Database Final Assessment

4. Documentation

Part 1. User Guide

NAME: Kathir Subramaniam
Curtin ID: 20658748

Note

The MySQL Version used is: Ver 8.0.30-0ubuntu0.22.04.1 for Linux on x86_64 ((Ubuntu))

Background Information of the files included

I have included all my SQL scripts and files under a main folder called the "FinalAssesmentSQLFiles". The Final_Tables.sql file and the Final_Values.sql file contain the necessary commands to create and input the data I have used. The Final_Query.sql file contains the MYSQL Select Query statements to retrieve data from the tables created. The Final_Procedure.sql file contains the commands to create the advanced features which are Stored Procedures, Views and Triggers.

Creating the Database with Data

This Guide will help the User to create a new Database in their MySQL server, Add the necessary four important tables used in this assessment, and all the vital data added into the four tables.

1. The first step will be to create a sample Database in the MYSQL server, for this Assessment, I have named the Database "CricketFinalAss_20658748". To create the Database, use command;

```
create database CricketFinalAss_20658748;
```

2. The next step is to add the necessary tables, that is Match_Details, Player_Details, Team_Details, and Stadium_Details. To create the above tables and data, use the following commands;

SOURCE Final_Tables.sql

SOURCE Final_Values.sql

Both the above commands will run the already created Final_Tables.sql and Final_Values.sql files and create the tables with the data I have added inside. The Final_Tables.sql file will create the following;

a. Create the Team_Details Table as the Initial table

```
create table Team_Details(Team_CaptainName VARCHAR(60), TeamName VARCHAR(60), PRIMARY KEY(TeamName));
```

b. Then, Create the Stadium_Details Table

```
create table Stadium_Details(Address VARCHAR(60), Name VARCHAR(60), PRIMARY KEY(Address));
```

c. In Addition, create the third table: Player_Details

```
create table Player_Details(Player_Num Int(3), TeamName VARCHAR (20), Player_Name VARCHAR (20), PRIMARY
KEY (Player_Num,TeamName), FOREIGN KEY (TeamName) REFERENCES Team_Details (TeamName));
```

d. Finally, Create the Match_Details Table

```
create table Match_Details(Match_ID VARCHAR(10), WinningTeamScore VARCHAR(20), LosingTeamScore
VARCHAR(20), Date Date, TeamName VARCHAR(60), Stadium_Name VARCHAR(60), PRIMARY KEY(Match_ID),
FOREIGN KEY (TeamName) REFERENCES Team_Details(TeamName), FOREIGN KEY (Stadium_Name) REFERENCES
Stadium_Details(Address));
```

3. After we have created the necessary tables, let us see if our tables are correctly implemented using the following command:

```
mysql> show tables;
+---------------------------------------+
| Tables_in_CricketFinalAss_20658748 |
+---------------------------------------+
| Match_Details                         |
| Player_Details                        |
| Stadium_Details                       |
| Team_Details                          |
+---------------------------------------+
```

4. Then Final_Values.sql file will have the necessary commands to add data into the tables previously created. It does the following;
    a. For Team_Details, add the following sample data:

```
INSERT INTO Team_Details VALUES ('Aaron FLinch','Australia');
INSERT INTO Team_Details VALUES ('Kane Williamson','New Zealand');
INSERT INTO Team_Details VALUES ('Darren Sammy','West Indies');
INSERT INTO Team_Details VALUES ('Eoin Morgan','England');
INSERT INTO Team_Details VALUES ('MS Dhoni','India');
INSERT INTO Team_Details VALUES ('Lasith Malinga','Sri Lanka');
```

    b. For Stadium_Details :

```
INSERT INTO Stadium_Details VALUES ('Dubai','Dubai International Cricket Stadium');
INSERT INTO Stadium_Details VALUES ('Kolkata','Eden Gardens');
INSERT INTO Stadium_Details VALUES ('Dhanka','Shere Bangla National Stadium');
```

    c. For Match_Details :

```
INSERT INTO Match_Details VALUES ('3','134/4(17.5)','130/4(20)','2016-06-04','Sri Lanka','Dhanka');
INSERT INTO Match_Details VALUES ('1','173/2(18.5)','172/4(20)','2021-11-14','Australia','Dubai');
INSERT INTO Match_Details VALUES ('2','161/6(19.4)','155/9(20)','2016-03-04','West Indies','Kolkata');
```

    d. For Player_Details :

```
INSERT INTO Player_Details VALUES (1,'Australia','Aaron Flinch');
INSERT INTO Player_Details VALUES (2,'Australia','Glen Maxwell');
INSERT INTO Player_Details VALUES (3,'Australia','Steve Smith');
INSERT INTO Player_Details VALUES (4,'Australia','David Warner');
INSERT INTO Player_Details VALUES (5,'Australia','Pat Cummins');
INSERT INTO Player_Details VALUES (6,'Australia','Michell Starc');
INSERT INTO Player_Details VALUES (7,'Australia','Kane Richardson');
INSERT INTO Player_Details VALUES (8,'Australia','Adam Zampa');
INSERT INTO Player_Details VALUES (9,'Australia','Mathew Wade');
INSERT INTO Player_Details VALUES (10,'Australia','Jackson Bird');
```

Note: The above Screenshots only depict a part of the sample data used in the tables.

The Queries Used to Test the Database design

The Queries can be found in the Final_Query.sql file

Query1:

```
/* Q1. show the Captain Name of Australia in Table Team_Details */
select * from Team_Details where TeamName = 'Australia';
```

Output:

```
mysql> select * from Team_Details where TeamName = 'Australia';
+------------------+-----------+
| Team_CaptainName | TeamName  |
+------------------+-----------+
| Aaron FLinch     | Australia |
+------------------+-----------+
```

Query 2:

```
/* Q2. show the Details of Stadium in Dubai */
select * from Stadium_Details where Address = 'Dubai';
```

Output:

```
mysql> select * from Stadium_Details where Address = 'Dubai';
+---------+-------------------------------------+
| Address | Name                                |
+---------+-------------------------------------+
| Dubai   | Dubai International Cricket Stadium |
+---------+-------------------------------------+
```

Query 3:

```
/* Q3.Show The team Name and name of the players with the firstname of Tom */
select TeamName,Player_Name AS FirstName from Player_Details where Player_Name LIKE 'Tom%';
```

Output:

```
mysql>
mysql> select TeamName,Player_Name AS FirstName from Player_Details where Player_Name LIKE 'Tom%';
+-------------+-------------+
| TeamName    | FirstName   |
+-------------+-------------+
| New Zealand | Tom Latham  |
| New Zealand | Tom Blundell |
| England     | Tom Curran  |
+-------------+-------------+
```

Query 4:

```
/* Q4.Show the player names and teamName of the matches after 2016/1/1 */
select Distinct Player_Name, Player_Details.TeamName from Match_Details,Player_Details where 'Date' >=
'2016-01-01';
```

Output: has 60 rows of Player Names with corresponding Team Names

Player_Name	TeamName
Aaron Flinch	Australia
Eoin Morgan	England
Virat Kohli	India
Kane Williamson	New Zealand
Kusal Mendis	Sri Lanka
Darren Sammy	West Indies
Glen Maxwell	Australia
Ben Stokes	England
Rohit Sharma	India
Martin Guptill	New Zealand
Dimuth Karunaratne	Sri Lanka
Chris Gayle	West Indies
Steve Smith	Australia
Joe Root	England
Hardik Pandya	India
Ross Taylor	New Zealand
Dhananjaya de Silva	Sri Lanka

Query 5:

```sql
/* Q5. show the teams and captains names in descending order who were in the winners in the
tournaments.*/
select Team_CaptainName, Match_Details.TeamName,Team_Details.TeamName from Team_Details,Match_Details
where Match_Details.TeamName = Team_Details.TeamName order by Team_CaptainName desc;
```

Output:

```
mysql> select Team_CaptainName, Match_Details.TeamName,Team_Details.TeamName from Team_Details,Match_Details where Match_Details.TeamName = Team_Details.TeamName order by Team_CaptainName desc;
+-----------------+------------+------------+
| Team_CaptainName | TeamName    | TeamName    |
+-----------------+------------+------------+
| Lasith Malinga   | Sri Lanka   | Sri Lanka   |
| Darren Sammy     | West Indies | West Indies |
| Aaron FLinch     | Australia   | Australia   |
+-----------------+------------+------------+
3 rows in set (0.01 sec)
```

Query 6:

```sql
/* Q6. Show all the matches played and the name of Stadium in Dubai */
select * from Stadium_Details as s inner join Match_Details as m where m.Stadium_Name = 'Dubai' and
s.Address = 'Dubai';
```

Output:

```
mysql> select * from Stadium_Details as s inner join Match_Details as m where m.Stadium_Name = 'Dubai' and s.Address = 'Dubai';
+---------+-----------------------------------+----------+-----------------+----------------+------------+-----------+--------------+
| Address | Name                              | Match_ID | WinningTeamScore | LosingTeamScore | Date       | TeamName  | Stadium_Name |
+---------+-----------------------------------+----------+-----------------+----------------+------------+-----------+--------------+
| Dubai   | Dubai International Cricket Stadium | 1        | 173/2(18.5)      | 172/4(20)       | 2021-11-14 | Australia | Dubai        |
+---------+-----------------------------------+----------+-----------------+----------------+------------+-----------+--------------+
1 row in set (0.03 sec)

mysql>
```