Royal Fitness

A

Minor Project Report

Submitted in Partial fulfillment for the award of Diploma in COMPUTER SCIENCE & ENGINEERING

DIGICODERS TECHNOLOGIES PVT. LTD. LUCKNOW(UP)



Session - 2024

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING DIGICODERS TECHNOLOGIES PVT. LTD.

SUBMITTED BY:

SUBMITTED TO:

DIGICODERS TECHNOLOGIES PVT. LTD.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



This document certifies that the project work titled "Royal Fitness" was successfully completed by Ayaz Khan. The project is a significant and original piece of work that was carried out under the supervision of faculty members in the Department of Computer Science & Engineering at Govt Polytechnic Talbehat. The project was undertaken as part of the academic curriculum and is required for the fulfillment of the Diploma in Engineering. This certification acknowledges the efforts and dedication of Ayaz Khan in completing this project during the academic year 2024. It stands as a testament to their knowledge and skills in computer science and engineering.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE OF APPROVAL

This project has been approved as a valid study in the field of engineering. It has been carried out and presented in a manner that meets the necessary standards for the diploma it was submitted for. The approval signifies that the project is acceptable for the academic requirements, but it does not imply that the reviewers agree with or endorse all the content, statements, opinions, or conclusions expressed in the work. The project is acknowledged solely for meeting the criteria needed to fulfill the diploma requirements.

This certification is provided by Digicoders Technologies Pvt. Ltd., confirming the project's adequacy for the intended academic purpose without endorsing the specific viewpoints or findings it contains.

(INTERNAL EXAMINER)

(EXTERNAL EXAMINER)

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DECLARATION

We, students of the Diploma in Computer Science & Engineering at Govt Polytechnic Talbehat declare that the work presented in this Minor project is my original effort. It is authentic and accurate to the best of my knowledge. I have conducted this work in accordance with engineering ethics. This project does not infringe on any patented work and has not been submitted to any other university or institution for the award of any degree or diploma.



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ACKNOWLEDGEMENT

The success of this project is the result of systematic effort and the contributions of many individuals, including the invaluable support from Digicoders Technologies Pvt. Ltd. There were numerous challenges, including unexpected difficulties in error correction, some of which were beyond our control. At times, it felt like we were navigating without direction, like a rudderless boat. However, the timely guidance and support from key individuals helped us overcome these challenges. I am deeply grateful to Er Himanshu Kashyap, the Head of the Department of Computer Science & Engineering, for his unwavering encouragement and valuable advice throughout the project. His insights were crucial at every stage.

I also thank the other staff members of the department for their assistance and support, which played a vital role in the project's completion.

Special thanks to Mr. Ravi Gautam, whose significant contributions, both direct and indirect, were invaluable to this endeavor. Your encouragement and support have been greatly appreciated.

I would also like to extend my sincere thanks to Digicoders Technologies Pvt. Ltd. for their support and resources, which were instrumental in bringing this project to fruition. Their expertise and guidance were key factors in our success.

Ayaz Khan

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ABOUT THE ORGANISATION

DigiCoders, An organization where we totally focus on the business development of our clients. Our motto is to provide consulting and IT

Solutions for your business growth. We will be pleased to serve you more and more from DigiCoders.We provide summer training, vocational training, apprenticeship and Internship programs for CS/IT students. we work on many technologies like Java, JAVA, Java, Android, ASP.NET and many frameworks like Laravel, Bootstrap, Codelgniter,django,.NET MVC, Hibernate, spring and many more. We also provide digital marketing services and training.

Through our innovative team and technology expert team, we can put your business online and can help you to reach more customers to grow your business, we know how to use technology to change people's life.

Er. Himanshu Kashyap is leading the organization project & development wing with his 8+ year's experience and knowledge, he has a vast experience in project development, in his career he developed more then 300 projects and trained more than 3000 students. He is a Great Team Leader & Public speaker & a very fast learner as well as a good motivator.

Er. Gopal Singh is leading the organization training wing with his 8+ year's experience and knowledge, he has a vast experience in development and training, in his career he developed more then 200 projects and trained more than 2000 students. He is a Great Team Leader and a very fast learner as well as a good motivator

ABOUT BTEUP

State Board of Technical Education and Training was set up in the state in May, 1958. The Board conducted its first examination in 1960, for courses of diploma level and also for Draughtsman Certificate Course. The name of the state Board was changed to Board of Technical Education in 1962. In the same Year, the U.P. Pravidhic Shiksha Adhiniyam - 1962 was enacted awarding the Board statutory status. In the year 1962, year of its inception, the Board held the examination of about 2500 students, in three major disciplines of Civil, Electrical and Mechanical Engineering at 25 different Centers/Institutions. It has a chairman, vice-chairman and 40 members, named by the state government. Secretary, Board of Technical Education, U.P. is ex-officio member secretary of theBoard. The curriculum prepared by other institutions was adopted by the Board, till 1980 but thereafter the curriculum and syllabi were developed and revised, every five years at the Board level through its Curriculum development cell. The curriculum development work has been entrusted to

I.R.D.T. Kanpur. The Board now examine and approve the syllabus developed by IRDT, Kanpur and prescribe it for institutions affiliated to Board of Technical Education, U.P. About 1,05,000 students in the 60 different disciplines of one year, two-year, three year and four-year durations are being examined at present, in the institutions, affiliated to the Board. The Board of has been constituted under U.P. Pravidhic Shiksha Adhiniyam - 1962. It has a Chairman and a Vice-Chairman and, 40 members nominated by the state Government. Secretary, Board of Technical Education is ex-officio member secretary of the Board.

SUMMER TRAINING

Summer training is an important part of the engineering curriculum. The summer training helps a student in getting acquainted with the manner in which his/her knowledge is being practically used outside his/her institute and this is normally different from what he/she has learnt from books. Hence, when the student switches from the process of learning to that of implementing his/her knowledge, he/she finds an abrupt change. This is exactly why summer training session during the B.T.E curriculum becomes all the more important. Summer training is prescribed for the student of Technical College as a part of the four-year degree course of engineering by the AICTE. We are required to undergo summer training for a period of 45 days after the completion of the 2nd year.

Summer Training allows industry exposure and understanding the working environment & it gives the industrial exposure. It is essential and helps to attain in-depth knowledge of the engineering stream. It enhances professional skills in a real-time environment. It helps us understand the area of interest and selection of an area of specialization. It also allows students to learn the basics of how to work as a team member to complete given tasks. It improves awareness of the industrial environment and work culture of the specific industry. It gives real-time work and the projects help to learn more analytically. It allows interaction with experts to solve queries with practical exposure. The Certificate obtained from reputed organization give weightage to resume or CV.

TECHNOLOGIES TRAINED ON DURING SUMMER TRAINING

- HTML: stand for hypertext markup language, this markup language is used to
 design static web pages. HTML contain pre-defined tags, which are useful to design
 web pages. HTML describes the structure of a Web page. HTML consists of a series
 of elements.
 - HTML elements tell the browser how to display the content. HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.
- 2. CSS: CSS stands for Cascading Style Sheets. CSS describes how HTML elements are to be displayed on screen, paper, or in other media. CSS is the language we use to style an HTML document. CSS describes how HTML elements should be displayed. CSS saves a lot of work. It can control the layout of multiple web pages all at once. External stylesheets are stored in CSS files.
- 3. **C Language:** C is a general-purpose programming language created by Dennis Ritchie at the Bell Laboratories in 1972. It is a very popular language, despite being old. C is strongly associated with UNIX, as it was developed to write the UNIX operating system. It is one of the most popular programming language in the world. If you know C, you will have no problem learning other popular programming languages such as Java, Java, C++, C#, etc, as the syntax is similar. C is very fast, compared to other programming languages, like Java and Java C is very versatile; it can be used in both applications and technologies.
- 4. Javascript: JavaScript is a scripting or programming language that allows you to implement complex features on web pages every time a web page does more than just sit there and display static information for you to look at displaying timely content updates, interactive maps, animated 2D/3D graphics, scrolling video jukeboxes, etc. you can bet that JavaScript is probably involved. It is the third layer of the layer cake of standard web technologies, two of which (HTML and CSS).
- 5. Bootstrap: Bootstrap is the most popular HTML, CSS and JavaScript framework for developing a responsive and mobile friendly website. It is absolutely free to download and use. It is a front-end framework used for easier and faster web development. It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many others. It can also use JavaScript plug-ins. It facilitates you to create responsive designs.
- 6. **Database:** A database is an organized collection of data, so that it can be easily accessed and managed. You can organize data into tables, rows, columns, and index it to make it easier to find relevant information. Database handlers create a

database in such a way that only one set of software program provides access of data to all the users. The main purpose of the database is to operate a large amount of information by storing, retrieving, and managing data. There are many dynamic websites on the World Wide Web nowadays which are handled through databases. For example, a model that checks the availability of rooms in a hotel. It is an example of a dynamic website that uses a database. There are many databases available like MySQL, Sybase, Oracle, MongoDB, Informix, PostgreSQL, SQL Server, etc.

7.Java: - Java programming language is a high level, object-oriented programming language with dynamic semantics. It is the main technology of my internship. Java is a general-purpose programming language which is useful to develop following types of applications: -

- Ø Desktop application
- Ø Web application
- Ø Data Science and data visualization
- Ø Machine Learning
- Ø Embedded System
- Ø Robotics
- Ø Physical computing
- Ø Internet of Things (IOT)
- Ø Game Development.
- 8. **Django Framework:** Django is a web framework written in powerful Java programming language. It is used to develop scalable, secured and easily maintainable web applications. Basically, frameworks are installable softwares, they provide us pre-designed architecture. By using framework, you can develop software applications more easily. If you develop a software application by using software technology then you need to write common logics and application specific logics, whereas if you develop software application using framework then you need to write only application specific logic and framework take care of common logics. Django is a web framework which follows MVT (Model View Template) pattern. Explanation of MVT is given below:
 - a. Model Model contain database part of django application.
 - b. View View decides response on given request.
 - c. Template Template is nothing but a simple html page.

INTRODUCTION OF THE CLIENT

The Fitness Site is a founded in July, 2024.

At [Fitness Site Name], we are proud to showcase the incredible transformations and journeys of our clients. Today, we introduce you to a dedicated individual who embarked on a fitness journey to achieve [specific goals, e.g., weight loss, muscle building, improved health].

Fitness began their journey [mention when or how long ago] with the desire to [describe initial motivation, e.g., become healthier, gain strength, build endurance]. Through dedication, consistency, and with the guidance of our expert trainers, they have transformed both physically and mentally.

Not only has reached [list key achievements, e.g., weight goals, fitness milestones], but they've also gained newfound confidence and a passion for [mention a specific fitness activity or lifestyle change they enjoy now].

Their journey is a testament to what can be accomplished with the right support and commitment. We're excited to continue supporting as they set new goals and continue pushing their limits.

OBJECTIVES

1. Improve Overall Health and Wellness

Promote a balanced lifestyle that enhances physical and mental well-being through regular exercise, proper nutrition, and recovery practices.

2. Promote Sustainable Weight Loss/Management

Help clients achieve and maintain a healthy body weight through a personalized combination of workouts, nutrition plans, and lifestyle modifications.

3. Build Strength and Endurance

Focus on increasing muscle strength and cardiovascular endurance, ensuring clients can perform everyday tasks with ease and improve overall physical performance.

4. Enhance Flexibility and Mobility

Encourage exercises that improve flexibility and joint mobility, reducing the risk of injury and enhancing physical comfort in daily life.

5. Boost Confidence and Mental Well-Being

Foster a sense of achievement and self-confidence by encouraging clients to set and reach personal fitness milestones, leading to improved mental clarity and reduced stress.

6. Educate on Proper Fitness and Nutrition Techniques

Provide clients with the knowledge to make informed decisions about their fitness routines and nutrition, empowering them to sustain long-term health improvements.

7. Injury Prevention and Rehabilitation

Guide clients in proper exercise techniques and rehabilitation methods to avoid injuries and recover effectively from past injuries.

Problems in Existing System

Here are some common problems in existing fitness systems that many fitness programs, gyms, or websites might face. Addressing these issues can lead to better user engagement, satisfaction, and results.

Lack of Personalization

 Many fitness programs adopt a "one-size-fits-all" approach, failing to cater to individual needs, goals, and fitness levels. This can lead to ineffective workouts and frustration.

Limited Access to Professional Guidance

 Some systems offer limited interaction with certified trainers or nutritionists, leaving clients without the proper guidance to achieve their goals, correct form, or prevent injuries.

Inadequate Progress Tracking

 Existing systems often lack efficient tools to track individual progress, making it difficult for users to stay motivated and see tangible improvements over time.

Low User Engagement

 Many fitness apps or programs fail to engage users consistently, leading to high dropout rates due to a lack of motivation, challenging content, or community support.

Generic Nutrition Plans

 Many fitness systems overlook the importance of personalized nutrition plans, offering generic advice that may not suit users' dietary needs or preferences.

Proposed System

In response to the problems of the existing fitness systems, a **proposed fitness system** would include innovative solutions to create a more personalized, user-friendly, and engaging experience. Here's an outline of the key features and improvements of the proposed system:

Personalized Fitness Plans

The system will generate customized workout routines based on each user's
fitness level, goals, preferences, and physical conditions (e.g., weight loss,
muscle gain, flexibility, or rehabilitation). Al-powered assessments will ensure
every individual receives the right guidance for their unique needs.

Access to Professional Trainers

 Users will have direct access to certified trainers through virtual consultations, live workout sessions, and Q&A forums. This ensures professional support for proper form, injury prevention, and workout adjustments.

Comprehensive Progress Tracking

 The system will provide advanced tracking tools that record metrics such as weight, body measurements, workout frequency, and personal records. Progress reports, charts, and reminders will help users stay motivated and on track to reach their goals.

Engaging Content with Gamification

 To increase motivation, the system will introduce gamified challenges, badges, and rewards for achieving milestones. This feature will create a sense of accomplishment and healthy competition among users, encouraging them to stay active.

Features

1. Real-Time Trainer Access

 Users can connect with certified trainers for live virtual workout sessions, video consultations, and personalized advice on form, technique, and progress tracking.

2. Gamified Challenges & Rewards

 Built-in gamification will motivate users by offering challenges, badges, and rewards for completing workouts, achieving milestones, and maintaining consistency

3. Comprehensive Progress Tracking

 The system will provide tools to track various health metrics, including weight, body measurements, workout completion, calories burned, and strength improvements.
 Detailed progress reports and graphs will visualize users' journey over time.

4. Customizable Nutrition Plans

• Tailored meal plans based on individual dietary preferences, fitness goals, and restrictions (e.g., vegetarian, high-protein, keto) with access to recipes and grocery lists. Users can adjust meals to fit their daily routine.

5. Community Support and Social Features

 Users can join fitness communities, participate in group challenges, share progress, and engage in forums or chat rooms. Social features will foster a sense of accountability and motivation.

6. On-Demand Workouts

 Access to a library of on-demand workout videos across various categories (e.g., strength training, HIIT, yoga, Pilates). Users can filter by duration, intensity, equipment, or workout type to find what fits their schedule.

ABOUT THE PROJECT

[Fitness System Name] is an innovative fitness platform designed to revolutionize the way people approach health and wellness. In response to the limitations of existing fitness systems, our project focuses on delivering a highly personalized and engaging experience, ensuring users can achieve their fitness goals in a way that fits their unique needs and lifestyle.

Personalized Fitness Plans: Tailored workout programs designed to meet each user's goals and preferences, adapting as users progress.

Al-Powered Guidance: Intelligent algorithms provide personalized recommendations for workouts, nutrition, and recovery based on real-time performance data.

Professional Support: Access to certified trainers and nutritionists through virtual consultations, live sessions, and personalized feedback.

Comprehensive Progress Tracking: Advanced tracking tools and analytics to monitor physical progress, workout achievements, and nutrition intake.

Customizable Nutrition Plans: Meal plans and dietary advice customized to meet the needs and preferences of each user, promoting a healthy and balanced lifestyle.

Community Engagement: A vibrant online community where users can join challenges, share their progress, and motivate each other.

Mental Well-Being Focus: Meditation, mindfulness exercises, and stress management techniques to support overall mental and emotional health.

Flexible and Convenient Workouts: On-demand workout videos and offline access, allowing users to stay fit anytime, anywhere.

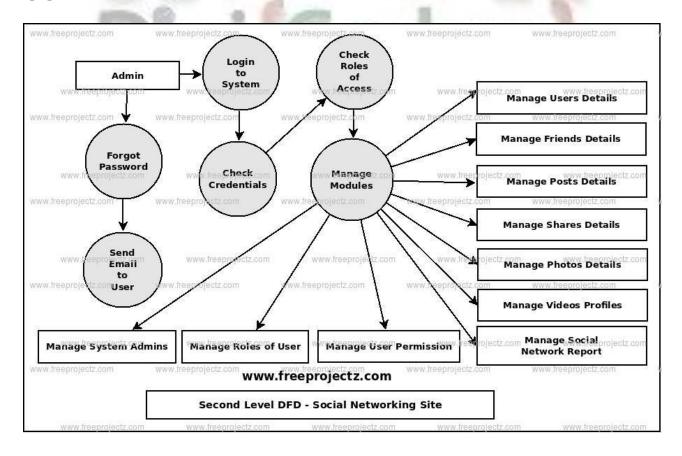
Affordable and Scalable Plans: Tiered subscription models offering free basic access alongside premium options for more personalized services.

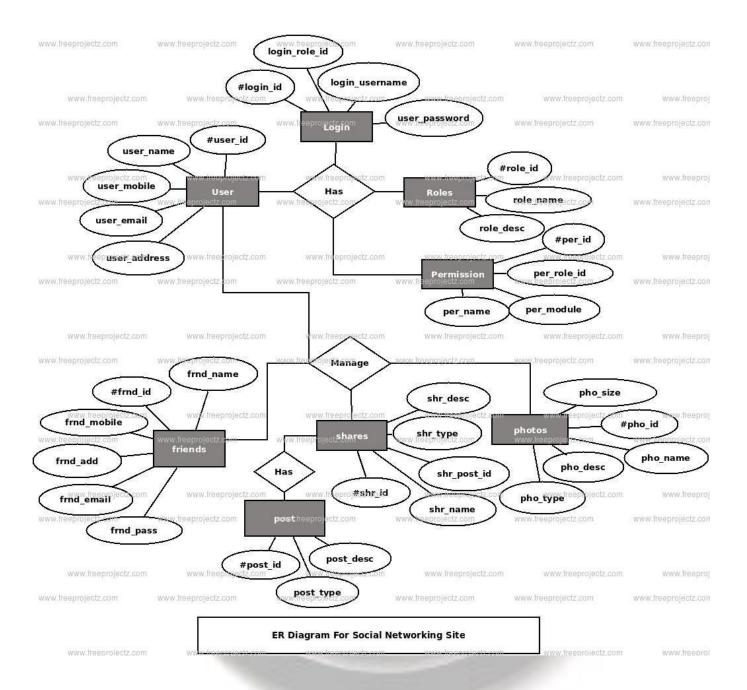
SOFTWARE REQUIREMENT FOR DEVELOPMENT

User Interface Designing	HTML5, CSS3, Java Script, Bootstrap
Programming Language	Java with Django Framework
Database	SQLite3
IDE	PyCharm

High Level Designing

CONTEXT LEVEL DFD





Low Level Designing

Database Designing

Table Name: Student

Column Name	Data Type
name	varchar (50)
gender	varchar(6)
address	varchar (255)
contact no	int
pin code	int
email address	varchar (50) primary key
password	varchar (20)
regdate	datetime auto add current date

Table Name : Login

Column Name	Data Type
User id	Varchar (50) primary key
password	varchar (20)
user type	varchar (30)

Table Name: Assessments

Column Name	Data Type
id	int primary key auto increment
name	varchar (50)

Table Name: Quizs

Column Name	Data Type
id	int primary key auto increment
name	varchar (50)
price	int default=0
desc	varchar (200)
category	varchar (50) foreign key Category
image	Image Field

Table Name : Profile

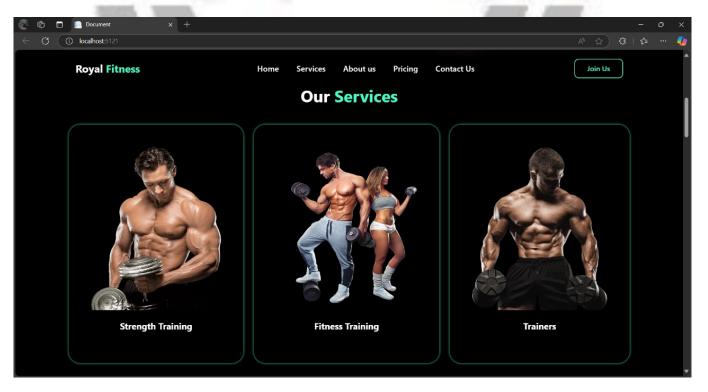
Column Name	Data Type
id	int primary key auto_increment
customer	varchar (50) foreign key customer
product	varchar (50) foreign key product
address	varchar (200)
pin code	int
quantity	int
order date	datetime
completed	Boolean

Screen Shots

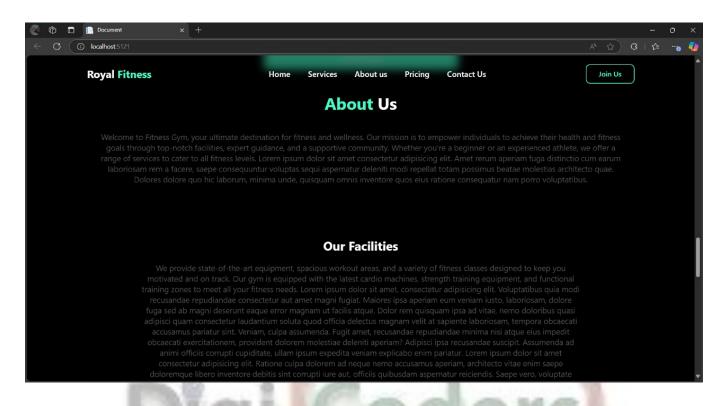
HOME PAGE:



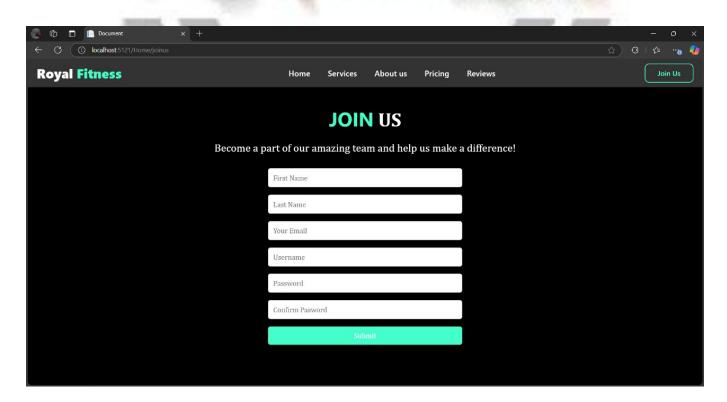
Service page:



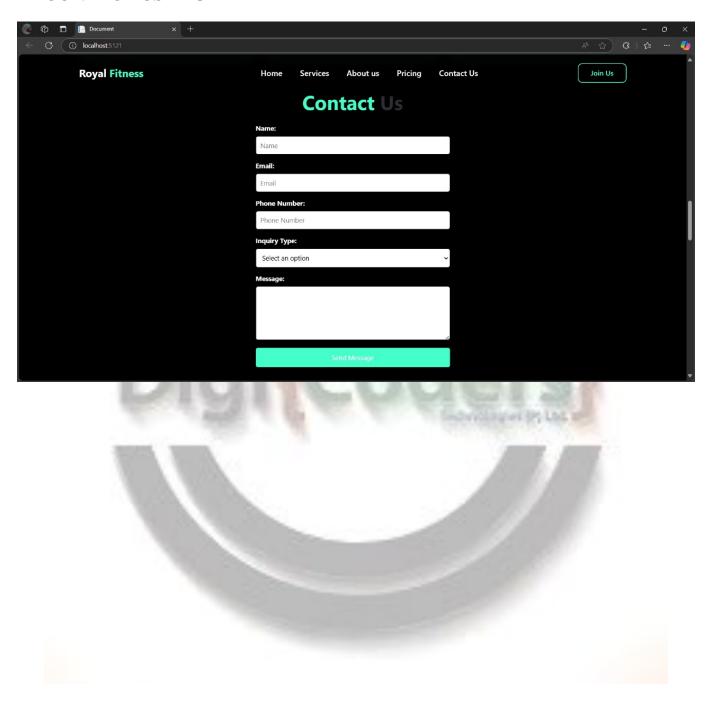
ABOUT PAGE:



JOIN US PAGE



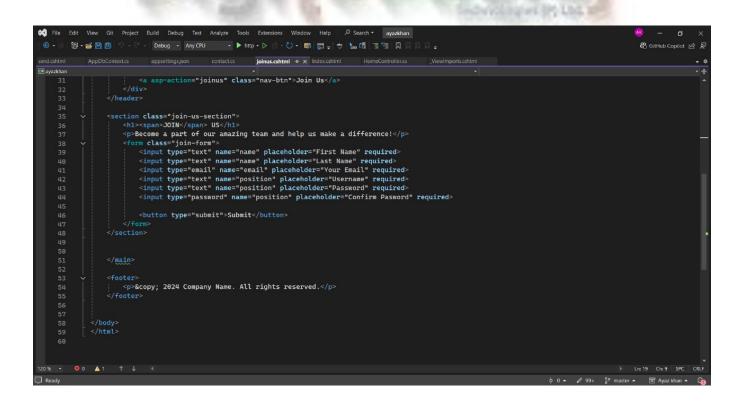
CONTACT US PAGE

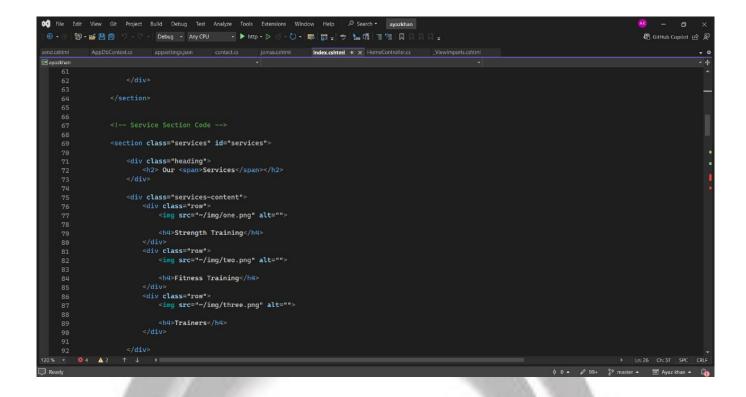


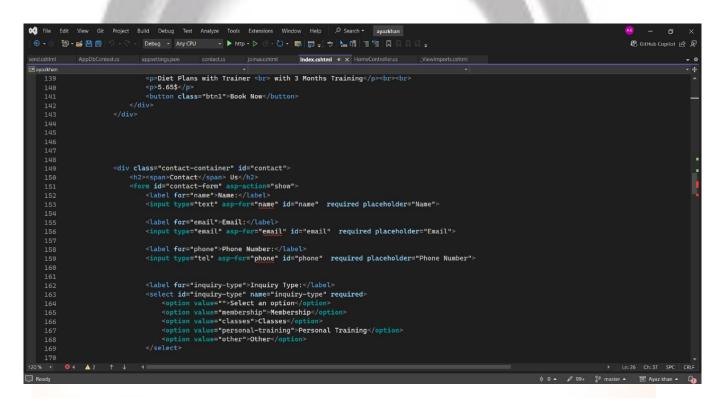
Project Code

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joinus.cshtml > X Index.cshtml HomeController.cs
C# ayazkhan
           <!DOCTYPE html>
            < <html lang="en">
                   <meta charset="UTF-8">
                   <meta name="viewport" content="width=device-width, initial-scale=1.0">
k rel="stylesheet" href="~/css/joinus.css">
                   <title>Document</title>
     16
                        <a asp-action="index.html" class="logo">Royal <span>Fitness</span></a>
                        <div class='bx bx-menu' id="menu-icon"></div>
                        ctass="invoir">ctass="invoir">ctass="invoir">ctass="index">Home</a>
<a asp=action="index">Services</a>
<a href="#about">About us</a>

                             <a href="#plans">Pricing</a>
                             <a href="#reviews">Reviews</a>
                        <div class="top-btn">
                             <a asp-action="joinus" class="nav-btn">Join Us</a>
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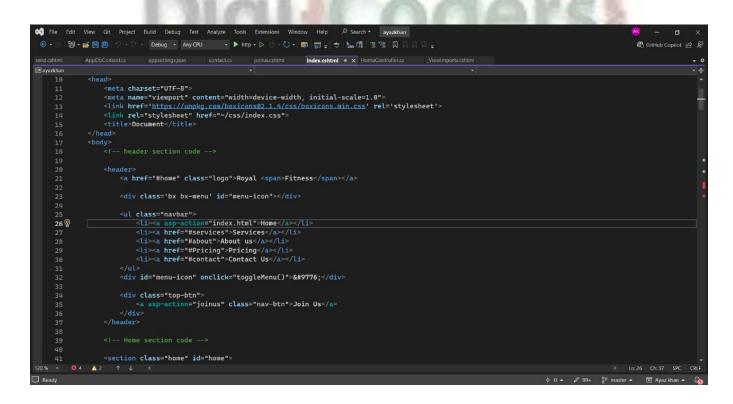






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©# ayazkhan
                                                                                                                                                                             · ÷
                                   "Amazing place! The classes are fantastic and the trainers are very professional."
                               <div class="review-card">
   253
254
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256
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258
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260
261
262
263
264
265
266
267
268
269
279
                                           <h3 class="user-name">Mark Johnson</h3>
<div class="star-rating">
                                           ****

</div>
                                   <p class="review-text">"A well-maintained facility with a positive atmosphere. Love coming here every day!"</p>
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                                           <h3 class="user-name">John Doe</h3>
                                           <div class="star-rating">
                                               ****
                                   "Great gym with excellent equipment and very friendly staff. Highly recommend!"
                               <div class="review-card">
                                   <div class="review-header">
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Installing TypeScript typings for improved intellisense
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Conclusion & Future Scope

The project entitled Fitness was completed successfully.

In conclusion, [Fitness System Name] is more than just a fitness platform—it's a long-term health partner that empowers users to take control of their wellness journey, providing the guidance, flexibility, and support they need to succeed.

The future of [Fitness System Name] holds exciting opportunities for growth and innovation. As the platform evolves, we aim to incorporate the following enhancements:

1. Integration with Wearable Technology

Expanding partnerships with popular fitness trackers and smart devices (e.g., Apple Watch, Fitbit, Garmin) to offer seamless health data synchronization and provide deeper insights into users' fitness habits.

2. AI-Powered Virtual Coaching

Leveraging AI to offer **virtual personal trainers** that can analyze user form in real time, provide feedback on technique, and offer instant adjustments to workout plans based on performance.

3. Advanced Health Analytics

Introducing more detailed health and wellness reports, including sleep tracking, heart health analysis, and metabolic data, to offer users a comprehensive understanding of their overall health.

REFERENCES

