Sports play a major role in the entertainment and fitness industry. From the players to audience engagement, they play a significant role in the success of sport teams; especially teams and clubs at universities. With sports having a lot of moving parts, a lot of data is formed and needed to be sorted and analyzed. Sports can include data from member and match information such as health data, emergency contacts, athlete records, game records, and other team records to finance data such as expenses and funding. By organizing this data into a database, managers and players can pull this data and create actionable insights towards future media engagement, finances, and player efficiency. In order to organize a sport organization’s data and create actionable insights towards their organization’s performance, we will create a database management system containing 7 different entities: Member, Player Stats, League, Matches, Academic Performance, Expense, and Injuries. These relations will have attributes with primary and foreign keys that will help to identify and organize the data. With cardinality relationships, each relation is joined accordingly. For example, Members relation will have student ID as a primary key along with other attributes regarding the individual. The members relation has a 1:1 cardinality relationship with Player Stats and a 1 to many relation with Injuries. The Entity-relationship diagram describes connections between relations in greater detail while the Relational Schemas and Functional Dependencies document will provide detail regarding attributes, types, domain, and constraints. The system’s functionality is able to provide a result to and distinct schema regarding the sports organization. To ensure the functionality of the system, 20 distinct schemas as listed below were relied on to test each relationship:

1. Display a list of cricket players and their emails in alphabetical order by their names
2. Who are top 5 players with highest batting average? Display their batting averages.
3. Display a list of cricket match locations and the leagues hosting them. Include league fees and match date as well.
4. Who are competing members?
5. Display member with highest attendance percentages for classes
6. Display a list of members who are on the board and traveling team
7. List of athletes and their emergency contact with injuries during IPL League
8. Display number of athletes registered to the traveling team.
9. Display sum of money used on league fees.
10. Display names of players who played for "VCU CC" team and their positions
11. Find the Total Average for batting and bowing performance for each member
12. Display a list of players who have captained the team and are on the board
13. What is the average money spent on hotel
14. Find the players who meet the Academic\_Requirements (>3,00 GPA).
15. Display academic performance of each player
16. Display batting average of regular members
17. What is the total number of students in each team?
18. Display the Leagues with the same fees
19. Show the number of matches scheduled for each league.
20. Display Total Average of expenses.

With the goal of solving data organization and analysis problems in Cricket, This database will be use in school, and cricket sports clubs and organization environments. With the implementation of a web application, the utility of the database is increased. We will be using php to create a web application and connect the database to the web application. People like captains, organization chairs, administrators, and the public can access parts or all of the database based on what they are authorized to see. For example Player’s Cricket Stats (Player Stats table) could be shown to the public while personal information (Member table) can only be accessed by administrators. Expenses and Leagues table would be useful for organization chairs while Matches and Injuries would be helpful for team captains.