

A Research on: Gym Market Place

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Abstract

Any company that doesn't have a website is losing out on one of their most effective marketing tools. The biggest benefit of having a website is that it increases the likelihood that customers will find you. Nowadays, the majority of individuals will investigate items and businesses online before making a purchase. Because of increasing reliance on the internet, we create websites for gyms where customers can get all the information they need and register for memberships. However, the client often keeps their records on paper or using MS Excel. Most of the restrictions of the current software are eliminated by the Smart Gym Management System. Our system is more intelligent than the current system due to improvements in efficiency and effectiveness, automation, accuracy, user-friendliness, information availability, communication capacity, maintenance, and cost reduction. Along with all the basic functions, we also incorporate a few brand-new, noteworthy features. Some of these include webcam integration, facial recognition user login, and phone number verification utilizing the Twilio SMS API.

Keywords: Fitness, Gym, Fitness market place, Gym market place, E commerce, Membership

INTRODUCTION

Health is wealth, as we are all aware. Without good health, we don't need a flashy automobile, a large flat or a doctorate. The first thing we must remember is to stay healthy.

Because our feelings often determine our attitude. We have the energy to do anything when we are healthy and fit. For a healthy and stress-free existence, physical fitness is crucial. Diet, exercise, and sleep are all necessary for physical fitness. Everybody should be intelligent with regard to these three fundamentals for a healthy existence since they are important in everyone's life [1].

Web apps are now widely used and popular. Whether the character is mentioned in relation to the current system, which is overwhelmingly followed.

A manual exercise facility. The existing approach is time-consuming, costly, and includes a lot of paperwork [2].

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Received Date: June 17, 2023

Accepted Date: July 21, 2023

Published Date: August 15, 2023

Citation: Yash Kumar Bansal, Abhishek Parashar, Zahid Hussain. A Research on: Gym Market Place. NOLEGEIN Journal of Entrepreneurship Planning, Development and Management. 2023; 6(1): 124–130p.

Prior to doing anything, examine the owners' biggest issues with the beautiful life gyms.

The recollection of how to build a massive, intricate system.

We have several responsibilities for different users based on their rights after carefully and safely considering these problems [3].

The management must manage them effortlessly from the gym and provide all necessary services based on careful security measures and a user

database. The programme does not call for the storage of information on patrons, staff, customers of the gym's protein-rich chocolate, carrots, and members who have received transactions. Each is an online management system programme that is user-friendly. This makes additional features and the owners of automated systems easier. It was an easy strategy. Minimum is the smaller number [4].

TECHNICAL REQUIERMRNT

Application Conditions

User Interface

The user interface for the system was created using HTML.

All of the validations and client side scripting features were developed using PHP and JavaScript.

CSS was utilized to construct the system's web page [5].

Usefulness

- Client Online: Operating System (Any), Web Browser
- Apache Web Server
- MySQL database
- Markup Language: CSS and HTML
- PHP, JavaScript, and jQuery are supported for scripting [6].

HEALTH AND CARE

Since it was an online portal, there was no risk, and there was also a way to get in touch with the authorities [7].

Since novices are unable to do tasks immediately, it provides certain safety suggestions before beginning the training in order to ensure their safety.

Computers are becoming more and more common and crucial to our culture in the present day. Computers are available everywhere and are incredibly helpful in our daily lives. Online websites play a significant part in daily life, similar to computers. With only one click, we may now access a variety of websites that provide information about anything in the world.

Therefore, our goal was to create a website based on a fitness management system for those who want to routinely maintain their physical health and fitness [8].

The user of a fitness management system can save information on their diet, their employees, their gym-goers, their equipment, and more [9].

This software suite enables the storage of all relevant information about a gymnasium [10]. Fitness Management System's newly built website is better suited than the manual database since it offers features like fast speed, huge storage capacity, greater accuracy, and high security

OVERVIEW OF THE PROJECT

For those who manage a gym company, we recommend the "Smart Gym Management System". Prior to taking any action, we conducted thorough study on the main challenges faced by gym owners. We carefully considered how to create a sizable registration system that works flawlessly, as well as various services for various user types depending on their privilege.

A system that can easily handle all the essential and minute information, as well as sufficient database security according to the user, is needed for gym management. They need software that can hold information on customers, staff, items, payroll, member receipts, and any gym-related transactions.

SYSTEM DESIGN AND ANALYSIS

The process that is used to continue the development application is as follows:

DEFINING A PROBLEM

One of the crucial project activities is problem definition. The goal is to properly characterize the business issue that needs to be resolved and to establish the extent of the new system. There are two primary duties at this phase. Reviewing the organizational needs that originally drove the project's inception is the first step under this activity. The second step is to list the anticipated capabilities of the new system at an abstract or general level.

As a result, it aids in defining the system's boundaries as well as the objective to be attained. A thorough comprehension of the issue will enable us to create a better system and lower the possibility of project failure. Additionally, it details the resources that must be made accessible to the project.

POSSIBILITY ANALYSIS

The system design process begins with the system objectives that were specified during the feasibility study. Many of the tasks at this stage are of a technical character and call for a certain level of system design expertise, thorough knowledge of computer-related technologies, and a thorough grasp of the computers on the market as well as the various services offered by the vendors.

However, a system cannot be created in a vacuum without the user's active participation. At this point, the user also plays a crucial role. We are aware that the system design would make systematic use of the data gathered during the feasibility study.

The following are its goals

- *Enhancement:* The primary goal of the Smart Gym Management System is to improve and modernize the current system by boosting its efficacy and efficiency. By substituting a computer-based system for the old manual system, the programmed enhances working procedures.
- *Automation:* The Smart Gym Management System boosts the throughput of the manual system by automating each and every action. As a result, the system responds quickly and operates efficiently.
- *Accuracy:* The Smart Gym Management System gives users a prompt response with extremely accurate information on people, systems, and other facts as and when necessary.
- **User-Friendly:** The UI of the programme Smart Gym Management System is extremely user-friendly.
- As a result, using it will seem quite natural to people. The programme has a beautiful user interface and offers accuracy. Make the manual system more interactive, quick, and user-friendly than it is now.
- *Availability:* The system's transaction reports may be retried as necessary. As a result, all information is immediately available, and whatever is required may be recorded swiftly and simply.
- *Maintenance Fees:* Lower the maintenance fees.

APPLICATION TECHNIQUES

We build our system using the MVC design pattern. A software design pattern called Model-View-Controller (MVC) is used to create user interfaces for computers. It separates internal information representations from how that information is displayed to or accepted from the user by dividing a specific software programme into three interrelated sections (Figures 1-5).

- *Model:* The model controls the application domain's behavior and data, and it reacts to queries about its state (often from the view) and requests for state changes (typically from the controller).
- *View:* The view controls how information is shown.
- *Controller:* The controller interprets the user's mouse and keyboard inputs and causes the model or view to adjust as necessary.

TESTING

Systems are neither created as whole systems nor tested as individual systems. Both unit and system testing must be done by the analyst.

Unit testing

Involves the analyst testing the individual programmes that make up a system. Because of this, programme testing is another name for unit testing. In order to discover flaws, unit testing places stress on the modules apart from one another.

This aids the tester in finding code and logic issues that are specific to that module. The interactions between modules that might cause errors are initially prevented. Each condition and choice should be tested in the test cases required for unit testing.

By starting with the smallest and lowest-level modules and working your way up, unit testing may be done.

System testing

Which comes after the design and development of the programme, is a crucial and crucial step in the system development process? We cannot claim that every programme or system design is flawless; certain errors may exist in software development as a result of poor user-designer communication.

The quantity and kind of mistakes in a freshly created system depend on a number of common elements, including user and designer communication, the programmer's capacity to produce code that precisely follows the system specifications, and the design timeline.

Verification

Verification is the procedure used to ensure that the product meets the requirements set forth at the beginning of the development phase. To ensure that the product acts in the manner that we desire.

Validation

At the conclusion of the development phase, validation is the procedure used to ensure that the product fulfils the defined criteria. To ensure that the product is created in accordance with client needs, in other words.

In theory, a freshly constructed system should have all of its components or subsystems functioning well, but in practice, each subsystem operates on its own. Now is the time to combine every subsystem into a single pool and test the entire system to see whether it satisfies user needs. Before the system is deployed and put through user acceptance testing, this is the last modification to find and fix faults. In order to fully test a system, all of the potential variables that it could encounter must be taken into account.

FEATURES:

Our system has a lot of features. Some notable and recent characteristics include:

- Face Recognition Login
- SMS
- Phone Number Verification during Registration
- Online Payment Gateway
- Webcam integration and a user activity log

UPCOMING WORK

Although the project was established in a very little amount of time and every effort was made to ensure that it was executed extremely efficiently, there is still room for improvement. The improvements that can be introduced and included into the project are listed below.

The project's application might be carried out more beautifully. The administrator may update the database management and all maintenance modules. Additional security precautions can be used.

A few more elements may be incorporated into this system to increase its adaptability. The following list displays the future factors to think about:

- Real-time Chat BOT feature for members and trainer, allowing members to chat with their trainer whenever they want.
- Automated fitness recommendations based on the user's health status.
- Bot for real-time claim processing.
- Trainers and members have the option of a video discussion.
- Using facial recognition to make payments online.
- The creation of a barcode for the membership card, which members use to get access to the gym.
- Fingerprint verification required to enter the gym

SOME SNAPSHOTS

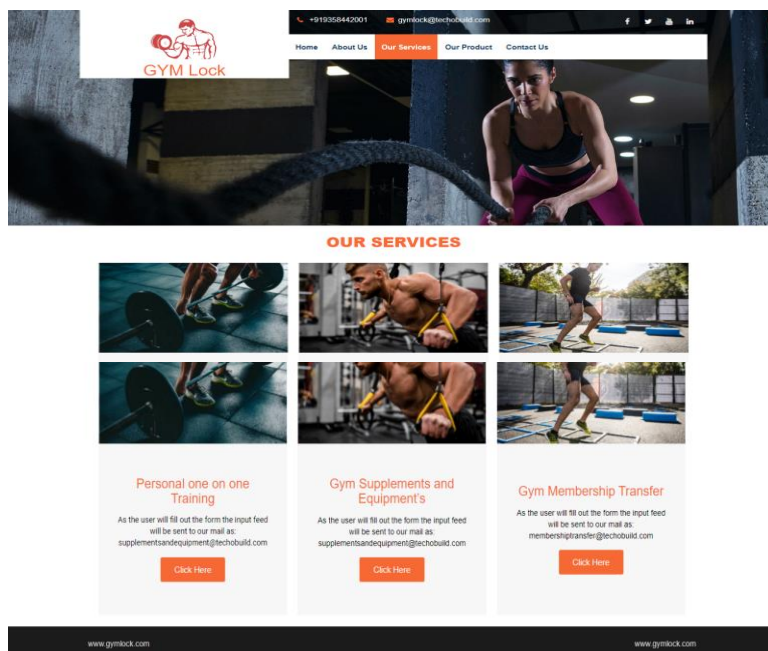


Figure 1. Gym Services.

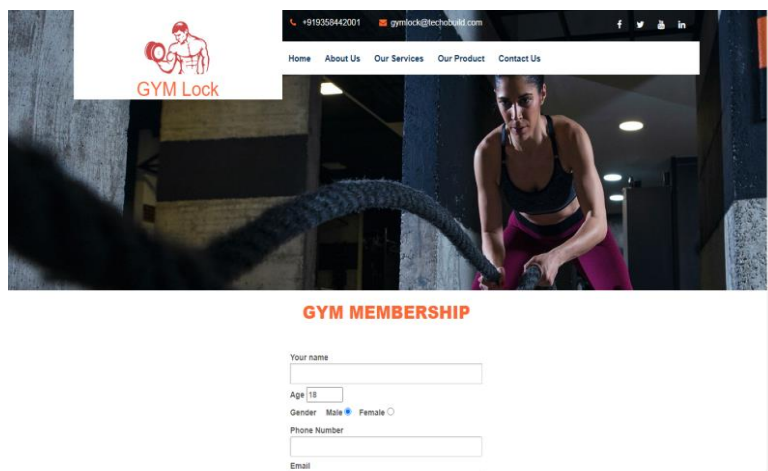


Figure 2. Gym Membership.

Email

Address

Name of Current GYM

Name of New GYM

Membership Plan Taken at Previous GYM

Membership Plan of New GYM

Height

Weight

Medical History

Aim to start working out

Figure 3. Gym Details.

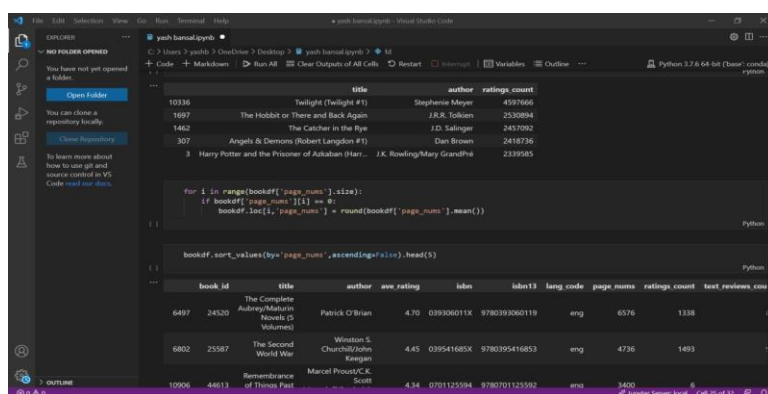


Figure 4. Gym Market.

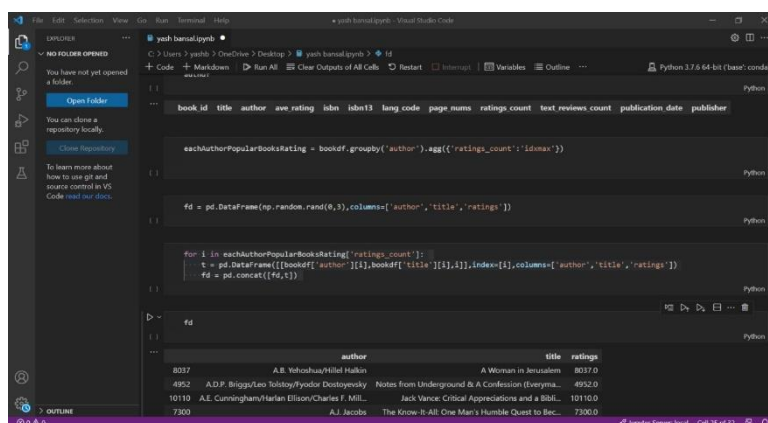


Figure 5. Manual System.

CONCLUSIONS

The "GYM MARKET PLACE" has been successfully created and built to satisfy the essential criteria, as defined in the requirements analysis phase, such as the system is extremely user-friendly and form level and field level validation are operating very effectively. There were several issues with the outdated manual system. The current project was created to fulfil the expectations expressed in the modern era.

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