DBMS - MINI PROJECT

"Title of the Project"

CRICKET TOURNAMENT DATABASE

Submitted By:

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ABSTRACT

Cricket Tournament Database is a cricket scheduling based application exclusively for the game of cricket.

The Database features :

1. About players
2. About teams
3. Matches schedule
4. Coaches information
5. Owners information
6. Umpires available
7. Stats of the players

The admin has all authorities to make changes for the database so admin can add players, can add schedules, can add stadiums, coaches, umpires etc and also have permission to removing of them from the database. It features with searching of players involved in the game and retrieve the players of the particular match by selecting Match_ID.

Also, can fetch the schedules with their venue and squad playing that match. Admin can also update the players runs and wickets and other match particulars in this database.

ER Diagram
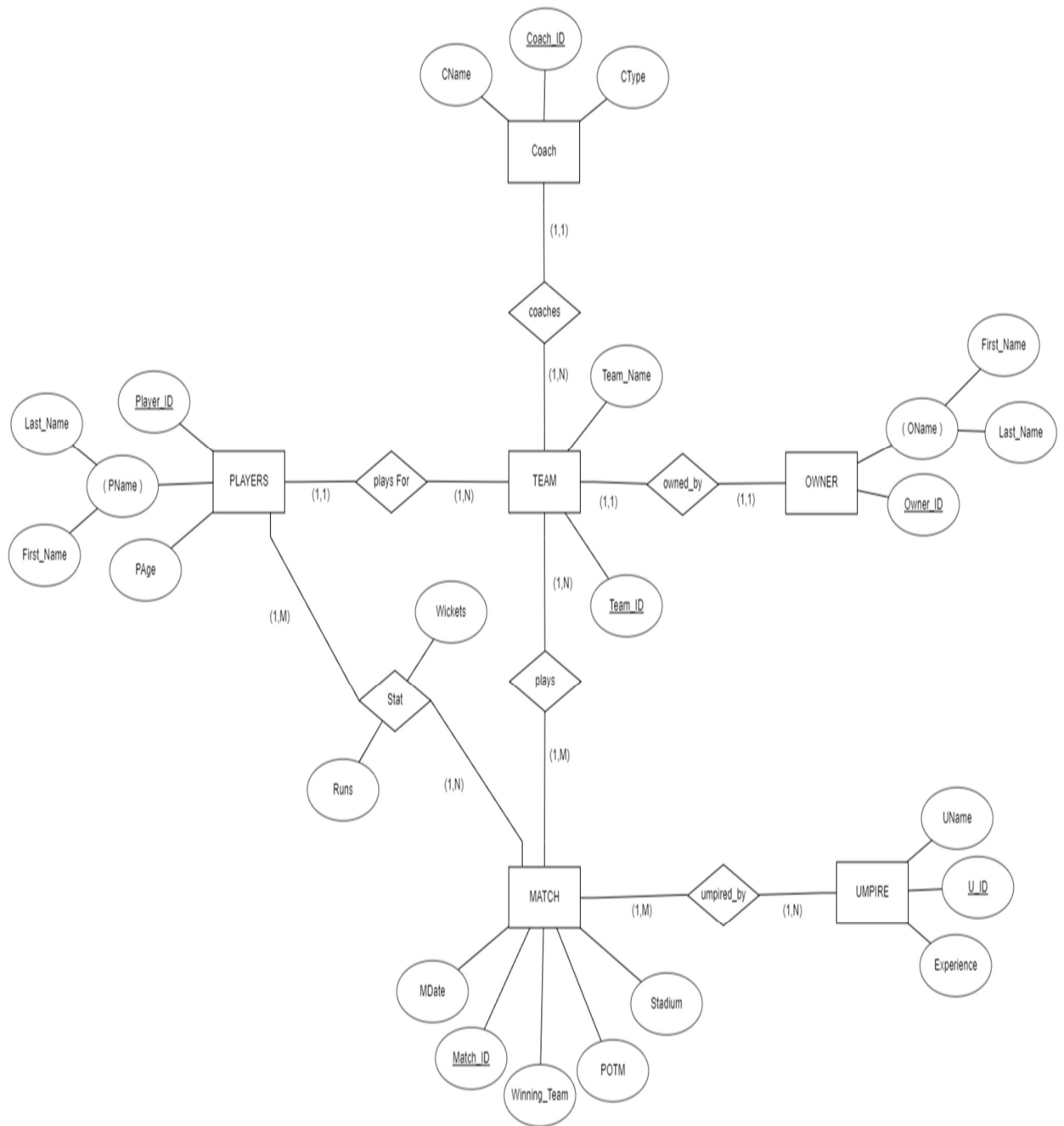
Relational Schema

PLAYERS

Player_ID	First_Name	Last_Name	PAge	Team_ID

TEAM

Team_ID	Team_Name	Owner_ID

MATCHES

Match_ID	MDate	Winning_Team	POTM	Stadium

COACH

Coach_ID	CName	CType	Team_ID

OWNER

Owner_ID	First_Name	Last_Name

UMPIRE

Umpire_ID	UName	Experience

STAT

Runs	Wickets	Player_ID	Match_ID

PLAYS

Team_ID	Match_ID

REFEREE

Match_ID	Umpire_ID
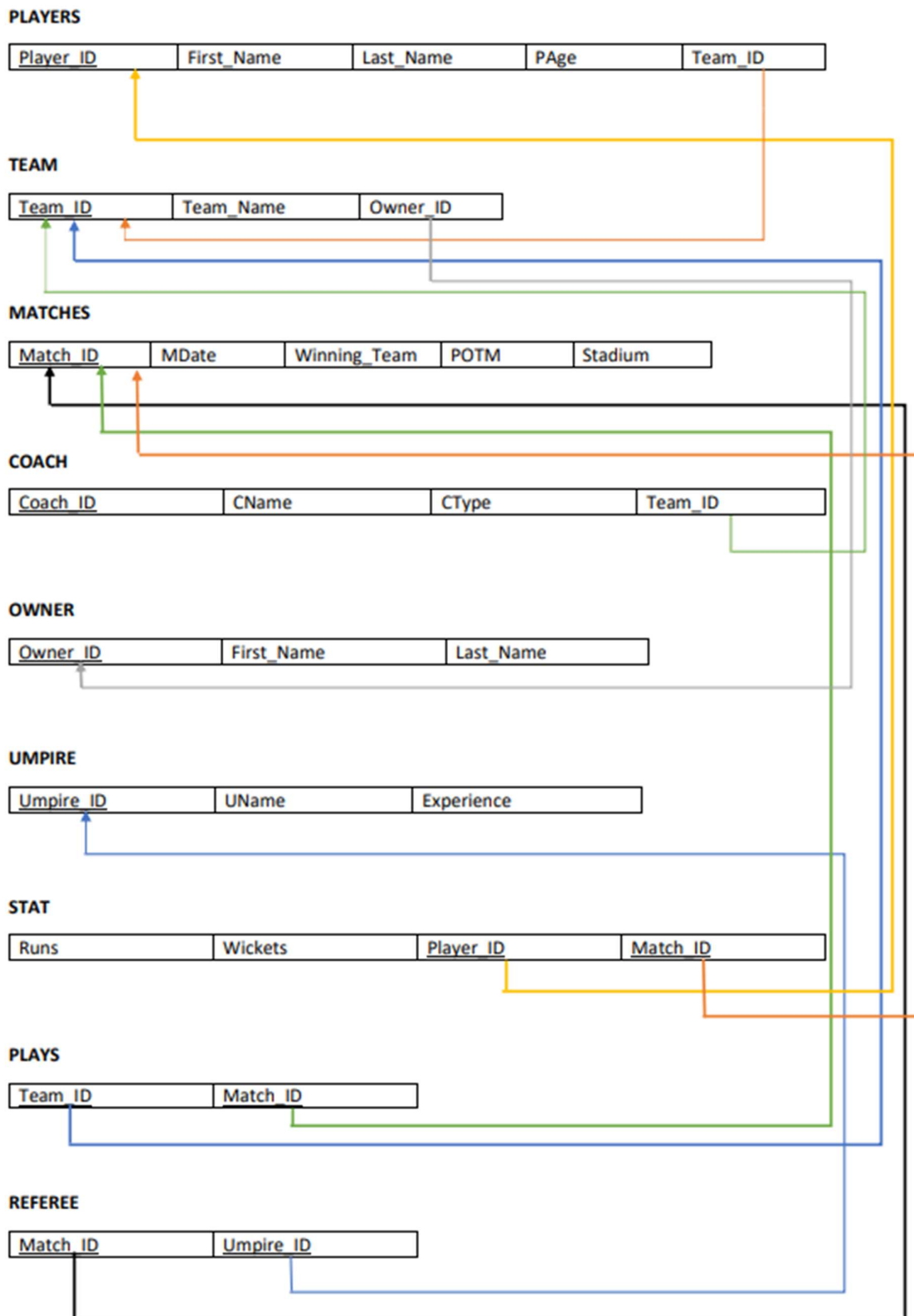
DDL statements - Building the database

```sql
create table players(
    Player_ID varchar(10),
    First_Name varchar(20),
    Last_Name varchar(20),
    Age integer default 18,
    Team_ID varchar(10),
    primary key(Player_ID)
);

create table team(
    Team_ID varchar(10),
    Team_Name varchar(20),
    Owner_ID varchar(10),
    primary key(Team_ID)
);

create table matches(
    Match_ID varchar(10),
    MDate DATE,
    Winning_Team varchar(20),
    POTM varchar(20),
    Stadium varchar(20),
    primary key(Match_ID));

create table coach(
    Coach_ID varchar(10),
    Coach_Name varchar(20),
    CType varchar(10),
    Team_ID varchar(10),
    primary key(Coach_ID)
);

create table owner(
    Owner_ID varchar(10),
    First_Name varchar(20),
    Last_Name varchar(20),
    primary key(Owner_ID)
);

create table umpire(
    Umpire_ID varchar(10),
    Umpire_Name varchar(20),
    Experience integer,
    primary key(Umpire_ID)
);
```

```sql
create table stat(
    Player_ID varchar(10),
    Match_ID varchar(10),
    Runs integer,
    Wickets integer,
    primary key(Player_ID,Match_ID)
);

create table plays(
    Team_ID varchar(10),
    Match_ID varchar(10),
    primary key(Team_ID,Match_ID)
);

create table referee(
    Match_ID varchar(10),
    Umpire_ID varchar(10)
);

alter table players add constraint players_team foreign key(Team_ID)
references team(Team_ID) on delete cascade;


alter table team add constraint team_owner foreign key(owner_ID) references
owner(owner_ID) on delete cascade;


alter table coach add constraint coach_team foreign key(Team_ID) references
team(Team_ID) on delete cascade;


alter table stat add constraint stat_players foreign key(Player_ID) references
players(Player_ID) on delete cascade;
alter table stat add constraint stat_matches foreign key(Match_ID) references
matches(Match_ID) on delete cascade;


alter table plays add constraint plays_team foreign key(Team_ID) references
team(Team_ID) on delete cascade;
alter table plays add constraint plays_matches foreign key(Match_ID)
references matches(Match_ID) on delete cascade;


alter table referee add constraint referee_matches foreign key(Match_ID)
references matches(Match_ID) on delete cascade;
alter table referee add constraint referee_umpire foreign key(Umpire_ID)
references umpire(Umpire_ID) on delete cascade;
```

Populating the Database

```sql
insert into players values("BA101","Rohit","Sharma",35,"T101");
insert into players values("BA102","Virat","Kohli",35,"T102");
insert into players values("BA103","MS","Dhoni",35,"T103");
insert into players values("BA104","KL","Rahul",35,"T104");
insert into players values("BA105","Hardik","Pandya",35,"T105");
insert into players values("BO101","Jasprit","Bumrah",35,"T101");
insert into players values("BO102","Josh","Hazlewood",35,"T102");
insert into players values("BO103","Deepak","Chahar",35,"T103");
insert into players values("BO104","Arshdeep","Singh",35,"T104");
insert into players values("BO105","Mohammed","Shami",35,"T105");

insert into team values("T101","Mumbai Indians","O101");
insert into team values("T102","RCB","O102");
insert into team values("T103","CSK","O103");
insert into team values("T104","Punjab Kings","O104");
insert into team values("T105","Gujarat Titans","O105");

insert into matches values("M101",'2022-11-01',"Mumbai Indians","Rohit
Sharma","Wankhede");
insert into matches values("M102",'2022-11-02',"RCB","Virat
Kohli","Chinnaswamy");
insert into matches values("M103",'2022-11-03',"CSK","MS
Dhoni","Chidambaram");
insert into matches values("M104",'2022-11-04',"Punjab Kings","KL
Rahul","Mohali");
insert into matches values("M105",'2022-11-05',"Gujarat Titans","Hardik
Pandya","Narendra Modi");

insert into coach values("C1011","Parthiv Patel","Batting","T101");
insert into coach values("C1012","Vinay Kumar","Bowling","T101");
insert into coach values("C1021","Sridharan Sriram","Batting","T102");
insert into coach values("C1022","Adam Griffith","Bowling","T102");
insert into coach values("C1031","Stephen Fleming","Batting","T103");
insert into coach values("C1032","Laksmipathi Balaji","Bowling","T103");
insert into coach values("C1041","Wasim Jaffer","Batting","T104");
insert into coach values("C1042","Charl Langelvedt","Bowling","T104");
insert into coach values("C1051","Gary Kirsten","Batting","T105");
insert into coach values("C1052","Ashish Nehra","Bowling","T105");

insert into owner values("O101","Mukesh","Ambani");
insert into owner values("O102","United","Spirits");
insert into owner values("O103","India","Cements");
insert into owner values("O104","Preity","Zinta");
insert into owner values("O105","CVC","Capital");
```

```sql
insert into umpire values("U101","Anil Choudary",13);
insert into umpire values("U102","Kumar Dharmasena",12);
insert into umpire values("U103","Nitin Menon",6);
insert into umpire values("U104","Marais Erasmus",13);
insert into umpire values("U105","Chris Gaffaney",7);

insert into stat values("BA101","M101",94,0);
insert into stat values("BA101","M103",9,0);
insert into stat values("BA102","M102",65,0);
insert into stat values("BA102","M104",31,0);
insert into stat values("BA103","M103",52,0);
insert into stat values("BA103","M105",17,0);
insert into stat values("BA104","M102",0,0);
insert into stat values("BA104","M104",74,0);
insert into stat values("BA105","M101",31,0);
insert into stat values("BA105","M105",48,1);
insert into stat values("BA101","M101",0,2);
insert into stat values("BA101","M103",0,1);
insert into stat values("BA102","M102",0,2);
insert into stat values("BA102","M104",5,1);
insert into stat values("BA103","M103",3,1);
insert into stat values("BA103","M105",0,0);
insert into stat values("BA104","M102",0,1);
insert into stat values("BA104","M104",20,1);
insert into stat values("BA105","M101",1,2);
insert into stat values("BA105","M105",0,4);

insert into plays values("T101","M101");
insert into plays values("T101","M103");
insert into plays values("T102","M102");
insert into plays values("T102","M104");
insert into plays values("T103","M103");
insert into plays values("T103","M105");
insert into plays values("T104","M102");
insert into plays values("T104","M104");
insert into plays values("T105","M101");
insert into plays values("T105","M105");

insert into referee values("M101","U101");
insert into referee values("M101","U102");
insert into referee values("M101","U103");
insert into referee values("M102","U102");
insert into referee values("M102","U103");
insert into referee values("M102","U104");
insert into referee values("M103","U103");
insert into referee values("M103","U104");
insert into referee values("M103","U105");
insert into referee values("M104","U104");
```

```
insert into referee values("M104","U105");
insert into referee values("M104","U101");
insert into referee values("M105","U105");
insert into referee values("M105","U101");
insert into referee values("M105","U102");
```

Tool Used

1. Front End : **STREAMLIT**
2. Backend   : **MYSQL**

Queries

Join queries (at least 6)

Write the query in English Language, Show the equivalent SQL statement and also screenshot of the query and the results. Include 2 regular join, 2 co-related and 2 nested queries

QUERY 1 – REGULAR JOIN

Display all the details of the player and the team he plays for whose age is greater than or equal to 30.

Select * from players natural join team where Age>=30;

QUERY 2 – REGULAR JOIN

Display the team name and the date on which it is going to play.

Select Team_Name, MDate from plays as p natural join team join matches as m where m.Match_ID= p.Match_ID;

Enter your query:

Select Team_Name, MDate from plays as p natural join team join matches as m where m.Match_ID= p.Match_ID;

Submit

Results of your query (Select Team_Name, MDate from plays as p natural join team join matches as m where m.Match_ID= p.Match_ID)

	Team_Name	MDate
0	Mumbai Indians	2022-11-01
1	Gujarat Titans	2022-11-01
2	RCB	2022-11-02
3	Punjab Kings	2022-11-02
4	Mumbai Indians	2022-11-03
5	CSK	2022-11-03
6	RCB	2022-11-04
7	Punjab Kings	2022-11-04
8	CSK	2022-11-05
9	Gujarat Titans	2022-11-05

Query executed successfully..

Display the details of Players and Match ID who is a Batsman and scored less runs than his overall average.

select distinct Player_ID, First_Name, Last_Name, Runs,Match_ID from players natural join stat where runs< (select AVG(runs) from stat where stat.Player_ID=players.Player_ID) and stat.Player_ID like 'BA%';

QUERY

Enter your query :

```
select distinct Player_ID, First_Name, Last_Name, Runs,Match_ID from
players natural join stat where runs< (select AVG(runs) from stat  where
stat.Player_ID=players.Player_ID) and stat.Player_ID like 'BA%';
```

Submit

Results of your query (select distinct Player_ID, First_Name, Last_Name, Runs,Match_ID from players natural join stat where runs< (select AVG(runs) from stat where stat.Player_ID=players.Player_ID) and stat.Player_ID like 'BA%')

	Player_ID	First_Name	Last_Name	Runs	Match_ID
0	BA101	Rohit	Sharma	9	M103
1	BA102	Virat	Kohli	31	M104
2	BA103	MS	Dhoni	17	M105
3	BA104	KL	Rahul	0	M102
4	BA105	Hardik	Pandya	31	M101

Query executed successfully..

QUERY 4 – CORRELATED QUERY

Display the name of the umpires who have umpired matches in Mohali.

Select Umpire_ID,Umpire_Name,Match_ID from umpire natural join referee where exists (Select 'X' from matches where stadium='Mohali' and referee.Match_ID=matches.Match_ID);

QUERY

Enter your query :

Select Umpire_ID,Umpire_Name,Match_ID from umpire natural join referee where exists (Select 'X' from matches where stadium='Mohali' and referee.Match_ID=matches.Match_ID);

Submit

Results of your query (Select Umpire_ID,Umpire_Name,Match_ID from umpire natural join referee where exists (Select 'X' from matches where stadium='Mohali' and referee.Match_ID=matches.Match_ID))

	Umpire_ID	Umpire_Name	Match_ID
0	U101	Anil Choudary	M104
1	U104	Marais Erasmus	M104
2	U105	Chris Gaffaney	M104

Query executed successfully..

QUERY 5 – NESTED QUERY

Display details of players whose Coach ID is C1011 or C1012.

Select * from players where Team_ID in (Select Team_ID from coach where Coach_ID='C1011' or Coach_ID='C1012');

QUERY 6 – NESTED QUERY

Display all the umpires present in the matches when RCB has won.

      select Umpire_ID, Umpire_Name from umpire where Umpire_ID in (Select Umpire_ID from referee where Match_ID in (Select Match_ID from matches where Winning_Team='RCB'));

QUERY

Enter your query :

```
select Umpire_ID, Umpire_Name from umpire where Umpire_ID in (
Select Umpire_ID from referee where Match_ID in ( Select Match_ID from
matches where Winning_Team='RCB'));
```

Submit

Results of your query (select Umpire_ID, Umpire_Name from umpire where Umpire_ID in (Select Umpire_ID from referee where Match_ID in (Select Match_ID from matches where Winning_Team='RCB')))

	Umpire_ID	Umpire_Name
0	U102	Kumar Dharmasena
1	U103	Nitin Menon
2	U104	Marais Erasmus
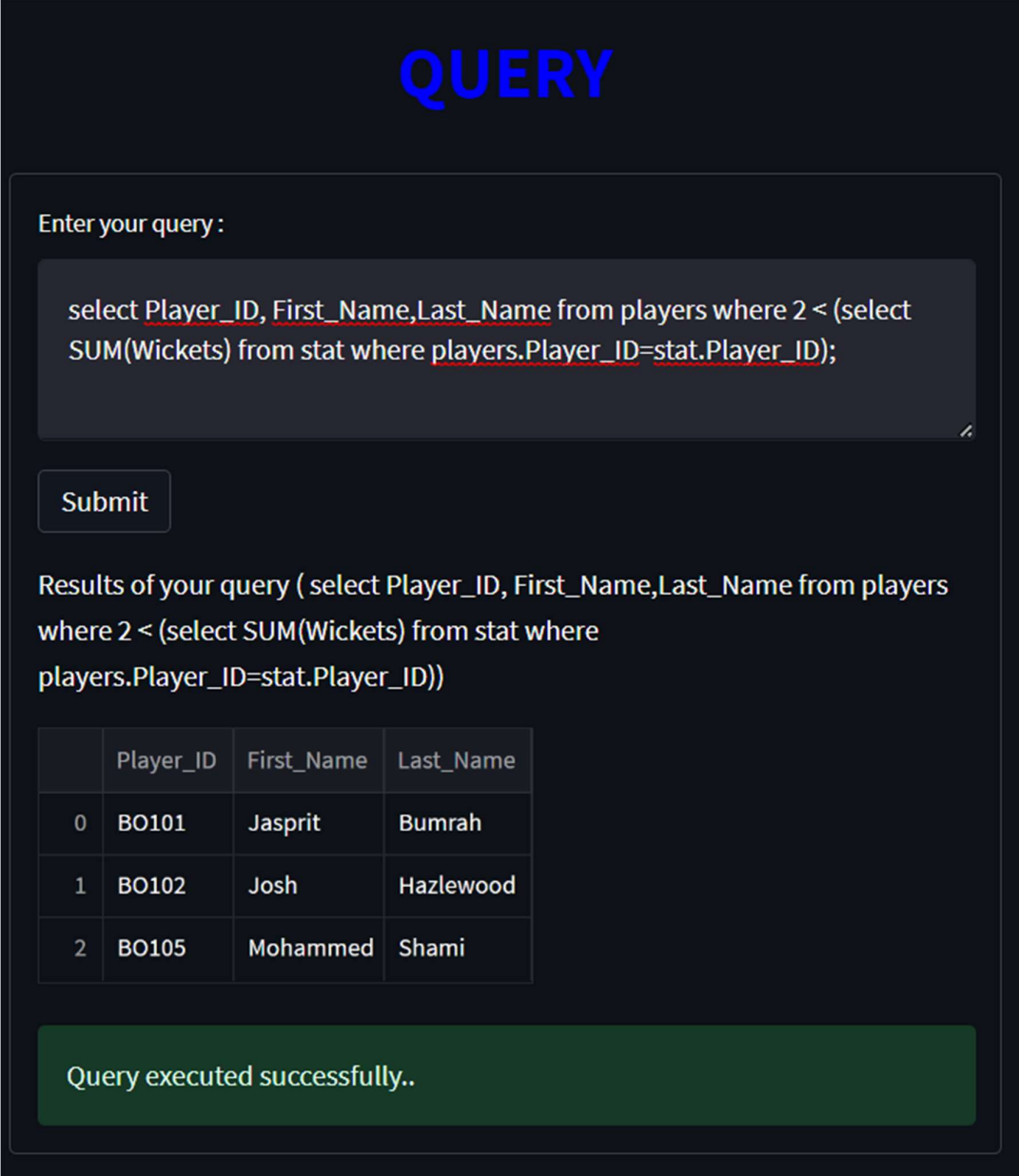
Query executed successfully..

Aggregate Functions

Showcase at least 2 Aggregate function queries. Write the query in English Language, Show the equivalent SQL statement and also screenshot of the query and the results

1.   **Display the player details who have taken more than 2 wickets.**

   select Player_ID, First_Name,Last_Name from players where 2 < (select SUM(Wickets) from stat where players.Player_ID=stat.Player_ID);

QUERY

Enter your query :

```
select Player_ID, First_Name,Last_Name from players where 2 < (select
SUM(Wickets) from stat where players.Player_ID=stat.Player_ID);
```

Submit

Results of your query (select Player_ID, First_Name,Last_Name from players where 2 < (select SUM(Wickets) from stat where players.Player_ID=stat.Player_ID))

	Player_ID	First_Name	Last_Name
0	BO101	Jasprit	Bumrah
1	BO102	Josh	Hazlewood
2	BO105	Mohammed	Shami

Query executed successfully..

2. Display the number of matches played by each player.

select Player_ID, First_Name,Last_Name,Count(Player_ID) as Matches_Played from players natural join plays group by Player_ID ;

Enter your query :

```
select Player_ID, First_Name,Last_Name,Count(Player_ID) as
Matches_Played from players  natural join plays group by Player_ID ;
```

Submit

Results of your query (select Player_ID, First_Name,Last_Name,Count(Player_ID) as Matches_Played from players natural join plays group by Player_ID)

	Player_ID	First_Name	Last_Name	Matches_Played
0	BA101	Rohit	Sharma	2
1	BA102	Virat	Kohli	2
2	BA103	MS	Dhoni	2
3	BA104	KL	Rahul	2
4	BA105	Hardik	Pandya	2
5	BO101	Jasprit	Bumrah	2
6	BO102	Josh	Hazlewood	2
7	BO103	Deepak	Chahar	2
8	BO104	Arshdeep	Singh	2
9	BO105	Mohammed	Shami	2

Set Operations

Showcase at least 2 Set Operations queries . Write the query in English Language, Show the equivalent SQL statement and also screenshot of the query and the results

1. **Display the players who have played in Mohali or Wankhede Stadium.**
   (select Player_ID, First_Name,Last_Name,Stadium from players natural join plays natural join matches where stadium = 'Wankhede')
   UNION
   (select Player_ID, First_Name,Last_Name,Stadium from players natural join plays natural join matches where stadium = 'Mohali');

Enter your query :

```
(select Player_ID, First_Name,Last_Name,Stadium from players natural
join plays natural join matches where stadium = 'Wankhede' ) UNION
(select Player_ID, First_Name,Last_Name,Stadium from players natural
join plays natural join matches where stadium = 'Mohali')
```

Submit

Results of your query ((select Player_ID, First_Name,Last_Name,Stadium from players natural join plays natural join matches where stadium = 'Wankhede') UNION (select Player_ID, First_Name,Last_Name,Stadium from players natural join plays natural join matches where stadium = 'Mohali'))

	Player_ID	First_Name	Last_Name	Stadium
0	BA101	Rohit	Sharma	Wankhede
1	BA105	Hardik	Pandya	Wankhede
2	BO101	Jasprit	Bumrah	Wankhede
3	BO105	Mohammed	Shami	Wankhede
4	BA102	Virat	Kohli	Mohali
5	BA104	KL	Rahul	Mohali
6	BO102	Josh	Hazlewood	Mohali
7	BO104	Arshdeep	Singh	Mohali

2. **Display the Names of Umpires who have umpired in both matches Match ID = 'M101' and Match ID = 'M103'.**

> (select Umpire_ID,Umpire_Name from umpire natural join referee where Match_ID="M101")
> INTERSECT
> (select Umpire_ID,Umpire_Name from umpire natural join referee where Match_ID="M103");

QUERY

Enter your query :

```
(select Umpire_ID,Umpire_Name from umpire natural join referee where
Match_ID="M101") INTERSECT (select Umpire_ID,Umpire_Name from
umpire natural join referee where Match_ID="M103");
```

Submit

Results of your query ((select Umpire_ID,Umpire_Name from umpire natural join referee where Match_ID="M101") INTERSECT (select Umpire_ID,Umpire_Name from umpire natural join referee where Match_ID="M103"))

	Umpire_ID	Umpire_Name
0	U103	Nitin Menon

View

Demonstrate creation and querying one view.

Creating View:

create view v1 as (Select p.Player_ID,First_Name,Last_Name,Runs,Wickets,Match_ID from players as p join stat as s where p.Player_ID=s.Player_ID);

```
MariaDB [cricket_tournament]> create view v1 as (Select p.Player_ID,First_Name,Last_Name,Runs,Wickets,
Match_ID from players as p join stat as s where p.Player_ID=s.Player_ID);
Query OK, 0 rows affected (0.383 sec)

MariaDB [cricket_tournament]>
```

Querying using View:

Display all the matches and players who scored more than 30 runs or took atleast 1 wicket.

select * from v1 natural join matches where runs>30 or wickets>=1;

```
MariaDB [cricket_tournament]> select * from v1 natural join matches where runs>30 or wickets>=1;
+----------+-----------+------------+-----------+------+---------+------------+----------------+---------------+---------------+
| Match_ID | Player_ID | First_Name | Last_Name | Runs | Wickets | MDate      | Winning_Team   | POTM          | Stadium       |
+----------+-----------+------------+-----------+------+---------+------------+----------------+---------------+---------------+
| M101     | BA101     | Rohit      | Sharma    | 94   | 0       | 2022-11-01 | Mumbai Indians | Rohit Sharma  | Wankhede      |
| M101     | BA105     | Hardik     | Pandya    | 31   | 0       | 2022-11-01 | Mumbai Indians | Rohit Sharma  | Wankhede      |
| M101     | BO101     | Jasprit    | Bumrah    | 0    | 2       | 2022-11-01 | Mumbai Indians | Rohit Sharma  | Wankhede      |
| M101     | BO105     | Mohammed   | Shami     | 1    | 2       | 2022-11-01 | Mumbai Indians | Rohit Sharma  | Wankhede      |
| M102     | BA102     | Virat      | Kohli     | 65   | 0       | 2022-11-02 | RCB            | Virat Kohli   | Chinnaswamy   |
| M102     | BO102     | Josh       | Hazlewood | 0    | 2       | 2022-11-02 | RCB            | Virat Kohli   | Chinnaswamy   |
| M102     | BO104     | Arshdeep   | Singh     | 0    | 1       | 2022-11-02 | RCB            | Virat Kohli   | Chinnaswamy   |
| M103     | BA103     | MS         | Dhoni     | 52   | 0       | 2022-11-03 | CSK            | MS Dhoni      | Chidambaram   |
| M103     | BO101     | Jasprit    | Bumrah    | 0    | 1       | 2022-11-03 | CSK            | MS Dhoni      | Chidambaram   |
| M103     | BO103     | Deepak     | Chahar    | 3    | 1       | 2022-11-03 | CSK            | MS Dhoni      | Chidambaram   |
| M104     | BA102     | Virat      | Kohli     | 31   | 0       | 2022-11-04 | PBKS           | KL Rahul      | Mohali        |
| M104     | BA104     | KL         | Rahul     | 74   | 0       | 2022-11-04 | PBKS           | KL Rahul      | Mohali        |
| M104     | BO102     | Josh       | Hazlewood | 5    | 1       | 2022-11-04 | PBKS           | KL Rahul      | Mohali        |
| M104     | BO104     | Arshdeep   | Singh     | 20   | 1       | 2022-11-04 | PBKS           | KL Rahul      | Mohali        |
| M105     | BA105     | Hardik     | Pandya    | 48   | 1       | 2022-11-05 | Gujarat Titans | Hardik Pandya | Narendra Modi |
| M105     | BO105     | Mohammed   | Shami     | 0    | 4       | 2022-11-05 | Gujarat Titans | Hardik Pandya | Narendra Modi |
+----------+-----------+------------+-----------+------+---------+------------+----------------+---------------+---------------+
16 rows in set (0.002 sec)

MariaDB [cricket_tournament]>
```

Triggers (Functions or Procedures)

Create a Function or a Procedure. State the objective of the function / Procedure. Run and display the results.

TRIGGER

Create a trigger to check that a team can have only 11 players.

DELIMITER $$

CREATE OR REPLACE TRIGGER count_players

BEFORE INSERT

ON players

FOR EACH ROW

BEGIN

    Declare count integer;

    SET count := (Select count(*) from players where Team_ID=New.Team_ID group by Team_ID);

    IF (count>=11) THEN

        SIGNAL SQLSTATE '50001' SET MESSAGE_TEXT="A Team can have only 11 players";

    END IF;

END ; $$

DELIMITER ;

```
MariaDB [cricket_tournament]> DELIMITER $$
MariaDB [cricket_tournament]> CREATE OR REPLACE TRIGGER count_players
    -> BEFORE INSERT
    -> ON players
    -> FOR EACH ROW
    -> BEGIN
    -> Declare count integer;
    ->
    -> SET count := (Select count(*) from players where Team_ID=New.Team_ID group by Team_ID);
    -> IF (count>=11) THEN
    -> SIGNAL SQLSTATE '50001' SET MESSAGE_TEXT="A Team can have only 11 players";
    -> END IF;
    -> END ; $$
Query OK, 0 rows affected (0.457 sec)

MariaDB [cricket_tournament]> DELIMITER ;
MariaDB [cricket_tournament]>
```

Present Data Record

```
MariaDB [cricket_tournament]> select * from players;
+-----------+------------+------------+------+---------+
| Player_ID | First_Name | Last_Name  | Age  | Team_ID |
+-----------+------------+------------+------+---------+
| BA101     | Rohit      | Sharma     |   39 | T101    |
| BA102     | Virat      | Kohli      |   34 | T102    |
| BA103     | MS         | Dhoni      |   40 | T103    |
| BA104     | KL         | Rahul      |   29 | T104    |
| BA105     | Hardik     | Pandya     |   30 | T105    |
| BA106     | Tim        | David      |   25 | T101    |
| BA107     | SuryaKumar | Yadav      |   32 | T101    |
| BA108     | Ishan      | Kishan     |   26 | T101    |
| BA109     | Dewald     | Brevis     |   20 | T101    |
| BA110     | Tilak      | Verma      |   21 | T101    |
| BO101     | Jasprit    | Bumrah     |   28 | T101    |
| BO102     | Josh       | Hazlewood  |   28 | T102    |
| BO103     | Deepak     | Chahar     |   29 | T103    |
| BO104     | Arshdeep   | Singh      |   25 | T104    |
| BO105     | Mohammed   | Shami      |   35 | T105    |
| BO106     | Jofra      | Archer     |   29 | T101    |
| BO107     | Arjun      | Tendulkar  |   19 | T101    |
| BO108     | Kumar      | Kartikeya  |   23 | T101    |
| BO109     | Hritik     | Shokeen    |   20 | T101    |
+-----------+------------+------------+------+---------+
19 rows in set (0.001 sec)

MariaDB [cricket_tournament]> select Team_ID,count(*) from players group by Team_ID;
+---------+----------+
| Team_ID | count(*) |
+---------+----------+
| T101    |       11 |
| T102    |        2 |
| T103    |        2 |
| T104    |        2 |
| T105    |        2 |
+---------+----------+
5 rows in set (0.001 sec)

MariaDB [cricket_tournament]>
```

Successful Insertion

```
MariaDB [cricket_tournament]> insert into players values("BA111","Faf","Duplesis",36,"T102");
Query OK, 1 row affected (0.474 sec)

MariaDB [cricket_tournament]> select * from players;
+-----------+------------+-----------+------+---------+
| Player_ID | First_Name | Last_Name | Age  | Team_ID |
+-----------+------------+-----------+------+---------+
| BA101     | Rohit      | Sharma    |   39 | T101    |
| BA102     | Virat      | Kohli     |   34 | T102    |
| BA103     | MS         | Dhoni     |   40 | T103    |
| BA104     | KL         | Rahul     |   29 | T104    |
| BA105     | Hardik     | Pandya    |   30 | T105    |
| BA106     | Tim        | David     |   25 | T101    |
| BA107     | SuryaKumar | Yadav     |   32 | T101    |
| BA108     | Ishan      | Kishan    |   26 | T101    |
| BA109     | Dewald     | Brevis    |   20 | T101    |
| BA110     | Tilak      | Verma     |   21 | T101    |
| BA111     | Faf        | Duplesis  |   36 | T102    |
| BO101     | Jasprit    | Bumrah    |   28 | T101    |
| BO102     | Josh       | Hazlewood |   28 | T102    |
| BO103     | Deepak     | Chahar    |   29 | T103    |
| BO104     | Arshdeep   | Singh     |   25 | T104    |
| BO105     | Mohammed   | Shami     |   35 | T105    |
| BO106     | Jofra      | Archer    |   29 | T101    |
| BO107     | Arjun      | Tendulkar |   19 | T101    |
| BO108     | Kumar      | Kartikeya |   23 | T101    |
| BO109     | Hritik     | Shokeen   |   20 | T101    |
+-----------+------------+-----------+------+---------+
20 rows in set (0.001 sec)

MariaDB [cricket_tournament]>
```

Error caused by Trigger

```
MariaDB [cricket_tournament]> insert into players values("BO110","Akash","Madhwal",23,"T101");
ERROR 1644 (50001): A Team can have only 11 players
MariaDB [cricket_tournament]> select * from players;
+-----------+------------+-----------+------+---------+
| Player_ID | First_Name | Last_Name | Age  | Team_ID |
+-----------+------------+-----------+------+---------+
| BA101     | Rohit      | Sharma    |   39 | T101    |
| BA102     | Virat      | Kohli     |   34 | T102    |
| BA103     | MS         | Dhoni     |   40 | T103    |
| BA104     | KL         | Rahul     |   29 | T104    |
| BA105     | Hardik     | Pandya    |   30 | T105    |
| BA106     | Tim        | David     |   25 | T101    |
| BA107     | SuryaKumar | Yadav     |   32 | T101    |
| BA108     | Ishan      | Kishan    |   26 | T101    |
| BA109     | Dewald     | Brevis    |   20 | T101    |
| BA110     | Tilak      | Verma     |   21 | T101    |
| BA111     | Faf        | Duplesis  |   36 | T102    |
| BO101     | Jasprit    | Bumrah    |   28 | T101    |
| BO102     | Josh       | Hazlewood |   28 | T102    |
| BO103     | Deepak     | Chahar    |   29 | T103    |
| BO104     | Arshdeep   | Singh     |   25 | T104    |
| BO105     | Mohammed   | Shami     |   35 | T105    |
| BO106     | Jofra      | Archer    |   29 | T101    |
| BO107     | Arjun      | Tendulkar |   19 | T101    |
| BO108     | Kumar      | Kartikeya |   23 | T101    |
| BO109     | Hritik     | Shokeen   |   20 | T101    |
+-----------+------------+-----------+------+---------+
20 rows in set (0.000 sec)

MariaDB [cricket_tournament]>
```

PROCEDURE

Write a procedure such that given a Team_ID, display when and where the team played.

DELIMITER $$

CREATE OR REPLACE PROCEDURE team_matches(ID varchar(10))

BEGIN

    select Match_ID, MDate, Stadium from matches Natural Join plays Natural join team where Team_ID=ID;

END; $$

DELIMITER ;

```
MariaDB [cricket_tournament]> DELIMITER $$
MariaDB [cricket_tournament]> CREATE OR REPLACE PROCEDURE team_matches(ID varchar(10))
    -> BEGIN
    -> select Match_ID, MDate, Stadium from matches Natural Join plays Natural join team where Team_ID=ID;
    -> END;
    -> $$
Query OK, 0 rows affected (0.544 sec)

MariaDB [cricket_tournament]> DELIMITER ;
MariaDB [cricket_tournament]>
```

CALLING THE PROCEDURE

```
MariaDB [cricket_tournament]> call team_matches("T101");
+----------+------------+-------------+
| Match_ID | MDate      | Stadium     |
+----------+------------+-------------+
| M101     | 2022-11-01 | Wankhede    |
| M103     | 2022-11-03 | Chidambaram |
+----------+------------+-------------+
2 rows in set (0.400 sec)

Query OK, 0 rows affected (0.410 sec)

MariaDB [cricket_tournament]> call team_matches("T102");
+----------+------------+-------------+
| Match_ID | MDate      | Stadium     |
+----------+------------+-------------+
| M102     | 2022-11-02 | Chinnaswamy |
| M104     | 2022-11-04 | Mohali      |
+----------+------------+-------------+
2 rows in set (0.001 sec)

Query OK, 0 rows affected (0.004 sec)

MariaDB [cricket_tournament]>
```
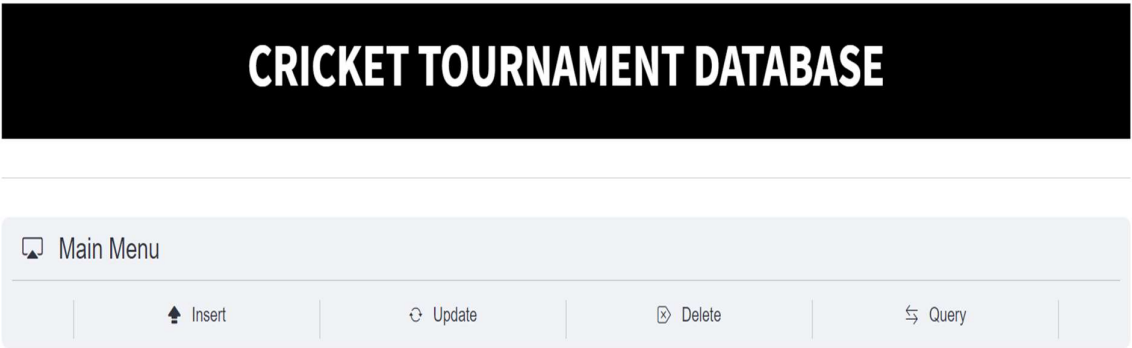
Developing a Frontend

The frontend should support

1. Addition, Modification and Deletion of records from any chosen table

2. There should be a window to accept and run any SQL statement and display the result