CHAPTER 1

INTRODUCTION

1.1 PREAMBLE

Web development refers to the tasks associated with developing websites for hosting via intranet or internet. The web development process includes web design, web content development, client-side/server-side scripting and network security configuration, among other tasks.

This is a website which provide all information about the Royal gym. Royal gym is a gym which is looking for its publicity and a website was created to provide its customers with a power to know about the gym. This website provides complete description about the gym's programs, trainees, membership details as well.

There is a login system where already existing customer can use proper credential to login to their dashboard. New customers can create new account by registering with proper details. Membership can be opted using this website and complete the payment through online only.

When the site is loaded, index.html page will be displayed and used to navigate to other pages using the menu. There is a footer available where all the fast navigation is possible.

1.2 PROBLEM STATEMENT

Gym owner find it difficult to have a trace of customers visiting the gym and have an issue in managing the fee payment, since the owner of the gym will not be available all the time. It is hard to make the public know about the gym without any proper description about the gym and many will not be aware of the program that the gym is providing.

1.3 PROPOSED SOLUTION

The purpose of this source is to describe the advantages of having a website regrading gym. Owner can keep track of number of customers every month without reaching the gym personally. All the payment can be done online, so the money will be reached to the right person on the right time.

1) This website has a simple UI.
2) Proper credential is required to login to the respective customer's dashboard.
3) This database provides security. (i.e., only the administrator can read and write the information into the database).
4) Proper response will be given to the customer's message in a short time.
5) Customers can opt for membership online with online payment verification.

CHAPTER 2

REQUIREMENT ANALYSIS

2.1 LITERATURE SURVEY

Requirement analysis is a process of gathering and interpreting facts, diagnosing problems and the information to recommend improvements on the system. Requirement analysis is concerned with becoming aware of the problem, identifying the relevant and decisional variables, analysing and synthesizing the various factors and determining an optimal or at least a satisfactory solution or program of action.

Manually maintaining a database of all the members in the gym is not an easy task. So, this system creates a database and stores the data of all the members of the gym in the database.

Advantages

- This system facilitates data storage, data maintenance and its retrieval for the gym in an igneous way.
- This system allows its members to view their details and information regarding their membership and payments.
- Payment is secured, and database is maintained properly.

Existing System

In the existing system, the exams are done only manually. But in the proposed system, the exams are computerized using this application.

- Lack of security of data.
- More man powers.
- Manual data entry.
- Time consuming.
- Consumes large volume of pare work.

Proposed System

The aim of proposed system is to develop a system of improved facilities. The proposed system can overcome all the limitations of the existing system.

- Security of data.
- Ensure data accuracy.
- Minimize manual data entry.
- Minimum time required.
- Greater efficiency.
- Reduce data redundancy.

CHAPTER 3

SOFTWARE REQUIREMENT SPECIFICATION

SOFTWARE REQUIREMENTS:

Operating System : Windows 10

Front End : HTML, CSS, JAVASCRIPT, PHP

Back End : MySQL

Technology : Xampp Server (v 3.2.2)

HARDWARE REQUIREMENTS:

Processor : Intel Core i5

Processor speed : 3.10 GHz

RAM : 8 GB

Hard Disk : 1 TB

System type : 64-bit Operating System

CHAPTER 4

ANALYSIS AND DESIGN

4.1 PRELIMINARY DESIGN

Preliminary design is basically concerned with deriving an overall picture of the system. Deriving entire system into modules and sub-modules while keeping cohesion and coupling factors in mind. Tools which assist in preliminary design process are Data flow diagrams.

4.1.1 ER DIAGRAM

The ER model describes data as entities, relationships and attributes. The basic object that the ER model represents is an entity, which is a thing in the real world with an independent existence.

Entity type: Database contains group of entities that are similar.

Entity Set: Collection of all entities of a particular entity type.

An Entity type has an attribute whose values are distinct for each individual entity in the entity set and its value can be used to identify each entity uniquely, called as key attributes of an entity type.

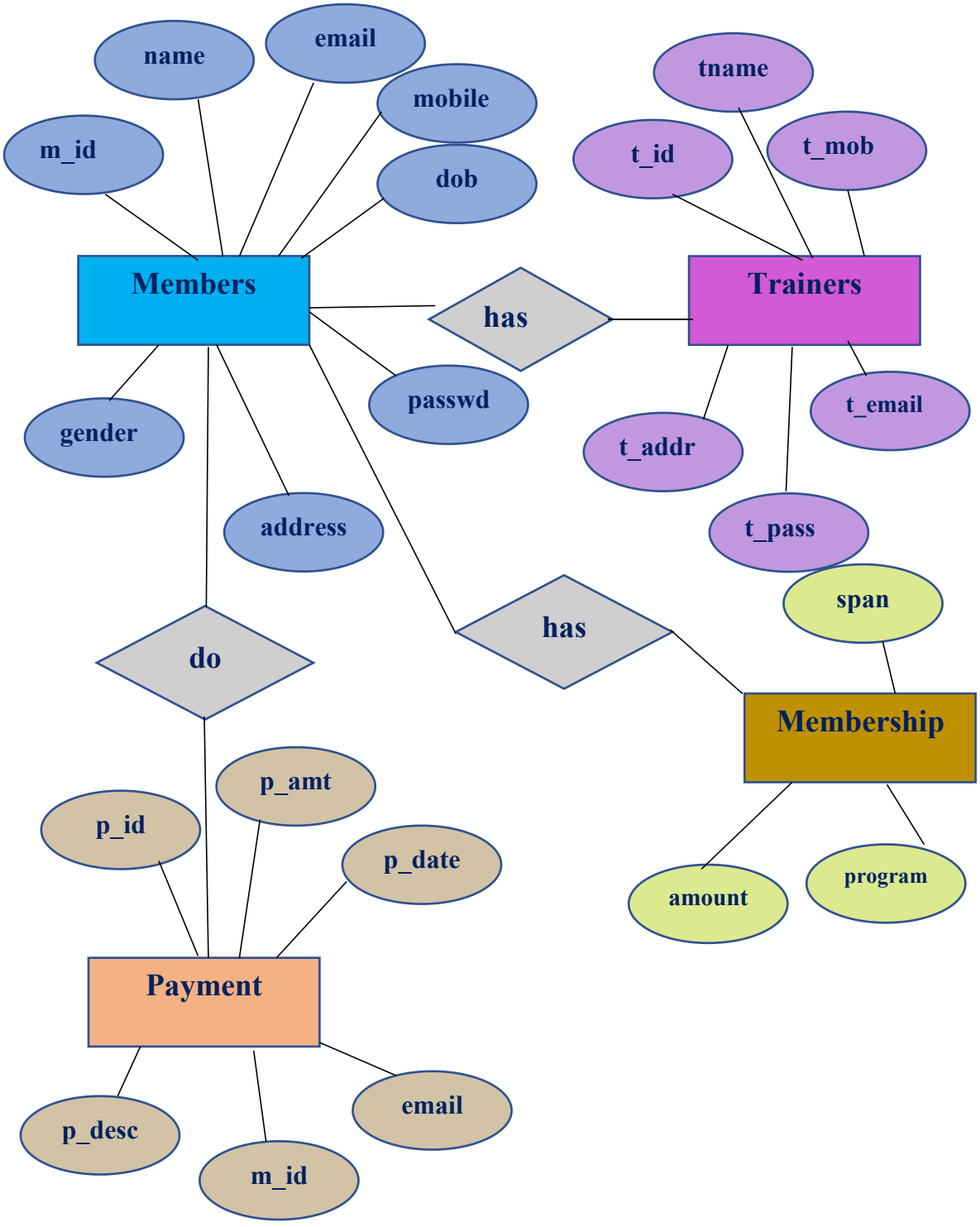

Figure 4.1: ER Diagram for Gym Management System

4.1.2 SCHEMA DIAGRAM

The schema diagram formulates all the constraints that are applied on the data. A database schema defines its entities and the relationship among them. It contains a descriptive detail of the database, which can be depicted by means of schema diagram.

Candidate Key:

The minimal set of attributes which can uniquely identify a tuple is known as candidate key. The value of the Candidate Key is unique and not-null for every tuple.

Super Key:

The set of attributes which can uniquely identify a tuple is known as super key. Adding zero or more attributes to candidate key generates super key.

Primary Key:

There can be more than one candidate key in a relation out of which one can be chosen as primary key.

Foreign Key:

If an attribute can only take the values which are present values of some other attributes, it will be foreign key to the attributes to which it refers.

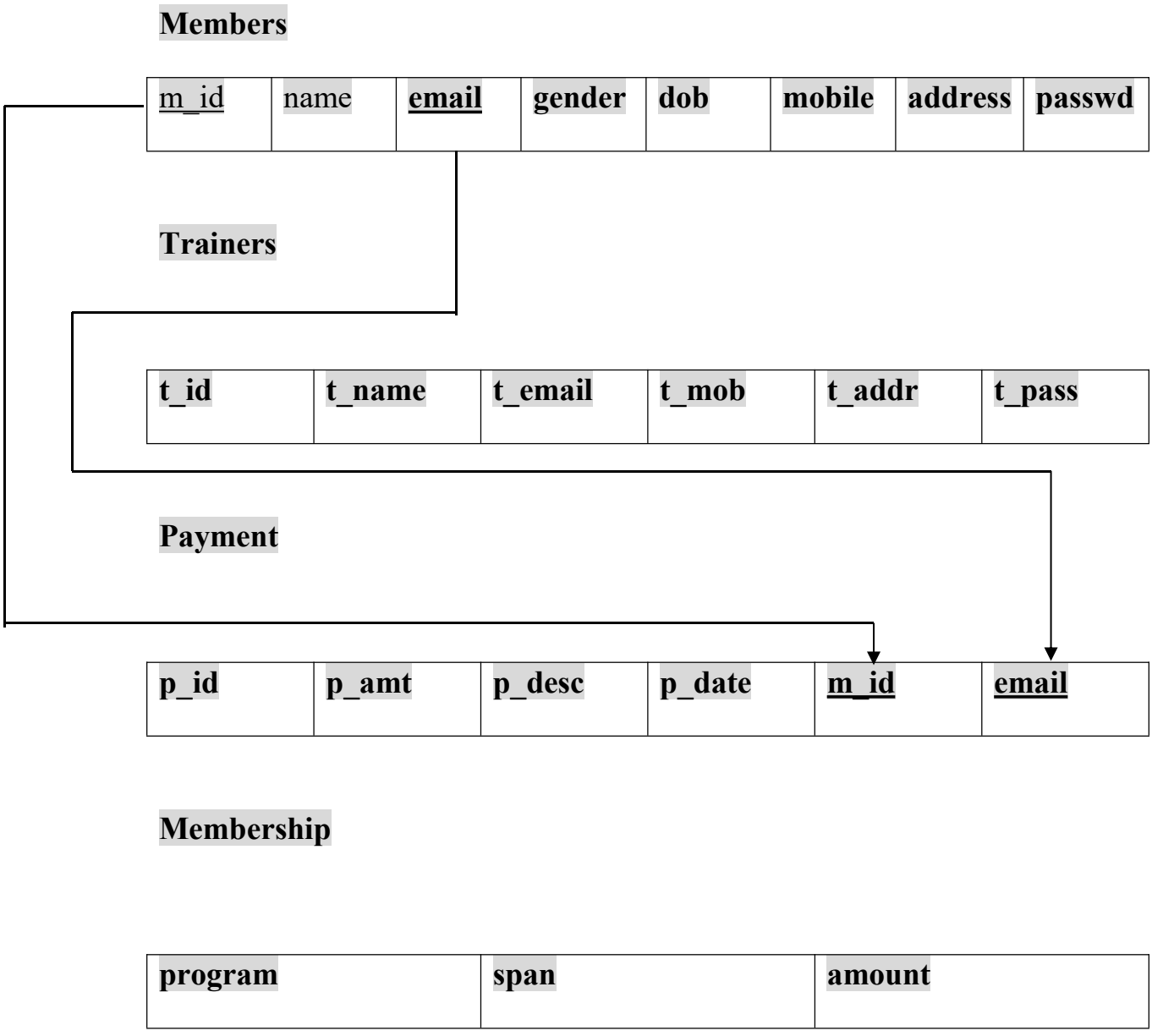

Figure 4.2: Schema diagram of Gym Management System

CHAPTER 5

IMPLEMENTATION

5.1 INTRODUCTION

This project deals with designing and implementing a system for handling the information of the gym members and their membership and payment. It also handles the information of the gym trainers. The gym manager manages all the activities of this system. The gym manager also manages the membership plans of the gym.

The process flow implemented is as follows:

- The gym manager has the control over everything. He has all the authority to delete, update and add details of the gym member.
- Any person can register to the gym by updating his/her details in the registration page of the system.
- He/she can create their own login id and password for further use.
- He/she can login to the system using his/her login id and password to see his/her details and can request the gym manager to update or delete their details by dropping a mail.
- The gym member can see the available membership plans in the membership page by logging into the system.
- The home page contains the slides of all the pages, which are individually created.
- The programs page contains all the programs and activities that the gym is providing.
- The trainers page contains the information of all the trainers in the gym.
- The membership page contains the details of all the plans with its fees and timespan.
- The gym member can see the details of any page by logging into the system.

TECHNICAL ASPECTS

The application was developed using the WAMP approach, i.e. Windows, Apache, MySQL and HTML, JAVASCRIPT, PHP.

HTML

HTML is a standard markup language for creating web pages.HTML stands for hyper text markup language it is the building blocks of html pages.html element presented by tags.html is the label pieces of contents such as “heading”, ”paragraph”, ”table” and so on.

CSS

Cascading style sheet is a style sheet language used for describing the presentation of a document written in a markup language like HTML.css includes colors, layout, fonts.

JAVASCRIPT

JavaScript is a lightweight, interpreted programming language.it is designed for creating network-centric applicaions.it is complimentary to and integrated with java. JavaScript is very easy to implement because it is integrated with html .it is open and cross-platform.

WINDOWS

The project was developed in a Windows environment using XAMPP

PHP

PHP is a widely-used general-purpose scripting language that is especially suited for Web development and can be embedded into HTML. All server-side code was written in php [1].

APACHE

The web server used is Apache with the php plug in. Apache is a very reliable web server on both

MySQL

The database system used is MySQL which is an open source RDBMS. It is very light and highly functional. Also, with php and MySQL being used together very frequently a lot of online support was available.

CHAPTER 6

TESTING

This chapter gives the outline of all the testing methods that are carried out to get a bug free application. Quality can be achieved by testing the product using different techniques at different phases of the project development.

6.1 Introduction

Testing is an integral part of software development. Testing process, in a way certifies, whether the product, that is developed, compiles with the standards, that it was designed to. Testing process involves building of test cases, against which, the product has to be tested. In some cases, test cases are done based on the system requirements specified for the product/software, which is to be developed.

The main objectives of testing process are as follows:

- Testing is a process of executing a program with the intent of finding an error.
- A good test case is one that has high probability of finding a yet undiscovered error.
- A successful test is one that uncovers a yet undiscovered error.

Testing is vital for the success of any software. No system design is ever perfect. Testing is also carried in two phases. First phase is during the software engineering that is during the module creation. Second phase is after the completion of software. This is system testing which verifies that the whole set of programs hanged together.

WHITE BOX TESTING

In this technique, the close examinations of the logical parts through the software are tested by cases that exercise species sets of conditions or loops. All logical parts of the software checked once. Errors that can be corrected using this technique are typographical errors, logical expressions which should be executed once may be getting executed more than once and error resulting by using wrong controls and loops. When the box testing tests all the independent part within a module a logical decision on their true

and the false side are exercised, all loops and bounds within their operational bounds were exercised and the internal data structure to ensure their validity were exercised once.

BLACK BOX TESING

This method enables the software engineer to device sets of input techniques that fully exercise all functional requirements for a program. Black box testing tests the input, the output and the external data. It checks whether the input data is correct and whether we are getting the desired output.

ALPHA TESTING

Acceptance testing is also sometimes called alpha testing. Be spoke systems, are developed for a single customer. The alpha testing proceeds until the system developer and the customer agree that the provide system is an acceptable implementation of the system requirements.

BETA TESING

On the other hand, when a system is to be marked as a software product, another process called beta testing is often conducted. During beta testing, a system is delivered among a number of potential users who agree to use it, the customers then report problems to the developers. This provides the product for real use and detects errors which may not been anticipated by the system developers.

UNIT TESTING

Each module is considered independently. It focuses on each unit of software as implemented in the source code. It is white box testing.

INTEGRATION TESTING

Integration testing aims at constructing the program structure while at the same constructing tests to uncover associated with interfacing the modules. Modules are integrated by using the top down approach.

VALIDATION TESTING

Validation testing was performed to ensure that all the functional and performance requirements are met.

SYSTEM TESTING

It is executing programs to check logical chances made in it with intention of finding errors. A system is tested for on line response, volume of transaction, recovery from failure etc. System testing is done to ensure that the system satisfies all the user requirements.

6.2 TEST CASES

Table 6.1:

Name:				
NO	TEST CONDITION	EXPECTED RESULT	ACTUAL OUTPUT	STATUS
TEST 1	Click on submit button without user name and password.	System does not allow the member to login.	System displays message and resume to the same page.	pass
TEST 2	Click on submit button with invalid user name or password.	Message "please enter username or password_	As expected.	pass
Test 3	Click on submit button with correct username and password	System allow user to login.	System allow user to access application based on right given to him.	pass

CONCLUSION AND FUTURE ENHANCEMENT

CONCLUSION

The main objective of this project was to build a program for maintaining the details of all the members of the gym, their membership and their payments and trainees' details as well. The system developed can meet all the basic requirements. The management of the records (both members and trainees) will be also benefited by the proposed system, as it will automate the whole procedure, which will reduce the workload. The security of the system is also one of the prime concerns.

The system comprises of the following features:

1. Management of member details.
2. Management of trainee details.
3. Managing the membership and payment details of the members.
4. Provides different programs and activities.
5. Contact information.

FUTURE ENHANCEMENT

There is always a room for improvement in any software, however efficient the system may be. The important thing is that the system should be flexible enough for future modifications. The system has been factored into different modules to make the system adapt to the further changes.

There are also few features which can be integrated with this system to make it more flexible. Below list shows the future points to be considered.

1. More members to be added.
2. More trainers to be added.
3. More programs to be added.

BIBLIOGRAPHY

REFERENCES:

[1] https://www.w3schools.com/html/

[2] https://www.w3schools.com/css/

[3] https://www.w3schools.com/js/

[4] https://www.w3schools.com/php/

[5] https://www.tutorialspoint.com/mysql/

APPENDIX A: SCREENSHOTS

SCREENSHOT 1:

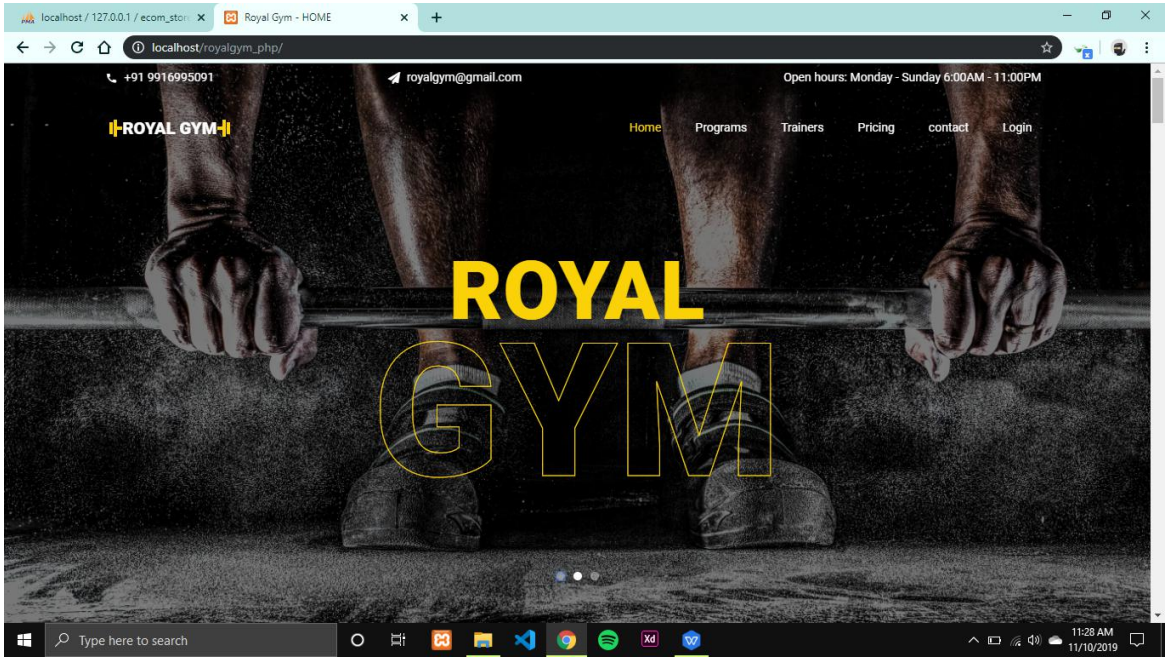

Figure A.1: Home Page

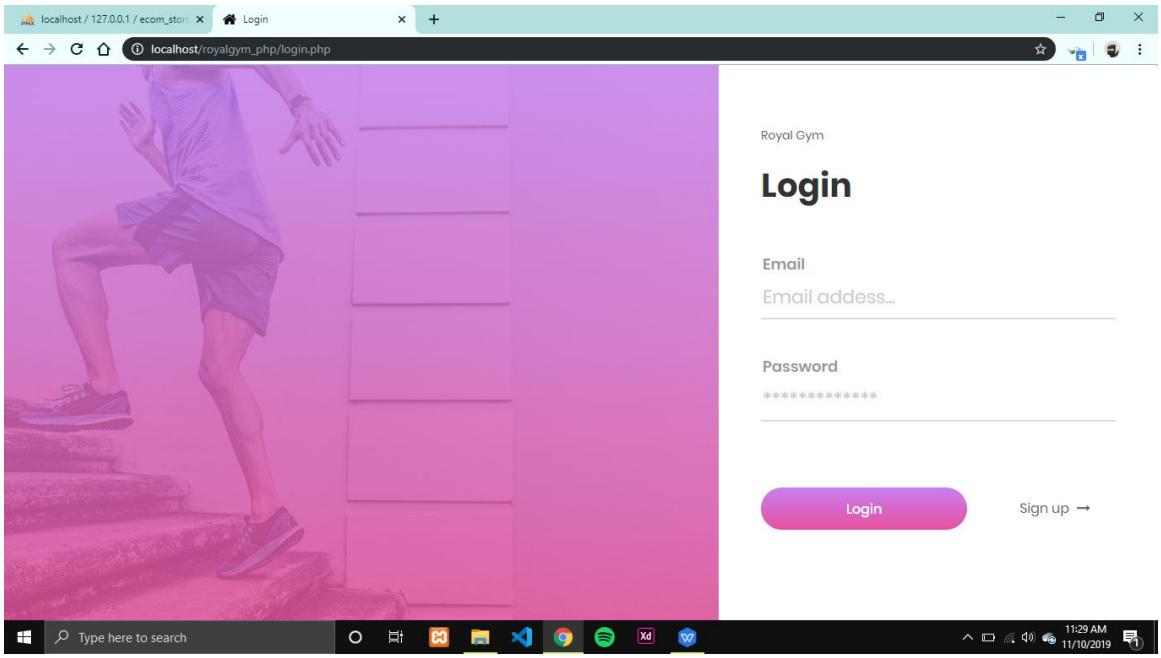

Figure A.2: Login Page

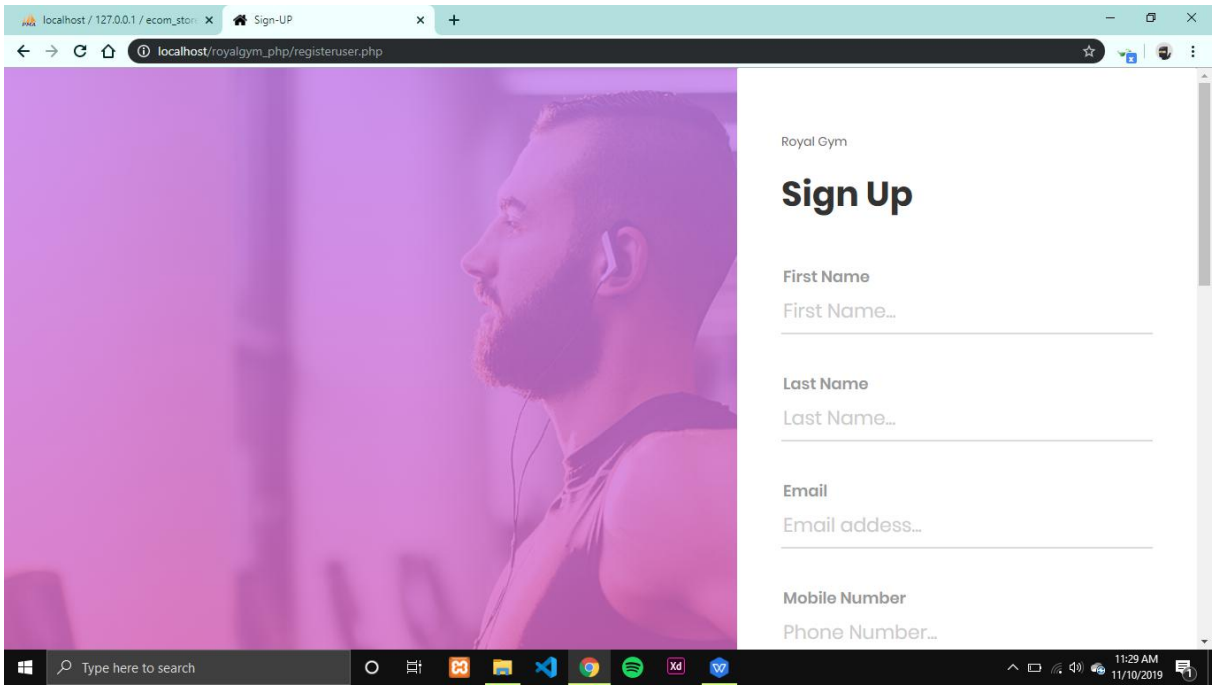

Figure A.3: Member Registration

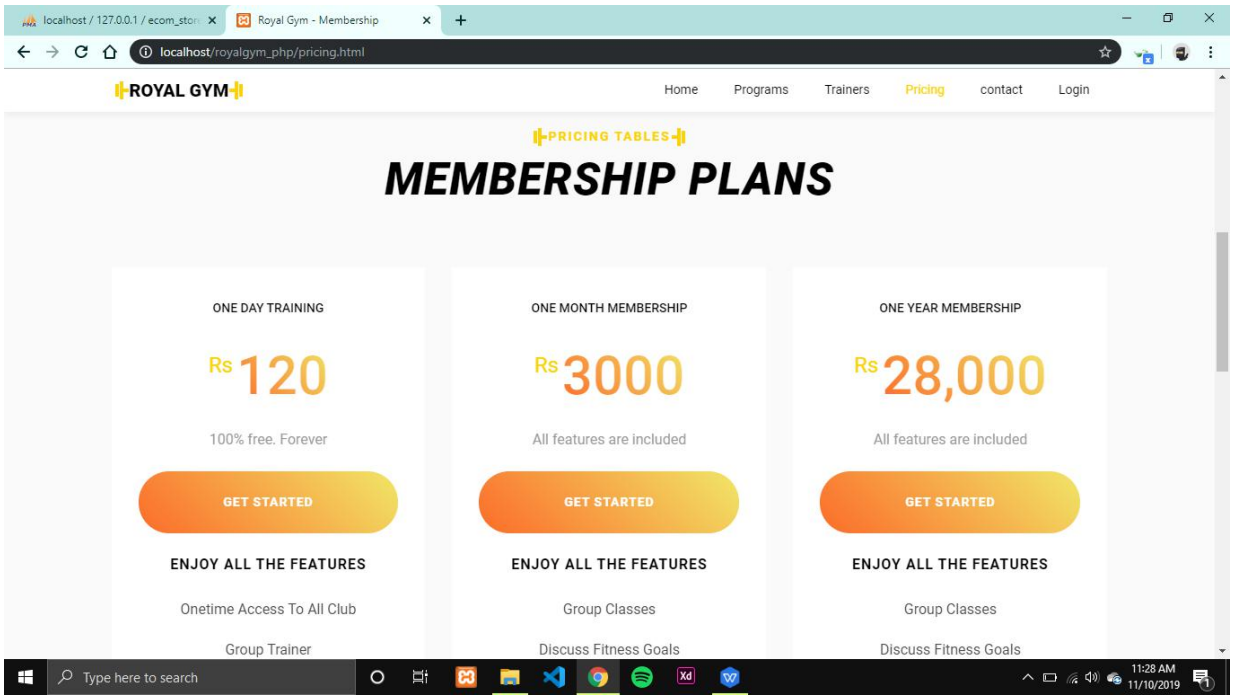

Figure A.4: Membership Details

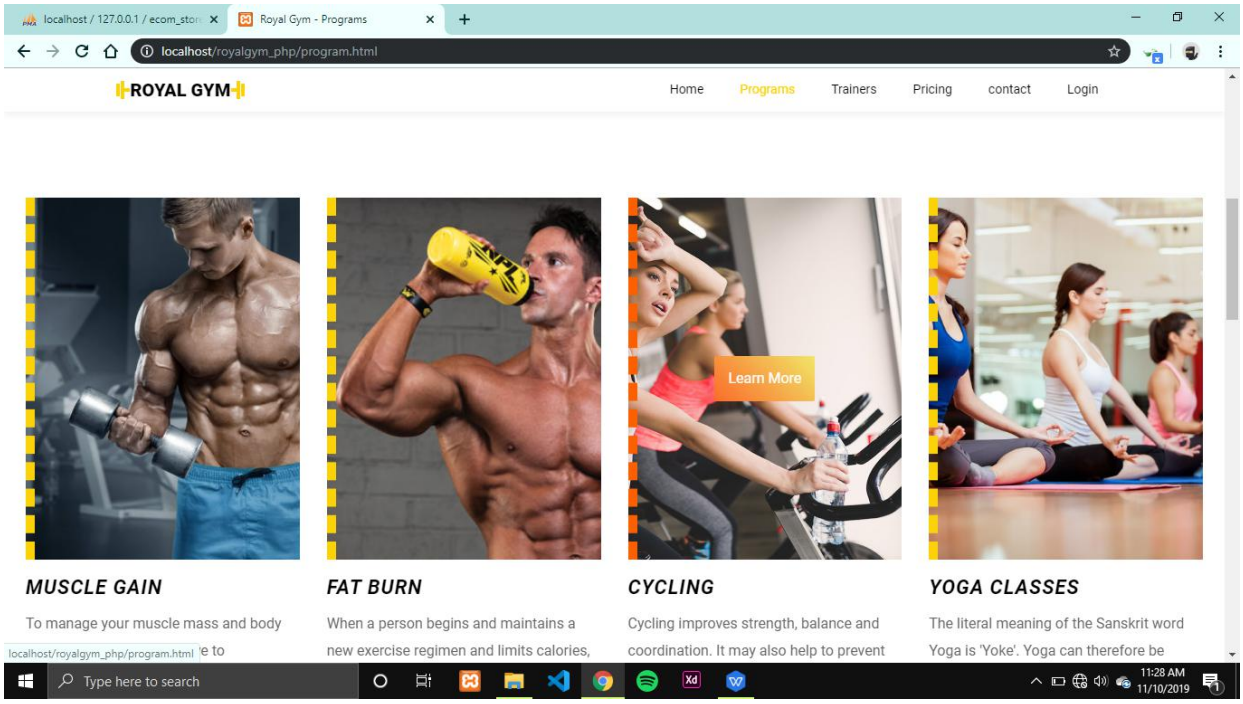

Figure A.5: Programs

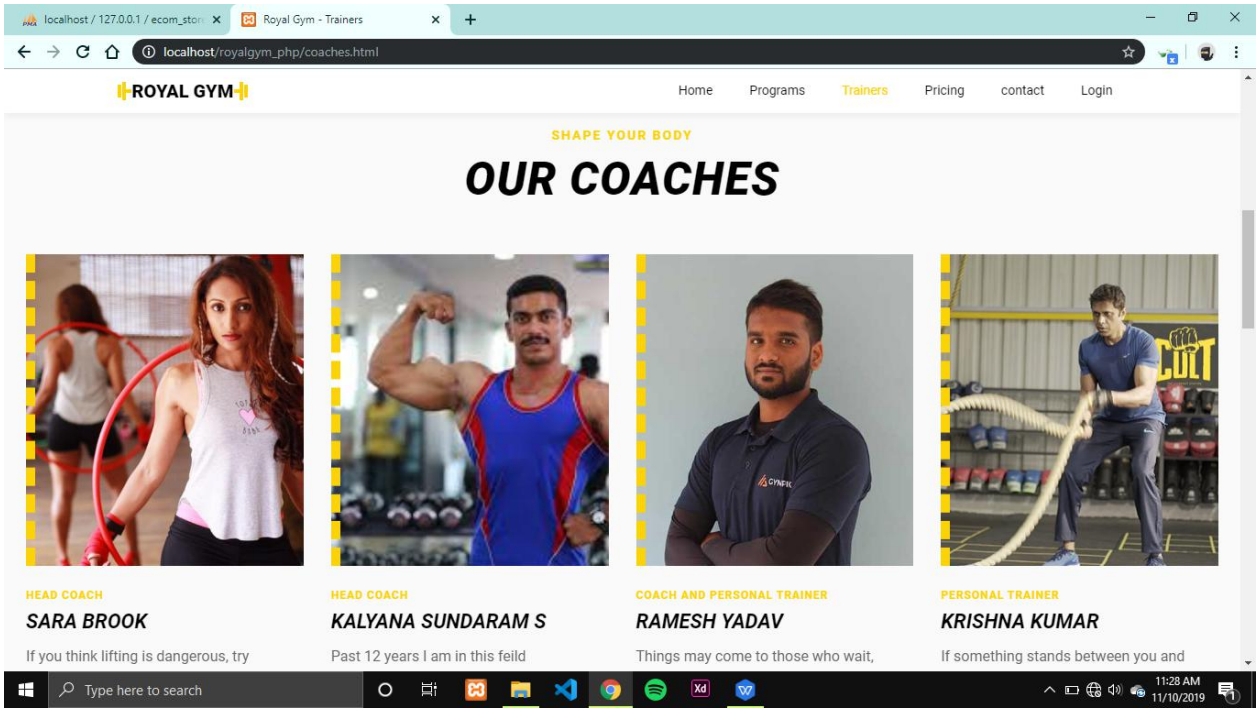

Figure A.6: Trainers

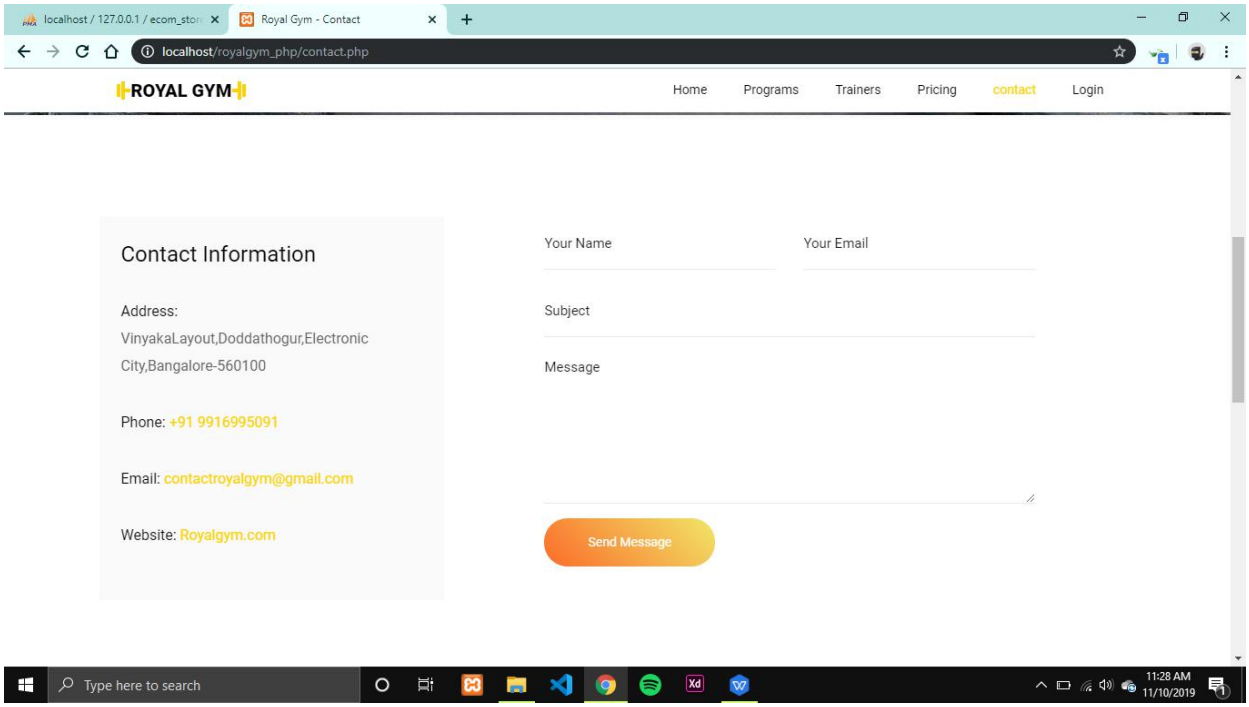

Figure A.7: Contact page