Conceptual and implementation of Task Management System in the Example of Gym in Afghanistan

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ABSTRACT

The purpose of this thesis project is to develop a web-based gym management information system for my fellow athlete sportsmen. This system was needed because developed countries has big and enormous online sites to help people for having specific record of their gym performance. To make a good impact on the new technology in our country it is something very necessary to make such web sites to help people of our beloved Country. Using this web can help a lot. Because website that help people with their training section is not available in our country and this website is a progress in our country. This website is going to help a lot of young youth to give up bad habits and grow sporty or good habits. It never happened that a website created for athletes. This website provides all the necessary aspect that a gym person need such as protein intake and other supplement intake.

Important consideration about the web site: Responsive, Web development, Twitter bootstrap, Database.

ACKNOWLEDGMENTS

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Chapter 1
Introduction

1.1 Background

The World Wide Web is now very improved that can help people with its enormous amount of information that it's kept in it. Nowadays internet is being used all around the world by all countries that exists in earth.

More people are going to the way of technology, using internet. Internet is the source where people can find answers to their question toward knowledge.

Student which are in college they use the world of internet to learn more and contribute to the existing body of knowledge. They use different studies and video to show them how to train well for achieving good goals to get their needed workout plan or diet plan and supplement information.

In the world of internet there are a lot of websites that contains gym material and training techniques needed by the Athletes. As we know that gym websites can help a lot to teach fundamentals and also practical lessons of different field of sports like fitness, bodybuilding and cross fit etc.

However, we have lots of gym website in the internet but still needed new ones. And there will always, will be need for new websites to help the athletes. Here in Afghanistan athletes have less references to gym plans that they can find.

In the Kabul University we have a big sport gymnasium which contains different field of sport except body building gym. The students of Kabul university use the gyms that are around their own area of living. And don't know anything about the new products in the market, that can help them achieve their goals in this sport.

Nowadays internet websites have grown very fast and contains a lot of gym plans for people, which these plans can help people to learn how to train in the gym. But finding a specific material of study in these websites are little hard. Internet helps the knowledge to grow fast.

1.1 Problem definition

People goes to gyms without having any knowledge of knowing how to train and achieve a good body and a perfect health. And it is all about lifting weights and doing cardio in the gym, not knowing anything about training plans, food plans, lifting plans and process that are need to train in a gym for achieving goals.

Many young people go to gym and workout very hard every day but can't achieve result that he or she is waiting for. The problem with this young people is this, they don't know when is the best time to train which supplement is good to take.

Not knowing or not having a specific plan for training is the most common mistakes that ends up many people be in fault of bad training. And not know which supplements to use to have the most prefect body.

And a lean or bulk one. And also people don't know the intake of supplement such as Protein, createin, BCAA's, pre-workouts and post-workouts.

Many people think that only hitting the gym six times in week can't help them to achieve their health goals or help them loss weight or gain weight. But they all are wrong about their training session. And also they don't know how much protein our body need in a day of training and how much createin our body needs in a single day and intake of BCAA and other supplements needed by athletes in gym.

1.2   Interpretation

The internet with its big world of data is the most efficient resource for gathering information and seek from that information to contribute to existing knowledge. The Gym websites that are in the internet has a lot of gym plans for athletes but in our country it is very hard for our fellow athletes to find the needed material in those gym websites, so they need a specific platform to find and share their Gym plans.

The enormous amount of data in the internet is a load of information that finding the specific material is very hard, even there is less websites in our country that gives information about new technologies that are being developed in modern countries or that are already exists.

In the Kabul University there was no plan about making a platform that can solve some problems of athletes about their training plan so we plan to make one.

A specific platform where athletes can get and share Gym training plans. We decide to make a website where athletes can achieve additional and important workout plans that have close relationship with their field of study. We decide to make gym management website.

Gym management system is a website where this website is not only an online gym full of workout plans and information about supplements, it is more than just a website. This website is consisting of all training plans belonged to gyms.

Gym management system not only give educational material but this website is full of adventurous pages. In this website plans can be requested by athletes all admins can register and put their very important researches that they have done.

Gym management system gives athletes information about the new workout plans that have been developed or came into gym system all kinds of trainings. It has posts where these post are all about the new workout plans and some old training session which has some links which each other. This website is responsive and can be accessed by PCs, Tablets, and mobile devices. And it fits to all of it. Every entity of our project is has specific links with it. Its interface is very friendly and very easy to use. Admins can register by the High ranked Admins.

Athletes can sign up in this website to have new information about new plans and workout sessions and information about new supplement in the market and its prices and can have new supplements usage plans.

1.4   Methods and approach

Method and approach that we use to build this website is pretty simple. Gathering information about is there need for such a website? We asked so many athletes in the Kabul Gyms, athletes form different field of bodybuilding and some trainers that do you need such a website that give books and information about new technologies and where you can put your information and retrieve information from. So everybody said the same one word (yes). And everybody explained why they need it so much. About the same problem we mentioned before, that it is so hard to find a specific material from internet for specific field. So we decide to make a questioner paper that students have to answer which it form was in Dari language here is it form:

Agile Method

Agile methods are incremental development methods in which the increments are small and, typically, new releases of the system are created and made available to customers every two or three weeks. They involve customers in the development process to get rapid feedback on changing requirements. They minimize documentation by using informal communications rather than formal meetings with written documents. Agile methods universally rely on an incremental approach to software specification, development, and delivery. They are best suited to application development where the system requirements usually change rapidly during the development process. They are intended to deliver working software quickly to customers, who can then propose new and changed requirements to be included in later iterations of the system. They aim to cut down on process bureaucracy by avoiding work that has dubious long-term value and eliminating documentation that will probably never be used. [Alliance,2001].
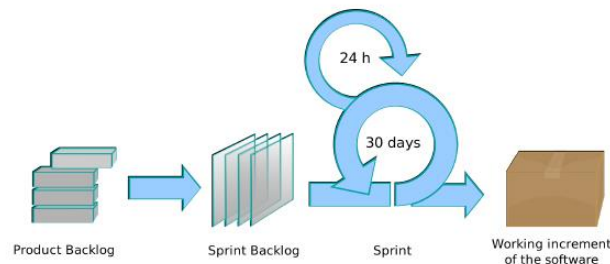
Figure 1.4.1: Agile

Scrum method

Scrum is the most popular way of introducing agility due to its simplicity and edibility. Because of this popularity, many organizations claim to be doing Scrum but aren't doing anything close to Scrums actual dentition. Scrum emphasizes empirical feedback, team self-management, and striving to build properly tested product increments within short iterations. Doing Scrum as its actually dined usually comes into convict with existing habits at established non-agile organizations. Scrum is used for complex work in which it is impossible to predict everything that will occur. [Schwaber and Beedle, 2002].
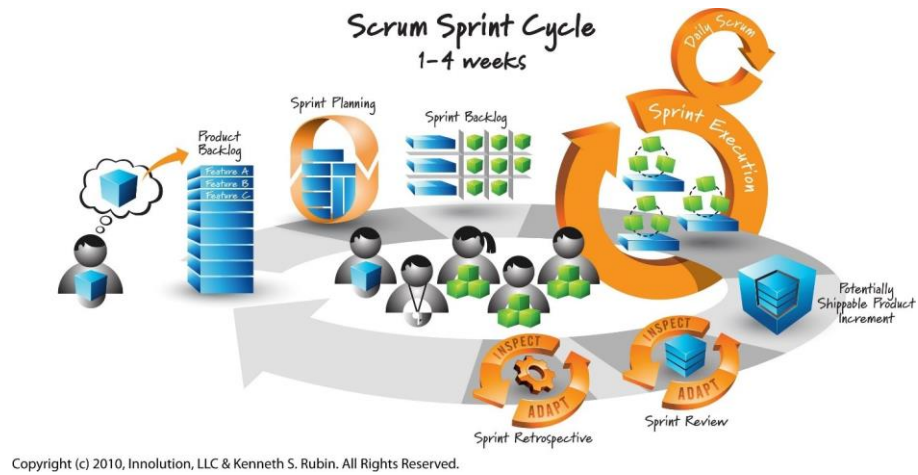
Figure 1.4.2: Scrum sprint cycle

So we asked and the need for this website was confirmed.

After conformation about the need for Gym Management System we start gathering data for our website all types of books and we start to use different templets and various forms for our website cause know this was our final project so we have to make it, at its best form.

We started interview with some teacher that, which things should be added to our website. Like which kind of books and what else.

1.3   Outline

The following thesis is consisting of this chapters:

Chapter 2– Related work in this chapter we are going to talk about the content that has link with our project like talking about the internet and how give services to our subscriber and students. And talk about our website (Eagle Gym) and its contents.

Chapter 3– Project analysis states the system requirement and architecture is going to be discussed in here, and also the design of our project.

Chapter 4– Implementation discusses technical considerations and describes the implementation of the system.

Chapter 5– Evaluation evaluates the system with respect to the requirements. And also the experiments that we run on the project.

Chapter 6– Conclusion draw the conclusion of this thesis and recommends possible future work.

Chapter 2

Related work

This chapter will introduce the problem that Gym Management system is trying to solve. And different approaches for solving this problem. And comparison between Gym Management and other websites in the internet.

2.1   The World Wide Web

The World Wide Web (WWW or web) emerged in the early nineties. The enormous amount of information growing and big amount of data make it the most important source of information for people.

The technology behind the web can be characterized as an information system composed of agents [1]. Agents are programs that act on behalf of a person, entity or process to exchange or process information. The main types of agents are server agents and client agents. A server agent offers services that are used by the client agents, as shown in figure 2.1. When a user follows a link on a web page in the browser, the browser performs a request to the server, which responds by returning a web page.

[1]The European organization for Nuclear Research

Figure 2.1.1: Client-Server Connection through Internet

Hypertext transfer protocol (HTTP) is a transfer protocol that specifies how the server and client communicate with each other. When a user types the URL of a web page or follow a link on a web page, the user browser performs a HTTP request to the server. The server responds by returning the web page content in quick successions.

The Hypertext mark-up language (HTML) is used to define the structure of a web page. The language has notions for embedding references to other documents. These references appear on web page as hyperlinks that the users can select to fetch and display the referenced page. Recently, another markup language, XML has been defined to facilitate the sharing of data across different information systems.

Uniform resource locator (URL) is a universal system for referencing resources on the web.

Together, these standards form a simple and effective platform for sharing information. Due to this, and the fact that computers and Internet access have become more available, the World Wide Web has undergone an exponential growth, both in number of computers and users.

As the World Wide Web continues to grow at an exponential rate, the size and complexity of web pages grow along with it. Different techniques have been applied to develop systems that help users find the information they seek. These techniques belong to the fields in software technology called information retrieval and information filtering.

Here is the information filtering figure to describe it well.
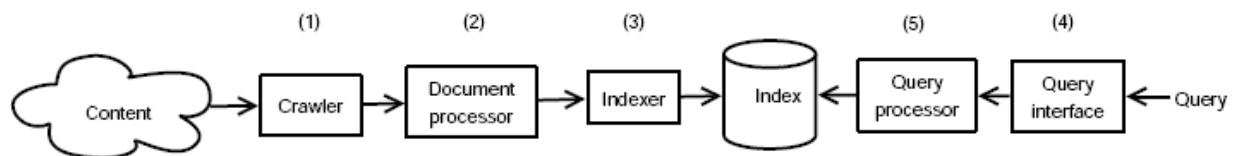
Figure 2.1.2: Information Retrieving

2.2   information retrieval and filtering

The rapidly expanding Internet has given the users the ability to choose among a vast variety of information. Whether it is information concerning their profession, events in their world, or information that allows them to maintain their lifestyle. The information that is needed to fulfil these continuously increasing demands can come from different sources. Example are web pages, emails, articles, news, consumer journals, shopping sites, online auctions and multimedia sites. Even though the users profit from the enormous amount of information that the sources provide, they are not able to handle it. This information overload problem is the reason why several techniques for information retrieval and information filtering is to deal with the

information overload problem by examining and filtering big amounts of data, there is often made a distinction between the two.

Information retrieval

Information retrieval (IR), often associated with data search, is a technology that may include crawling, processing and indexing of content, and querying for content. The normal process of IR is showed in figure 2.2. Crawling is the act of accessing web servers and/or file systems in order to fetch information. By following links, a crawler is able to traverse web content hierarchies based on a single start URL. The document-processing stage may add, delete or modify information to a document, such as adding new Meta information for linguistic processing, or extracting information about the language that the document is written in. Indexing is a process that examines content that has been processed and makes a searchable data structure, called Index that contains references to the content.

Queries are requests for information. IR systems let a user write a query in form of keywords describing the information needed. The user can interact with the IR system through a Query interface. A Query-processor will use the index to information reference based on the keywords and then display the reference. The goal is to analyze and identify the essence of the user's intent form the query, and to return the most relevant set of results.

Filtering information in IR systems is done by letting the user specify what information is needed by manually typing keywords describing the information. IR is very successful at supporting users who know how to describe exactly what they are looking for in a manner that is compatible with the descriptions of the content that were created during the indexing.

Information filtering

Information filtering (IF) systems focus on filtering information based on a user's profile. The profile can be maintained by letting the user specify and combine interests explicitly, or by letting the system implicitly monitor the user's behavior.

Filtering within IF systems is done when the use automatically receives the information needed based on the user's profile. The advantage of IF is its ability to adapt to the user's long-term interest, and bring the information to the user. The latter can be done by giving a notice to the user, or by letting the system use the information to take action on behalf of the user.

Closely related to IF is the idea of have a book system that show a default book loading to the user to give him options of choosing books. It about filtering form so many books a showing the interest of user on the web page.

2.3   Gym Management System

We have many athletes that are in a dispirit need of a website that give them need plan for their workout and supplement consumption in the way that are designed for overall gym athletes.

Finding educational resources that can help with our workout is very hard, this website is going to help as a lot. Gym Management is an online workout trainer like web page, where athletes can find their needed training plan materials very easy. And it is made for athletes of our beloved country Afghanistan only to make essence for athletes to find specific type of material for workout.

The web page (Gym Management System) provide not only the material needed for workout but also it provides the opportunity for athletes to put the researches and achievement that they have done in the term of training.

Gym Management original language in the interface is English because it is an official website, which has the power of sharing material among our fellow sportsmen. And provides all training workout.

Gym Management is a website where an athlete can login in the system and can have all the needed plans for the workout and supplement usage plan. And if the athlete is no registered in the system he or she can register and sign up, and after sign up he or she can access all the plans and workout materials.

Gym Management System provides all the plans and materials needed for our daily workout and information about supplement and give as advertisement about new supplement in the market. In this website we can add athletes and its information in the system. Information which is going to be in the website is the athletes name, his or her last name, gender, age etc. That is going to be stored in database.

In this website we have trainer registered that help athletes to achieve their plans. This website contains dashboard, which contain the customer satisfaction, client feedbacks to maintain the website as good as possible.

Gym Management system have an attendance sheet which shows athletes workout attendance in the gym. We can see the list of athletes with it their names and age and date of registration. And we also can add new trainers and see the list of trainer with their information.

Gym Management System also show the profile of admins when it is asked form it.

2.3.1   Content-based filtering

The contents of our website is information about workout and plan for supplement and how to train. When the website is visited the programs are written to show some workout information and images to motivate by default to the visitor, if the visitor like it he/she can download it. The workout plans that are in the website is divided with the context of the type of gym exercises and field of workout such as fitness or bodybuilding that it is belonged to

In the internet there we have a lot of Gym website that provides so many information about training sessions, but in our website we not only give workout plan but also usage of supplements for athletes. but give them additional information about the new techniques and workout that belong to different muscle groups.

All the workout in our database is filtered to be put in the specific part that it belongs to. The researches that are put by the trainers, will be registered with name of the trainers, which has done the work. And that research will be shown at the top link of our website for the other trainers and athletes.

These are the option that we have in our user menu bar for the user interface, Dashboard, Athletes, Trainers, Payments, Attendance etc.

In the Dashboard we can our ratings by our client and users that give as, in the Athlete option of our menu we can see the information about our athletes and also we can add and register new athletes in the System. And in the Trainer option of our menu we can register new Trainers and see the information about the trainers. And in the Payment option of our menu is used to see the payment for sailed workout plans and supplements.

2.3.2   Collaboration filtering

The load of our gym workout sessions makes it hard to control the information overflow so the collaboration filtering makes it easy to deal with such kind of problem. It is like dividing each workout plan into its specific field, which it belongs to. The workout plan is so many, so we have to do divide them to part that they belong to, so we make the options of different types of gym trainings weather it belongs to fitness or cross fit. So by choosing the type of the workout plan all the need materials well be provided by the website. We made some constraints, which by its help the athletes can find the material very easy. That the options are very easy, in the search box we have made its functionality very easy, which in the search box user can search all they need for gym exercises, they can search trainers, other athletes, and also you can search about the gym locations in the search box and also about supplements and also about new event that happens such as computations.

2.4   Improving Gym Management System

To provide better capabilities, Gym Management System can be extended in several ways. Some improvements have been shown to give better gym plans reliabilities that we will now be introducing it to you.

2.4.1   Intrusiveness

Gym websites in the internet are so much hard to predict about, they usually have an introduction home page and information about their contents and a search box, which by using that users can find the gym workout plans they need. But they all have some issues because they are not made for specific group of athletes. And they cannot provide all the workout plans needed by athletes, even due they don't have any training workout plan request option in it or any messaging option.

We filter all these problem in our website (Gym Management System), which give full options for the users. Gym Management System not only has a perfect and easy graphic user interface for user but it a most and important reliability such as being fit with the all kinds of devices like PCs. It works in all kind of screens of devices, which is accessed by.

The users that have bad habit of dealing with websites, such as hacker the website is made safe, which we will discuss in security section of our project. And also for the people who will put the wrong input in the search box we deal by observing each letter, which he/she has put the option and show them some workout plans that the word matches but if does not match, we will show a message of not exist.

2.4.2 Contextual information

Giving accurate material is essential in Gym Management System. Inaccurate materials will lead to displeased users, which will diminish the utility of the system. There are several gym commercial and sport areas that deal with fixed user preference.

We are try to give the athletes of our country the most accurate educational material in the matter of workout in session, which they will appreciate us. In our website (Gym Management System) it is very important to earn the happiness of our website's visitors. We also give information about how using the website, so the visitor don't have to face any kind of problem. Contextual information has therefore been used to improve the accuracy in Gym Management System. It defines context as any information that can be used to characterize the situation of an entity. An entity can be shared between a user and an application, including the user and applications themselves.

2.4.3 Evaluating Gym Management System

Much effort has been put into the development of good metrics to measure the effectiveness of Gym Management System. In most literature, the evaluation of algorithms is done using coverage and accuracy metrics. Coverage measures the percentage of items for which a Gym Management System website is capable of prediction, it means if a visitor visits the website again, the website gives him/her new advertisements option by seeing the old searches that visitor has done.

We have measured the accuracy of our website by putting workout information and loading of the plans in the website. All the menu options of Gym Management System are active and works perfect. We checked all the need option that exist in the website and the accuracy of the website is considerable.

We have checked our website (Gym Management System) in different devices such as Laptops and PC with different OS's to see its view and it working in different devices and to check that it works perfect and it did.

2.4.4   Other improvements

Other research issues within Gym Management System include understanding of users and items, scalability, privacy. Since these issues are outside the scope of this thesis, they will not be discussed.

2.5   Case study

In our case study we are going to talk about the types of the Online Gym Website that exist in the internet and also about the Gyms that have their own commercial websites that were made before in the Afghanistan.

The Gym Management System is one of its kind in our country because, we have searched in the internet about the sources that provides workout plans and supplement usage for our fellow athletes in our country. And we find very less Gym website in the internet that was developed by our own fellow computer science students to provide gym plans and other educational material about gym workout. So, this web page is one of its kind. No one ever wanted to build gym website that are enough efficient for use of both athletes and trainers. Because they had no idea how to make it.

The athletes in our beloved country Afghanistan, they straggle a lot to find the educational material about their trainings in gym that are useful for them in the matter of workout and change in their overall body for their daily trainings, they visit a lot of internet website which belong to other countries to find something useful, because there is no website in our country which discusses this kind of issues with our athletes and trainers.

There never had been done any work in the matter of sharing educational material in case of gym training and supplement usage.

2.5.1 Exploring New Workout PLAN

We asked a lot of athletes and check the material, which were taught by trainers and were in the curriculum of Gym workout sessions. We gathered so many plans for different kind of field in gym that are very efficient for the athletes and good for their education in the matte of their growth in the gym and helping them with their workouts to achieve the needed goals in gym. but our real aim is to focus on those athletes, which are really serous with their trainings.

New books that are written by our own teacher will be put to the list and extra books for good feedback to other related books in the website. All books that will be in the website is going to help student a lot in their lesson and daily straggle for knowledge.

Workout plans that will be in the website are not only for one beginners but also for the athletes who are professional in this field of sport.

2.5.2 Overspecialization

For making the Website (Gym Management System) better and more useful, we decide to not only make this a source of workout plan giving but a source of sharing educational material in the matter of workout and informative website that give special information about new supplements of day in the market, to keep our fellow athletes update and pave the way for our trainers and athletes to put their findings in the website to

show it to other trainers and athletes. That can help other athletes to learn more and these finding of our trainers and athletes can contribute to the existing body of knowledge.

We have made the interface of our website very easy to use and in a form, which is very easy to understand and easy to work with and download workout plans and research paper and upload training plans and supplement usage and post. We have pages in our website, where athletes can ask for plans and trainer to train them, that are not in the website and the admins will provide the need. We worked at a page of our website, which athletes can send messages to the admins and talk about the quality and robustness of our website.

2.5.3 Conclusion

So far we have covered the usage and workability of website. Workout plans are going to be from all gym workouts. There will extra workout plans for new athletes that newly joined the gym. Not only workout plans but research papers are also existing in this website. Trainers can put them researches and new moves that they found in workout to improve muscle performance in this website and athletes can put their achievement demo in this website, athletes can request workout plans that are not in the website. The posts of new supplements in the market will be shown in this website to keep the athletes update.

2.6   Summary

The World Wide Web is the biggest resource of information which can help people a lot. The website that are exist are not enough for answering the needs of athletes because in our country a lot work is still in paper many books exit that are not made digital and less work have done in this area. Athletes are in very problem with finding their material of study. Gym Management is a website, where using it URL athletes can achieve a lot of workout plans that can help them with their field of training in the gym. This kind work has not been done in our country. The reckless people who works at higher position of sports federations don't take these problems seriously. Gym Management System help athletes with their educational material in all kind of workout field ways.

Chapter 3

Project analysis

In this chapter we are going analyze our projects all works that we have than through all processes.

3.1 Requirements

The requirement that we gather for this project has come by the athletes who do workout in gyms. We gather this requirement from those athletes and trainer who has problems with their daily trainings and this work was done by give them a paper with some questions in it, that paper helped as a lot about how define the functional requirements of the project as with the non-functional requirement we as a software engineers need find those by ourselves. The functionalities of the system were all planed after we asked the athletes about the need of such system with the paper we give them, which had some questions that they need to fill. And by those answer we found some of our functionalities that our system must have and some functionalities were found after we talked with our supervisor.

3.1.1 System overview

A website, where educational material is in the sharing among athletes of gyms. The interface is very easy to work with and the website is full of workout plans and supplements suggestions.

In our website (Gym Management System) all the workout plans that belongs to different gym exercise are divided with the context of gym training sessions, which is very helpful for athletes who want the specific plan to workout with in gym or any other educational material. And even athletes can type the name of the workout session and diet that trainer can maintain and give to put it in work. The workout plan, which exist in the websites database is not only belonged to beginner but also for professionals.

Gym Management System is a website, which is responsive to PCs with different. This website is responsive to all the devices said, which helps athletes to download workout plans, supplement context, ask for specific plan weather it is bulking or leaning, put their achievements and to know about the new supplements in the market.

The world is moving very fast we have to move with it or get behind and live in misery and devastation. And we as the Athletes of this field of sports are helping our fellow friend to achieve something more to seek knowledge and put it in use with their real life.

Gym Management System provide athletes the latest versions of the workout plan in the best form and lots of other educational information. Here we show a connection of related materials and the interaction in figure 3.1.1
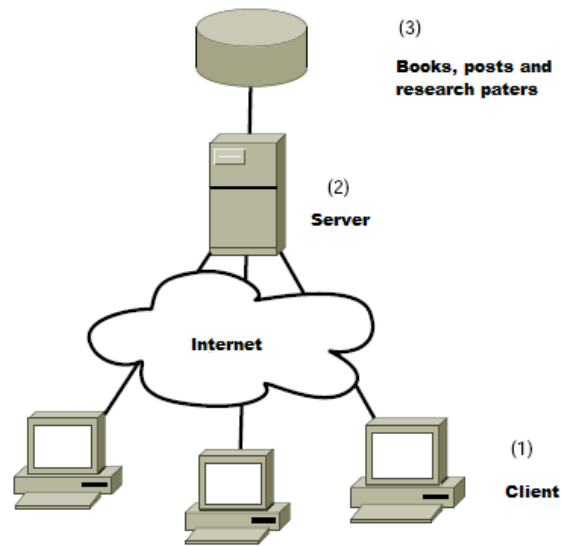
Figure 3.1.1.1: Internet Connectivity

3.1.2 Functional requirement

Functional requirement is a function or a component of a system. Functional requirements are supported by non-functional requirements, which impose constraints on the design or implementation. Functional requirements describe the behavioral aspects of a system. [Anton, 1997]. Behavioral requirements are those requirements that specify the inputs (stimuli) to the system, the outputs (responses) from the system, and behavioral relationships between them; also called functional or operational requirements. [Davis, 1993].

The functional requirements of the website (Gym Management System) were gathered form the Athletes and Trainers of different gyms, which we asked the athletes and trainer about the material, look, essence of interface usage, type and language of the website, kind of workout plans and research paper and about requesting training exercises options.

Here is the list of requirement for the Gym Management System project:

3.1.2.1 Client application

The client application is the link between the user and the server application. Its task is to gather information form the users and to allow users to download and see the workout plan which is necessary. The information is sent to the server application, where it is stored, and later used to produce recommendations to user.

These are the requirements for Client application of our Website (Gym Management System)

1. The client application shall provide the visitor a friendly and easy interface to communicate with server and see the workout plans
2. The client application shall give a menu of option, which by using that the visitor can find its needed material like, post, workout trainings.
3. The client application shall have a search-box, which by using that visitors can find their needed option in the website such as trainers, workout plans, supplement, specific exercises and payment rolls.
4. The client application must give the visitor a default view of body building supplements, when he/she is first opening the website.
5. The client application must be in English language.
6. The client application shall give athletes different option in the menu-bar, which by its using athletes and trainers can put their achievement such as training plans.
7. The client application must give an option in the menu-bar where by its using trainer can put their workout plans in the website to show it to other.
8. The client application must have an option, which by its usage athletes can request workout plan.
9. The client application must have an option, where athletes can send message throw it, to the admin and say about the websites quality of work.
10. The client application must contain a page, which must show posts of new workout plans and supplements information in the market.

3.1.2.2   Server application

The server application receives information form the client application, and provides the client application with recommendations. The requirement for server application are:

1. The server application must provide all the option requested by the client application.
2. The server application must receive and retrieve workout plan and diet plan form he admin and trainer.
3. The server application shall store the workout plan uploaded by the admin with its context.
4. The server application shall store the athletes and trainer's information form later use.
5. The server application is responsible for retrieving the stored data to the clients.
6. The all the posts which are uploaded by the admin must be stored in a specific part of database, in case of visiting the posts page all the posts must be serviced to client application.
7. The server application must save all uploaded athletes information achievement a specific part of database and in the matter of request, all the achievements must be serviced to client application.
8. The server application shall be capable of producing recommendations by interpreting evaluations given by the user.
9. The server application shall be capable of producing recommendations by interpreting contextual information given by the users, and evaluations given by the user.

3.1.3   Non-functional requirements

These are the non-functional requirements of our project:

1. **Accuracy**, the server application shall produce accurate recommendation that match the user book preference.
2. **Intrusiveness**, the client application shall minimize intrusiveness and at the same time capture user attention so that an acceptable amount of evaluation data is received.
3. **Scale potential**, the Website (Gym Management System) shall have the potential of being scalable both with books and research papers to update all the time, and put new educational materials.

3.2   Design

In this section we are going to talk about the real component, which the system is made of. And we will discuss them all in this part of our chapter.

3.2.1   Architecture

The architecture of our system is very simple, all depends on the communication of the client and server through the client application (Interface) and server application (Database). The user request something form the website through interface and through communication of interface with serve, the server provides services for user request.

Here is a demo which show the client server communication
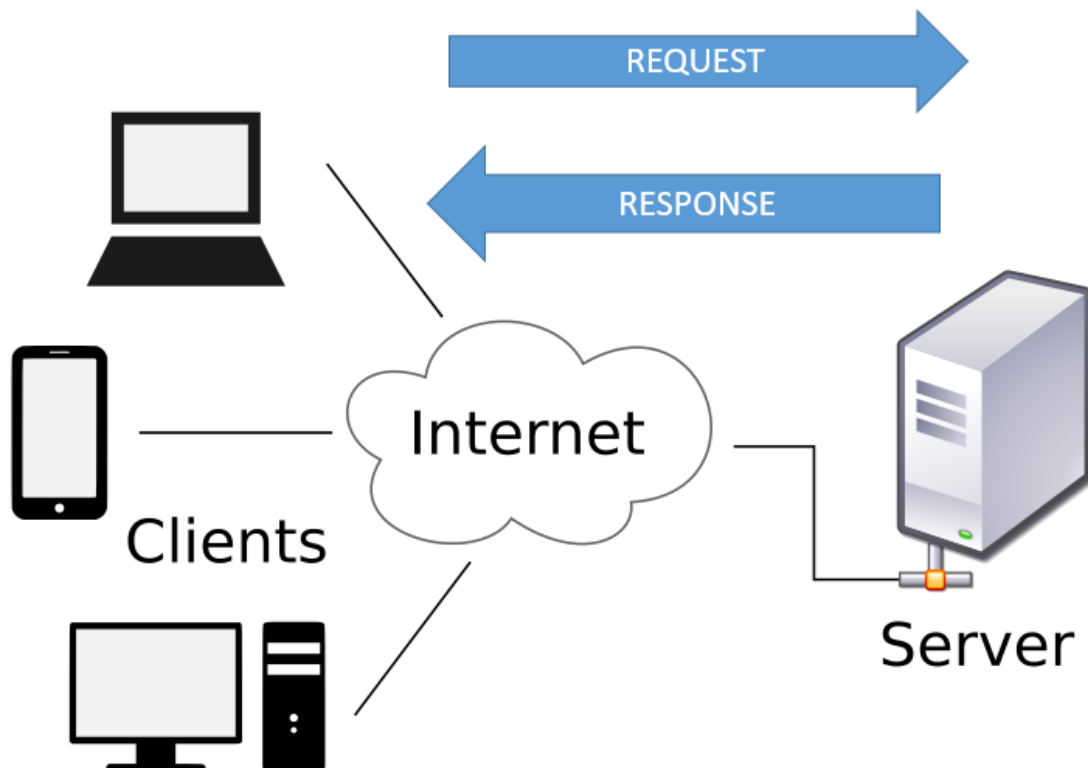
Figure 3.2.1.1: Client server Communication

The figure 3.2.1.1 shows the communication between client and server, which the client requests form the server and server responses to the client.

3.2.2   Decomposition

The user interacts with the client application through the interface. The interface provides the user with the opportunity to download gym plan workout and diet request material from the website.

We divide the components of our Website (Gym Management System) into two parts, which are Interface and Database. The interface is interactive part of website, between user and database. User request information and server provides the information to user form database. The interface is consist of views that help user to interact with database. These components of interface are menu bar, search-box and default view of books in the interface, which helps the user to get its needed material form the Gym Management System. We have two menu-bars in our website one for ordinary users to communicate with the server and one for the admin to use. Which is management information system.

View of the interface menu-bar used by ordinary user is shown in figure 3.2.2.1
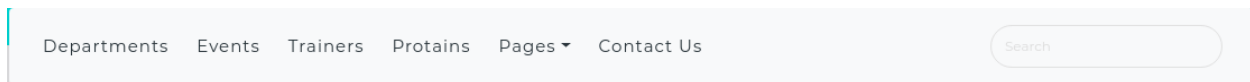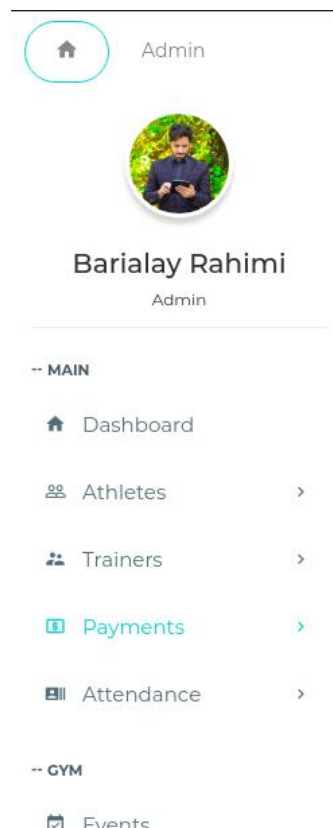

Figure 3.2.2.1: Client Menu Options

And here we show the view of menu-bar used by admins to manage the website through shown in figure 3.2.1.2

These two menu-bars do different jobs one provide functionalities for the visitors of the website and other provide the needed functionalities for the admins to manage the Website (Gym Management System).

User uses the user menu-bar to interact with the website and earn workout and diet plan or see new posts about the supplements in the market of body building that have newly come to market. Each option in the figure 3.2.1.1 give different options to user, which we are going talk about it.

As shown in the menu-bar of user in figure 3.2.1.1 the Department option of the menu-bar puts the user in the opening page of the website, which is used to determine fields of body building such sport physic, athletic physics and body building.

The Event option in the menu bar which is used by the visitors of the website, is used to show event that happens in gyms like fitness computations or body building shows inside or outside the gym.

The Trainer option in our visitor menu bar is used to give visitors full information about trainer, and these information starts not only about the workout plans that they make but the year of experience that these trainers have and all guide that they have done.

The protein option is not only an option that after clicking on it you go to a page where you can have information about protein supplements but you get full information about their countries and prices and other supplements such createin, glutamine, Amino acids, BCAA's, Testtaceron hormone boosters etc.

The Pages option in the menu bar which has a caret in it, links as to page with some more information containing materials such as workout plans, diet plans and other educational material in the matter gym sessions.

The Contact as option in the menu bar is use for interaction and sharing ideas between users and admins of the website. And visitors can send messages and request plans from the admins and trainers.

And at the last part of our website we have the search box where visitor can search all the training material form the website that we have created. Such as checking new supplements, searching trainers or workout diets and plan.

And as we have shown in the figure 3.2.2.2

We have and admin menu also which gives option that by its using admins can manage the website with the best for of it possible. The admin menu has different option than the visitor's menu such as, when the admins logins in the system it shows the photo of the admin at the top of its profile and at the bottom we have the option that by their usage admin can bring changes to the website such as adding or deleting content from the website here we explain each option in different way.

In the dashboard option of our website we see the ratings and likings of our website, in the Athletes option in our website we can see all the information about our athletes which by this option we can add new athletes, we can see the existing athlete information and their attendance in the gym and their workout.

In the Trainer option of our admin menu we can see the list of registered trainers and information about trainers and admin can add new trainer or delete one.

And in the Payment and attendance options of our we can see the pay rolls of different departments and the attendance option show athletes and attendance in the gym and training workouts.

3.2.1.2   Scalability

Gym Management System is a fascinating website, which has a high potential of scalability. The website is flexible and growing with the need of it visitors. We have developed this website very scalable. Each visitor that visits the website will be counted. With the big and enormous amount of data that we have with its flexible database, the Gym Management System is scalable.

Scalability is a challenge that most website have to deal with, since they may have thousands of user's world-wide, requesting simultaneously. Because of this, scale potential will be discussed even though it will not be prioritized the development of our system.

3.2.2   System components

The component of our system will now be described in detail.

3.2.2.1   Interface

The interface allows users to interact with the system. We provide GUI that makes it possible to see workout plans, diet plans, supplement usage, achievements, request workout plans, send message and to search in the website.

The interface receives clicking in the different options and provides services to the users. Through the interface the users (Visitors) can see workout plan or Dieting plan and watching new supplements and information about their companies and prices and download them after seeing. The interface makes it easy for user to achieve needed materials form the website, and click around to see what is in the website.

These are some views of our interface and their tasks that they do. We start with the menu-bars, which we have two menu-bar one for ordinary user and another for admins for managing the website.

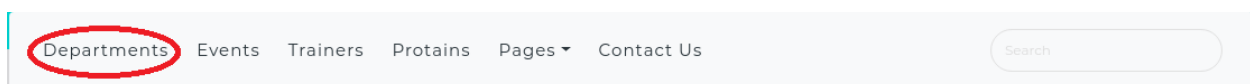Departments   Events   Trainers   Protains   Pages ▾   Contact Us   Search

Figure 3.2.2.1.1: Department Option of Menu-Bar

Each and every buttons in the menu-bar in the interface which made for user does different jobs. Here we elaborate. The Departments option in the menu-bar which is a link for the home screen of the website where shows different field in body building sport to choose from in the website.
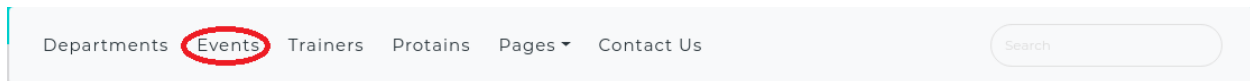
Figure 3.2.2.1.2: Event Option

The Events link in the visitor menu-bar show the list of events that happens around in the gyms at the different areas of our cities in our country in the website that visitor can see and visit those events and achieve some experience in them.
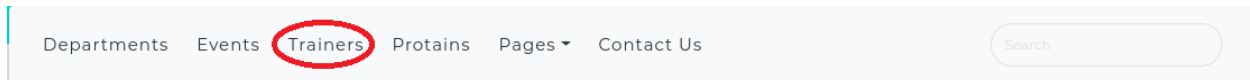

Figure 3.2.2.1.3: Trainer Option

The Trainers link is used for showing all needed information about trainers and is used to add new trainers in the system and used to add information about those trainers and show all the content about them such as information about their workout plans, diet plans and supplement usage and their experience in the body building field.
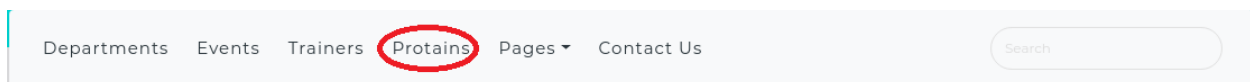
Figure 3.2.2.1.4: Protain Option

The Proteins link in the menu bar is to give information about the new supplement in the website and these information is not only about the supplement but also about how much of the supplement should be used in daily exercises, these supplements are protein, createin, Amino Acids, BCAA's, Pre-workouts, post-workouts etc. which are useful in the matter of our daily workouts.
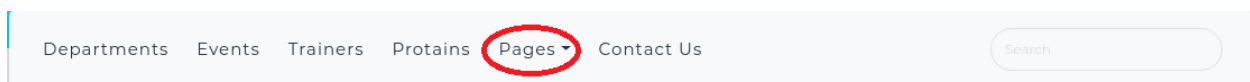
Figure 3.2.2.1.5: Pages Option

The Pages link in the menu bar of our website has the role of show three option in its caret when we click at it. And each of those option does different job. And here we have the list of option when we narrow the mouse on the Pages link in our website menu bar shown in Figure 3.2.2.1.5.1
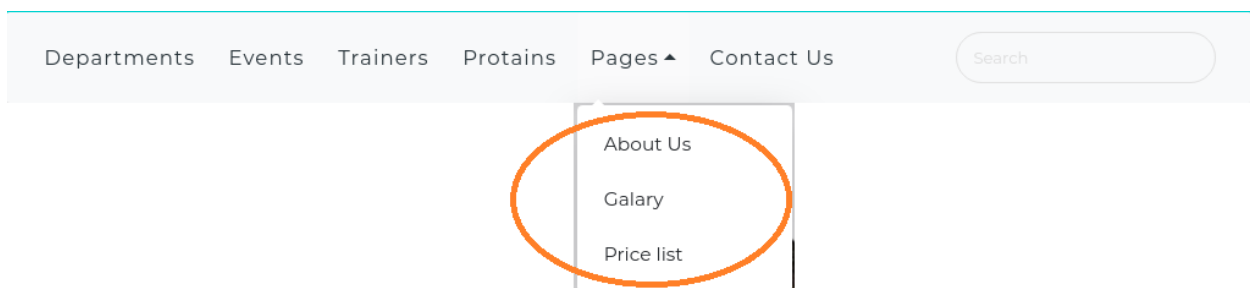

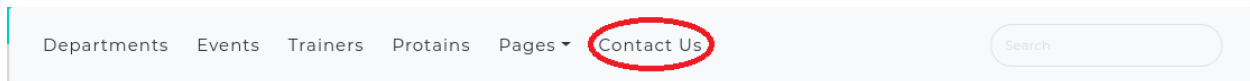Figure 3.2.2.1.5.1: Caret of Page Option

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Figure 3.2.2.1.6: Contact Us Option

In the Contact Us link in our website's menu bar which by using it people who visits our website can send us messages and ask as anything they want about changing or asking as new things in our website. They also can send as messages and rat our website. And give as feedback about our website. And here is a view of our website when we click in the on contact link in the website.
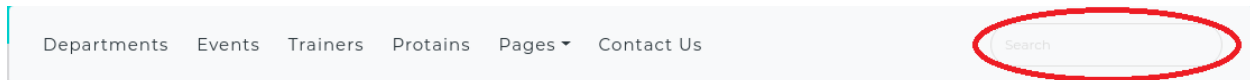

Figure 3.2.2.1.7: Search Option of User Menu-Bar

In the search box where visitors can search all thing they want from website such as searching about the new trainers and athletes and search information about new supplements in the market and search about workout plans and diet plan in the website. And they also can search new event that are going happened in the gyms in country.

The Login link in the interface of the Website (Gym Management System), is used by the admins that are already registered in the database of the website. By clicking in this link the user goes to another page where he/she must give username and password to login to the MIS of the website, which this action is only done by the admins. After clicking in this link the user goes to a page like below:
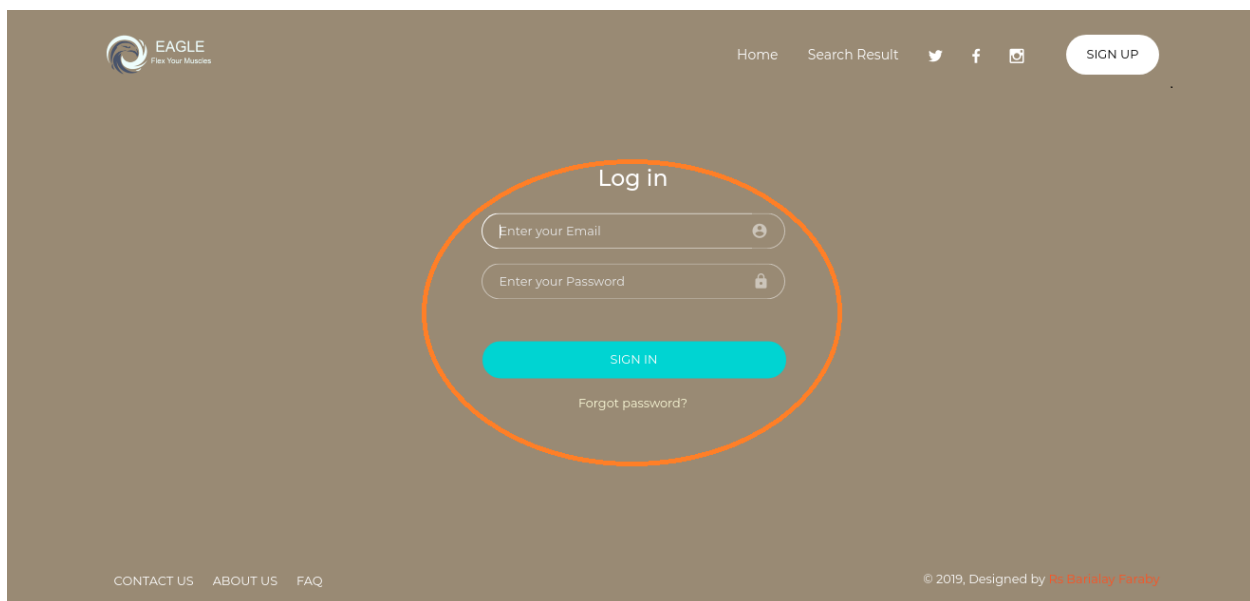

Figure 3.2.2.1.8: Login form

Here we have a view of the Website's management information system show in figure 3.2.2.1.9. After we login to the system it has a view of the picture and username with email of the admin who login to the system.
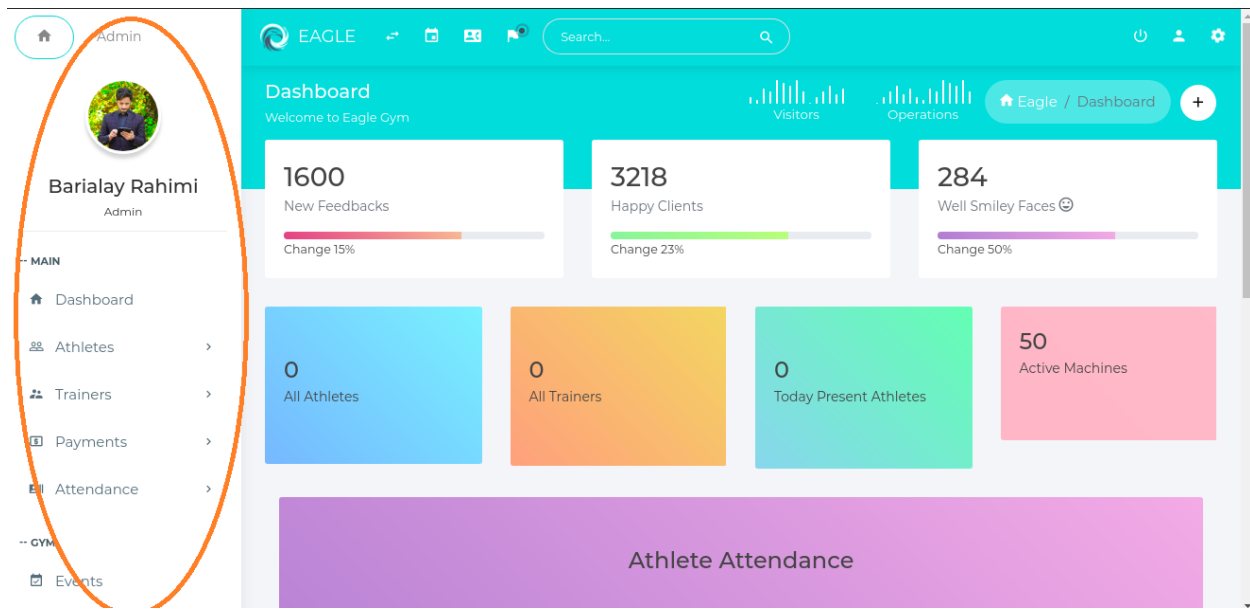
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Figure 3.2.2.1.9: Full view of Admin Menu-Bar

To manage website admin use another menu-bar, which gives him some option that can do many thing, here is some demos in the MIS.
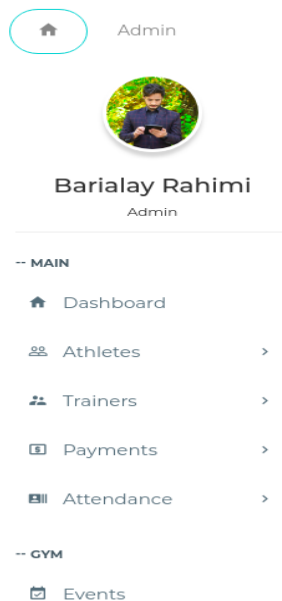

Figure 3.2.2.1.10: Admin Menu in after login

Figure 3.2.2.1.10 show the usage of Admin Menu Option in the Admin menu-bar, give the admins the options of watch Dashboard, see Athletes list and manage them, see trainers list and add or delete new ones and see payments in the website and admin can add new events in the website to show it to visitors. These Links does the different jobs. Here we describe, the Dashboard in the Admin menu shown in figure 3.2.2.1.11.
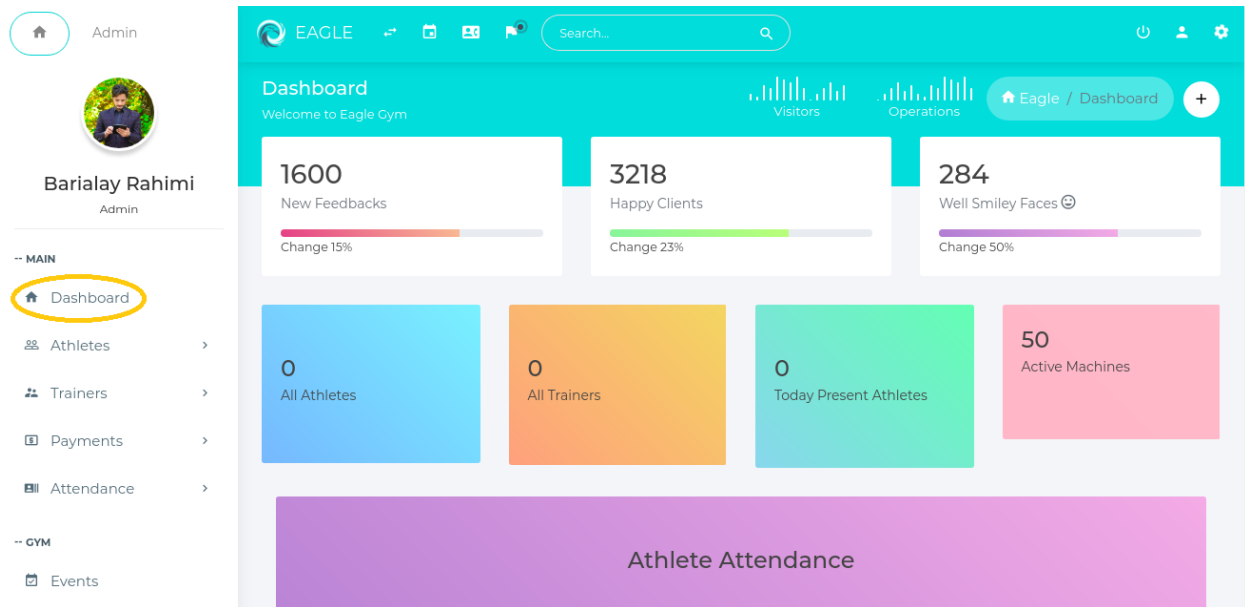
Figure 3.2.2.1.11: Dashboard shown in Admin menu

The Dashboard link in the Admin menu bar shown the shown in the figure 3.2.2.1.11 show information about the websites performance and people feedback and the visitors of the website and also the satisfaction of client in in different patterns such as above which show new feedbacks and happy clients and well smiley faces. And this Dashboard also show number of Athletes, all Trainers, Todays present Athletes and also about Active Machines in the gym.

We also have another information about Athletes Attendance in the gym with the pattern of Athletes Attendance pattern.
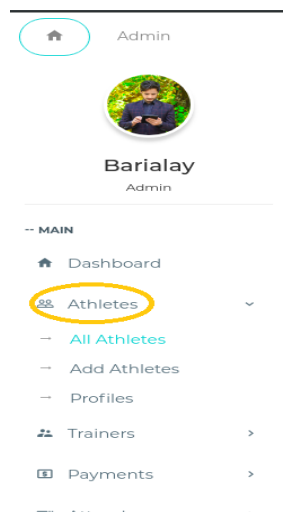

Figure 3.2.2.1.12: Athletes Option in Admin Menu

In the Athletes link on the Admin Menu the admin can see the list Athletes or add new athlete in the database of he or she can delete or edit information about athletes or send them specific workout plan or diet plans. In this option of the admin menu bar the athlete link has a caret which show it has its own

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options in admin menu. Options such as show in figure 3.2.2.1.12 are All Athletes option which by clicking in that option the admins can see the list of registered Athletes shown in the Figure 3.2.2.1.13 in system and the option of Add Athletes which by clicking in that option Admins can add new Athletes from to website and its database shown in the Figure 3.2.2.1.14. And the last option in caret of our Athletes link in the Admin Menu bar we see Profile option link which is used by the admins to see the profile and information of Athletes shown in Figure 3.2.2.1.15.

Figure 3.2.2.1.13 show the list of Registered Athletes

Figure 3.2.2.1.14 show how to add new Athletes in the system

Figure 3.2.2.1.15 shows the profiles of registered Athletes

The Trainer link in the Admin Menu bar gives as some information about the registered trainer in the database of our website. Shown in figure 3.2.2.1.16
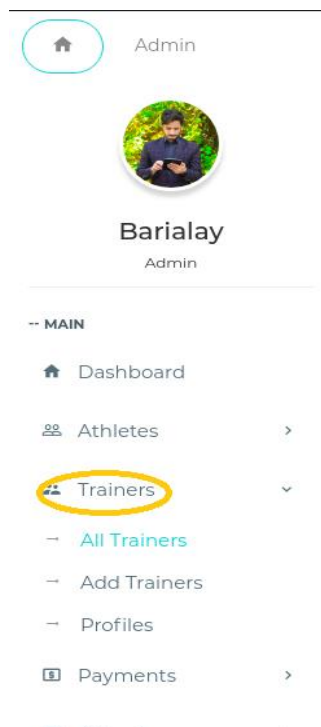
Figure 3.2.2.1.16: Trainer Option Admin Menu

In the Trainers link of our Admin Menu Bar admins can see list of trainer which are registered, add new trainers or see the trainer's profiles, which in the Trainer link caret after clicking in that we see some option link such as All Trainers, Add Trainers and Profile. Whi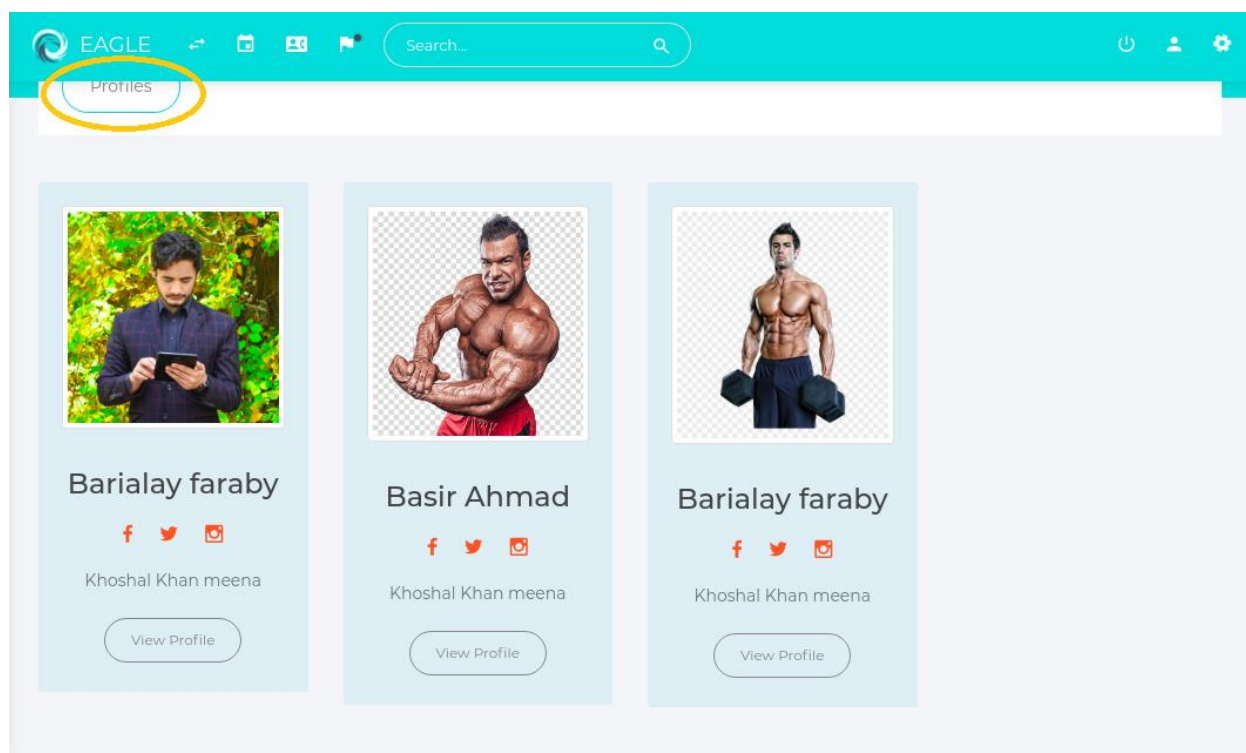ch by choosing the All Trainers option link, the admin can see list of trainers who are registered in the website's database and edit about them shown in the figure 3.2.2.1.17, in the Add Trainers option link in the caret list of Trainers in Admin's menu, admin can add new trainer with their information in website shown in the figure 3.2.2.1.18 and at the option link we can see the Profile option link which is used by the Admins to see the profile information of Registered admins in our website's database.

The Admin Menu contains some more link which by usage of those link admins can monitor the website and make changes to its contains, and add new ads and plans and events.

In our Admin website we have the Payment Option link too, which is used for websites financial raise by the its users when they buy something from the website such as workout plan with dieting plan and gym fee and supplements which are sold by the gym to them, it is all going to be in there, and all that information can be viewed only by Admin who own the website. Here the payment option is shown in the figure 3.2.2.1.14.
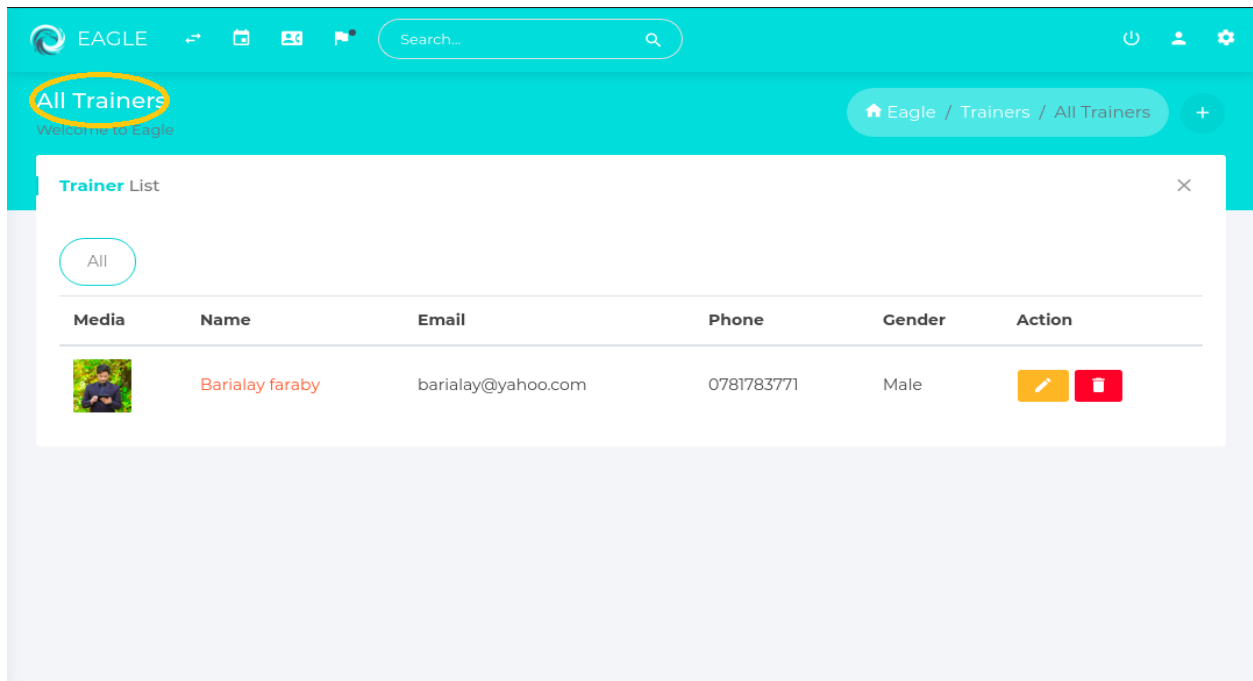
Figure 3.2.2.1.17 showing All Trainer which contains list of Trainers

In this page admins can see the information such as Image, Name, Email, Phone, Gender of the trainers and also can delete or edit information about them.
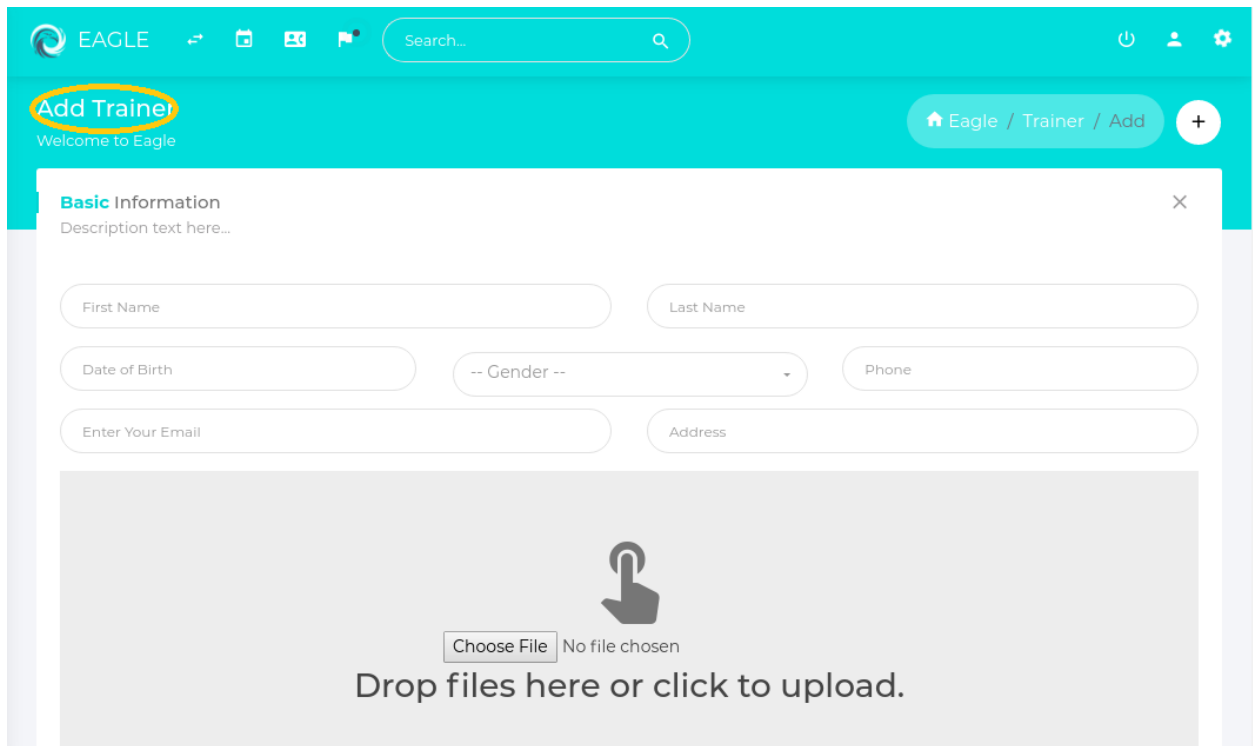
Figure 3.2.2.1.18: showing How to add new Trainers in website

To add new trainers in the list the admin has to add that information in the blank spaces of the page, such as First Name, Last Name, Date Of Birth, gender, phone, Email and the trainers Address. And his file of documents to be stored in database of gym's website.
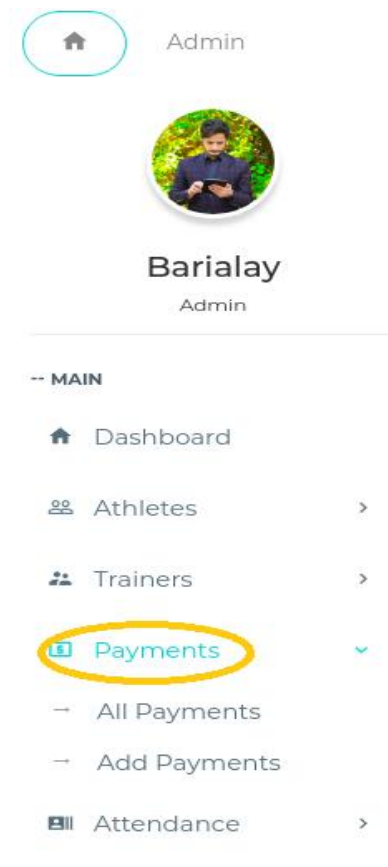
Figure 3.2.2.1.19: show the payment's link

Here we have Payment link option in our Admins menu bar which is used by admin to see the money payments by students. Its caret has two other option linked with the context of All Payments which show the list of payment shown in the Figure 3.2.2.1.20. and Add Payment is used for new payment shown in the Figure 3.2.2.1.21.
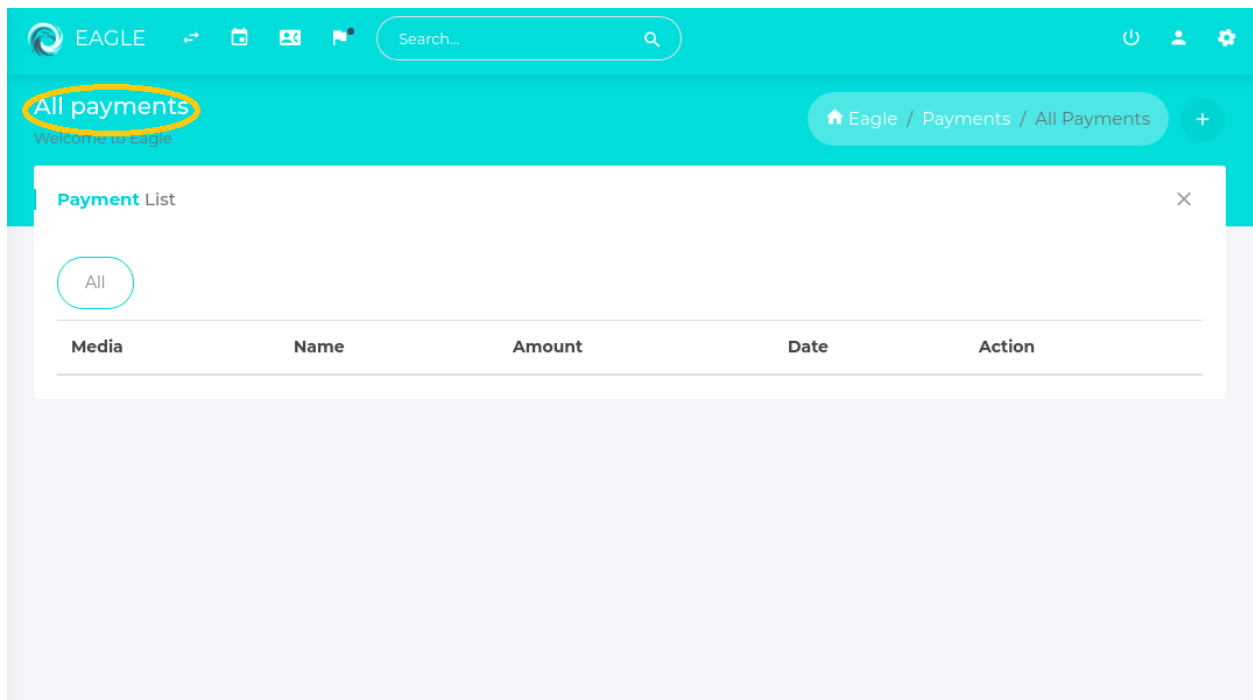
Figure 3.2.2.1.20: shows All Payments list
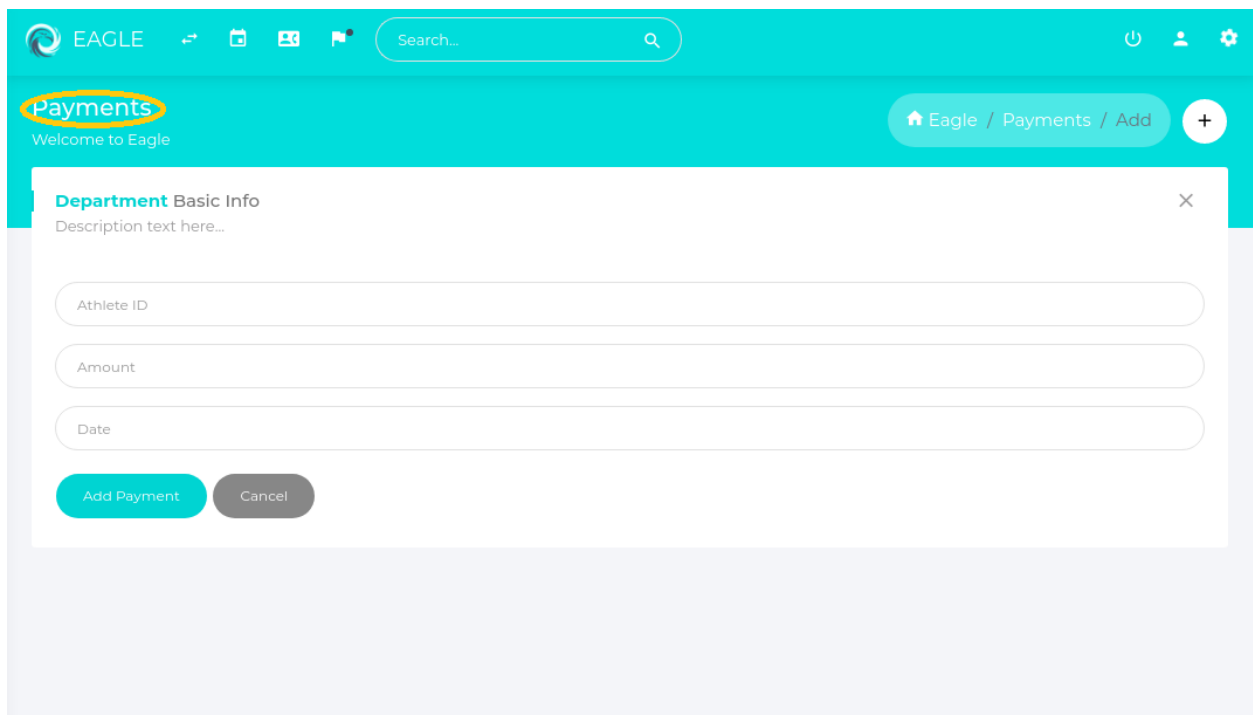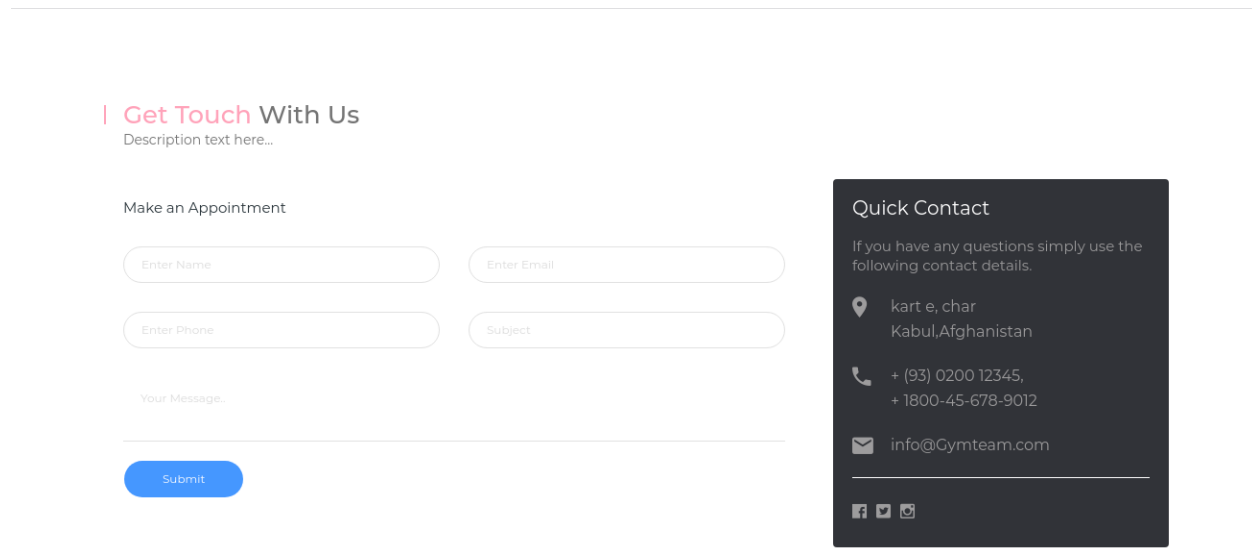
Figure 3.2.2.1.21: shows How Payments are done.

In this figure 3.2.2.1.20 the role of payment is done by the admins the pay is done by Athletes ID, and Amount of Money he or she is going to pay and the date of payment done by him.
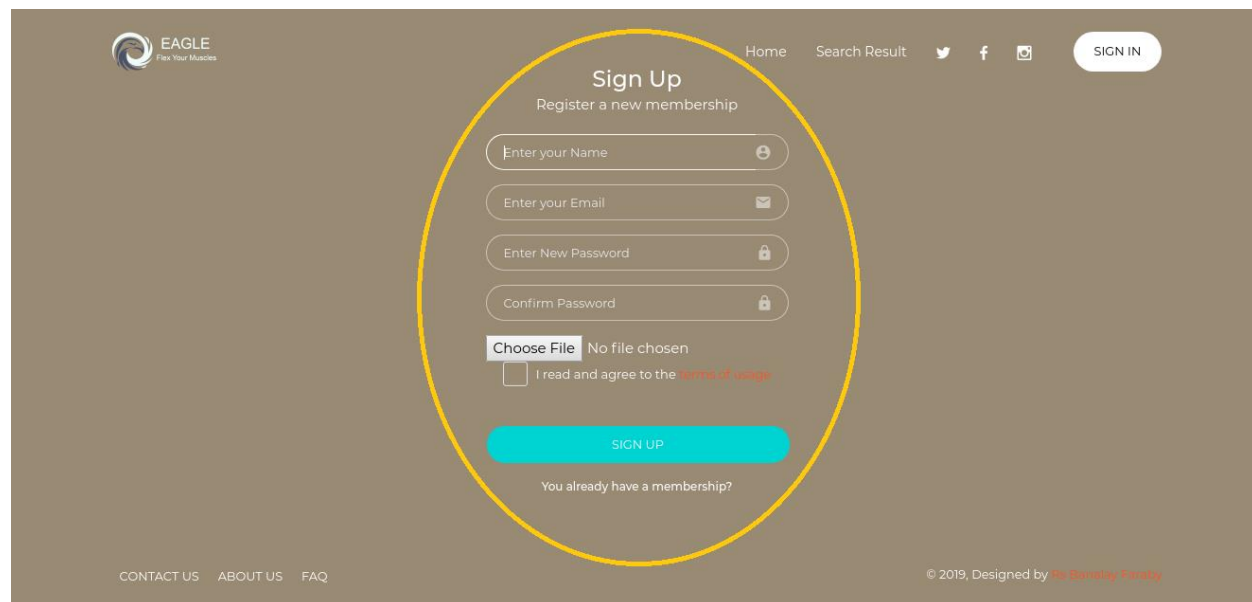
The contact as option has the following pattern in our website shown in figure 3.2.2.1.21

Figure 3.2.2.1.22: shows contact pattern

Here is our websites sign up form shown in figure 3.2.2.1.23 which how athletes and trainer can register to our website and use its contents.

Figure 3.2.2.1.23: showing how can visitor register

Here in this figure the roles of registration is shown to sign up for gym membership you must enter you name, email, choose a password and confirm your password set your picture agree to our terms and click the sign up button.

There is a lot of interface content that it is not appropriate and can't be covered in the thesis.

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3.2.2.2 Database (Back-end)

The most important part our project is its Database (Back-end), which make the function of our project. The database, which is the storage of our important materials and the information of our admins, trainers, athletes, workout plans, post, supplement information exist in it, which can be accessed by user in the interaction of client application and server application.

We have created a relational database with name of Eagles that has sixteen table with the names of athletes, departments, attendance, events, payments, users, blogs, password_reset, migration, failed_jobs, advertisements. And stores different types of data.

In this part of our chapter, we are going to introduce the model of our back-end and it core component with the EER-model of our database. All the primary key, foreign keys, and relationships of table in our database will be covered in this section.

The enhanced entity–relationship (EER) model (or extended entity–relationship model) in computer science is a high-level or conceptual data model incorporating extensions to the original entity–relationship (ER) model, used in the design of databases.

We going to talk about all the tables that exist in our database and shown in figure 3.2.2.2.1, which are the main component of our database and cause the need functionality of our system. Here is a view of our database model in the form of EER-model (Enhance Entity Relationship). Shown in figure 3.2.2.2.1

model_has_roles
- 🔑 role_id BIGINT(20)
- 🔑 model_type VARCHAR(255)
- 🔑 model_id BIGINT(20)
- Indexes ▶

permissions
- 🔑 id BIGINT(20)
- ◇ name VARCHAR(255)
- ◇ guard_name VARCHAR(255)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

role_has_permissions
- 🔑 permission_id BIGINT(20)
- 🔑 role_id BIGINT(20)
- Indexes ▶

model_has_permissions
- 🔑 permission_id BIGINT(20)
- 🔑 model_type VARCHAR(255)
- 🔑 model_id BIGINT(20)
- Indexes ▶

roles
- 🔑 id BIGINT(20)
- ◇ name VARCHAR(255)
- ◇ guard_name VARCHAR(255)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

attendances
- 🔑 id BIGINT(20)
- ◇ athlete_id INT(10)
- ◇ stutes TINYINT(4)
- ◇ a_date VARCHAR(255)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

events
- 🔑 id BIGINT(20)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

migrations
- 🔑 id INT(10)
- ◇ migration VARCHAR(255)
- ◇ batch INT(11)
- Indexes ▶

departments
- 🔑 id BIGINT(20)
- ◇ name VARCHAR(255)
- ◇ description VARCHAR(255)
- ◇ image VARCHAR(255)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

athletes
- 🔑 id BIGINT(20)
- ◇ department_id INT(10)
- ◇ firstname VARCHAR(255)
- ◇ lastname VARCHAR(255)
- ◇ phone VARCHAR(255)
- ◇ gender TINYINT(4)
- ◇ image VARCHAR(255)
- ◇ age INT(11)
- ◇ address TEXT
- ◇ time VARCHAR(255)
- ◇ a_date VARCHAR(255)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

payments
- 🔑 id BIGINT(20)
- ◇ athlete_id INT(10)
- ◇ amount INT(11)
- ◇ reg_date VARCHAR(255)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

users
- 🔑 id BIGINT(20)
- ◇ name VARCHAR(255)
- ◇ email VARCHAR(255)
- ◇ email_verified_at TIMESTAMP
- ◇ password VARCHAR(255)
- ◇ image VARCHAR(255)
- ◇ remember_token VARCHAR(100)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

failed_jobs
- 🔑 id BIGINT(20)
- ◇ connection TEXT
- ◇ queue TEXT
- ◇ payload LONGTEXT
- ◇ exception LONGTEXT
- ◇ failed_at TIMESTAMP
- Indexes ▶

blogs
- 🔑 id BIGINT(20)
- ◇ title VARCHAR(255)
- ◇ description LONGTEXT
- ◇ image VARCHAR(255)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

password_resets
- ◇ email VARCHAR(255)
- ◇ token VARCHAR(255)
- ◇ created_at TIMESTAMP
- Indexes ▶

advertisments
- 🔑 id BIGINT(20)
- ◇ name VARCHAR(255)
- ◇ prize INT(11)
- ◇ phone VARCHAR(255)
- ◇ company VARCHAR(255)
- ◇ image VARCHAR(255)
- ◇ created_at TIMESTAMP
- ◇ updated_at TIMESTAMP
- Indexes ▶

Figure 3.2.2.2.1: EER diagram of our database

Figure 3.2.2.2.2: Athletes Table

The athletes table in our database is used to store information about our athletes in contain of id which plays the primary key role in our table and it use datatype of BIGINT with 20 character in, and the department_id which store the id of selected department in our database has datatype from the VARCHAR type and it can contain 255 characters in next we have firstname,lastname variable with the datatype of VARCHAR both can contain 255 characters in them, phone variable is VARCHAR datatype and can store 255 character in it, and we have gender which is TINYINT datatype and store only 4 characters and we have image variable which stores 255 characters files in it and age variable which is INT datatype and stores 11 character in them, address TEXT datatyped and stores the athletes addresses in them. And time variable stores date of athletes sign up which 255 characters and we have a_date variable which has VARCHAR datatype and can store 255 characters and is used to register athletes date of register in the gym.

Figure 3.2.2.2.3 Department Table

The departments table in Ealge.sql database is used to store different field of body building description in it. Such as each department has id in our table which is primary key and its variable has BIGINT datatype and

can contain 20 character only, name variable in the departments table is used to store the name of department in the database which has VARCHAR datatype and can get 255 characters in it. We have description variable which is used to store information about departments it has 255 characters' space, the image variable is VARCHAR datatype and can have 255 characters. These table have time stamps too, to store the time of the department's creation and these all are shown in the figure 3.2.2.2.3 above.
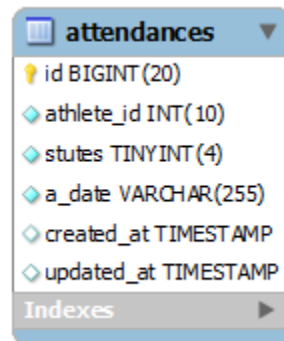

Figure 3.2.2.2.4 shows attendances table of athletes

This table is use to keep the track of athlete's workouts attendance plan. It contains of id variable that is the primary key of our table with BIGINT datatype that can only contain 20 character, and we have athlete_id which is a foreign key in our table this variable contains 10 character only and its datatype is INT, and we have states variable in our table which stores the presence of absence of athletes in the database it uses TINYINT datatype and contains only 4 characters, a_date variable contains 255 characters and has VARCHAR datatype it store the date of presence or absence in the database.
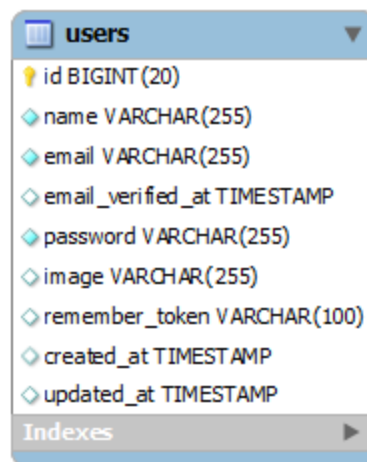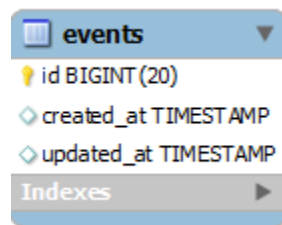
Figure 3.2.2.2.5 shows the users(admin) table

This table is used to store our admins in the database, that has and id that can't have more than 20 characters with the BIGINT datatype, name variable has the VARCHAR datatype and stores up to 255 characters, email has VARCHAR datatype and can't store more than 255 characters in it. And we have email_verfied_at which TIMESTAMP state used to verify emails. The password has VARCHAR datatype in it and can store 255 characters in and image variable is used to store files in the user table stores only 255

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characters and remember_token is another variable with VARCHAR datatype which contains only 100 characters in it and in this table we also have created_at TIMESTAMP and updated_at TIMESTAMP.

Figure 3.2.2.2.6 table of events in the database

Table event is used to store the new data about event that are going to happen in the gym, each event has an id with BIGINT datatype with 20 character, and also it has two time stamps one is for event creation under the variable name of created_at TIMESTAMP and updated_at TIMESTAMP.

Figure 3.2.2.2.7 showing the table of posts

In the advertisements table we store new supplement information and show it to our websites visitors as new posts, this table consist of many attributes such as each po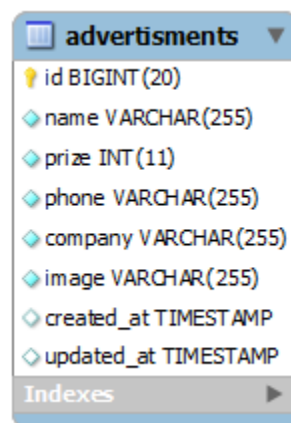st in our advertisement table has its own id with BIGINT datatype that contains 20 characters, each post has its own name with datatype of VARCHAR and has 255 characters space it, each product in the advertisement has a price in it and the price is stored in price variable which has INT datatype and can only have 11 characters in it, and each advertisement has a phone number if someone want to buy can call, phone variable is 255 characters and its datatype is VARCAHR, each product that has advertisement has company name it stored in company variable that has VARCHAR datatype that can store only 255 character. We also store its image to show it in our website in a variable with the name of image with datatype of VARCHAR with 255 characters. This table also contains TIMESTAMPs.

Figure 3.2.2.2.8 table of payments in the database

This table is used to store the payment done by athletes to the gym, this tables has some important variable like each payment has an id with 20 characters of storage with BIGINT datatype, athlete_id is a foreign key variable in this table is used to store the athletes id who has done his or her payment and this variable has INT datatype with capacity of 10 character only, we have variable which also stores amount of money that an athlete is paying as its payment to the gym weather it is gym's fee or workout plans money in amount variable with the datatype of INT and character space of 11, reg_date is a variable which store date of payment in it and is VARCHAR datatype with 255 character restriction, and this table also variables such as created_at TIMESTAMP and updated_at TIMESTAMP to store dates of each payment's creation.

There is a lot of other table in our database with different types of relationships that we can discus about but it is inappropriate to talk about it in this thesis.

3.2.2.3   Loader

The default books loader exists in the interface of the website, whenever someone visits the Gym Management System the loader of the system has the task of showing some books as extra option that user weather chooses or goes to search-box if the needed material was not there. And not only books but new technology posts are also shown in our website's home page.

3.2.2.4   Default book loader

The default books loader has the job of keeping records of visitor, that if a visitor with the same cookie visits the website, the books that were shown by default must change. That we have used an athematic algorithm for that, which makes our work very easy.

Chapter 4

Implementation

In this chapter we are going to talk about phases and material of developing Gym Management System.

4.1   Implementation environment

Implementation environment is all about the programming language that we use for developing and tools and material that we use, and also the client application and server application implementation.

4.1.1   Programming language

We use the most common but efficient programming languages to develop our website (Eagle Gym), which not only show a better perfection but very safe with high scalability potential. We used different programming languages for different parts of our website (Eagle Gym). For the server application of our system we used PHP and some framework of PHP, which is Laravel. The reason of choosing PHP is its advantages of being a platform independent, server-side scripting language that is well compatible with Apache and MySQL. Because we want to provide the users with a complete workout information, a client application with an interface containing the functionality and appearance of an authentic supplements needs to be implemented. For the Interface (Front-end) with through client application it is going to interact with the server application and database of our system, we used HTML5 for the structure of our page and CSS for the design and coloring of our page, bootstrap for responsiveness of our interface JAVASCRIPT and JQUERY for good interaction of content of our interface and good communication with database. We used MySQL for the Database (Back-end) of our website. We choose MySQL because it is free and very good for querying data in a database. [Schafer, S. M. 2007]

4.1.2   Client application

The client application, which is a communication between the Interface and database through server application. Through interface the user connects to the client application and it is the job of client application to connect user to server application and from there services is provided.

Workout plan and diet with supplement usage and information list are all divide with the reference of the departments or fields of body building sport that they belong to in the client application the querying of efficient loading is done, whenever someone visits the website (Eagle Gym), the interface connect to server application through client application.

4.1.3 Server application

The implementation of the server application differs from the client application in that all filtering approaches are integrated into one application. When the server application, that is located in *connection.php,* receives a request from the client application, the server interprets the variables and acts accordingly. The variables will now be explained.

Links in the both visitor menu-bar and admin menu-bar is used to request needed material from the Database.

Chapter 5

Evaluation

In this chapter we are going to talk about the all functionalities work and their adequate to the system.

5.1   Functional evaluation

All the functional requirement of our system from the client application to server application requirements of our Website (Eagle Gym) works as expected. In the interface, which was divided to visitor interface and admins interface functions as expected. Visitors can download workout sessions, supplement information and ask for workout plans or diet plans and have information about new post of technologies. The workout options for visitor are done. Trainers can put their new exercise plans for the athletes working under their supervision, which was a very important function in our system works properly. Athletes can see the new post and information about supplements very easy.

The admin functionality works correct and we run so many test and we checked it by other users in order to test that if there was any kind of problem with our system.

Admins can Add new trainer, see trainer list or edit the information about trainer and also athletes, see the payment and all the information about athletes and trainers and add new event and add new post about supplements in the website, can check the messages send by athletes and also see the workout plan request and add new admins or delete the previous admins from the system.

Admins can approve the workout plan uploaded by trainer, and also can register trainers in the system. And admins approve the achievements of athletes. Upload the new posts about new technologies and body building supplements.

Diet plans, supplement information, posts and achievements can be downloaded, edited, deleted. Admins can see the list of trainer, posts, athletes, workout plans existed in the system, and also the list of trainer and post in the system and can delete them or edit them or upload new once in the system.

5.2   Non-functional evaluations

All the functionalities that does not have to do anything with the view of the system is called Non-functional such as security, accuracy and scalability etc.

The functionality that has direct effect on the website are all covered in our project, the smallest point that have negative affect is highly reduced.

5.2.1   Security

Security is the most important aspect of our project that we should carry it out very carefully, because if a web project not secure it cause to failure of it.

Security, as part of the software development process, is an ongoing process involving people and practices, and ensures application confidentiality, integrity, and availability.

We have use encryption in our password setter and because we use MySQL for making our database, we have set a code, which insures as that no MySQL syntax will be used in search-box of our website or URL search path.

Every workout plan, supplement information and diet plan that is put by trainer in the website will be checked by admins and every achievement of the trainer and new market supplement that is put by the trainer will be checked and if it is good to go, the green signal will be shown by admin to upload it in the website. The passwords are encrypted by the system and excellent measurement have been done on it.

5.2.2   Accuracy

Our Website (Eagle Gym) is a functional website and does it job perfectly. All the functionalities work properly and it has a fascinating accuracy in the matter of performance the diet plan, supplement information, trainer's achievements and posts about technologies works perfect and all upload at the best speed needed and its view is also fast.

However, the speed of internet does matter in the loading response of our website, it means if the internet speed is low, we can't put the blame at the website.

We have done checking of our website in the matter of downloading, uploading and viewing of materials online and offline, and the internet speed does matters.

5.2.3   Availability

  In the matter of resource availability our website is very convenient and rich, which in this website (Eagle Gym) we provide all the educational materials needed by the Athletes such as Workout plans, Diet plans, Supplement information and supplement usage.

Athletes can request for workout plans or supplement that they need at their daily workout and can download it very easy. The speed of website (Eagle Gym) is the matter of speed of internet that we are using. Even due Athlete can send messages to the admins for rating the website.

Workout plans, Diet plans and post are all available in our website and they are all precise and correct. The workout plans are maintained and gained the best rating. Each exercise has its own type of department and these department uses different types of workout to use in case of teaching, all of plan are registered in our database with the context of its department and they are all reliable and available.

Chapter 6

Conclusion

In this chapter we will speak about where we have gone? And what is the conclusion of our thesis.

6.1　Achievement

We have made a very reliable and very efficient website (Eagle Gym), where Athletes can find their educational material for being an educated athlete who know how to train and eat well, especially the Athletes who are new in the gym. Material such as workout plans, diet plans, supplement information and its usage. We have given Eagle Gym a complete Gym Management System for essence of theirs and Athletes who work out in their gym every day. This website is also a great help no only to athletes but Trainer who put their workout plan for their student.

6.2　Future work

After hosting our website (Eagle Gym), we hand it over to our fellow Gym Owner and register them as Super Admins who controls the website? And every month they will provide it more functionally and more workout plans to help our fellow athletes.

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