Gym Management System

Name: Devesh Mahajan

ID: UMIP25776

Domain: Full Stack Web Development

Type: Basic Project

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Introduction:

It is a dynamic web application built with the powerful MERN stack (MongoDB, Express.js, React, and Node.js) designed to provide users with a seamless experience in managing their fitness journey. Whether you're a gym member or a prospective client, It offers easy access to essential gym details such as operational hours, membership plans, and more. The website also features a direct messaging form that allows users to communicate with the gym management for inquiries, feedback, or booking requests. In addition, It includes an integrated BMI calculator, helping users assess their body mass index and determine whether they fall under categories like underweight, normal, or overweight

Objective:

- Provide detailed information about gym timings, membership plans, services, and facilities to attract prospective gym members.
- Display visually engaging content to highlight key features of the gym, making it easy for visitors to get all relevant details in one place.
- Allow potential clients to easily inquire about gym services, memberships, or any other details through a user-friendly message form.
- Integrate a BMI (Body Mass Index) calculator to help users evaluate their health status based on their BMI, encouraging them to take actionable steps toward fitness.

Technologies Used:

- **JavaScript:** JavaScript is a high-level, versatile, and interpreted programming language primarily used to create interactive and dynamic content on websites. It is a core technology of the web, alongside HTML and CSS, enabling developers to build responsive and feature-rich user interfaces.
- **HTML:** HTML (HyperText Markup Language) is the standard language used to create and structure content on the web. It uses a system of tags to define elements such as headings, paragraphs, links, images, and more.
- **CSS:** CSS (Cascading Style Sheets) is a language used to style and layout HTML content on web pages. It controls the appearance of elements, such as colors, fonts, spacing, and overall design.
- **Vite:** Vite is a modern front-end build tool and development server designed for fast and efficient development. It is particularly popular for projects using frameworks like React, Vue, and Svelte.
- **ReactJS:** ReactJS is a popular JavaScript library for building dynamic, interactive, and reusable user interfaces, especially for single-page applications (SPAs). It was developed by Facebook and is maintained by Meta and an open-source community.
- Axios: Axios is a popular, promise-based JavaScript library used for making HTTP requests, typically in web applications. It simplifies the process of sending requests and handling responses, especially in applications built with frameworks like React, Angular, or Vue.js. Axios provides an easy-to-

use API and supports features like interceptors, automatic transformation of request and response data, and error handling.

- Lucide-react: lucide-react is a React library that provides a collection of beautifully designed, consistent, and customizable SVG icons for React-based projects. It is part of the Lucide project, which is an open-source icon set designed as an improved and community-driven fork of the popular Feather icons library. The icons are built with simplicity and modern design principles, making them suitable for a wide range of applications.
- **React-spinners:** react-spinners is a library that provides a variety of animated loading spinners for React applications. It is lightweight, customizable, and helps improve user experience by indicating loading states, such as when fetching data or performing background operations.
- React-toastify: react-toastify is a popular library for displaying customizable toast notifications in React applications. Toasts are small popup messages that appear temporarily on the screen to provide feedback, such as success, error, or informational messages.
- Cors: CORS (Cross-Origin Resource Sharing) is a security feature implemented by web browsers that allows or restricts web applications running at one origin (domain) to make requests for resources from a different origin. It is designed to prevent malicious websites from accessing resources and data from other domains without permission.
- **Dotenv:** Dotenv is a zero-dependency module for managing environment variables in Node.js applications. It loads environment variables from a .env file into process.env, which is the global object in Node.js that stores environment variables. By using dotenv, you can keep sensitive information like API keys, database credentials, or configuration settings out of your codebase, improving security and flexibility.

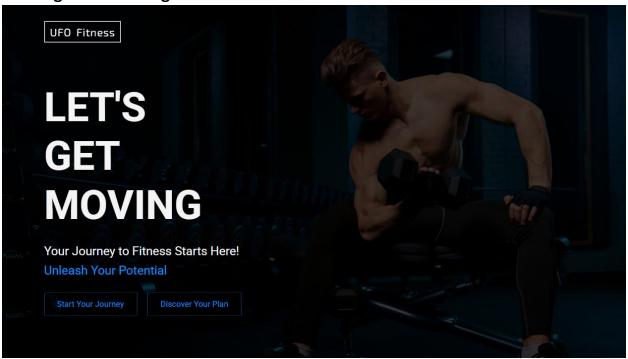
- Express: Express is a minimal and flexible web application framework for Node.js, designed to simplify the process of building web applications and APIs. It provides a robust set of features that make it easy to handle routing, middleware, and HTTP requests and responses, allowing developers to focus on building their application logic rather than managing low-level details.
- **Nodemailer:** Nodemailer is a popular Node.js library for sending emails directly from your server. It supports a variety of email services, including Gmail, Outlook, and custom SMTP servers, making it a flexible tool for sending transactional or notification emails in web applications.

Features:

- **Comprehensive Gym Information:** Displayed gym timings, membership plans, services offered, and facilities available.
- **Responsiveness:** Responsiveness in websites refers to the design and development approach that ensures a website looks and functions well on a wide variety of devices and screen sizes, including desktops, tablets, and mobile phones.
- **BMI Calculator:** Provided an easy-to-use BMI calculator where users can input their height and weight to calculate their Body Mass Index. Shows clear results with personalized feedback such as "Underweight," "Normal," or "Overweight," displayed using React-toastify.
- **Interactive Messaging Form:** Allow users to send direct inquiries or feedback to gym management.
- **Visually Engaging Design:** Use high-quality images and videos to showcase the gym's ambiance and equipment. Implement a modern, responsive design for seamless access across all devices.

Working:

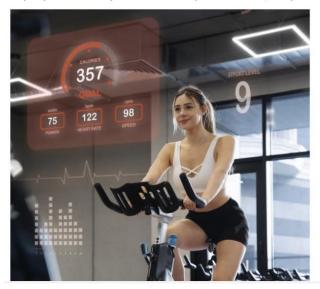
a) Landing Section Design



b) Different Bootcamps

TOP WORKOUT SESSION

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FEATURED BOOTCAMPS

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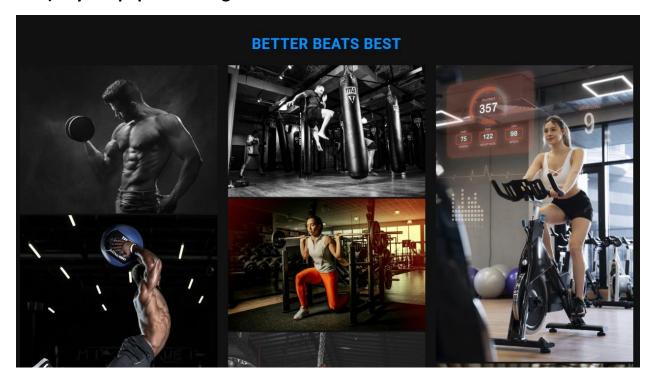
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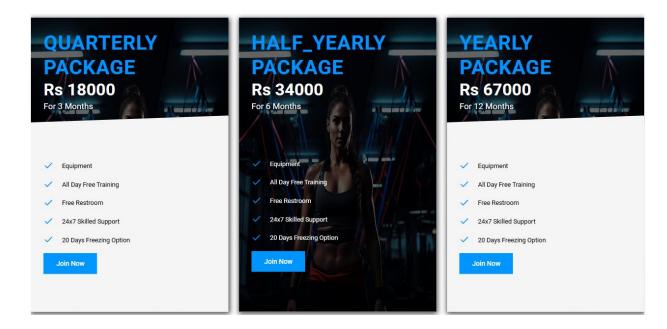
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c) Gym Equipment Images

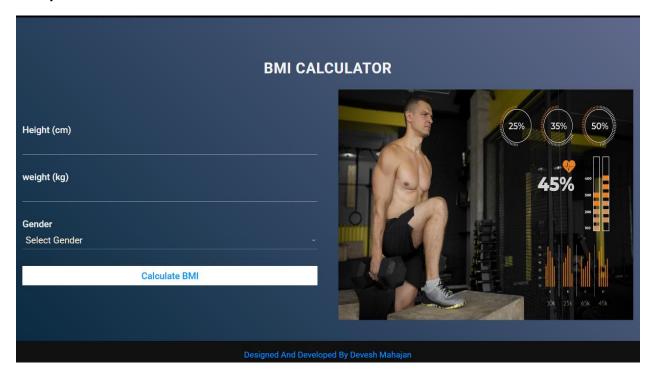


d) Gym Membership Plans

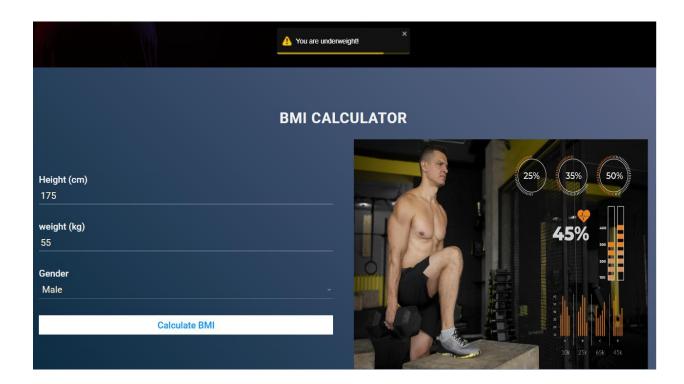
UFO FITNESS PLANS



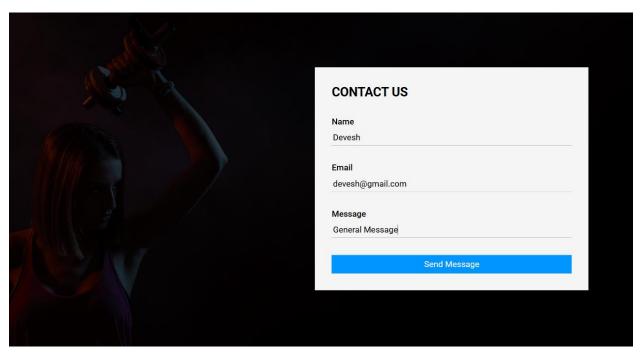
e) BMI Calculator

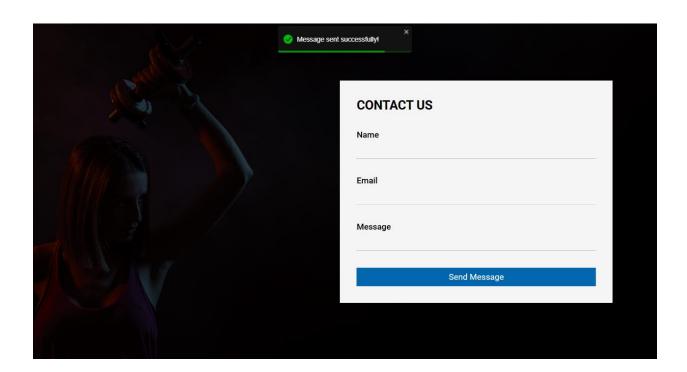


f) BMI Calculator Response



g) Message Form and Response





Summary:

This project is a dynamic web application developed using the MERN stack (MongoDB, Express.js, React, Node.js) to enhance the fitness journey of gym members and prospective clients. It provides comprehensive gym information, including operational hours, membership plans, and services, through a visually engaging and responsive interface. Key features include an integrated BMI calculator to assess health status, a user-friendly messaging form for direct communication with gym management, and the use of modern libraries like React-toastify for notifications and react-spinners for improved user experience. By leveraging tools such as Vite for development, Nodemailer for email functionality, and Lucide-react for icons, the application ensures efficiency, security, and an interactive design, making it a robust solution for gym management and client engagement.

Source code: https://github.com/deveshm019/gym-website.git