



Fitness Gym

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Overview

In the current era, fitness has become a global concern as it improves overall health and boosts confidence. The project "Fitness Gym" is a MERN stack web application designed to cater to the needs of both gym staff and members. It offers features such as login/signup, online payment, and hiring of online trainers. The application streamlines processes, eliminates the need for in-person visits, and saves time and data for the

Aims

- To reduce documental use and save time at gym
- To make the payment of the user through online
- To hire an online personal trainer for the gym
- To buy the gym subscription

Objectives

- Research on different websites to make it more efficient and user friendly
- Research on online payment methods and chat systems with hired personal trainers
- Selecting the best platform to develop the website like MERN stack.

Academic Questions

- How does the "Fitness Gym" web application, developed on the MERN stack, revolutionize the gym industry by providing online subscription management, hiring of professional trainers, and efficient payment systems, thereby enhancing the quality of services and saving time for both gym staff and members?

Testing Approaches

- The application’s functions and features were validated through the process of manual testing
- Human tested the function of the system manually.
- The main objective was to ensure the validation of functionality user interface, and the overall user experience.
- The quality and usability of the application were significantly ensured through the es-sential contribution of manual testing.

Literature Review

MERN Stack	It provide the comprehensive and advantages of the MERN stack.
User Authent-ication	Knowledge about the user authentication for the user (cookies, jwt, auto login, role-based)
Online Payment	How to integrate the payment gateway. Benefits of payment integration and concept of public and secret key.
Chat System	Real time connection between server and client using the socket.io
Physique Workshop	It has the great user usability & accessibility. Different price of the prices were shown.
Gold Gym	Gold Gym has the best online payment system through visa, ipay and so on. But, lacks the online trainers.
Cruch	Cruch is the advance application. There was the physical trainer page for viewing. It also had the online payment system

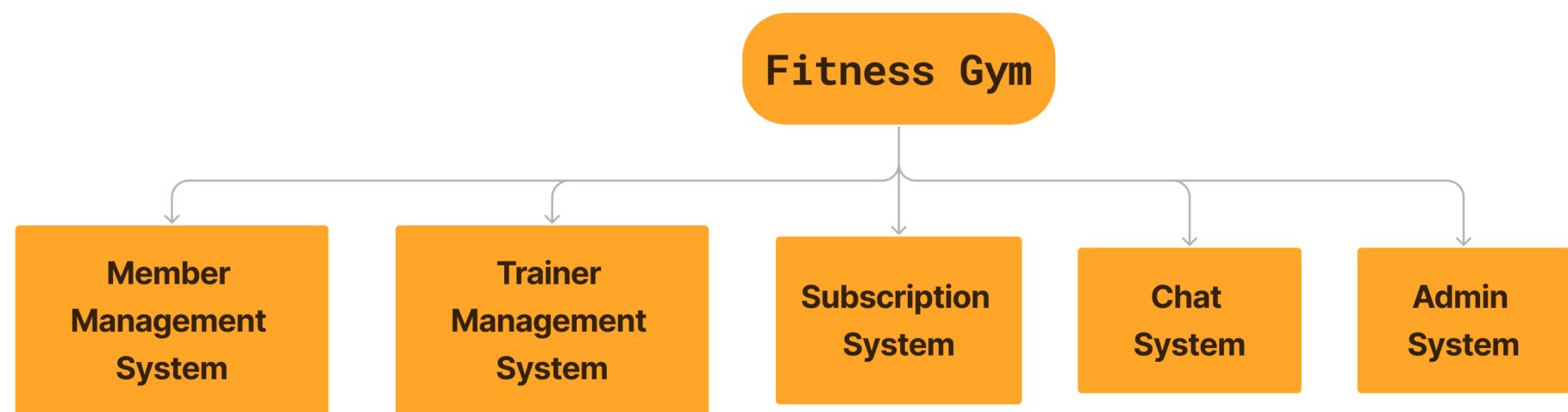
Test Cases

User Registration		Gym Subscription	
Test case	User register	Test case	Gym subscription
precondition	The system must allow the user to register successfully.	precondition	Verify that a user can purchase a gym subscription.
steps	<ul style="list-style-type: none">Navigate to the registration page.Enter valid user details (name, email, password, etc.).Click on the "Register" button.	Steps	<ul style="list-style-type: none">Log in as a registered user.Navigate to the subscription page.Select a desired subscription plan.Provide payment details (if required).Click on the "Subscribe" button.
Expected result	<ul style="list-style-type: none">The user is successfully registered and redirected to the login page.	Expected result	<ul style="list-style-type: none">The user successfully purchases the gym subscription and receives a confirmation.
User Login		Hire an Online trainer	
Test	User Login	Test case	Hiring online trainers
precondition	Verify that a registered user can log in to the application.	precondition	The system should allow the user to hire a trainer through online.
test	<ul style="list-style-type: none">Navigate to the login page.Enter valid login credentials (email and password).Click on the "Login" button.	test	<ul style="list-style-type: none">Log in as the admin.Navigate to the trainer page.Browse available trainers and select one.Review the trainer's profile and qualifications.Click on the "Hire" button.
Expected result	<ul style="list-style-type: none">The user is successfully logged in and redirected to the home page/dashboard.	Expected result	<ul style="list-style-type: none">The user successfully hires the selected trainer and gains access to online training resources.
Online payment		Admin functionality	
Test	Online payment	Test	Admin functionality
precondition	Verify that users can make online payments for gym subscriptions or trainer fees.	precondition	Verify the functionality available to the admin.
test	<ul style="list-style-type: none">Log in as a registered user.Navigate to the payment page after subscriptions.Enter the required payment details (amount, card information, etc.).Click on the "Pay" button.	test	<ul style="list-style-type: none">Log in as the admin.Access the admin dashboard.Verify the ability to view member payment status, approve trainer applications, and manage subscriptions.
Expected result	<ul style="list-style-type: none">Payment is successfully processed, and the user receives a payment confirmation.	Expected result	<ul style="list-style-type: none">Admin can successfully perform administrative tasks and access relevant information.

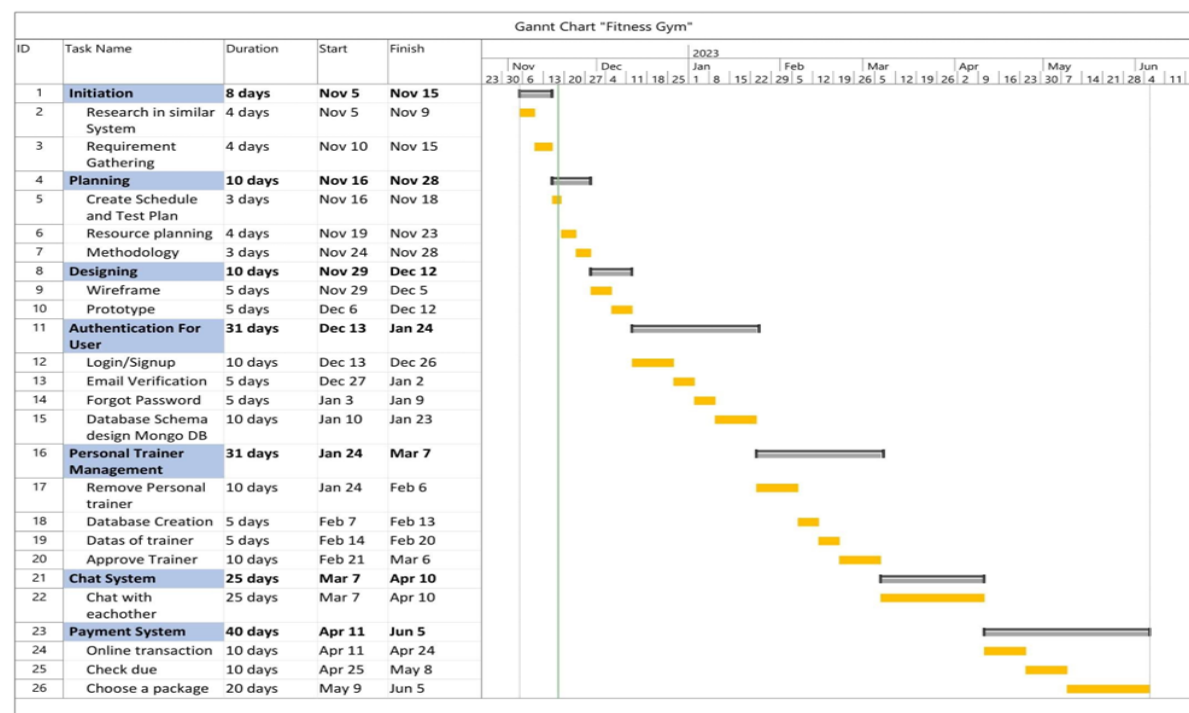
Artefacts

Member Management System	Allow the member to create the user account for the benefits of system.
Trainer Management System	System should have the function to apply for the trainer. Setup their profile. And give the personal training through online.
Subscription System	Members should have the freedom for gym and trainer subscription through online payment.
Chat System	Should provide the real-time connection to the trainers and user for online training purpose. Chat system only allows for trainers only.
Admin System	Admin should authorize applicants for trainer. Also, they can see the profile of every member and extend the gym subscription.

FDD



Gantt Chart



Conclusion

- The project provides the facility for both gym staffs and members.
- User can choose the trainers from the web as per their choice
- Real-Time connection between user through Socket.io
- Our application combines subscription, training, payments which may revolutionize the fitness industry.
- Development in MERN stack ensures the adaptability and scalability