

Basic SQL Assignment 1

1. IPL Database: Table Creation

-- Table to store information about teams

```
CREATE TABLE Teams (  
team_id INT AUTO_INCREMENT PRIMARY KEY,  
team_name VARCHAR(100),  
team_captain VARCHAR(100)  
);
```

-- Table to store information about matches

```
CREATE TABLE Matches (  
match_id INT AUTO_INCREMENT PRIMARY KEY,  
venue VARCHAR(100),  
match_date DATE,  
team1_id INT,  
team2_id INT,  
toss_winner_id INT,  
match_winner_id INT,  
FOREIGN KEY (team1_id) REFERENCES Teams(team_id) ON DELETE CASCADE,  
FOREIGN KEY (team2_id) REFERENCES Teams(team_id) ON DELETE CASCADE,  
FOREIGN KEY (toss_winner_id) REFERENCES Teams(team_id) ON DELETE CASCADE,  
FOREIGN KEY (match_winner_id) REFERENCES Teams(team_id) ON DELETE CASCADE  
);
```

Output:

```
mysql> desc Matches; desc Teams;
```

Field	Type	Null	Key	Default	Extra
match_id	int	NO	PRI	NULL	auto_increment
venue	varchar(100)	YES		NULL	
match_date	date	YES		NULL	
team1_id	int	YES	MUL	NULL	
team2_id	int	YES	MUL	NULL	
toss_winner_id	int	YES	MUL	NULL	
match_winner_id	int	YES	MUL	NULL	

7 rows in set (0.01 sec)

Field	Type	Null	Key	Default	Extra
team_id	int	NO	PRI	NULL	auto_increment
team_name	varchar(100)	YES		NULL	
team_captain	varchar(100)	YES		NULL	

3 rows in set (0.00 sec)

2. IPL Database: Data Insertion and Test Query

a. Insert Query

```
INSERT INTO Teams
(team_name, team_captain)
VALUES
('Kolkata Knight Riders', 'Shreyas Iyer');
```

```
INSERT INTO Teams
(team_name, team_captain)
VALUES
('Royal Challengers Bangalore', 'Faf du Plessis');
```

```
INSERT INTO Matches
(venue, match_date, team1_id, team2_id, toss_winner_id, match_winner_id)
VALUES
('Eden Gardens, Kolkata', '2024-04-25', 1, 2, 1, 1);
```

Output:

```
mysql> SELECT * FROM Matches; SELECT * FROM Teams;
+-----+-----+-----+-----+-----+-----+-----+
| match_id | venue                | match_date | team1_id | team2_id | toss_winner_id | match_winner_id |
+-----+-----+-----+-----+-----+-----+-----+
| 1        | Eden Gardens, Kolkata | 2024-04-25 | 1        | 2        | 1              | 1              |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.02 sec)

+-----+-----+-----+
| team_id | team_name                | team_captain |
+-----+-----+-----+
| 1        | Kolkata Knight Riders    | Shreyas Iyer |
| 2        | Royal Challengers Bangalore | Faf du Plessis |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

b. Select Query

```
SELECT
m.match_date,
m.venue,
t1.team_name as team1_name,
t2.team_name as team2_name,
t1.team_captain as team1_captain,
t2.team_captain as team2_captain,
t3.team_name as toss_winner,
t4.team_name as match_winner
FROM
Matches m
JOIN
Teams t1 ON m.team1_id = t1.team_id
JOIN
Teams t2 ON m.team2_id = t2.team_id
```

```
JOIN
Teams t3 ON m.toss_winner_id = t3.team_id
JOIN
Teams t4 ON m.match_winner_id = t4.team_id;
```

Output:

```
mysql> source /var/www/example.com/html/MySQL/assign1_query.sql
+-----+-----+-----+-----+-----+-----+-----+-----+
| match_date | venue | team1_name | team2_name | team1_captain | team2_captain | toss_winner | match_winner |
+-----+-----+-----+-----+-----+-----+-----+-----+
| 2024-04-25 | Eden Gardens, Kolkata | Kolkata Knight Riders | Royal Challengers Bangalore | Shreyas Iyer | Faf du Plessis | Kolkata Knight Riders | Kolkata Knight Riders |
+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```