Evaluation Task

Overview

Atos, recognizing the pivotal role of sports in our lives, proudly partners with UEFA to support this passion. In line with this collaboration, we've created the Football Database, designed to meticulously manage, and analyze data from various football leagues. This detailed and comprehensive database covers teams, players, matches, player statistics, and transfer history, making it an indispensable tool for football analysts, team managers, and enthusiasts. It facilitates performance tracking, strategic team planning, and monitoring player and team progress throughout the league.

Data Documentation

1. Teams Table

Description: Contains information about football teams.

Column Name	Data Type	Description
TeamID	INT	A unique identifier for each team.
TeamName	VARCHAR	The name of the football team.
FoundedYear	INT	The year when the team was established.
HomeCity	VARCHAR	The city where the team is based.
ManagerName	VARCHAR	The name of the current team manager.
StadiumName	VARCHAR	The name of the team's home stadium.
StadiumCapacity	INT	The seating capacity of the stadium.
Country	VARCHAR	The country in which the team is located.

2. Players Table

Description: Keeps track of players in the football league.

Column Name	Data Type	Description
PlayerID	INT	A unique identifier for each player.
TeamID	INT	Identifier of the team to which the player belongs.

Name	VARCHAR	The full name of the player.
Position	VARCHAR	The playing position of the player.
DateOfBirth	DATE	The player's date of birth.
Nationality	VARCHAR	The nationality of the player.
ContractUntil	DATE	The date until which the player's contract is valid.
MarketValue	INT	The current market value of the player.

3. Matches Table

Description: Records details about each football match.

Column Name	Data Type	Description
MatchID	INT	A unique identifier for each match.
Date	DATE	The date on which the match was played.
HomeTeamID	INT	Identifier of the home team.
AwayTeamID	INT	Identifier of the away team.
HomeTeamScore	INT	The number of goals scored by the home team.
AwayTeamScore	INT	The number of goals scored by the away team.
Stadium	VARCHAR	The stadium where the match was played.
Referee	VARCHAR	The name of the referee overseeing the match.

4. PlayerStats Table

Description: Provides statistics for players in each match.

Column Name	Data Type	Description
StatID	INT	A unique identifier for each set of statistics.
PlayerID	INT	Identifier of the player.
MatchID	INT	Identifier of the match.

Goals	INT	The number of goals scored by the player.
Assists	INT	The number of assists made by the player.
YellowCards	INT	The number of yellow cards received.
RedCards	INT	The number of red cards received.
MinutesPlayed	INT	The total minutes the player played in the match.

5. TransferHistory Table

Description: Tracks the transfer history of players between teams.

Column Name	Data Type	Description
TransferID	INT	A unique identifier for each transfer record.
PlayerID	INT	Identifier of the player being transferred.
FromTeamID	INT	Identifier of the team from which the player is transferred.
ToTeamID	INT	Identifier of the team to which the player is transferred.
TransferDate	DATE	The date when the transfer took place.
TransferFee	DECIMAL	The fee paid for the transfer.
ContractDuration	INT	The duration of the new contract with the receiving team.

Deliverable 1: Create the below Denormalized View

Write **one SQL** query to materialize the following view.

Column Name	Data Type	Description
PlayerID	INT	Unique identifier for each player.
PlayerName	VARCHAR	Full name of the player.
CurrentTeam	VARCHAR	Name of the team where the player is currently playing.
TotalGoals	INT	Total number of goals scored by the player.

TotalAssists	INT	Total number of assists made by the player.
AverageMinutesPlayed	DECIMAL	Average number of minutes played by the player per match.
PlayedOver300Min	BIT	Indicates if the player has played more than 300 minutes (1 for Yes, 0 for No).
AgeBetween25And30	BIT	Indicates if the player's age is between 25 and 30 years (1 for Yes, 0 for No).
Scored3PlusGoalsInMatch	BIT	Indicates if the player has scored 3 or more goals in any single match (1 for Yes, 0 for No).
EstimatedMatchesPlayed	VARCHAR	Estimated number of matches played based on total minutes played (assuming 90 minutes per match). Ex : 15 match 60 min
PlayedInFrance	BIT	Indicates if the player has played in France before (1 for Yes, 0 for No).
DateJoinedFrenchTeam	DATE	Date when the player first joined a French team.
PlayedInGermany	BIT	Indicates if the player has played in Germany before (1 for Yes, 0 for No).
DateJoinedGermanTeam	DATE	Date when the player first joined a German team.

Deliverable 2: Create the Data Model.

Design the ERD for the provided table structure using any design program you prefer.

Bonus : Data Quality.

Try Identify and address any data quality issues in the tables.

Deliverable 3: Create table to show top 1 player.

Create table to store top 1 player on market value for each team by using while loop to iterate on each team