**Instruction File for Cricket SQL Case Study**

**Introduction**

This case study focuses on analyzing cricket match data using SQL. It is designed to challenge your SQL skills, covering schema design, data insertion, and complex queries, including the use of joins, subqueries, window functions, and aggregate functions.

You will work with the following tables:

1. **Players**: Information about players.
2. **Matches**: Details of cricket matches.
3. **Performance**: Player-specific performance in matches.
4. **Teams**: Team information.

**Table Schemas**

**1. Players Table**

CREATE TABLE Players (

PlayerID INT PRIMARY KEY,

PlayerName VARCHAR(100),

TeamName VARCHAR(100),

Role VARCHAR(50), -- e.g., Batsman, Bowler, All-Rounder, Wicket-Keeper

DebutYear INT

);

**2. Matches Table**

CREATE TABLE Matches (

MatchID INT PRIMARY KEY,

MatchDate DATE,

Location VARCHAR(100),

Team1 VARCHAR(100),

Team2 VARCHAR(100),

Winner VARCHAR(100)

);

**3. Performance Table**

CREATE TABLE Performance (

MatchID INT,

PlayerID INT,

RunsScored INT,

WicketsTaken INT,

Catches INT,

Stumpings INT,

NotOut BOOLEAN,

RunOuts INT,

FOREIGN KEY (MatchID) REFERENCES Matches(MatchID),

FOREIGN KEY (PlayerID) REFERENCES Players(PlayerID)

);

**4. Teams Table**

CREATE TABLE Teams (

TeamName VARCHAR(100) PRIMARY KEY,

Coach VARCHAR(100),

Captain VARCHAR(100)

);

**Sample Data**

Insert the following data into the tables:

**Players Table**

INSERT INTO Players VALUES

(1, 'Virat Kohli', 'India', 'Batsman', 2008),

(2, 'Steve Smith', 'Australia', 'Batsman', 2010),

(3, 'Mitchell Starc', 'Australia', 'Bowler', 2010),

(4, 'MS Dhoni', 'India', 'Wicket-Keeper', 2004),

(5, 'Ben Stokes', 'England', 'All-Rounder', 2011);

**Matches Table**

INSERT INTO Matches VALUES

(1, '2023-03-01', 'Mumbai', 'India', 'Australia', 'India'),

(2, '2023-03-05', 'Sydney', 'Australia', 'England', 'England');

**Performance Table**

INSERT INTO Performance VALUES

(1, 1, 82, 0, 1, 0, FALSE, 0),

(1, 4, 5, 0, 0, 1, TRUE, 0),

(2, 3, 15, 4, 0, 0, FALSE, 0);

**Teams Table**

INSERT INTO Teams VALUES

('India', 'Rahul Dravid', 'Rohit Sharma'),

('Australia', 'Andrew McDonald', 'Pat Cummins');

**Evaluation Criteria**

1. Correctness of queries.
2. Efficiency of SQL logic.
3. Proper use of advanced SQL techniques like window functions and joins.
4. Output formatting and clarity.

**Submission Guidelines**

1. Submit a SQL file containing your solutions.
2. Include comments explaining your logic.
3. Ensure that the script can be executed without errors on a MySQL database.

Questions for Case Study - <https://drive.google.com/file/d/1DjVMieYhDLyBinsvGlzMjgBqEzF1atXR/view?usp=drive_link>