



Department of Electrical and Computer Engineering

Web Based Online Gym Management system

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1. Introduction

It is always necessary to study and recognize the problems of the existing system, which will help in finding out the requirements for the new system. The existing gym management system is working manually and the current system is too much timeconsuming, less efficient because it involves a lot of paperwork. Moreover, to manage huge amounts of transactions and user data was a very difficult task. So, there should be an automated system which is capable of overcoming these lacking's. That's why I proposed an automated Gym Management system for all gym owners and users. This system has an automated database management transactions facility. This system can keep records of members, membership packages, instructors, gym instruments, etc in the database. It also provides the facility of search advanced search for searching the records efficiently immediately. This system has several functionalities like handle users' fees, buy gym instruments, assign instructors, insert members' data, etc. Moreover, through this platform, all users can access facilities provided by the gym, buy membership package and assign their desired instructors.

2. What was the Problem?

- Existing system was manual.
- Time consuming as data entry which include calculations took lot of time.
- Searching was very complex as there could be 100's of entry every year.
- The proposed system is expected to be faster than the existing system.
- The Project was made in order to effectively and efficiently cater to requirements of the fitness center. Very frequently the person who generally holds the tasks to manage the center needs to keep records of all the transactions as well as data manually . Gennerally, In order to structure these tasks Separate Registers are maintained.This whole process thus becomes quite cumbersome for them to control manually.Moreover,Any wrong data entered mistakenly can brings serious results.
- This Mannually Managed system of the store was also heavily prone to data loss due to certain causes Misplacement of Registers,Destruction of Registers ,Unauthorized access to registers etc. which can bring in disasterous Consequences.
- The cost of maintaince of data and records of occurrence of transactions is very high.
- Searching a particular data specific to particular requirements is also very tedious in such system.In order to retrieve records,The responsible person needs to manually locate the appropriate register and locate the appropriate placement of that particular record which may be very time consuming.
- Data Redundency is also a great issue in such kind of system."Redundency" means repititon;Thus data modified or updated at a particular place may not be data modified or updated at the other related place which may create inconsistencies in data handling,Destroys Data Integrity and creates confusion for the owner.

3. Objective

- The main objective of the project is to design and develop a dynamic userfriendly system.
- To store the records of customers, instructors, employees, and the admin have the privilege to delete and modify the data.
- To develop an accurate and flexible system, it will eliminate data redundancy, eliminate manual paper works for gym managing employees.
- To develop a digital platform to handle and store all money transactions.
- To develop a Computerization system for gym users which can be helpful as means of saving time buy online products.
- To provide better graphical user interface.
- Less chances of information leakage.
- Provides security to data by using login password.

4. Target Customers

- Gym Owner: Person who will be the admin of the system. Who can set price condition and high privilege for modify any data.
- Gym User: People who can view the information related to the gym, buy membership packages, buy gym instruments and assign their desired instructors.
- Gym Employee: People who have low privilege than gym owner. Delete, modify, insert user and gym instruments data and handle money transactions.

5. Value Proposition

The Gym Management system is designed in providing productivity in the gym and helps in keeping all the records of daily activity and transactions. The proposed Gym Management System provides a significant improvement to the owner and its employee above the manual process of registration of new member, payment and inventory. Gym Staff/Employee – Using an automated system will lessen the effort and avoid hassle in keeping the records. The system will provide an overall representation of whole gym to the gym users where they can access all remote services like buy membership package, gym instruments and assign gym instructors. Although It will provide privacy on their personal information.

6. The Methodology:

I was assigned the duty for developing a computerized system for a fitness center. The project time and resources were very limited. The optimum use of practical time neccessiates that every session and every activity is planned. For effective Planning, Efficient Project Managerial skills are required,Efficiant skills then trace out best methodology to be used. The methodology used by me includes the following things:

➤ Topic Understanding:

It is vital that the field of application as introduced in the project may be totally a new field. So as soon as the project was allocated to me, I carefully went through the project requirements to identify the requirements of the project.

➤ Modular Break –Up Of The System:

- Identify The Various Modules In The System.
- List Them In The Right Hierarchy.
- Identify Their Priority Of Development.

Different Modules In Computerised System

Modules – This project consists of different interfaces which will be accessed through a MDI (Multiple Document Interface) window. Different modules that makeup this system have already been a described in system analysis.

□ Module 1: member's module

In this module,owner can see the membership details which includes:

➤ Member details

- i. Member id
- ii. Name
- iii. Gender

➤ Membership details

- i. Membership type
- ii. Expiration date
 - Membership details
- i. Address
- ii. Date of birth
- iii. Phone number
 - Account information

- Due date
- Amount Due
- Amount Paid
- Days late
- Balance

After processing all this information records are saved and in this module itself there is a provision for **report generation** for viewing details of all the members.

There is also a provision for generating a **receipt** for an individual member thus again giving some of his relevant details.

➤ Module 2:Employee's Module

In this module owner can see the employee details including the fields:

1. ID
2. Name
3. Gender
4. Wage
5. Address
6. Date of birth
7. Phone number
8. Payroll calculation
 - i. Pay date
 - ii. ID
 - iii. Name
 - iv. Hours worked
 - v. Gross pay
 - vi. Tax
 - vii. Net pay

Along with this there is a provision for setting the **schedule of the employees** with information like time and day provided and the owner can view the schedule or even change it.

Module 3: Inventory module

It is further divided into three components:

1. INVENTORY

Gives description about a product based on its category and includes:

 - a.Category b.Id
 - c.Description
 - d.Brand
 - e.Quantity
 - f.Date
2. ORDER

It facilitates the owner to place an order and based on the category of the product (apparels, beverages, supplements) following information is displayed along including the provision for order placement:

- a. Category b. Id c. Description
- d. Brand e. Supplier
- f. Number of cases g. Quantity in each case
- h. Case Price
- i. Sales Price
- j. Order Date

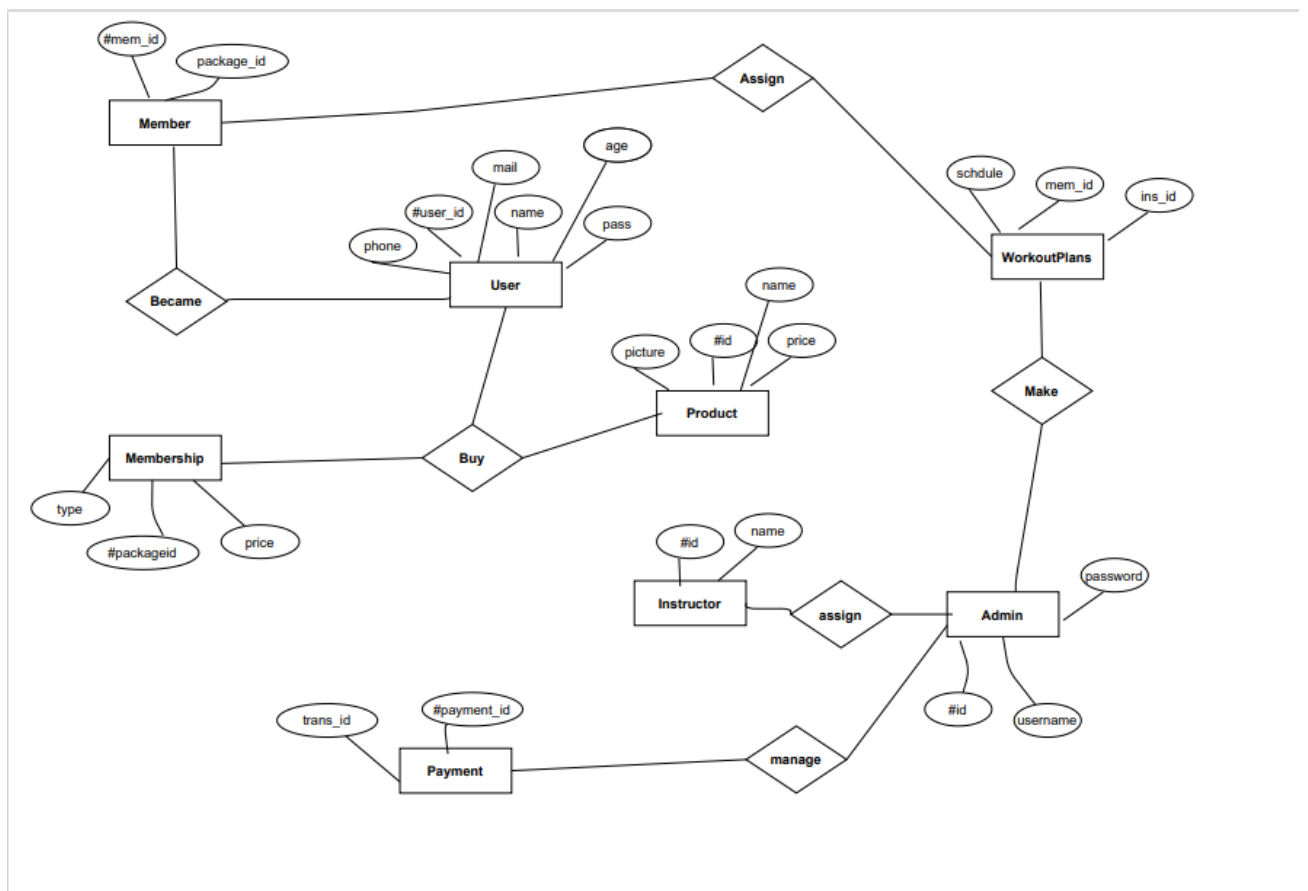
3. PRODUCTS

Generates an inventory record of the product based on the product category selected and displays the following information:

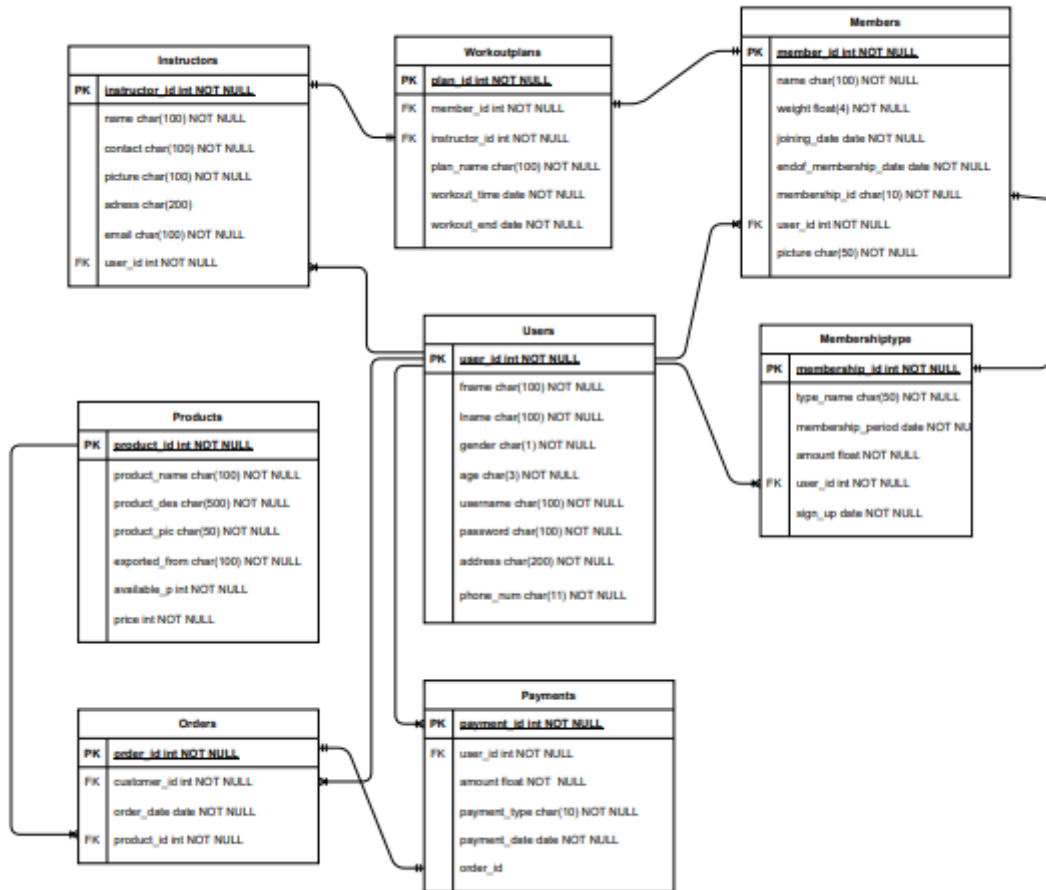
- a. Category
- b. Id c. Description
- d. Brand
- e. supplier
- f. Number of cases
- g. Quantity in each case
- h. Quantity ordered
- i. Case Price
- j. Sales Price
- k. Order Date
- l. Last ordered
- m. Last inventory

It also provides the facility of generating reports of all the products of a particular category.

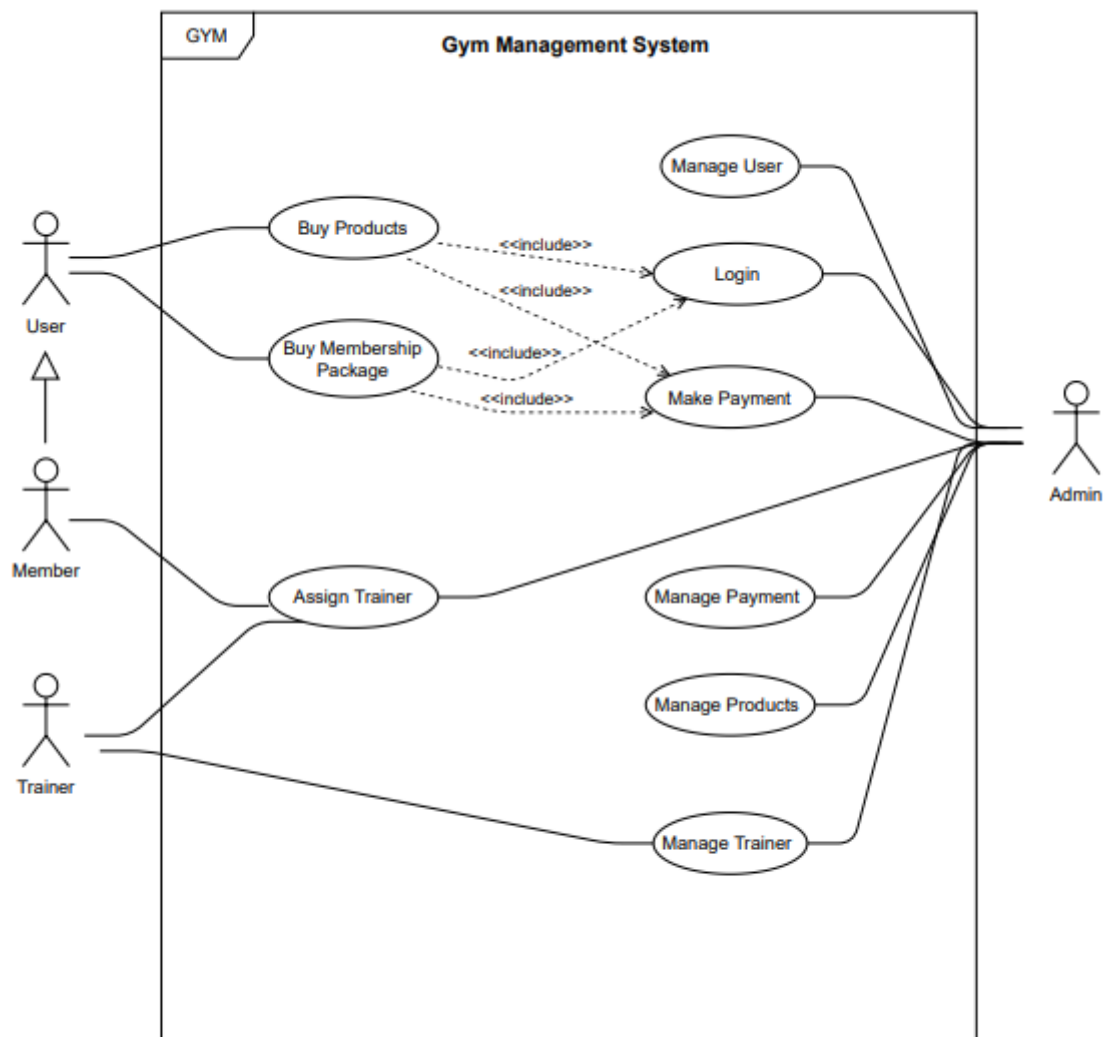
ER_Diagram:



DB_schema:



Usecase_Diagram:



Project Screen short:



Project Screen short:

dhaka utara road 4

📧 nihat@457gmail.com

📞 01878517664

● ID: 46193PH

● Issue Date: 2021-09-15

● Status: Unpaid

#	Description	Qty	Unit Price	Amount
1	Ab Roller Wheel	1	650	650.00
1	Combo Pack of 2 Pieces Push Up Bar - Silver and Black	1	400	400.00

Extra note such as company or payment information...

SubTotal 1050

Tax (10%) 105.00

Total Amount **1155**

Thank you for your Order

Payment Option

☐ Cash On Delivery ☒ Online Delivery

[Complete Your Order](#)

Recent Favorites

- gym_management
- gym_management_ver
- New
- admin
- instructors
- members
- membershiptype
- members_log
- ordered_products
- orders
- packages
- packages_log
- packages_request
- payments
- products
- products_log
- users
- users_log
- workoutplans

it

- image_upload
- information_schema
- jahr_assignment
- lara_ecommerce
- library
- like_system
- mark_distribution
- medialab

Browse Structure SQL Search Insert Export Import Privileges Operations Triggers

Showing rows 0 - 0 (1 total; Query took 0.0007 seconds)

SELECT * FROM `admin`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table

+ Options

	admin_id	admin_name	admin_email	admin_contact	admin_password	admin_picture	admin_cdate
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	admin	c@gmail.com	1234567890	admin@123	dog-12.jpg	

☐ Check all | With selected ☐ Edit ☐ Copy ☐ Delete ☐ Export

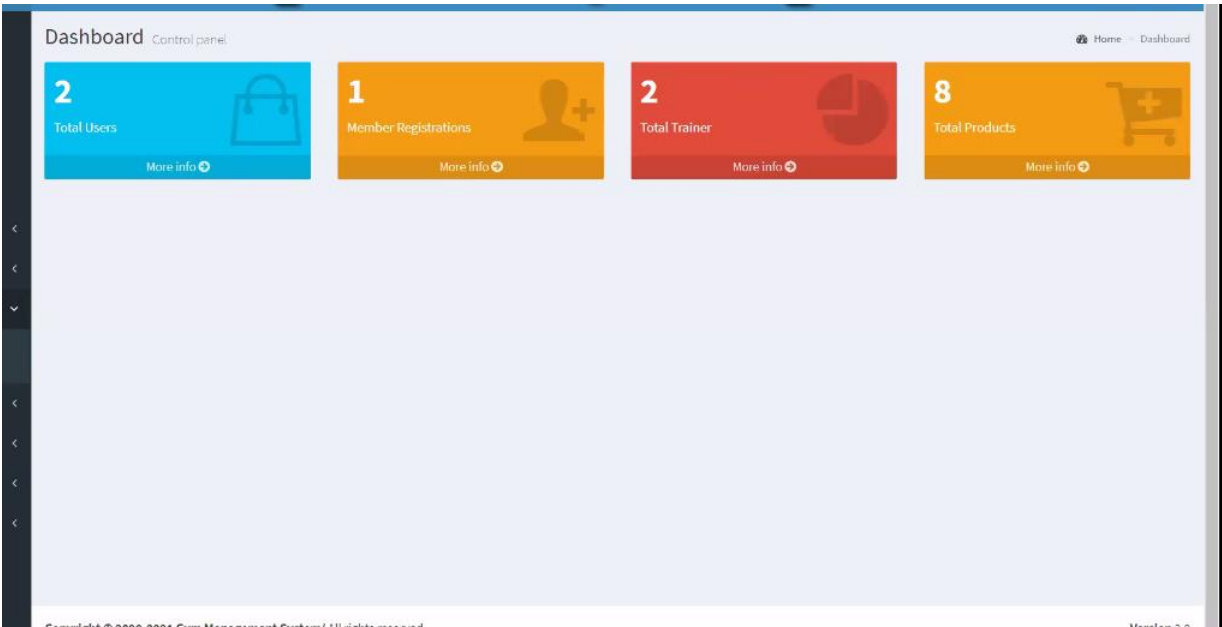
Show all | Number of rows: 25 | Filter rows: Search this table

Query results operations

Print Copy to clipboard Export Display chart Create view

Console

Project Screen short:



Project Screen short:

Buy Exciting Packages For be a Member Of this Gym

Package Name	Package Period	Cost	Action
Basic Package	1 Month	5K	<button>Buy</button>
Standard Package	2 Month	8K	<button>Buy</button>
Premium Package	4 Month	12K	<button>Buy</button>
Golden Package+Extra Feature	6 Month	16K	<button>Buy</button>
Diamond Package	12 Month	30K	<button>Buy</button>

Information

Shooping & Delivery

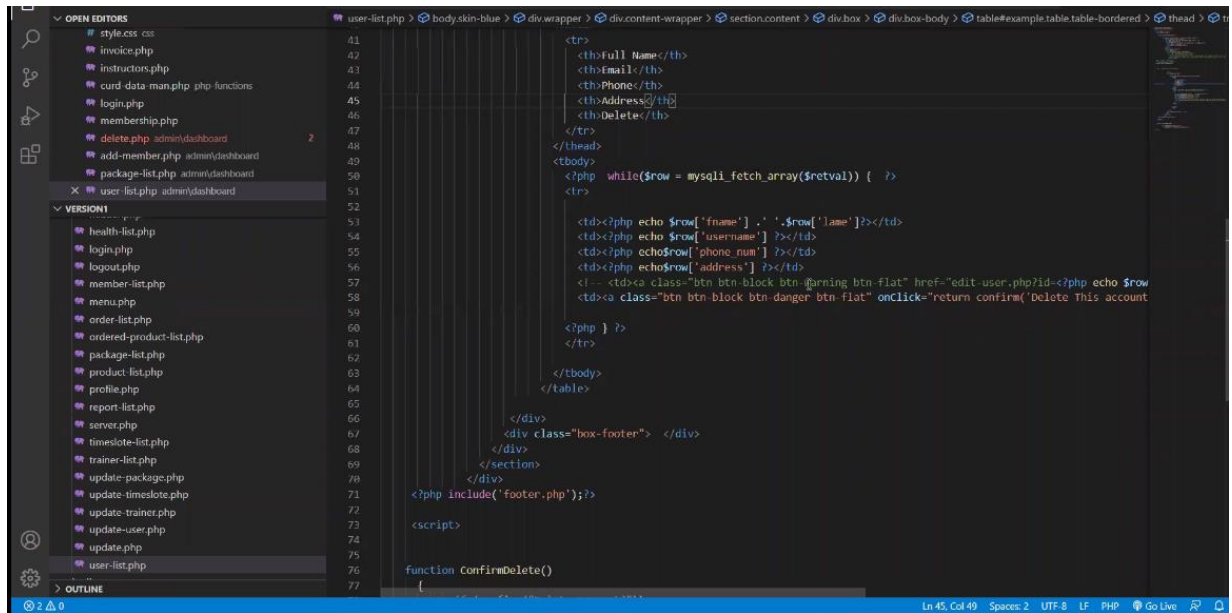
More

Find a GYM

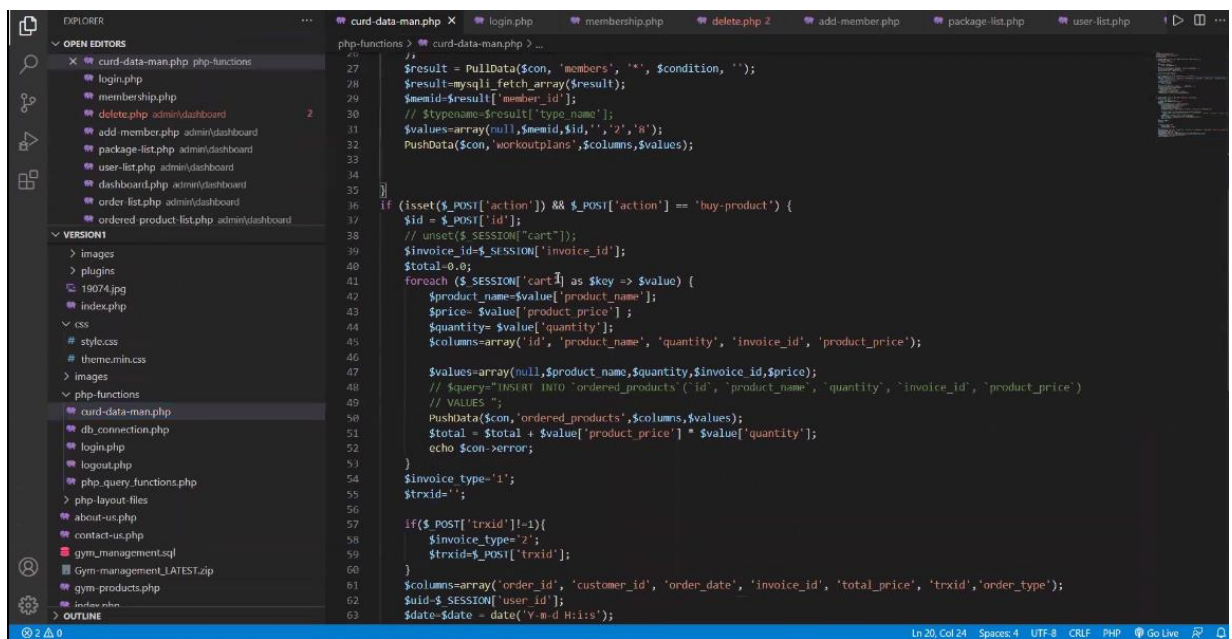
Contact US

Bashundhara,Dhaka,Bangladesh

Project Screen short:



```
41 <tr>
42 <th>Full Name</th>
43 <th>Email</th>
44 <th>Phone</th>
45 <th>Address</th>
46 <th>Delete</th>
47 </tr>
48 </thead>
49 <tbody>
50 <?php while($row = mysqli_fetch_array($retval)) { ?>
51 <tr>
52 <td><?php echo $row['name'] . ' ' . $row['lname']?></td>
53 <td><?php echo $row['username'] ?></td>
54 <td><?php echo $row['phone_num'] ?></td>
55 <td><?php echo $row['address'] ?></td>
56 <td><a class="btn btn-block btn-warning btn-flat" href="edit-user.php?id=<?php echo $row
57 <td><a class="btn btn-block btn-danger btn-flat" onclick="return confirm('Delete This account
58 </td>
59 </tr>
60 </tbody>
61 </table>
62 </div>
63 <div class="box-footer"> </div>
64 </div>
65 </section>
66 </div>
67 <?php include('footer.php');?>
68 </script>
69
70 function ConfirmDelete()
71 {
```



```
27 $result = PullData($con, 'members', '*', $condition, '');
28 $result=mysqli_fetch_array($result);
29 $member_id=$result['member_id'];
30 // $typename=$result['type name'];
31 $values=array(null,$member_id,$id,'','2','R');
32 PushData($con,'workoutplans',$columns,$values);
33
34
35
36 if (isset($_POST['action']) && $_POST['action'] == 'buy-product') {
37 $id = $_POST['id'];
38 // unset($_SESSION['cart']);
39 $invoice_id=$_SESSION['invoice_id'];
40 $total=0.0;
41 foreach ($_SESSION['cart'] as $key => $value) {
42 $product_name=$value['product_name'];
43 $price= $value['product price'];
44 $quantity= $value['quantity'];
45 $columns=array('id', 'product_name', 'quantity', 'invoice_id', 'product_price');
46
47 $values=array(null,$product_name,$quantity,$invoice_id,$price);
48 // $query=INSERT INTO `ordered_products` (`id`, `product_name`, `quantity`, `invoice_id`, `product_price`)
49 // VALUES ";
50 PushData($con,'ordered_products',$columns,$values);
51 $total = $total + $value['product price'] * $value['quantity'];
52 echo $con->error;
53 }
54 $invoice_type='1';
55 $trxid='';
56
57 if($_POST['trxid']!=1){
58 $invoice_type='2';
59 $trxid=$_POST['trxid'];
60 }
61 $columns=array('order_id', 'customer_id', 'order_date', 'invoice_id', 'total_price', 'trxid','order_type');
62 $uid=$_SESSION['user_id'];
63 $date=$date = date('Y-m-d H:i:s');
```


7. Web Application Features

a. Feature of Gym Users Module

1. Online registration and login of the user
2. Buy membership packages
3. Buy gym instruments
4. View instructor information
5. View gym information
6. Easy payment options
7. Access special offers
8. View gym schedule

b. Feature of Gym Owners and Employee Module

1. Manage User
 - Insert New User
 - Edit existing User data
 - Delete User data
2. Manage Trainer
 - Manage Trainer
 - Add new trainer
 - Remove trainer
 - Assign trainer to member
3. Manage Products
 - Add and delete new product Details
4. Manage Schedule
 - Create and modify gym instruction schedule
5. Manage Payment
 - Add all payment records
 - Verify payment records
6. Manage membership packages

7. Tools and Resources

Front end: HTML, CSS, JavaScript/ JQuery

- HTML: HTML is used to create and save web document. E.g. Notepad/Notepad++
- CSS: (Cascading Style Sheets) Create attractive Layout
- Bootstrap: Responsive design mobile friendly site
- JavaScript: it is a programming language, commonly use with web browsers.

Back end: PHP, MySQL

- PHP: Hypertext Preprocessor (PHP) is a technology that allows software developers to create dynamically generated web pages, in HTML, XML, or other document types, as per client request. PHP is open source software.
- MySQL: MySql is a database, widely used for accessing querying, updating, and managing data in databases.

7.1 Software Requirement

- WAMP Server
- XAMPP Server

8. Challenge

To increase efficiency and accuracy with reduced cost by handling huge amounts of data is the biggest challenge of this proposed system. Moreover, the most challenging task is to verify every money transactions record which is valid or not.

9. Conclusion:

The objective of this project was to build a program for maintaining the details of all the members, employees and inventory .The system developed is able to meet all the basic requirements. The management of the records (both members and employees) 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.

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 hasbeen factored into different modules to make system adapt to the further changes. Every effort has been made to cover all user requirements and make it user friendly