

Cricket Database: Players, Formats, Batting Statistics, Bowling Statistics

-- 1. Players Table

```
CREATE TABLE Players (
    player_id INT PRIMARY KEY AUTO_INCREMENT,
    player_name VARCHAR(100) NOT NULL,
    country VARCHAR(50) NOT NULL,
    date_of_birth DATE,
    role ENUM('Batsman', 'Bowler', 'All-rounder', 'Wicket-keeper') NOT NULL,
    batting_style VARCHAR(50),
    bowling_style VARCHAR(50),
    debut_year INT
);
```

-- 2. Formats Table

```
CREATE TABLE Formats (
    format_id INT PRIMARY KEY AUTO_INCREMENT,
    format_name VARCHAR(20) NOT NULL UNIQUE,
    overs_per_innings INT,
    description VARCHAR(200)
);
```

-- 3. Batting_Statistics Table

```
CREATE TABLE Batting_Statistics (
    batting_statistics_id INT PRIMARY KEY AUTO_INCREMENT,
    player_id INT NOT NULL,
    format_id INT NOT NULL,
    innings INT DEFAULT 0,
    runs_scored INT DEFAULT 0,
    centuries INT DEFAULT 0,
    batting_average DECIMAL(6,2),
    strike_rate DECIMAL(6,2),
    FOREIGN KEY (player_id) REFERENCES Players(player_id),
    FOREIGN KEY (format_id) REFERENCES Formats(format_id)
);
```

```

-- 4. Bowling_Statistics Table

CREATE TABLE Bowling_Statistics (
    bowling_statistics_id INT PRIMARY KEY AUTO_INCREMENT,
    player_id INT NOT NULL,
    format_id INT NOT NULL,
    matches_played INT DEFAULT 0,
    wickets_taken INT DEFAULT 0,
    best_bowling VARCHAR(10),
    five_wicket_hauls INT DEFAULT 0,
    economy_rate DECIMAL(5,2),
    FOREIGN KEY (player_id) REFERENCES Players(player_id),
    FOREIGN KEY (format_id) REFERENCES Formats(format_id)
);

-- =====

-- SAMPLE DATA (7 Records Each)
-- =====

-- Insert 7 Players

INSERT INTO Players (player_name, country, date_of_birth, role, batting_style, bowling_style, debut_year) VALUES
('Virat Kohli', 'India', '1988-11-05', 'Batsman', 'Right-hand bat', 'Right-arm medium', 2008),
('Jasprit Bumrah', 'India', '1993-12-06', 'Bowler', 'Right-hand bat', 'Right-arm fast', 2016),
('Steve Smith', 'Australia', '1989-06-02', 'Batsman', 'Right-hand bat', 'Leg break', 2010),
('Pat Cummins', 'Australia', '1993-05-08', 'All-rounder', 'Right-hand bat', 'Right-arm fast', 2011),
('Joe Root', 'England', '1990-12-30', 'Batsman', 'Right-hand bat', 'Right-arm off break', 2012),
('Shaheen Afridi', 'Pakistan', '2000-04-06', 'Bowler', 'Left-hand bat', 'Left-arm fast', 2018),
('Babar Azam', 'Pakistan', '1994-10-15', 'Batsman', 'Right-hand bat', 'Right-arm off break', 2015);

-- Insert 7 Formats (Only 3 main formats, but adding 4 more variations)

INSERT INTO Formats (format_name, overs_per_innings, description) VALUES
('Test', NULL, 'Multi-day format with unlimited overs'),
('ODI', 50, 'One Day International - 50 overs per side'),
('T20', 20, 'Twenty20 - 20 overs per side'),
('T10', 10, 'Ten10 - 10 overs per side'),

```

```
('The Hundred', NULL, '100 balls per side format'),  
('List A', 50, 'Limited overs domestic cricket'),  
('First Class', NULL, 'Multi-day domestic cricket format');
```

-- Insert 7 Batting Statistics Records

```
INSERT INTO Batting_Statistics (player_id, format_id, innings, runs_scored, centuries, batting_average, strike_rate) VALUES  
(1, 1, 196, 8848, 29, 47.55, 58.07), -- Virat Kohli Test  
(1, 2, 283, 13906, 50, 59.18, 93.42), -- Virat Kohli ODI  
(3, 1, 196, 9685, 32, 56.97, 54.26), -- Steve Smith Test  
(5, 1, 272, 12377, 34, 50.10, 51.82), -- Joe Root Test  
(7, 2, 125, 5729, 19, 56.72, 89.23), -- Babar Azam ODI  
(4, 2, 89, 1747, 1, 29.78, 88.56), -- Pat Cummins ODI  
(1, 3, 117, 4188, 1, 52.73, 138.43); -- Virat Kohli T20
```

-- Insert 7 Bowling Statistics Records

```
INSERT INTO Bowling_Statistics (player_id, format_id, matches_played, wickets_taken, best_bowling, five_wicket_hauls, economy_rate) VALUES  
(2, 1, 36, 159, '6/27', 11, 2.42), -- Jasprit Bumrah Test  
(2, 2, 89, 149, '6/19', 5, 5.08), -- Jasprit Bumrah ODI  
(2, 3, 70, 89, '3/7', 0, 7.36), -- Jasprit Bumrah T20  
(4, 1, 60, 269, '6/23', 14, 2.56), -- Pat Cummins Test  
(4, 2, 95, 171, '5/70', 2, 5.17), -- Pat Cummins ODI  
(6, 1, 31, 122, '6/51', 6, 2.71), -- Shaheen Afridi Test  
(6, 2, 57, 97, '6/35', 3, 5.73); -- Shaheen Afridi ODI
```

Queries

1. Get bowling statistics of Pat Cummins in all formats
2. Count how many players belong to each country
3. Show top 5 highest strike rates in T20 format
4. Show bowlers with economy < 3 in Test format
5. List players who play as All-rounders and have both >1000 runs and >50 wickets
6. Show average batting strike rate for each format
7. List top 3 bowlers with most 5-wicket hauls
8. Find the youngest player in the database

9. Show players who have never scored a century in any format
10. Display the player name who has the lowest bowling economy in ODI.
11. Find players from India with their total runs across all formats
12. Find the player who has scored the highest runs in ODI format (using subquery).
13. List all players whose batting average is above the overall average of all players.
14. Find formats where more than 1 player has scored 5000+ runs.
15. Show players who have NEVER scored a century in ANY format (only subqueries).