

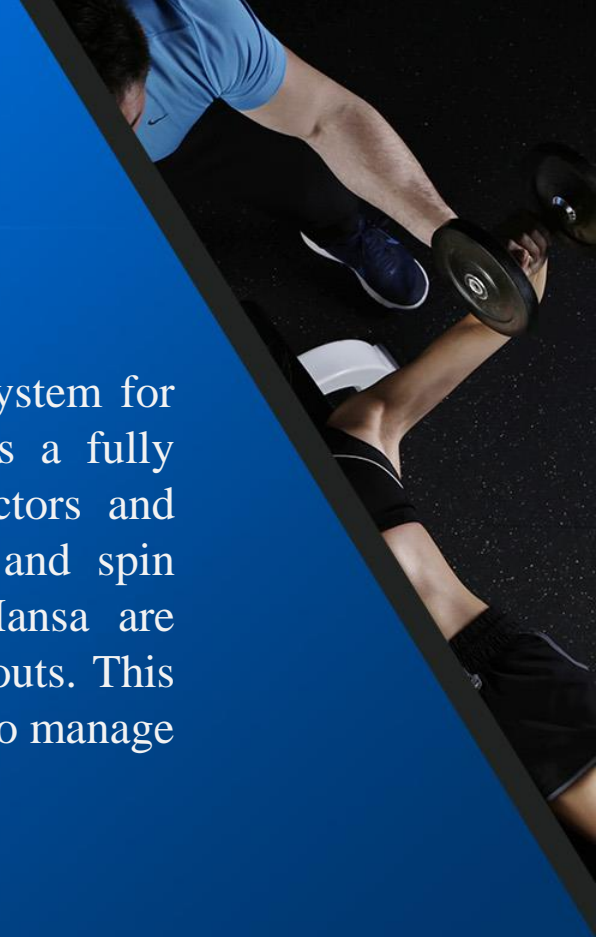
# Gym Management System for Mansa Fitness

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# INTRODUCTION

This project is designed to create an online gym management system for Mansa fitness center gym, fitness studio in Malabe. Mansa is a fully equipped gym with standard facilities and well-trained instructors and personal trainers. They are also offer gym products, Zumba and spin classes. The main tasks that are carried out manually at Mansa are managing members, trainers, payments, client requests and workouts. This project basically covers the objective of supporting fitness center to manage their customers in an easier and more convenient way.



# CLIENT BACKGROUND



Our Project client is Mansa Fitness Center gym, Fitness Studio, which is situated in Malabe, Western Province. It is fully equipped gym with standard facilities, certified gym instructors, personal trainers, and great workout environment. There are nearly fifteen employees work in the Mansa fitness center. They supply commercial gym equipment and products to gymnasiums and fitness centers worldwide. Their products designed by American professionals and experts under the principle of human motion mechanics.

They are also offer Zumba, Aerobics and Spin classes. Their aim is to become to the top OEM in this line of gym professional fitness equipment. The main target of Mansa fitness is to help their members to get the best deal on commercial gym equipment and make the way to wellness.



# PROBLEM STATEMENT



When we were probing into Mansa fitness center, we saw a lot of issues and problems currently existing, and this causes inefficiency in many related sectors in the gym. When we analyzed the company's activities, we discovered some of the major concerns that must be contemplated on are listed as follows:

- There is no proper mechanism to ensure smooth communication between customers and trainers.
- There is difficulty in creating workout schedules and tracking progress of the members while there are also many problems in managing time slots for workout programs.
- Complications and issues aroused when assigning and managing employees' salaries.
- Failure to share issues related to exercises and receive guidance without face-to face interactions as there is an inability to evaluate trainer performance and progress without a proper feedback system.
- There is no proper mechanism to update the users on the gymnasium's services, special events and holidays. Therefore, there is poor customer acknowledgement.



# SOLUTIONS



In order to overcome these issues and problems that arise when handling tasks manually, we have taken the initiative to develop a gym management system. The proposed solution will consist of the following prime functions enclosed within the system.

- Develop a web-based application for the gym
- Implementing a database with separate tables to store relevant information
- Conduct validations to ensure accurate entry of data
- Implement search operations for convenience
- Generate specific reports based on the outcomes





# BENEFITS OF THE SYSTEM

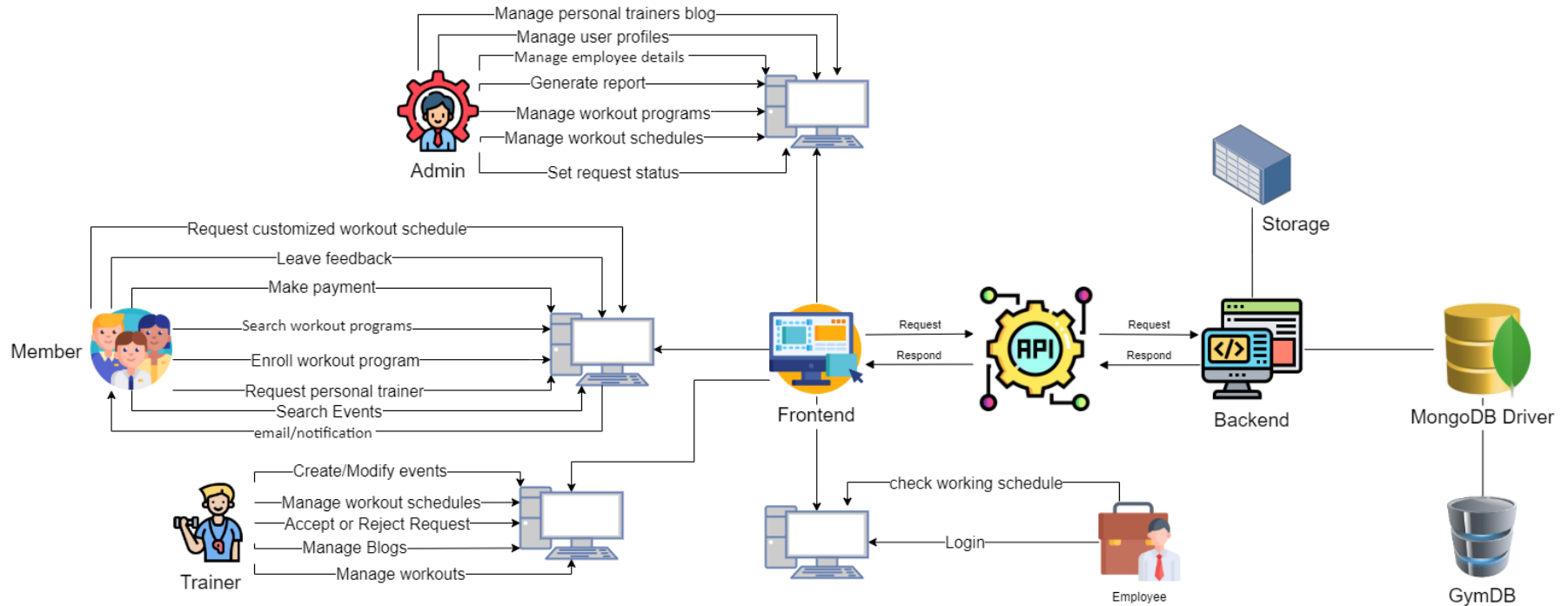


This system can increase the efficiency of the tasks that are conducted in the gym, and we hope that it will provide better services to all the users of the system. Through the above, the necessities of the gym will be fulfilled, and the following benefits can be achieved.

- A web-based application will increase efficiency
- Convenient to use and user-friendly
- Easy access to the system from anywhere at any time
- Easy to manage all users and manipulate system information
- Fast access to information, therefore, reduces time consumption



# SYSTEM OVERVIEW



# Workout Program Management



- Based on two user levels - Admin level and Member level
- Both of them can perform CRUD operations on the system
- The system admin is responsible for creating, updating, and deleting workout programs
- When a workout program is created, members are notified via email or notification
- Members can search and find their favorite workout programs
- Members can easily view the workout program they are currently enrolled in
- When a workout program updates, members are notified via email or notification
- Admins can easily generate a complete report on workout programs





# Workout Support Management



- This function lies under the main function "Workout Support Management".
- This function mainly contain adding new workouts updating inserted workout and deleting workouts
- Trainers can review, update and delete workouts also create new workouts and send an email/notification about the new workout to all their members.
- Member can view predefined workouts and search workouts on search bar using workout name.
- The Admin can view most viewed/popular and most frequently searched workouts.
- After the end of the month, the admin generates the report and takes a future decision.



# Feedback and Q&A Management



- Members can provide feedback to Trainers.
- Members can view provided feedback details,
- Member Can ask anything related to his workout.
- Can refer to previously answered questions.
- Member/trainers can post questions, view their posted questions, update/modify posted question details and delete posted questions.
- Trainers can view feedback provided to him/her.
- Trainers also can provide answers.
- Sort unanswered questions by the posted time.
- Suppose to add search option.



# Workout Schedule Management

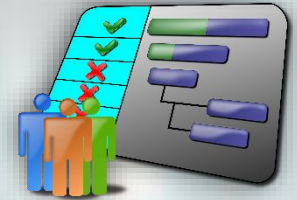


- This function includes Insert, Update, View, and Delete Workout Schedules.
- Members can view predefined workout schedule plans.
- If the member did not achieve his/her requirements member can request the customized workout schedule through a form via the system.
- Trainer can receive all the requests and responses from members.
- Also, Trainer can create predefined workout schedules through the system.
- If member did not attend or miss his/her workout schedule, the member will inform it through a notification.
- Member can view their workout schedule on the calendar which is provided by the gymnasium.
- The Administrator generates a monthly report on the most popular predefined workout schedule.



# Employee Management

- Create User Account
- Select Each user roles
- Make Schedule/ Reschedule
- Attendance and Salary Details
- View/Update employee details
- Remove employee profiles



# Member Management

- Create member's user account
- View Workout/ Payment Details
- Update member details
- Deactivate member
- Show reminder
- Send membership reminder





# Trainer Account and Event Management

- The trainer can upload special events and promotions.
- The trainer can see a list of his created events and promotions.
- Under certain conditions, the trainer can edit or delete special events and promotions.
- Users have access to previously published events and promotions.
- By clicking "attending this event," the user can respond to events.
- The user can see a list of his responded events.
- When an event to which a user has responded is approaching, the System should notify them.
- The trainer has access to his user information.
- At the end of the month, the System generates reports on event attendance and a summary of promotions.



# Personal Trainer Management

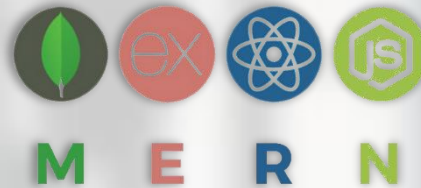


- Personal Trainer enters details into the system by using their blogs. Personal Trainer or Administrator can update, delete personal trainer details.
- Customer can view packages that are available in the system.
- Customer can request a personal trainer by using a create form.
- Customer can search any prior request that was made by using request id.
- The request can also be updated if required.
- The request can also be deleted if no longer needed.
- Administrator can accept or reject the request.
- After the administrator accepts or rejects the customer's request the system automatically sends a personal message to the customer and personal trainer.
- The system also facilitates reports on the most popular trainer package.



# TOOLS AND TECHNOLOGIES

- Programing language : JavaScript
- Software : Visual Studio Code
- Tools : Git
- Technologies : MERN Stack
  - MongoDB - document database
  - Express.js - Node.js web framework
  - React.js - a client-side JavaScript framework
  - Node.js - the premier JavaScript web server



# WORK DISTRIBUTION



| Student ID & Name                 | Brief Description of Functionalities   |
|-----------------------------------|--|
| IT20665234 - Silva D.T.T          | <u>Workout Program Management</u> <ul style="list-style-type: none"><li>• Create workout programs</li><li>• Send email/notification to members</li><li>• Update workout programs</li><li>• Create member enrollment</li><li>• Search workout programs</li><li>• Delete workout programs</li><li>• Retrieve workout programs</li><li>• Generate monthly report</li></ul>  |
| IT20655716 - Welagedara P.G.R.D.P | <u>Workout Support Management</u> <ul style="list-style-type: none"><li>• Create new Workouts</li><li>• Add new Workouts to the system</li><li>• Send email / notification to the all members</li><li>• Update inserted Workouts</li><li>• Search workouts using workout name</li><li>• Delete Workouts</li><li>• Review predefined workouts</li><li>• Generate most viewed / popular or frequently searched workout reports</li></ul> |



# WORK DISTRIBUTION



IT20652050 - Muhandiram K.M.G.K.W

## Feedback and Q&A management

- Create feedback
- Update feedback
- View feedback
- Delete feedback
- search questions
- Create Q&A
- Delete Q&A
- Update Q&A
- Create Q&A
- Sort unanswered questions by time posted time

IT20916626 - Gangoda G.G.W.N

## Workout Schedule Management

- Create workout schedules
- Delete workout schedules
- Update workout schedules
- View workout schedules
- Create Requests through a form
- Edit and Delete requests
- Send notifications
- Create a calendar
- Generate a monthly Report





# WORK DISTRIBUTION

IT20664244 - Ranahansa R.A.K.S

## Employee Management

- Add employee details
- Create Employee profile/Login
- View Employee details
- Update employee details
- Delete employee details
- Create and view working schedule
- Send request and inquires
- Fill leave form
- View salary details and attendance details
- Generate employee's reports

IT20653040 - Perera U.K.T

## Member Management

- Add member details
- Create member profile/Login
- View Member details /workout schedule
- Update member details
- Delete member details
- Send request and inquires
- View payment details
- Generate member's report



# WORK DISTRIBUTION

IT20665470 - Lakshan D.A.T

## Trainer Account and Event Management

- Create events
- Update events
- Delete events
- View events
- Send notifications
- Register for events
- Sort events
- View profile
- Update profile
- Generate monthly report

IT20650834 - De Zoysa R.L

## Personal Trainer Management

- Create Request through a form
- Update/Edit Request
- Delete Request
- Search Request by Request id
- Accept or Reject Request
- Send notifications
- View personal trainer package
- Create personal trainer blogs they can add their details
- Update personal trainer details
- Delete personal trainer details
- Generate a monthly Report



# PROJECT MANAGEMENT PLAN

|        |    | Task Name                           | Weeks |   |   |   |   |   |   |   |   |    |    |    |    |    |
|--------|----|-------------------------------------|-------|---|---|---|---|---|---|---|---|----|----|----|----|----|
|        |    |                                     | 1     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| DESIGN | 1  | Client Meeting                      |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 2  | Creating the Charter/Scrum activity |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 3  | Project proposal Presentation       |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 4  | UI Design                           |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 5  | ER Diagram Creation                 |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
| BUILD  | 6  | Member Management                   |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 7  | Employee Management                 |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 8  | Workout Support Management          |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 9  | Workout Program Management          |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 10 | Workout Schedule Management         |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 11 | Feedback and Q&A Management         |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 12 | Trainer Account Management          |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 13 | Personal Trainer Management         |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
| TEST   | 14 | Testing                             |       |   |   |   |   |   |   |   |   |    |    |    |    |    |
|        | 15 | Evaluation                          |       |   |   |   |   |   |   |   |   |    |    |    |    |    |



# Thank you

