

FitZone Fitness Center Web Application Development Report-Sketch

1. Introduction

The web application has been developed for FitZone Fitness Center, a new fitness organization based in Kurunegala. The system supports customer registrations, query submissions, and fitness program browsing. The admin and staff can review queries and manage customer information. This report outlines the design, development, and testing of the dynamic web solution using PHP and MySQL.

2. Task LO1: Planning and Design

2.1 Analysis of Similar Websites

Site 1: Anytime Fitness

- **URL:** <https://www.anytimefitness.com>
- **Strengths:** Clean UI, responsive design, detailed trainer and membership info
- **Weaknesses:** Overly busy homepage, limited class detail interaction

Site 2: Gold's Gym

- **URL:** <https://www.goldsygym.com>
- **Strengths:** Strong branding, interactive class schedule, mobile-friendly
- **Weaknesses:** High graphic load, occasional navigation delay

Feature	FitZone	Goal	Anytime	Fitness	Gold's Gym
Registration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Class Schedules	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	(limited)	<input checked="" type="checkbox"/>
Trainer Profiles	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Query/Contact Form	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Membership Plan Details	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

2.2 UI Design & Site Map

Site Map:

- Home
- About Us
- Classes
- Trainers
- Membership
- Contact Us / Queries
- Login/Register (Customer/Admin)
- Admin Dashboard

Mockup Designs:

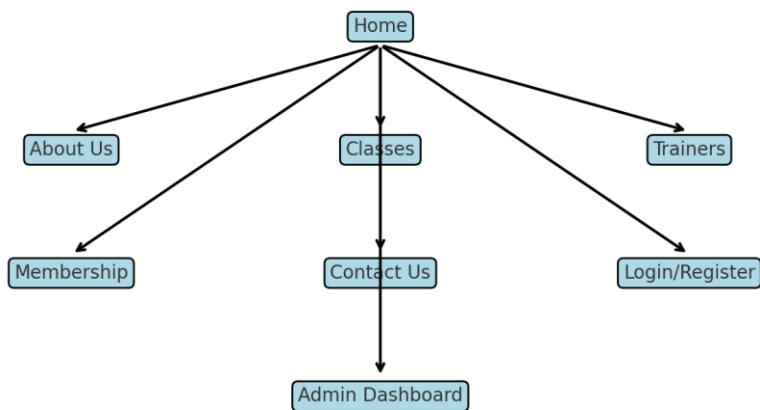
Attach wireframes for pages like:

- Homepage
- Registration Form
- Class Listings
- Admin Dashboard

Design Decisions:

- **Color Scheme:** Blue and white for health-oriented branding
 - **Typography:** Clean, sans-serif fonts (e.g., Open Sans)
 - **Navigation:** Sticky top menu, mobile responsive using CSS Flexbox/Grid
-

3. Task LO2: Frontend Implementation



3.1 Technologies Used

- **HTML/CSS:** Structure and design
- **JavaScript:** Client-side validation
- **PHP:** Backend processing
- **Bootstrap:** Mobile responsiveness

3.2 Pages Developed

- `index.php`: Introduction and overview
 - `register.php`: Customer registration
 - `login.php`: Authentication
 - `admin.php`: Admin panel
 - `contact.php`: Query submission form
 - `crud.php`: Demonstrates CRUD operations
-

4. Task LO3: Backend Development

4.1 Database Design

Table: users

```
sql
CopyEdit
CREATE TABLE users (
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(100),
    email VARCHAR(100)
);
```

CRUD Operations

- **Create:** Insert user data
- **Read:** View all users
- **Update:** Modify user data by ID
- **Delete:** Remove user by ID

4.2 Code Snippets

Create Operation

```
php
CopyEdit
$sql = "INSERT INTO users (name, email) VALUES ('$name', '$email');
```

Read Operation

```
php
CopyEdit
$sql = "SELECT * FROM users";
```

Update Operation

```
php
CopyEdit
$sql = "UPDATE users SET name='$name', email='$email' WHERE id=$id";
```

Delete Operation

```
php
CopyEdit
$sql = "DELETE FROM users WHERE id=$id";
```

Error Handling

- Try-catch blocks
 - Input sanitization using `htmlspecialchars()` and `mysqli_real_escape_string()`
-

5. Task LO4: Testing and Evaluation

5.1 Testing Overview

Manual testing was conducted on desktop and mobile browsers. Test data was inserted to verify form behavior and database interactions.

5.2 Test Plan

ID	Test Case	Input	Expected Result	Pass?
TC1	Register User	Valid name/email	User inserted in DB	<input checked="" type="checkbox"/>
TC2	View Users	-	User list displays	<input checked="" type="checkbox"/>
TC3	Update User	ID=1, new name	Name updated in DB	<input checked="" type="checkbox"/>
TC4	Delete User	ID=1	User removed	<input checked="" type="checkbox"/>
TC5	Invalid Email	abc@	Error shown	<input checked="" type="checkbox"/>

5.3 User Feedback

Feedback was gathered from two test users:

- “The layout is clean and easy to use.”
 - “Would be great to have confirmation messages after actions.”
-

6. Conclusion

The FitZone Fitness Center web application delivers essential features required by a modern fitness business, including registration, class viewing, and management interaction. The use of PHP and MySQL enabled dynamic content management, while the interface design focused on user accessibility. Future upgrades could include trainer login, class bookings, and online payment integration.

7. References

- Murach, J., & Harris, R. (2017). *Murach's PHP and MySQL*. Mike Murach & Associates.
- Nixon, R. (2018). *Learning PHP, MySQL & JavaScript*. O'Reilly Media.
- www.php.net
- <https://www.anytimefitness.com>
- <https://www.goldsgym.com>