

Project

Course Initial: CSE311
Section: 01

Course Name: Database Management System

Date: 2nd December, 2024

Project Name: Club, match among clubs and club records of all cricket clubs of Bangladesh

Project ID: 03 Group ID: 15

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Project Title: Club, match among clubs and club records of all cricket clubs of Bangladesh

Project Overview

This project is designed to manage cricket clubs across Bangladesh. It covers club administration, player statistics, match scheduling, venue management, and historical records. It provides functionalities for club management, player transfers, detailed match records, and achievements while ensuring a good user experience.

Project Objectives

- 1. **Club Management**: It contains club details, including history, contact information, achievements, and management committee records.
- 2. **Player Information**: It contains player profiles, roles of cricketers such as batsman, bowler, all-rounder, and wicketkeeper, and statistics such as runs, wickets, catches, etc..
- 3. **Match Scheduling**: Enable club matches with details like date, venue, time, and results.
- 4. **Venue Management**: Provide venue information, including capacity and location.
- 5. **Player Transfers**: It manages player transfers between clubs and it also includes transfer dates and values.
- 6. Achievements and Milestones: It highlights club achievements and milestones

Features

1. Admin Panel:

- Add, update, and delete club, player, and venue data.
- Help to manage player transfers and match results.

2. Club Management:

- Maintain contact information and management committee details.
- Assign captains and coaches with defined timelines.

3. Match Module:

- Schedule matches with assigned venues.
- Record match results and update player statistics.

4. Player Statistics:

- Manages player performance (runs scored, wickets taken, catches, etc.).
- Manage specific roles and their associated statistics.

5. Achievements and History:

Display milestones and achievements for clubs.

6. User Registration:

o Allow users to register and view club and player data with restricted access.

3. Requirements and Specifications

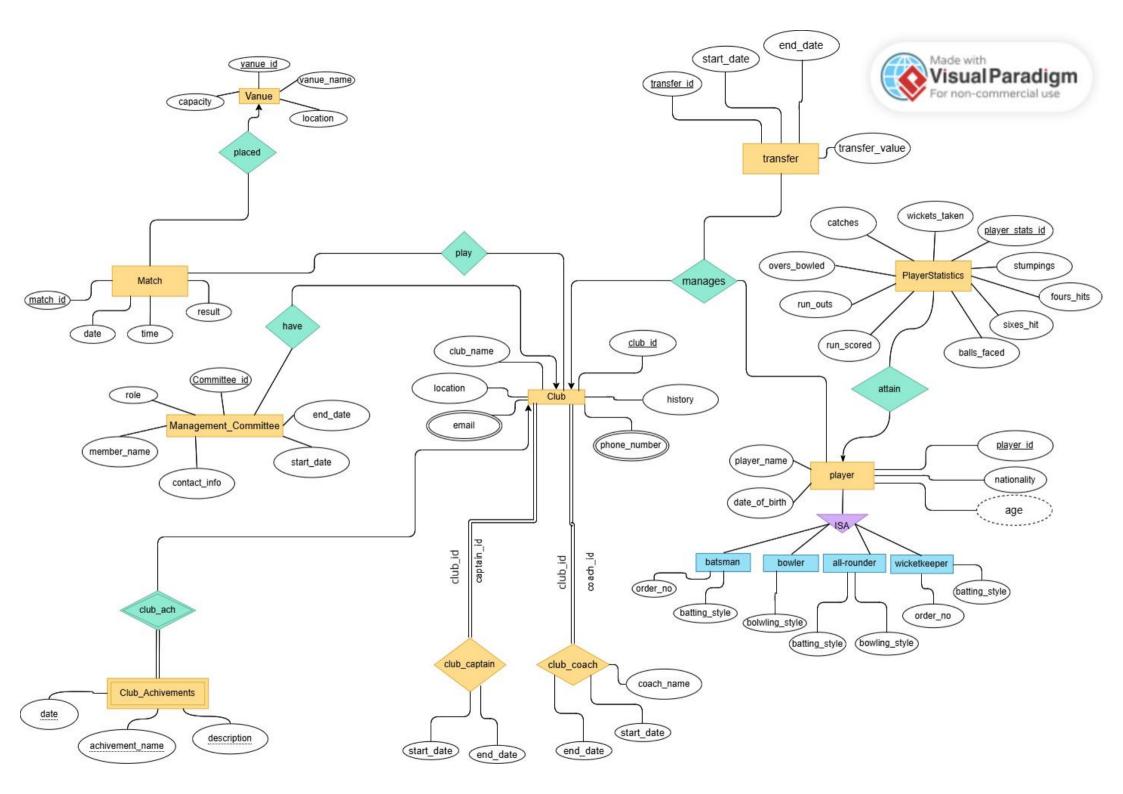
• **Database**: MySQL to manage data related to clubs, matches, venues, player statistics etc

• Frontend: HTML, CSS and Tailwind CSS

• Backend: PHP for localhost server setup.

4. Resources

Software and Tools: Visual Paradigm for ERD database design, MySQL, and a local server for development, Visual Studio Code editor



Schema:

```
admin(id, name, gender, email, password)
user(<u>user id</u>,name,gender,number,email,password)
club (<u>club id</u>, club name, location, history)
club_email (club_id, email)
club_phone_number (club id, phone number)
club_captain (club id, captain id, start date, end date)
club_coach (club_id, coach_id, coach_name, start_date, end_date)
player (<u>player id</u>, player_name, date_of_birth, nationality)
batsman (player id, order no, batting style)
bowler (player id, bowing style)
all-rounder (player id, batting style, bowling style)
wicketkeeper (player id, order no, batting style)
transfer (transfer id, start date, end date, transfer value)
manages (club id, player id, transfer id)
management_committee (Committee id, member name, role, contact info,
start date, end date, club_id)
match (match id, date, time, result, vanue id, scorecard id)
play (match id, club id)
venue (vanue id, vanue name, location, capacity)
playerstatitics (player stats id, runs scored, wickets taken, balls faced,
fours hit, sixes hit, overs bowled, stumpings, run outs, catches, player_id)
club achievements (achievement name, club id, date, description)
```

```
# SQL DDL
- - Admin Table
CREATE TABLE admin (
id INT PRIMARY KEY,
name VARCHAR(255),
gender VARCHAR(10),
email VARCHAR(255) UNIQUE,
password VARCHAR(255)
);
- - User Table
CREATE TABLE user (
user_id INT PRIMARY KEY,
name VARCHAR(255),
gender VARCHAR(10),
number VARCHAR(15),
email VARCHAR(255) UNIQUE,
password VARCHAR(255)
);
- - Club Table
CREATE TABLE club (
club_id INT PRIMARY KEY,
club_name VARCHAR(255),
location VARCHAR(255),
history TEXT
);
- - Club Email Table
CREATE TABLE club_email (
```

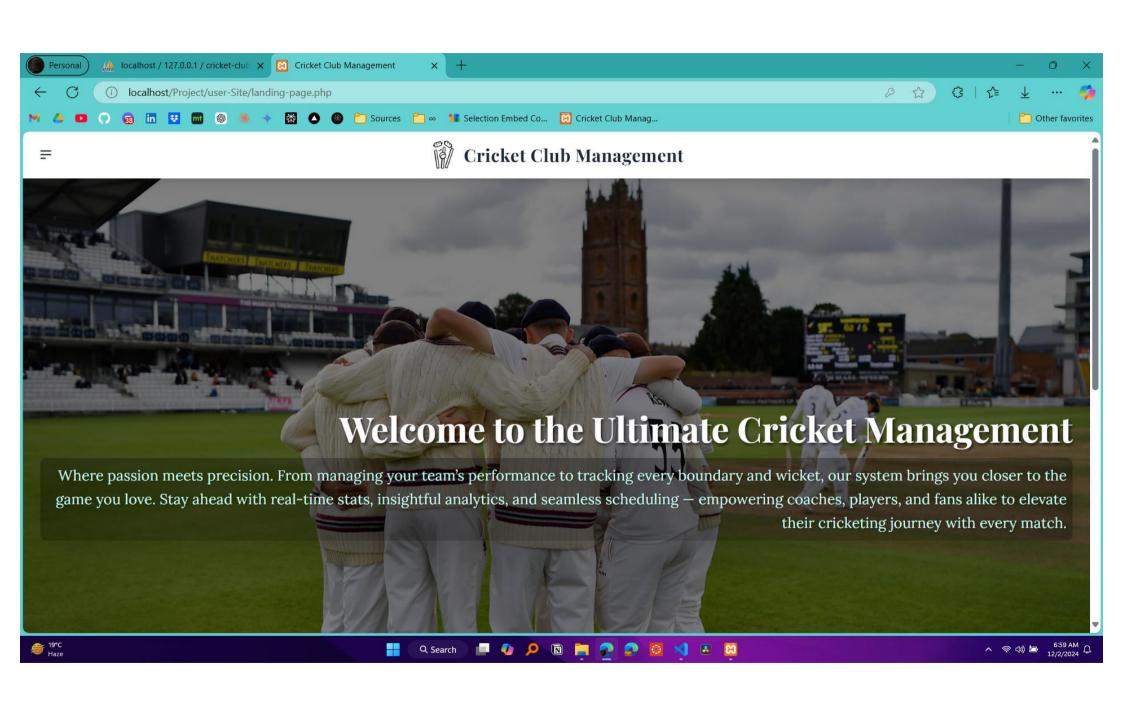
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club_id INT,
email VARCHAR(255),
PRIMARY KEY (club_id, email),
FOREIGN KEY (club_id) REFERENCES club(club_id)
);
- - Club Phone Number Table
CREATE TABLE club phone number (
club_id INT,
phone number VARCHAR(15),
PRIMARY KEY (club_id, phone_number),
FOREIGN KEY (club_id) REFERENCES club(club_id)
);
- - Club Captain Table
CREATE TABLE club captain (
club_id INT,
captain_id INT,
start_date DATE,
end date DATE,
PRIMARY KEY (club_id, captain_id),
FOREIGN KEY (club_id) REFERENCES club(club_id)
);
- - Club Coach Table
CREATE TABLE club coach (
club id INT,
coach id INT,
coach_name VARCHAR(255),
start date DATE,
end_date DATE,
PRIMARY KEY (club_id, coach_id),
FOREIGN KEY (club_id) REFERENCES club(club_id)
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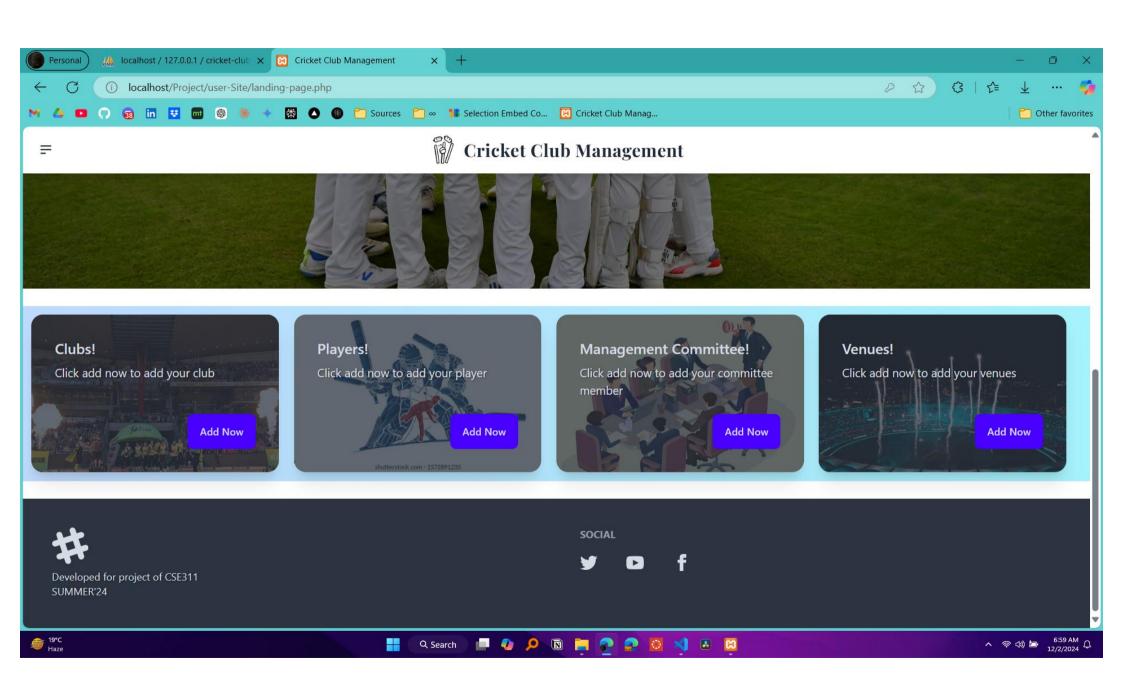
```
);
- - Player Table
CREATE TABLE player (
player_id INT PRIMARY KEY,
player_name VARCHAR(255),
date_of_birth DATE,
nationality VARCHAR(255)
);
- - Batsman Table
CREATE TABLE batsman (
player_id INT PRIMARY KEY,
order_no INT,
batting_style VARCHAR(50),
FOREIGN KEY (player_id) REFERENCES player(player_id)
);
- - Bowler Table
CREATE TABLE bowler (
player_id INT PRIMARY KEY,
bowling_style VARCHAR(50),
FOREIGN KEY (player_id) REFERENCES player(player_id)
);
- - All-Rounder Table
CREATE TABLE all rounder (
player_id INT PRIMARY KEY,
batting_style VARCHAR(50),
bowling_style VARCHAR(50),
FOREIGN KEY (player_id) REFERENCES player(player_id)
);
```

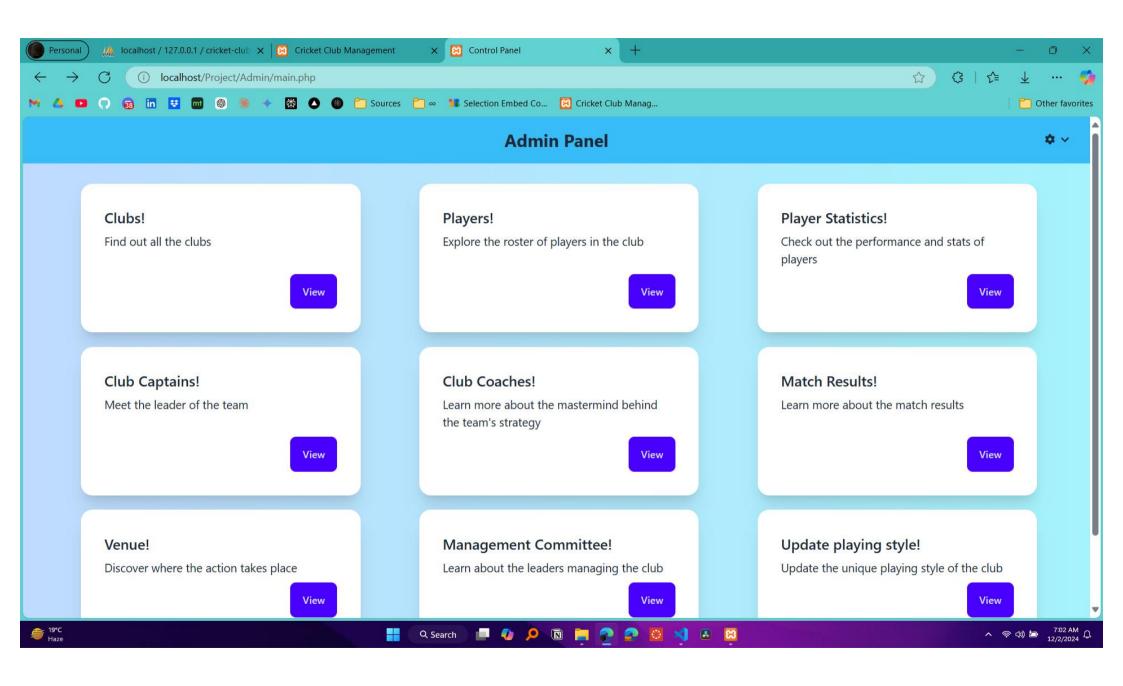
```
- - Wicketkeeper Table
CREATE TABLE wicketkeeper (
player_id INT PRIMARY KEY,
order_no INT,
batting_style VARCHAR(50),
FOREIGN KEY (player_id) REFERENCES player(player_id)
);
- - Transfer Table
CREATE TABLE transfer (
transfer id INT PRIMARY KEY,
start date DATE,
end_date DATE,
transfer_value DECIMAL(10, 2)
);
- - Manages Table
CREATE TABLE manages (
club_id INT,
player_id INT,
transfer id INT,
PRIMARY KEY (club_id, player_id, transfer_id),
FOREIGN KEY (club_id) REFERENCES club(club_id),
FOREIGN KEY (player_id) REFERENCES player(player_id),
FOREIGN KEY (transfer_id) REFERENCES transfer(transfer_id)
);
- - Management Committee Table
CREATE TABLE management_committee (
committee_id INT PRIMARY KEY,
member_name VARCHAR(255),
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role VARCHAR(50),
contact_info VARCHAR(255),
start date DATE,
end_date DATE,
club_id INT,
FOREIGN KEY (club_id) REFERENCES club(club_id)
);
- - Match Table
CREATE TABLE match (
match_id INT PRIMARY KEY,
date DATE,
time TIME,
result VARCHAR(50),
venue_id INT,
scorecard id INT
);
- - Play Table
CREATE TABLE play (
match_id INT,
club_id INT,
PRIMARY KEY (match_id, club_id),
FOREIGN KEY (match_id) REFERENCES match(match_id),
FOREIGN KEY (club_id) REFERENCES club(club_id)
);
- - Venue Table
CREATE TABLE venue (
venue_id INT PRIMARY KEY,
venue_name VARCHAR(255),
location VARCHAR(255),
capacity INT
```

```
);
- - Player Statistics Table
CREATE TABLE player_statistics (
player_stats_id INT PRIMARY KEY,
runs_scored INT,
wickets_taken INT,
balls_faced INT,
fours_hit INT,
sixes_hit INT,
overs_bowled INT,
stumpings INT,
run_outs INT,
catches INT,
player_id INT,
FOREIGN KEY (player_id) REFERENCES player(player_id)
);
- - Club Achievements Table
CREATE TABLE club_achievements (
achievement_name VARCHAR(255),
club_id INT,
date DATE,
description TEXT,
PRIMARY KEY (achievement_name, club_id),
FOREIGN KEY (club_id) REFERENCES club(club_id)
);
```







Conclusion:

The "Comprehensive Club, Match, and Player Records System for Cricket Clubs in Bangladesh" is a modern and simple platform to manage cricket clubs effectively. It helps clubs keep track of their players, matches, venues, and achievements in one place.

This system makes it easier for clubs to handle their daily tasks and provides detailed reports on player and match performance. With its user-friendly design and strong database, it replaces old manual methods with a digital solution that is fast and reliable.

In short, this project helps improve how cricket clubs are managed in Bangladesh. It supports their growth, keeps their history safe, and makes managing cricket more efficient and organized.