immediately after their first login user is supposed to enter additional information such as their height and weight as well as their address etc. This shall be used in determining an appropriate diet plan for them which will be recommended to them by system.

After that user can also upload their picture for their profile and also can explore and buy a plan which is suitable for them. Each plan has a trainer assigned to it. Both plans and trainers have their individual tables in database.

The system has a feedback section on homepage, but user must be logged in to submit the feedback. If tried submitting feedback without logging in then system shows alert window with message asking user to log into his account

The gym member, who will henceforth be called the 'user', will be presented with choice to explore site, login or sign-in as the first step in the interaction on homepage. A user can choose one of these and user's choice would be governed by whether he is a guest or a registered user and whether user wants to explore the gym plans or also buy them. The terms 'registered user' and 'guest' are described below.

A user who has subscribed to a plan earlier would have been given a user id and a password. This 'personal information' would be henceforth referred to as 'profile'. Such

a user with a profile in DB-user shall be called a ‘registered user’. A registered user will be able to check the available plans as well as subscribe to a plan by logging into the system.

A new user, on the other hand, would either have to

- a) register himself with the system by providing personal information or
- b) Log into the system as a guest.

In case of ‘a’, the new user becomes a registered user.

In case of ‘b’, the new user would remain a guest.

A guest can only explore the plans and cannot subscribe to any plan.

But a registered user can also act as a guest if he only wants to explore the site and current workout plans.

Selected plan also comes with a trainer and a recommended diet based on users current BMI. The system shall present the user with an option to exit from the system at any time during the following processes.

2.3 Registration and creation of user profile

The system shall require a user to register, in order to carry out any transactions with it except for checking the available plans. It will ask the user for the following information at the least – first name, last name, password, address, phone number, email address, gender, age, height and weight. The system will automatically calculate BMI and store it in user’s record.

2.4 Subscribing to a Plan:

After user has created an account, user can subscribe to any workout plan. In ‘Browse Plans’ section in user account all the available plans will be visible. User can select multiple plans as well, but if user tries to buy same plan again an alert window lets

user know that he already has a subscription to that plan. Same plan can be subscribed again only when the current plan validity expires.

In 'My Plans' section user can see his plans. Below his each subscribed plan component the expiry date of that plan will be displayed. As soon as the plan expires it will automatically get deleted from user account and user will need to subscribe to same or another plan again from 'Browse Plans' section

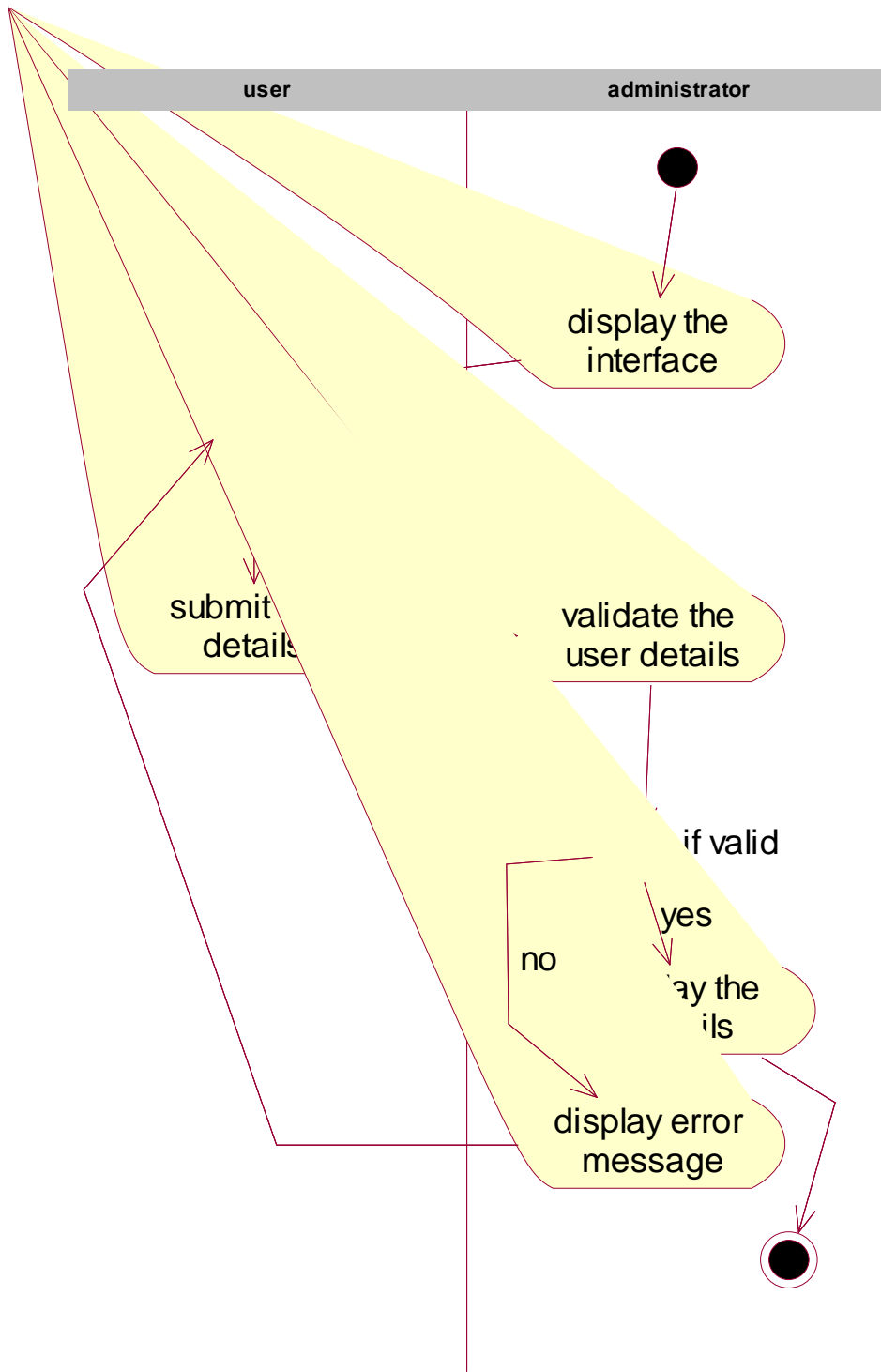
2.5 Diet:

There are various diet plans stored in database. The user when creates his account has option to add additional information which includes his height and weight. System then calculates users' BMI and automatically adds a diet plan appropriate for that user. User can see it in 'Diet Plan' section.

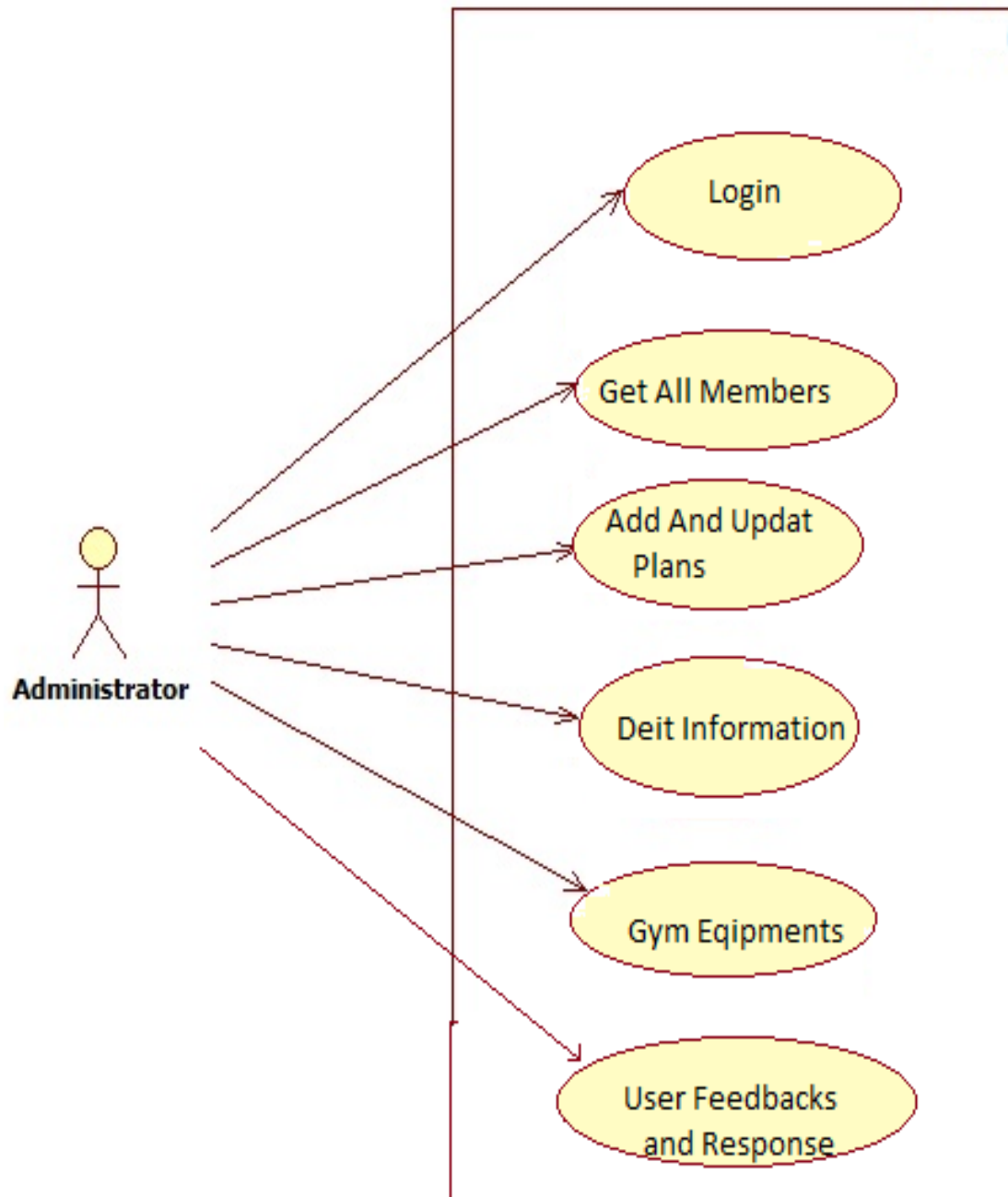
If user explores the Diet section without entering height and weight then a message requesting user to fill additional info is displayed in Diet section.

2.6 Feedback:

A registered user can submit feedback to the system admin about the gym or the application. User has a 'My Feedback' section where he can see all his previous feedbacks. User may also receive a response from admin for his feedback. Thus establishing communication between admin and user.



2.4 ADMIN PANEL



Admin is able to login, view and modify his own profile, view and modify all users' information, add and delete or update trainer's information, create new workout plan, update or delete existing plan etc.

- **Login:** Admin has login to his account. The record in user table in database with 'role' as 'admin' will be automatically has access to admin panel.
- **Members:** Admin can see information of all registered users. Information such as basic information in user profile, contact details, user join date etc. Admin has privilege to remove a user's account as well.
- **Workout Plans:** Admin panel has 'Plans' section where admin can update existing plans and can create new plan as well.
- **Trainers:** Trainers section of admin panel allows admin to handle trainer data management. It has functions such as add new trainer, update or delete existing trainer details.
- **Inventory Management:** The equipment data is managed in this section. Admin can keep records of all the purchases of the equipment managed in a separate table in database.
- **Diet Tables:** In Diet section, admin can add several diet plans and change them as per requirement.
- **Feedback Management:** User can submit their feedbacks to admin which are managed in Feedback management. Admin can view feedbacks and also has functionality available to respond to any particular feedback as well.

2.5 NON FUNCTIONAL REQUIREMENTS

2.5.1 Interface

Go to Appendix B for user interfaces

2.5.2 Performance

- **Number of Concurrent Users:**

GMS shall be able to handle at least 1000 transactions/inquiries per second

- **Buying a plan:**

The system is susceptible to any temporary server failure since it uses the strong features spring boot and Hibernate. Hence the examination will be continued even if the sever gets disconnected in between the examination.

2.5.3 Constraint

GMS shall be able to handle at least 1000 inquiries per second

2.5.4 Other Requirements:

- **Hardware Interfaces**

The SPMS is expected to function on Intel PIII 900 MHz Processor equivalent or above, 128 MB RAM, 20 GB HDD.

- **Software Interfaces**

The SPMS shall work on MS Windows operating systems family (MS Windows 98, MS Windows NT Workstation, MS Windows 2000, MS Windows XP). It configures to work with Oracle database. This System works on Apache Tomcat server. It uses browser IE 5.0 & above. It uses IIS 5.0 server.

3. DESIGN

3.1 Database Design

The following table structures depict the database design.

Table 1: User Table

Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
user_id	Integer	4	0
complete_name	Varchar	255	1
email	Varchar	255	1
adress	Varchar	255	1
age	Integer	4	0
gender	Integer	4	0
joining_date	Date	3	0
end_of_membership_date	Date	3	1
question	Integer	4	0
answer	Varchar	255	1
avatar	Varchar	255	1
height	Double	8	0
weight	Double	8	0
role	Varchar	255	1
password	Varchar2	255	1

Table 2: Trainer Table

Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
trainer_id	Integer	4	0
trainer_name	Varchar	255	1
address	Varchar	255	1
avatar	Varchar	255	1
join_date	Date	3	1
salary	Double	8	0
contact	Varchar	255	1

Table 3: Plan Table

Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
plan_id	Integer	4	0
duration	Integer	4	0
Start_hour	Varchar	255	0
End_hour	Varchar	255	1
planname	Varchar	255	1
Price	double	8	0
Trainer_name	Varchar	255	1

Table 4: Plan Table

Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
memberplan_id	Integer	4	0
plan_id	Integer	4	0
user_id	Integer	4	0

Table 5: Diet Table

Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
diet_id	Integer	4	0
diet_name	Varchar	255	1
Morning	Varchar	255	1
Afternoon	Varchar	255	1
Evening	Varchar	255	1
night	Varchar	255	1

Table 6: Inventory Table

Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
item_id	Integer	4	0
equip_name	Varchar	255	1
Item_price	Double	8	0
model	Varchar	255	1
Purchase_date	Date	3	1
units	Integer	4	0

Table 7: Feedback Table

Column Name	Data Type	Length	Allow Null (1=Yes;0=No)
feed_id	Integer	4	0
Created_timestamp	Datetime	6	1
feedback	Varchar	255	1
User_id	Integer	4	1

4. CODING STANDARDS IMPLEMENTED

Naming and Capitalization

Below summarizes the naming recommendations for identifiers in Pascal casing is used mainly (i.e. capitalize first letter of each word) with camel casing (capitalize each word except for the first one) being used in certain circumstances.

Identifier	Case	Examples	Additional Notes
Class	Pascal	Person, BankVault, SMSMessage, Dept	Class names should be based on "objects" or "real things" and should generally be nouns . No ‘_’ signs allowed. Do not use type prefixes like ‘C’ for class.
Method	Camel	getDetails, updateStore	Methods should use verbs or verb phrases.
Parameter	Camel	personName, bankCode	Use descriptive parameter names. Parameter names should be descriptive enough that the name of the parameter and its type can be used to determine its meaning in most scenarios.
Interface	Pascal with "I" prefix	Disposable	Do not use the ‘_’ sign
Property	Pascal	ForeColor, BackColor	Use a noun or noun phrase to name properties.
Associated private member variable	_camelCase	_foreColor, _backColor	Use underscore camel casing for the private member variables
Exception Class	Pascal with "Exception" suffix	WebException,	

Comments

- Comment each type, each non-public type member, and each region declaration.
- Use end-line comments only on variable declaration lines. End-line comments are comments that follow code on a single line.
- Separate comments from comment delimiters (apostrophe) or // with one space.
- Begin the comment text with an uppercase letter.
- End the comment with a period.
- Explain the code; do not repeat it.

5. TEST REPORT

Another group called Linux did the testing and the report of the testing is given hereunder.

GENERAL TESTING:

SR-NO	TEST CASE	EXPECTED RESULT	ACTUAL RESULT	ERROR MESSAGE
1	Signup Page	Redirected to Log in page	OK	Please Fill all fields.
2	Login Page	Redirect to Dashboard	Ok	Please enter username and password again.
3	Forgot Password	Only users password will be reset	Ok	Please enter correct email, security question and answer.
4	Browse Plans	Gives all Plan details	Ok	Nothing
5	Buying Plan	Selected Plan should be added to users acc.	Ok	You've already bought this plan.
6	Checking login or not	User is logged in or not	Ok	Nothing
7	Update person details	Additional information should be updated.	Ok	Nothing
8	Go to Diet Table page	Show appropriate diet table based on users BMI	Ok	Please enter additional information.
9	Feedback	Save users feedback into database	Ok	Nothing
10	Add Trainer	Should create Trainer record in database.	Ok	Nothing
11	Respond to feedback	User should receive response sent by admin.	Ok	Nothing
12	Logout	It will logout from user and admin profile.	Ok	Nothing
	STATIC TESTING			
SR-NO	Deviation	Program		
1	Commenting not followed	All Web Application		

6. PROJECT MANAGEMENT RELATED STATISTICS

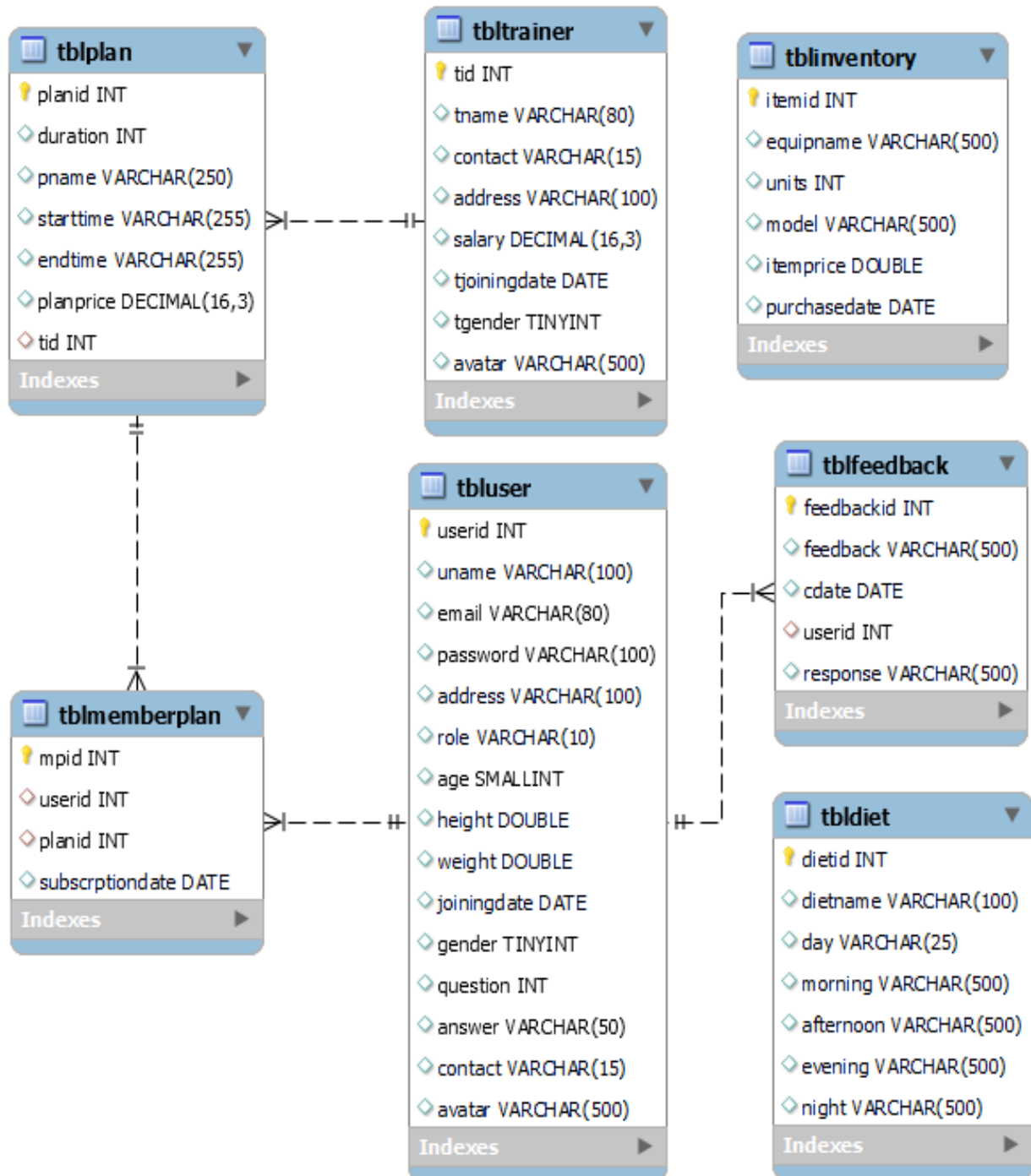
DATE	WORK PERFORMED	SDLC Phase	Additional Notes
JULY 21, 2021	Project Allotment and User Requirements Gathering	Feasibility Study	Our team met the client Mr. Nitin Kudale (CEO, SIIT Pune) to know his requirements.
JULY 24, 2021	Initial SRS Document Validation And Team Structure Decided	Requirement Analysis (Elicitation)	The initial SRS was presented to the client to understand his requirements better
JULY 27, 2021	Designing the use-cases, Class Diagram, Collaboration Diagram, E-R Diagram and User Interfaces	Requirement Analysis & Design Phase	Database Design completed
JULY 31, 2021	Business Logic Component design Started	Design Phase	-----
AUG 5, 2021	Coding Phase Started	Coding Phase	40% of Class Library implemented.
AUG 10, 2021	Implementation of Web Application and Window Application Started	Coding Phase	Class Library Development going on.
AUG 15, 2021	Off	Off	Off
SEPT 2, 2021	Implementation of Web Application and Window Application Continued	Coding Phase and Unit Testing	Class Library Modified as per the need.
SEPT 4, 2021	Implementation of Web Application and Window Application Continued	Coding Phase and Unit Testing	--

Gym Management System

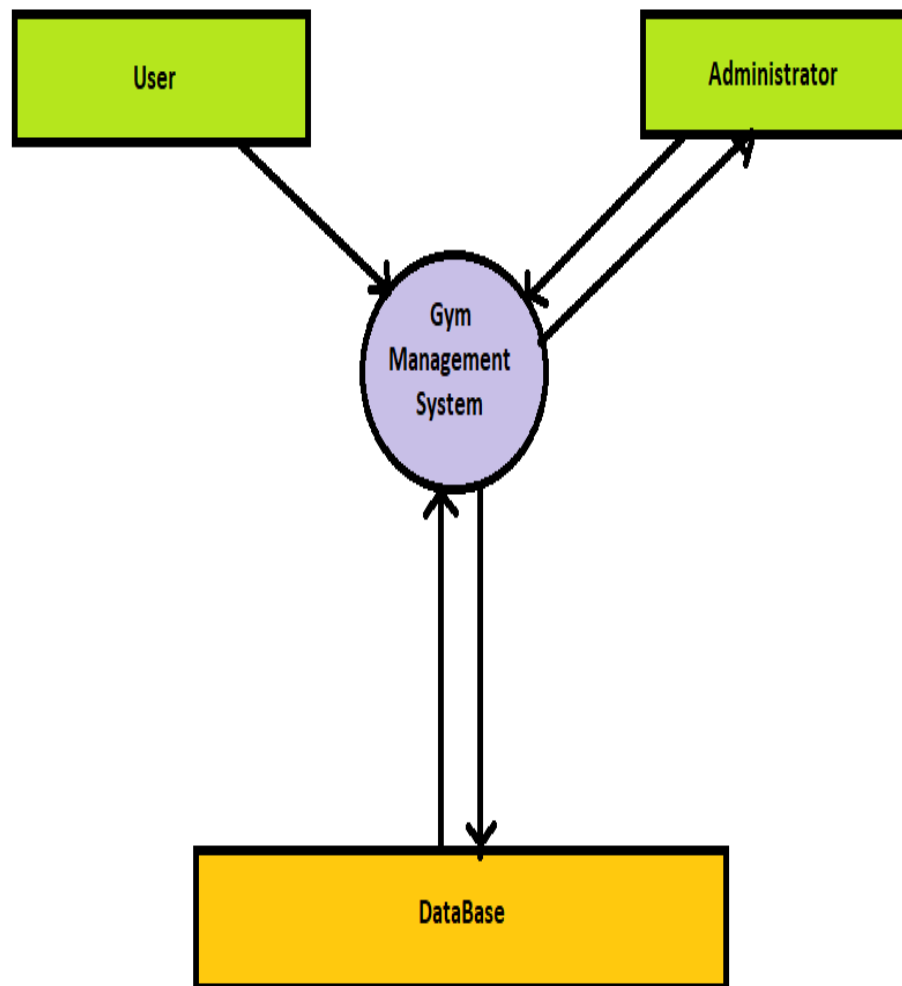
SEPT 18, 2021	After Ensuring Proper Functioning the Required Validations were Implemented	Coding Phase and Unit Testing	Module Integration was done by the Project Manager
SEPT 20, 2021	The Project was Tested by the respective Team Leaders and the Project Manager	Testing Phase (Module Testing)	--
SEPT 21, 2021	The Project was Submitted to Other Project Leader of Other Project Group For Testing	Testing Phase (Acceptance Testing)	The Project of Other Team was Taken up by the Team for Testing
SEPT 22 & s23 , 2021	The Errors Found were Removed	Debugging	The Project was complete for submission
SEPT 24, 2021	Final Submission of Project		

Appendix A

Entity Relationship Diagram

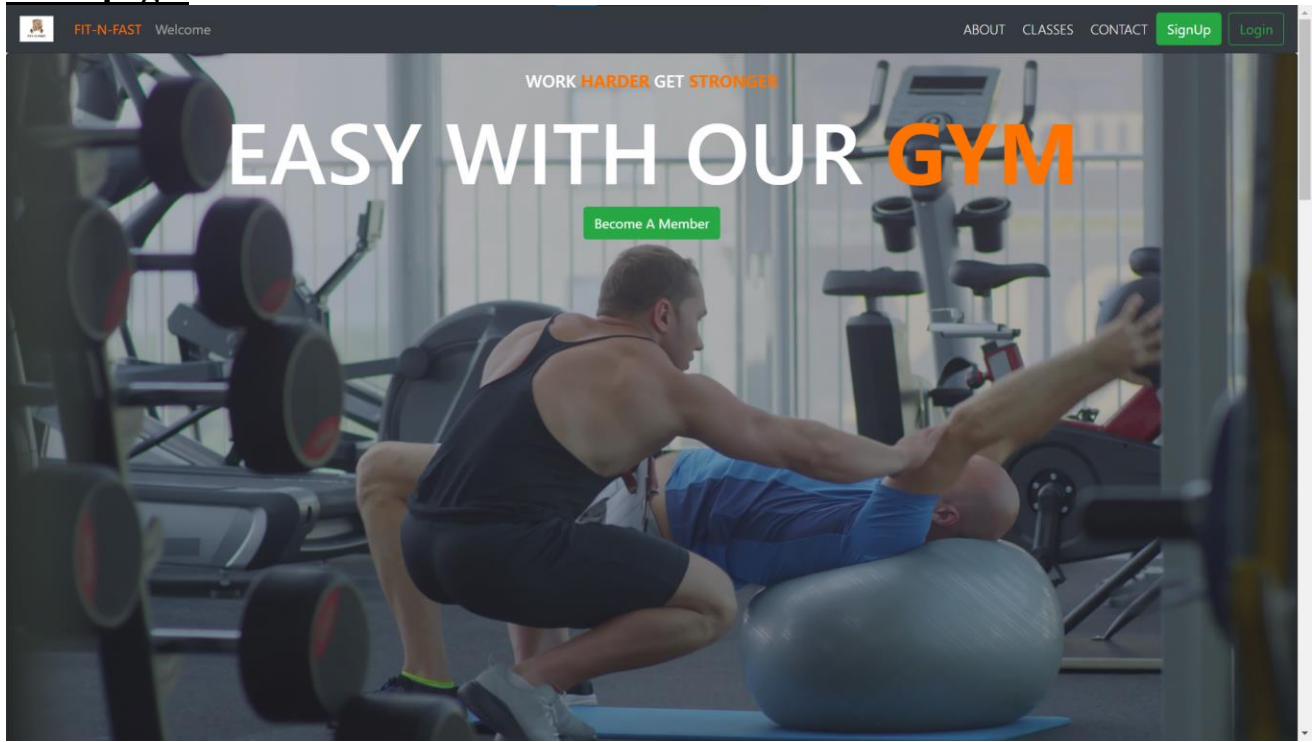


Data Flow Diagram:



Appendix B

Homepage:



Explore About:

EXPERT TRAINERS



Don't Disturb me. When I am busy in a workout.



Strength Trainer
shubham
98765322

Bitters cliché tattooed 8-bit distillery
mustache. Keytar succulents gluten-free
vegan church-key pour-over seitan flannel.



Strength Trainer
Arnold
098787878

Bitters cliché tattooed 8-bit distillery
mustache. Keytar succulents gluten-free
vegan church-key pour-over seitan flannel.



Strength Trainer
salman
9898987878

Bitters cliché tattooed 8-bit distillery
mustache. Keytar succulents gluten-free
vegan church-key pour-over seitan flannel.



DON'T THINK, BEGIN TODAY!

Your mind gives up before your legs do.
A one-hour workout is only 4% of your day. NO EXCUSES.

Explore Classes:

CHOOSE PROGRAMS



Pain is weakness leaving the body. Some people like going to the public. Believe you can do it and your body will find a way to make it happen.



Basic Fitness

Challenges are what make life interesting. Overcoming them is what makes life meaningful.



Advanced Muscle Course

Everybody wanna be a bodybuilder, but don't nobody wanna lift no heavy-ass weights!!



New Gym Training

The best day to start exercising is today. Tomorrow can turn into weeks, months or years.



Yoga Training

Yoga is essentially a spiritual discipline based on an extremely subtle science, which focuses on bringing harmony between mind and body.



Basic Muscle Course



Body Building Course

Contact Us:

Your mind gives up before your legs do.
A one-hour workout is only 4% of your day. NO EXCUSES.
Fitness is like marriage. You can't cheat on it and expect it to work.

Members Feedback

shree
good gym

Shubham
would like better music

Shubham
very prompt service. thank you

Contact Us

Pune, Hinjewadi Phase II
91-667755589
fit_n_fast_gym.com

Connect With Us


With supporting text below as a natural lead-in to additional content.



Be With Us

DON'T GO ANYWHERE

User Registration:

 **FIT-N-FAST** Welcome

ABOUTCLASSESCONTACT[SignUp](#)[Login](#)

SignUp

User Name

Contact No.

Email

Password


Question

What is your Nickname ?

What is your Nickname ?
What is your favourite Sport ?
What is your favourite City ?
Who is your Best Friend ?

SignUp

User Login:

 **FIT-N-FAST** Welcome

ABOUTCLASSESCONTACT[SignUp](#)[Login](#)

Login

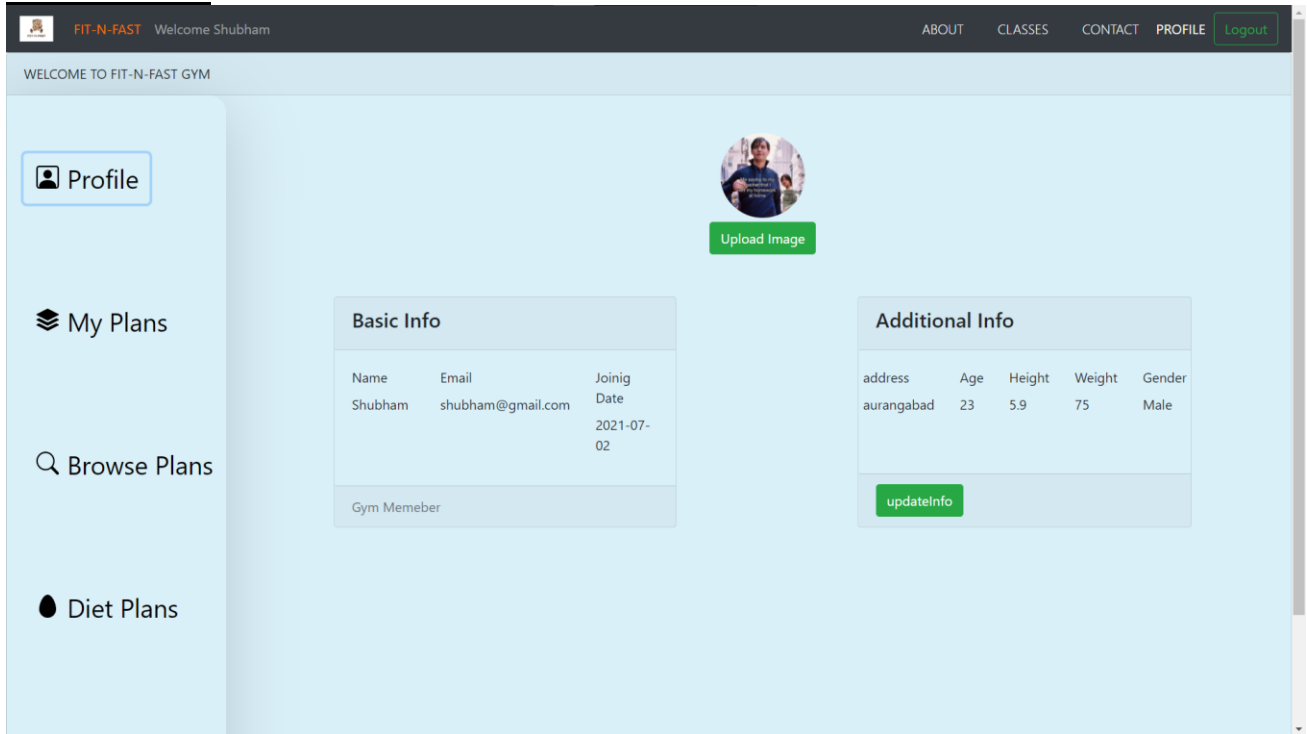
Email

Password

Login

[Forgot Password?](#)

User Profile:



WELCOME TO FIT-N-FAST GYM

Profile

My Plans

Browse Plans

Diet Plans

Basic Info

Name	Email	Joining Date
Shubham	shubham@gmail.com	2021-07-02

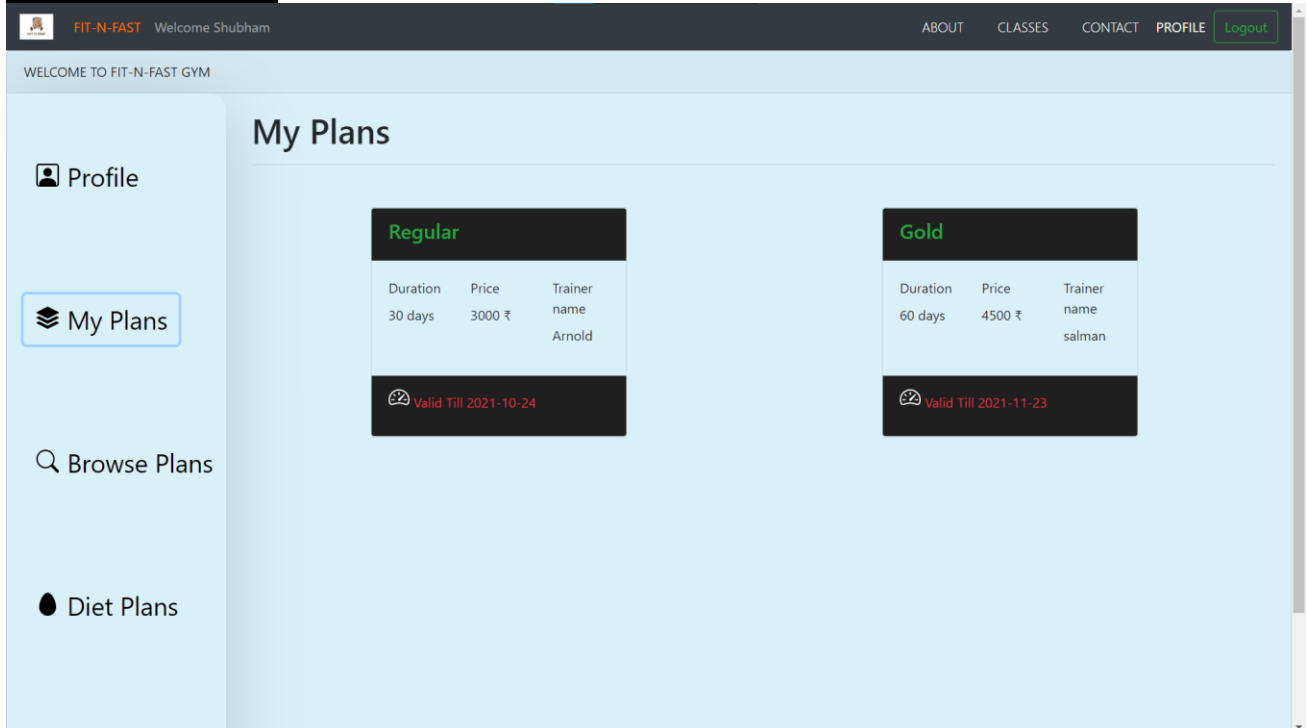
Gym Memeber

Additional Info

address	Age	Height	Weight	Gender
aurangabad	23	5.9	75	Male

updateInfo

User Gym Plans:



WELCOME TO FIT-N-FAST GYM

My Plans

Regular

Duration	Price	Trainer name
30 days	3000 ₹	Arnold

Valid Till 2021-10-24

Gold

Duration	Price	Trainer name
60 days	4500 ₹	salman

Valid Till 2021-11-23

User Browse Plans:

WELCOME TO FIT-N-FAST GYM

Browse Plans

Plan Name	Duration	Start	End	Price	Trainer Name	Buy Plan
Regular	30	7 am	8 am	3000	Arnold	
Gold	60	5 pm	6 pm	4500	salman	

localhost:3000/userdietplan

User Diet Plans:

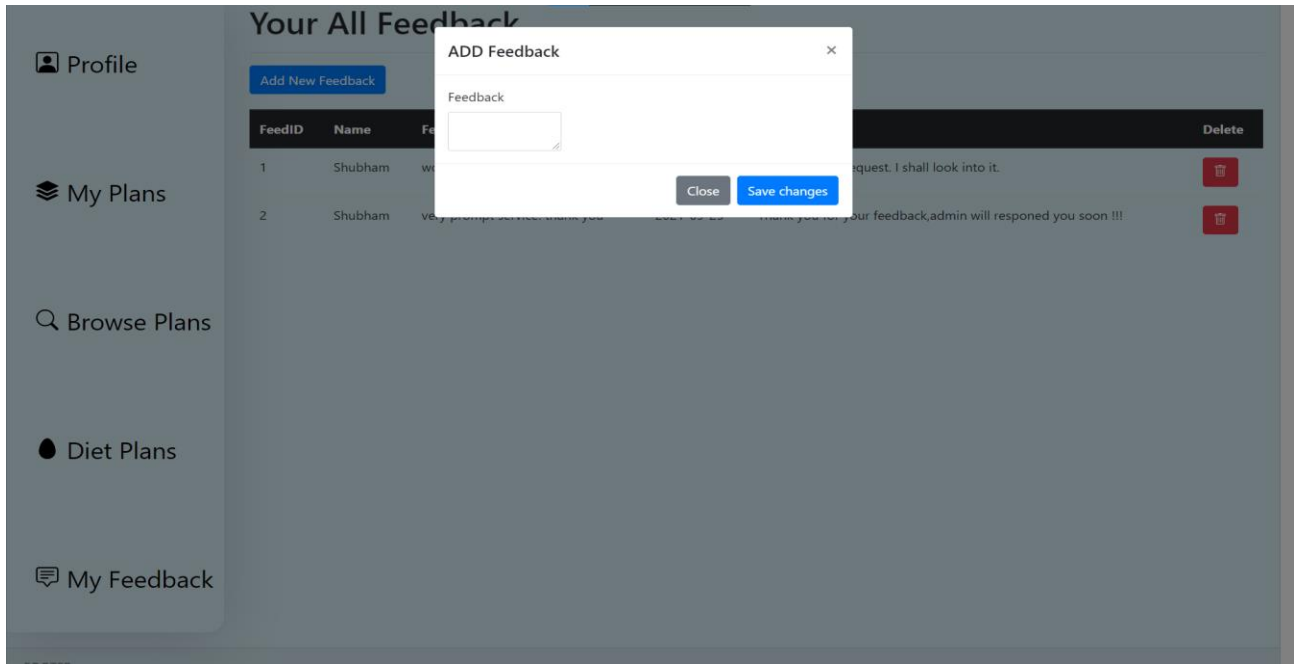
WELCOME TO FIT-N-FAST GYM

Your Body Mass Index is 23.2
According To your BMI You are **NORMAL**
According To Expert Trainer Follow This Diet

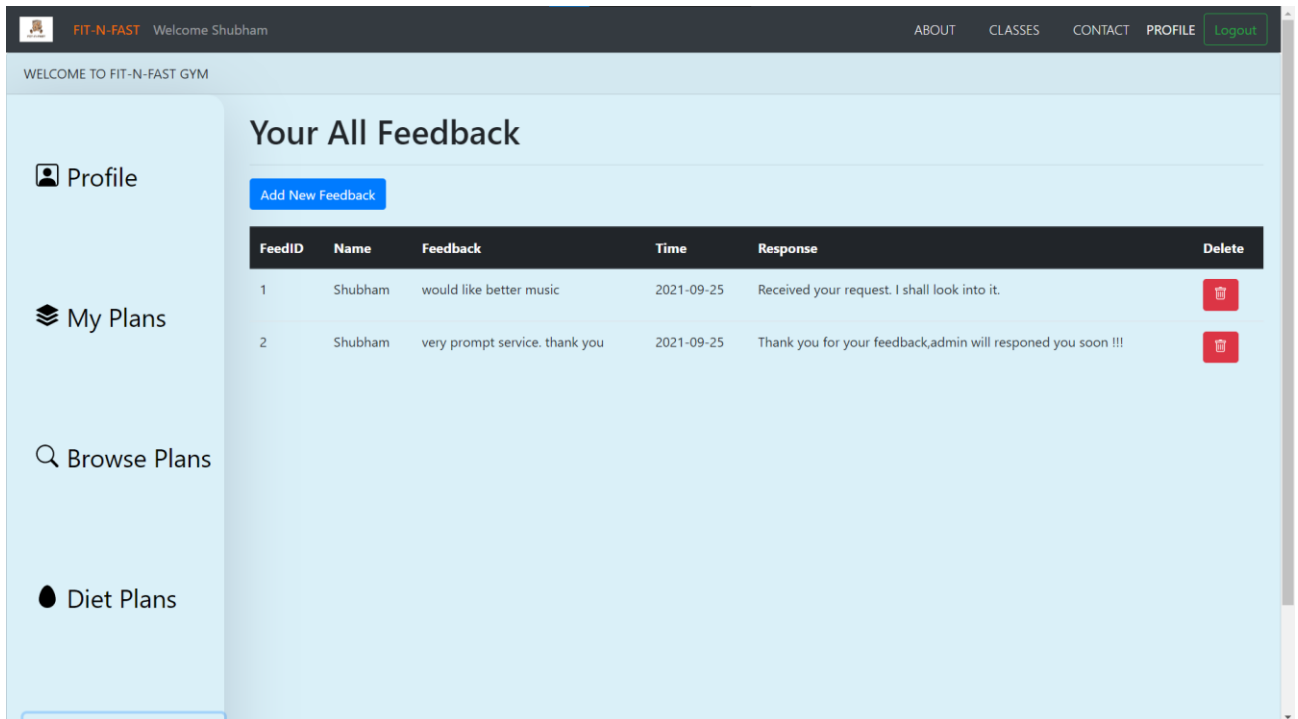
Day	Morning	Afternoon	Evening	Night
Monday	banana and a glass of milk	A whole meal	Dry fruits	4 roti and curry
Tuesday	3 eggs with brown bread	fruit bowl	Milk	2 roti + Rice

localhost:3000/userdietplan

User Feedback:



User Feedback Management:



Admin Profile:

Admin Profile:

Members

Profile

Trainer

Plans

Diet Plan

Equipments

Basic Info

Name	Email	Joining Date
akash	aka@gmail.com	2021-07-02

Gym Memeber

Additional Info

address	Age	Height	Weight	Gender
	0	0	0	Male

updateInfo

localhost:3000/dashboard/adminprofile

Admin Members Management:

Admin Members Management:

Members

Profile

Trainer

Plans

Diet Plan

Equipments

Members Management

Name	Contact	Email	Age	Gender	Join Date	Delete
Shubham	77996756	shubham@gmail.com	23	Male	2021-07-02	
akash	88997766	aka@gmail.com	0	Male	2021-07-02	
shree	98765432	shree@gmail.com	0	Male	2021-09-24	

Feedback

Admin Trainers Management:

The screenshot displays the 'Admin Trainers Management' interface. The sidebar on the left contains navigation links: Members, Profile, Trainer, Plans, Diet Plan, and Equipments. The main content area is titled 'Trainers Management' and features an 'Add Trainer' button. Below the button is a table listing trainers with columns for Name, Contact, Address, Salary, Join Date, Upload Photo, and Delete.

Name	Contact	Address	Salary	Join Date	Upload Photo	Delete
shubham	98765322	pune	40000	2021-09-24		
Arnold	098787878	Pune	25000	2021-04-01		
salman	9898987878	Bandra	35000	2021-06-21		

localhost:3000/dashboard/admintrainers

Admin Gym Plans Management:

The screenshot displays the 'Admin Gym Plans Management' interface. The sidebar on the left contains navigation links: Members, Profile, Trainer, Plans, Diet Plan, and Equipments. The main content area is titled 'Plans Management' and features an 'Add Plans' button. Below the button is a table listing gym plans with columns for Plan Name, Duration, Start Hour, End Hour, Price, Trainer Name, and Update.

Plan Name	Duration	Start Hour	End Hour	Price	Trainer Name	Update
Regular	30	7 am	8 am	3000	Arnold	
Gold	60	5 pm	6 pm	4500	salman	

localhost:3000/dashboard/adminplans

Admin Diet Plans Management:

Diet Plan Management

[Add Diet Plan](#)

Diet Name	Day	Morning	Afternoon	Evening	Nigth	Update	Delete
Shrink	Monday	peanut butter sandwich	vegetable soup	green tea	salad	Update	Delete
Shrink	Tuesday	oats	2 roti and curry	green tea	dal rice	Update	Delete
Fit	Monday	banana and a glass of milk	A whole meal	Dry fruits	4 roti and curry	Update	Delete
Fit	Tuesday	3 eggs with brown bread	fruit bowl	Milk	2 roti + Rice	Update	Delete
Bulk	Monday	4 egg with bread+ protein shake	5 roti with curry + Rice	Fruit bowl	Brown rice	Update	Delete
Bulk	Tuesday	4 egg with bread+ protein shake	Chicken	-	Mutton	Update	Delete

localhost:3000/dashboard/dietplan











Admin Inventory Management:

Inventory Management

[Add Equipment](#)

Equipment Name	Units	Model	Price	Purchase Date
Dumbbells	40	5 kg	15000	2021-04-01
Pull up bars	6	Deluxe	45000	2021-07-02

Admin Feedback Management:

 Members  Profile  Trainer  Plans  Diet Plan  Equipments  Feedback	Feedback Management					
	FeedID	Name	Feedback	Time	Respond	Delete
	22	shree	good gym	2021-09-24	thank you	
	24	Shubham	very prompt service. thank you	2021-09-25	Respond	
	25	Shubham	I want to report that there is Problem in benchpress machine number 4.	2021-09-25	Respond	

7. REFERENCES:

<http://www.google.com>

<http://www.webdevelopersjournal.com/>

<http://www.w3.org>

<http://www.wikipedia.org>

<http://www.HTML.net/>

<http://www.tutorialspoint.com/mysql/>

<http://d.apache.org/docs/2.0/misc/tutorials>