**Business Report**

-- Report 1: Team Performance

CREATE VIEW vw\_team\_performance AS

SELECT

t.TeamID,

t.TeamName,

COUNT(r.RaceID) AS TotalRaces,

SUM(CASE WHEN res.Points IS NOT NULL THEN 1 ELSE 0 END) AS RacesWithPoints,

COALESCE(SUM(res.Points), 0) AS TotalPoints

FROM

Teams t

LEFT JOIN

Drivers d ON t.TeamID = d.TeamID

LEFT JOIN

Results res ON d.DriverID = res.DriverID

GROUP BY

t.TeamID, t.TeamName

ORDER BY

TotalPoints DESC;

/\*

This view provides an overview of each F1 team's performance.

It includes the total number of races participated in, the number of races where the team earned points,

and the total points accumulated by the team. This report helps the business assess team success and popularity.

\*/

-- Report 2: Driver Statistics

CREATE VIEW vw\_driver\_statistics AS

SELECT

d.DriverID,

CONCAT(d.FirstName, ' ', d.LastName) AS DriverName,

t.TeamName,

COUNT(DISTINCT r.RaceID) AS TotalRaces,

COUNT(DISTINCT fl.RaceID) AS RacesWithFastestLap,

COUNT(DISTINCT dotd.RaceID) AS RacesWithDriverOfTheDay,

COUNT(DISTINCT dnf.RaceID) AS RacesWithDNF

FROM

Drivers d

JOIN

Teams t ON d.TeamID = t.TeamID

LEFT JOIN

Results r ON d.DriverID = r.DriverID

LEFT JOIN

FastestLap fl ON d.DriverID = fl.DriverID

LEFT JOIN

DriverOfTheDay dotd ON d.DriverID = dotd.DriverID

LEFT JOIN

DNF dnf ON d.DriverID = dnf.DriverID

GROUP BY

d.DriverID, DriverName, t.TeamName

ORDER BY

TotalRaces DESC;

/\*

This view provides statistics for each F1 driver.

It includes the total number of races participated in, the number of races with the fastest lap,

the number of races where the driver was awarded "Driver of the Day," and the number of races with a "Did Not Finish" status.

This report helps the business evaluate driver popularity and performance.

\*/

-- Report 3: Circuit Insights

CREATE VIEW vw\_circuit\_insights AS

SELECT

c.CircuitID,

c.CircuitName,

c.Country,

COUNT(DISTINCT r.RaceID) AS TotalRaces,

COUNT(DISTINCT fl.RaceID) AS RacesWithFastestLap,

COUNT(DISTINCT res.RaceID) AS RacesWithPoints,

COUNT(DISTINCT dnf.RaceID) AS RacesWithDNF

FROM

Circuits c

LEFT JOIN

Races r ON c.CircuitID = r.CircuitID

LEFT JOIN

FastestLap fl ON r.RaceID = fl.RaceID

LEFT JOIN

Results res ON r.RaceID = res.RaceID

LEFT JOIN

DNF dnf ON r.RaceID = dnf.RaceID

GROUP BY

c.CircuitID, c.CircuitName, c.Country

ORDER BY

TotalRaces DESC;

/\*

This view provides insights into each F1 circuit's performance.

It includes the total number of races held at the circuit, the number of races with the fastest lap,

the number of races with drivers earning points, and the number of races with a "Did Not Finish" status.

This report helps the business assess circuit popularity and performance.

\*/

-- Report 4: Qualifying Overview

CREATE VIEW vw\_qualifying\_overview AS

SELECT

q.RaceID,

c.CircuitName,

COUNT(q.QualifyingID) AS TotalQualifications,

MAX(q.QualifyingPosition) AS BestQualifyingPosition,

MIN(q.QualifyingPosition) AS WorstQualifyingPosition

FROM

Qualifying q

JOIN

Races r ON q.RaceID = r.RaceID

JOIN

Circuits c ON r.CircuitID = c.CircuitID

GROUP BY

q.RaceID, c.CircuitName

ORDER BY

TotalQualifications DESC;

/\*

This view provides an overview of F1 qualifying sessions.

It includes the total number of qualifications per race, the best qualifying position achieved, and the worst qualifying position.

This report helps the business understand the competitiveness of each race.

\*/