Cricket Players and Clubs Information
System Description

The aim of this system is to keep information of all the cricket players and clubs of Bangladesh. There are many cricket clubs in Bangladesh. A club has many players. A player registers to a club for a certain period of time with a start date and end date and signs a contract with the club. In the contract a total fee and a schedule of payment is mentioned. In the payment schedule, there is a payment id which is unique for a schedule of the player. Other information for the payment is schedule date, amount and actual payment date. The sum of the total payment of the schedule cannot be more or less than the fee mentioned in the contract. A player's profile must be stored in the database as follows

Name, father's name, mother's name, educational qualifications (degree name, department/ institute, Board/ University, Year), previous clubs where he played for (club id, start date, end date, total runs, total wickets), international events (event id, location, performance details etc. (Here student can add attributes of importance to describe the performance details of the player.) To enrol to any club, the player needs to fill up a registration for as per Attachment 1. After submission of the registration form, if the club decides to hire the player for the club, a contract is signed as per Attachment 2. A new club is registered after submission of information as per Attachment 3.

Bangladesh Cricket Control Board (BCCB) organizes different types of events. An event has an event id, location, start date, end date. In an event, there are many matches in different times in different venues. Many matches can be organized in a venue in different times but a match must be organized in a single venue. Every match has a match id, date, team-batting-first, team-bowling-first. You have to keep the performance of every player of every match according to the form as per Attachment 4-1 and the details information about the event as per Attachment 4-2.

The club forms teams to participate to different events organized by BCCB in different times. Among the players, a team leader is selected. Different teams of the club can have different team leader. A team has a team id, date of formation and team leader. A team must be form with a maximum of 15 players. A player can play many teams in different times. A team is formed for exactly one event. In the event, a team participates in many matches. The team information is kept as per the Attachment 5.

Task 1:

You have to design the ERD for the above requirements, transform the ERD into relational schema and write DDL to create all required tables to support the requirements above and store all information including the attachments into the database.

Task 2:

You have to provide all the lists as per Attachment 6.

Task 3:
You have to implement the following integrity constraints for your system.

1. A player cannot enroll into two clubs simultaneously.
2. A team cannot be formed more than 15 players.
3. In the payment schedule, the sum of the total payment of the schedule cannot be more or less than the fee mentioned in the contract.
4. Age of a player cannot be more than 35 years.
5. A match cannot be held in between more than two teams.

Attachment 1

Player Registration Form

First Name: _____ Middle Name _____ Last Name _____

Father's Name _____ Mother,s Name _____

Present Address

House No. _____ Location _____ Village/Street _____

Thana _____ District _____ Post code _____

Permanent Address

House No. _____ Location _____ Village/Street _____

Thana _____ District _____ Post code _____

Date of Birth _____ (DD-MM-YYYY)

Previous History

Club Name	From	To	Total Runs	Total Wickets	Team leader (Y/N)

Best Performance

Club Name	Opponent club name	Event Id	Match Id	Runs	Wickets

Educational Qualifications

Name of degree	Institute/Department	Board/University	Year	Result

Membership

- ○ ICCB
- ○ BCCB
- ○ ACCB
- ○ Others

If others, Name of the organization _____

Signature of the Player: _____

Date: _____

Contract Form

Club Id _____ Club Name _____

First Party

Name of the Player

First Name: _____ Middle Name _____ Last Name _____

Player Id _____

Second Party

Authorized Person

First Name: _____ Middle Name _____ Last Name _____

Designation _____

Contract Period

Start Date _____ (DD-MM-YYYY) End Date _____(DD-MM-YYYY)

Contract Amount _____

Payment Schedule

Serial Number	Due date	Payment date	Amount

Contract witness 1: _____

Contract witness 2: _____

Attachment 3

Club Registration Form

Name of the club _____

Date of Establishment _____ (DD/MM/YYYY)

Address

House No. _____ Location _____ Village/Street _____

Thana _____ District _____ Post code _____

Name of the President _____

Players Performance in Match Form

Match id _____ Venue Id _____ Date of the Match _____ (DDMMYYYY)