

Team Name: Database Dimez

Team Motto: D's are for Database

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| Version | Description |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.0 | First Released Draft. Summary: included purpose, narrative, requirements, entities, ERD, and EERD. |
| 1.0 Rev 1 | Summary: Fixed Requirements, Fixed ERD, Fixed EERD |
| 1.1 Rev 2 | Second Released Draft. Summary: Fixed Requirements, Finished ERD and EERD to match changes in business narrative. Added a Relational Schema and Data dictionary. |
| 1.0 Rev 3 | third released draft Summary: Fixed the ERD & EERD, Fixed the Relation Schemas all three with minor changes. Fixed the minor errors in Data dictionary. Created a Soccer database that produced two view & Sprocs. |
| 1.0 Rev 4 | This Document Summar: Fixed the RS error, updated the data dictionary, new SSMS diagram, updated table_vw's, added 2 reports, and added user acceptance test queries. |

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Purpose

The goal of this document is to outline how a database can be created, mapped out and implemented for a Youth Soccer League. Contained in this document are the narrative, requirements, entities, attributes, ERD/EERD, RS, Data Dictionary, TableViews, SPROCS, Reports, and user acceptance test queries.

Narrative

A youth soccer league needs a database created to track data on the following different entities: teams, players, matches, referees, fields, vendors and sponsors. The soccer league has to be able to track each team and the sponsor, or sponsors for each individual team. In addition the league also needs to track the relationship between players and teams in order to prevent players from being on more than one team. Matches will also be tracked and will have a relationship with teams, players and referees. Records on how many points a player scored, how many penalties they received and how many minutes they played will be tracked for each match.

The referees are parent volunteers who are assigned in groups of three to each match, with one volunteer being the head referee and the other two being linemen referees. Along with referees and teams, fields will also have a relationship with matches in order to record what matches occur where and when. Not all fields will have a match occurring on them while there are other matches going on. Each field has food vendors that need to be tracked, and each field will have multiple vendors but each vendor can only be assigned to one field. Sponsors are now allowed to sponsor a field with one of their banners, and they can display these banners on multiple fields, with only one banner on each field they sponsor. Additionally the league would like to track what season each Sponsor had a banner or banners on a field as well as what team or teams they sponsored.

Requirements

(Actors & Roles)

TEAM - A team has multiple players. Each team has one or more sponsor. A team plays in matches. A team is also assigned one and only one captain.

PLAYER - A player plays on a team. Cannot belong to more than one team. Records are kept of each player during a match.

MATCH - A match is made up of players and teams. A match occurs at a soccer field. Each match is assigned 3 referees. Records are kept during match.

REFEREE - A group of referees are assigned to a match. A referee may mentor more than one new referee. A referee is assigned either as a head referee or line referee.

FIELD - A single match is assigned on one field at a time. Fields can have multiple sponsor banners.

VENDOR - A Vendor is assigned to specific field. A vendor will have multiple types of food and beverage.

SPONSOR - A sponsor can sponsor one or more teams, which is tracked by season. They can also post banners on one or more fields, which is also tracked by season.

Entities Identified to be tracked

TEAM

PLAYER

MATCH

FIELD

REFEREE

VENDOR

SPONSOR

Entities with Nested Attributes

TEAM - TeamID, TeamName, PlayerCaptain

PLAYER - PlayerID, Name (First, Last), Phone, Date of Birth

MATCH - MatchID, Date

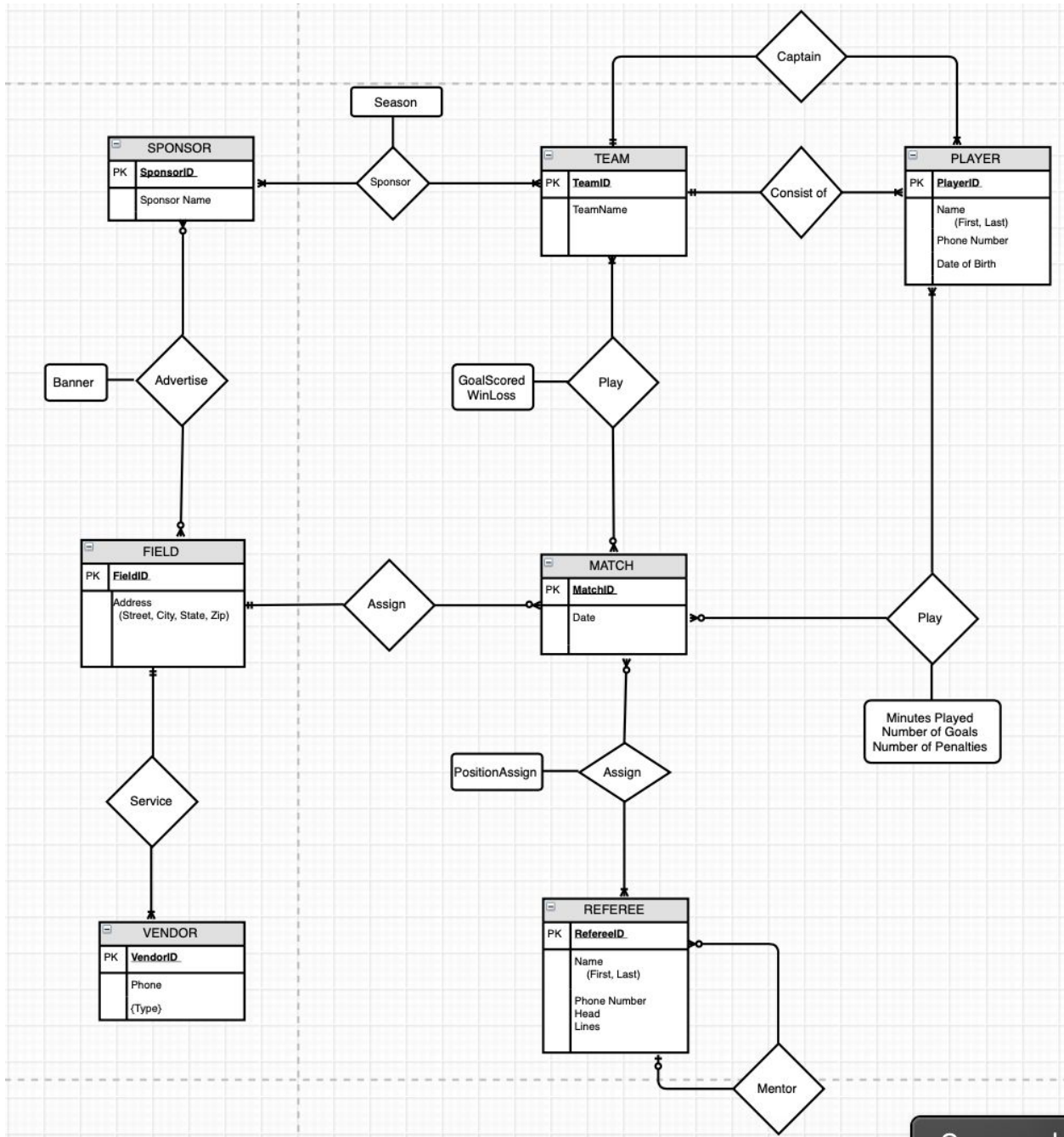
FIELD - FieldID, Address (Street, City, State, Zip)

REFEREE - RefID, Name (First, Last), Phone, Heads, Lines, MentorID

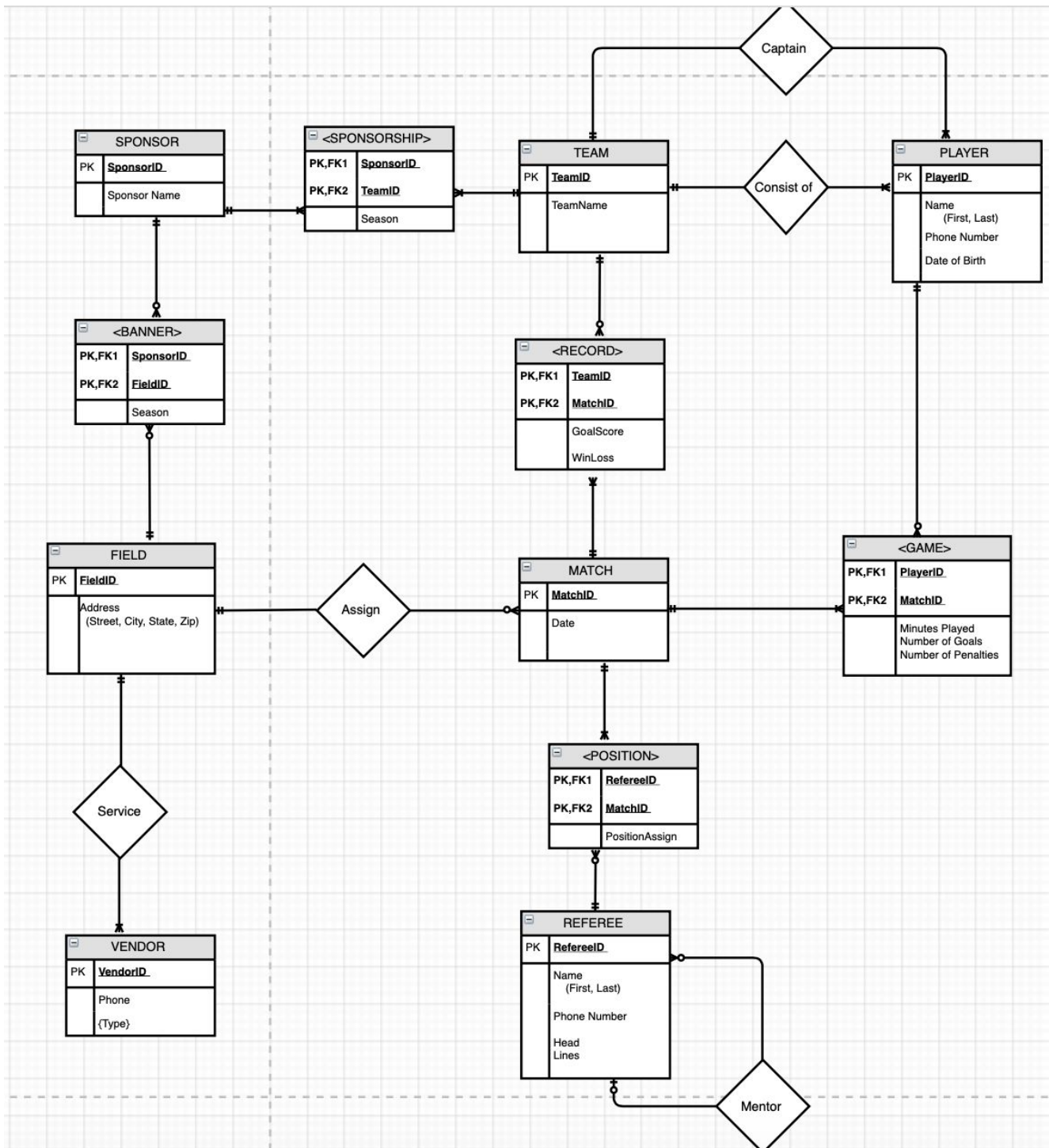
VENDOR - VendorID, Phone, Type

SPONSOR - SponsorID, SponsorName

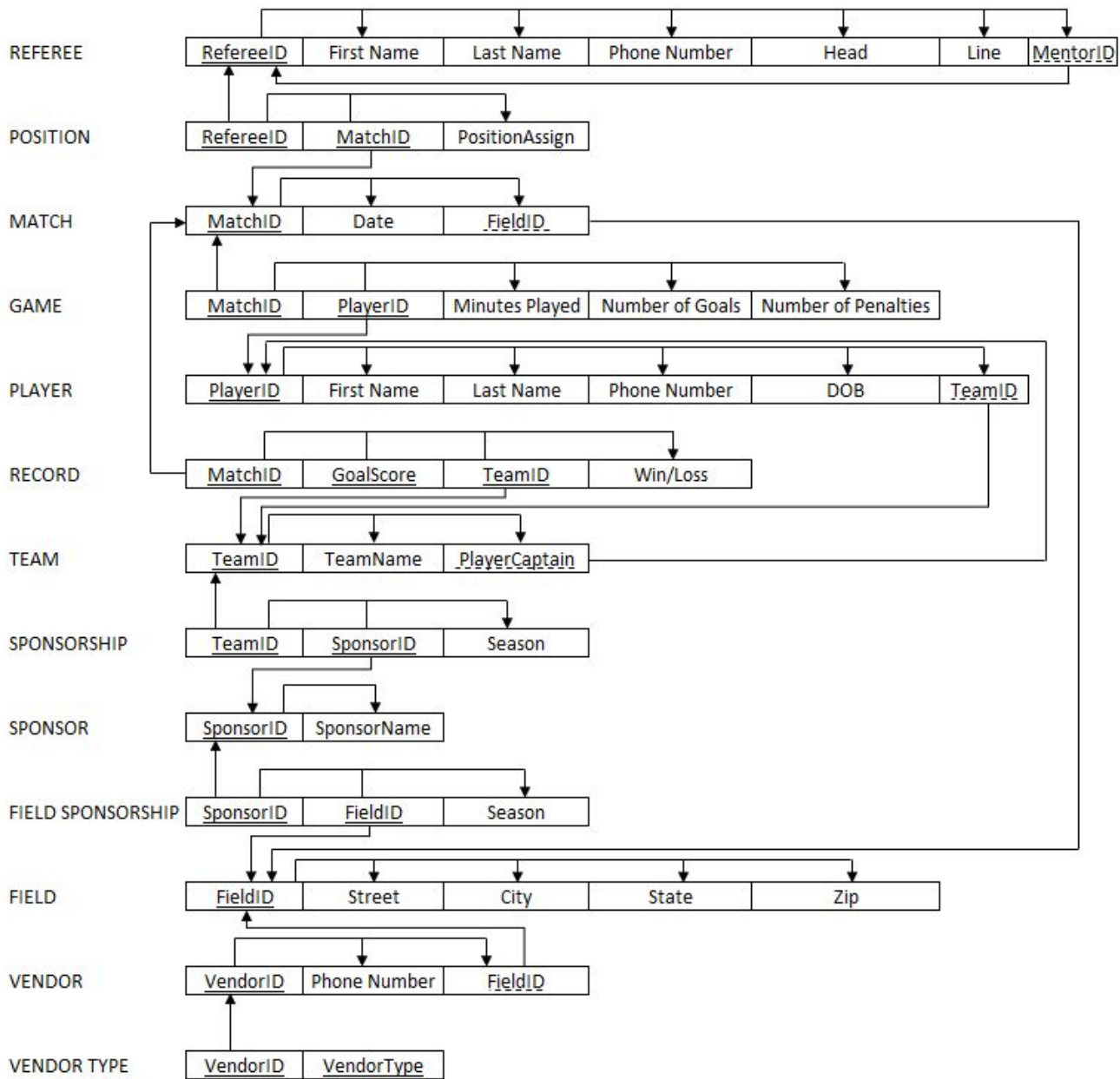
ERD



EERD



Relational Schema



Data Dictionary Summary Header

Soccer League Tables and Attributes

Team (TeamID, TeamName, PlayerCaptain)

Player (PlayerID, First Name, Last Name, Phone Number, Date of Birth, TeamID)

Game (PlayerID, MatchID, Minutes Played, Number of Goals, Number of Penalties)

Record (TeamID, MatchID, GoalScored, WinLoss)

Match (MatchID, Date, FieldID)

Referee (RefereeID, First Name, Last Name, Phone Number, Head, Lines, MentorID)

Position (RefereeID, MatchID, PositionAssign)

Sponsorship (TeamID, SponsorID, Season)

Sponsor (SponsorID, SponsorName)

Field (FieldID, Street, City, State, Zip)

Vendor (VendorID, Phone Number, FieldID)

VendorType (VendorID, VendorType)

Soccer - Data Dictionary
(Microsoft SQL Server Notation)

| Table: Vendor | | | | | | | | | |
|---------------------------|---------------------------------|-----------|------|-----------|--------|---------|--------------------------------------------------------------------------|-------------|-------|
| Column Name | Description | Data Type | Size | Indentity | Unique | Default | Check | Allow Nulls | Index |
| VendorID | PK; unique sequential vendor ID | smallint | | Y | | | | | Y |
| Phone Number | Vendor Phone number | char | 14 | | Y | | LIKE '[0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9]' | | |
| FieldID | FK; links to Field table | smallint | | | | | | | Y |
| Table: Vendor Type | | | | | | | | | |
| Column Name | Description | Data Type | Size | Indentity | Unique | Default | Check | Allow Nulls | Index |
| VendorID | CPK; links back to Vendor Table | smallint | | | | | | | Y |
| VendorType | CPK:Type of food or beverage th | varchar | 30 | | | | | | Y |

| Table: Record | | | | | | | | | |
|-----------------|------------------------------------------------|-----------|------|----------|--------|---------|--------------------------------------------------------------------------|-------------|-------|
| Column Name | Description | Data Type | Size | Identity | Unique | Default | Check | Allow Nulls | Index |
| TeamID | CPK; FK to Team Table | smallint | 20 | | | | | | Y |
| MatchID | CPK; FK to Match Table | int | | | | | | | Y |
| GoalScored | CPK; Goals Scored | int | | | | | | | Y |
| WinLoss | Win or Lose | varchar | 5 | | | | | | |
| Table: Match | | | | | | | | | |
| Column Name | Description | Data Type | Size | Identity | Unique | Default | Check | Allow Nulls | Index |
| MatchID | PK; Unique Sequential Match number | int | | Y | | | | | Y |
| Date | Date of match | date | | | | | | | |
| FieldID | FK; Links back to Field | smallint | | | | | | | Y |
| Table: Position | | | | | | | | | |
| Column Name | Description | Data Type | Size | Identity | Unique | Default | Check | Allow Nulls | Index |
| RefereeID | CPK; FK that links back to Referee table | smallint | | | | | | | Y |
| MatchID | CPK; FK that links back to Match table | int | | | | | | | Y |
| PositionAssign | Referee Position; can only be Head or line | varchar | 6 | | | | | | |
| Table: Referee | | | | | | | | | |
| Column Name | Description | Data Type | Size | Identity | Unique | Default | Check | Allow Nulls | Index |
| RefereeID | PK; sequential Referee Number | smallint | | Y | | | | | Y |
| First Name | Ref first name | varchar | 20 | | | | | | |
| Last Name | Ref last name | varchar | 20 | | | | | | |
| Phone Number | Ref phone number | char | 14 | | | | LIKE '[0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9][0-9]' | | Y |
| MentorID | Recursive FK; similar to workID, tracks mentor | smallint | | | Y | | | Y | Y |
| Head | Either a head ref or lines | varchar | 5 | | | | | Y | |
| Lines | Either a head ref or lines | varchar | 5 | | | | | Y | |

| Table: Team | | | | | | | | | |
|---------------|---------------------------------|-----------|------|-----------|--------|---------|-------|-------------|-------|
| Column Name | Description | Data Type | Size | Indentity | Unique | Default | Check | Allow Nulls | Index |
| TeamID | PK; Unique Team ID | smallint | 20 | Y | | | | | Y |
| TeamName | TeamName | nvarchar | 20 | | | | | | |
| PlayerCaptain | Player Captain of a soccer team | int | | | | | | | Y |

| Table: Player | | | | | | | | | |
|---------------|---------------------------------------|-----------|------|-----------|--------|---------|------------------------------------------------------------|-------------|-------|
| Column Name | Description | Data Type | Size | Indentity | Unique | Default | Check | Allow Nulls | Index |
| PlayerID | PK; Unique Sequential Employee Number | Int | | Y | | | | | Y |
| First Name | Player First Name | nvarchar | 20 | | | | | | |
| Last Name | Player Last Name | nvarchar | 20 | | | | | | |
| Phone Number | Player Phone Number | char | 14 | | Y | | LIKE '[0-9][0-9][0-9][0-9][0-9][0-9]-[0-9][0-9][0-9][0-9]' | | |
| Date of Birth | Player Date of Birth | date | | | | | | | |
| TeamID | FK; Links back to Team Table | smallint | | | | | | | Y |

| Table: Game | | | | | | | | | |
|---------------------|------------------------------------|-----------|------|-----------|--------|---------|-------|-------------|-------|
| Column Name | Description | Data Type | Size | Indentity | Unique | Default | Check | Allow Nulls | Index |
| MatchID | CPK; FK links back to Match table | int | | | | | | | Y |
| PlayerID | CPK; FK links back to player table | int | | | | | | | Y |
| Minutes Played | Tracks minutes a player plays | smallint | | | | | | Y | Y |
| Number of Goals | Tracks number of goals | smallint | | | | | | Y | Y |
| Number of Penalties | Tracks number of penalties | smallint | | | | | | Y | Y |

| Table: Sponsorship | | | | | | | | | |
|--------------------|-----------------------------|-----------|------|-----------|--------|---------|-------|-------------|-------|
| Column Name | Description | Data Type | Size | Indentity | Unique | Default | Check | Allow Nulls | Index |
| TeamName | CPK; FK to Team table | smallint | 20 | | | | | | Y |
| SponsorID | CPK; FK to Sponsor table | smallint | | | | | | | Y |
| Season | Season of the soccer league | smallint | | | | | | | |

| Table: Sponsor | | | | | | | | | |
|----------------|----------------------------|-----------|------|-----------|--------|---------|-------|-------------|-------|
| Column Name | Description | Data Type | Size | Indentity | Unique | Default | Check | Allow Nulls | Index |
| SponsorID | PK; Unique Sequential Spon | smallint | | Y | | | | | Y |
| SponsorName | Name of Sponsor | nvarchar | 20 | | | | | | |

| Table: Field | | | | | | | | | |
|--------------|-------------------------|-----------|------|-----------|--------|---------|----------------------------------|-------------|-------|
| Column Name | Description | Data Type | Size | Indentity | Unique | Default | Check | Allow Nulls | Index |
| FieldID | PK; Field number | smallint | | Y | | | | | Y |
| Street | Street address of field | varchar | 25 | | | | | | |
| City | City of the Field | varchar | 25 | | | | | | |
| State | State of field | char | 2 | | | FL' | LIKE '[A-Z][A-Z]' | | |
| Zip | Zip code of the field | char | 5 | | | | LIKE '[0-9][0-9][0-9][0-9][0-9]' | | |

| Table: Field Sponsorship | | | | | | | | | |
|--------------------------|-----------------------------|-----------|------|-----------|--------|---------|-------|-------------|-------|
| Column Name | Description | Data Type | Size | Indentity | Unique | Default | Check | Allow Nulls | Index |
| SponsorID | CPK; FK link back to Spons | smallint | | | | | | | Y |
| FieldID | CPK; FK link back to Field | smallint | | | | | | | Y |
| Season | Season of the soccer league | smallint | | | | | | | Y |

Data Diagram

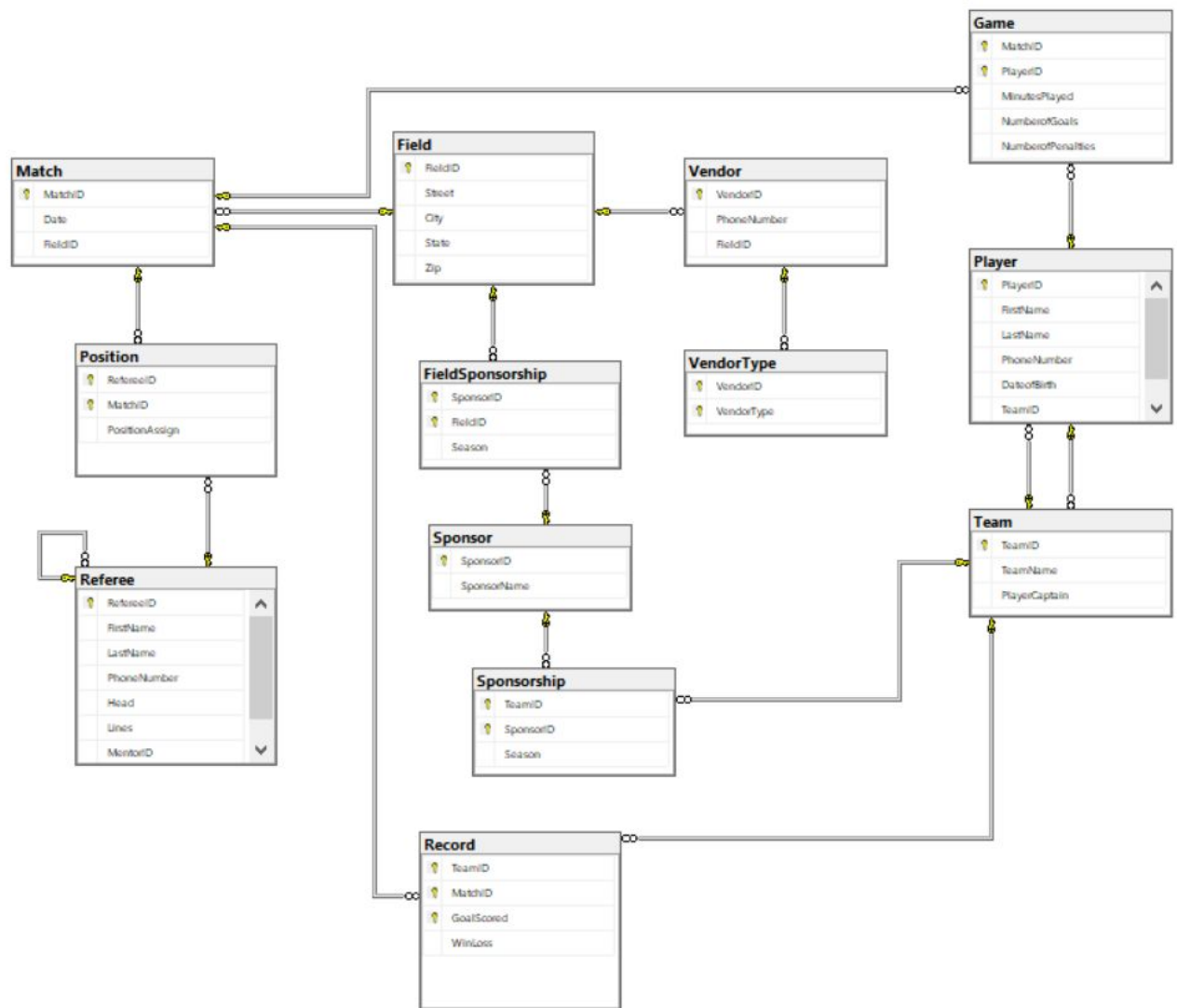
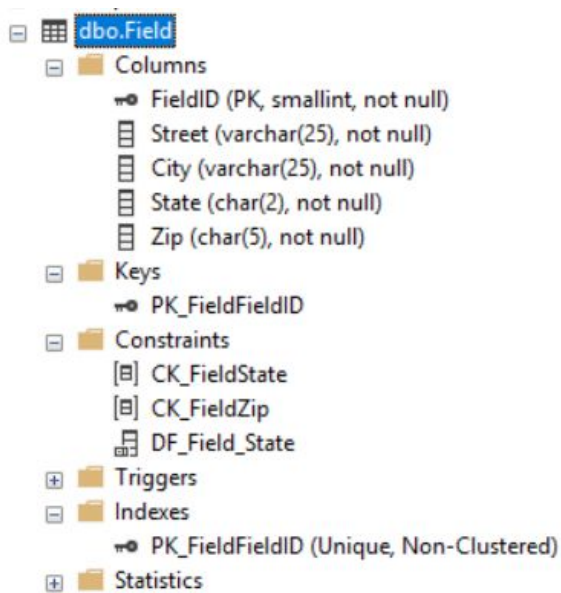


Table Views

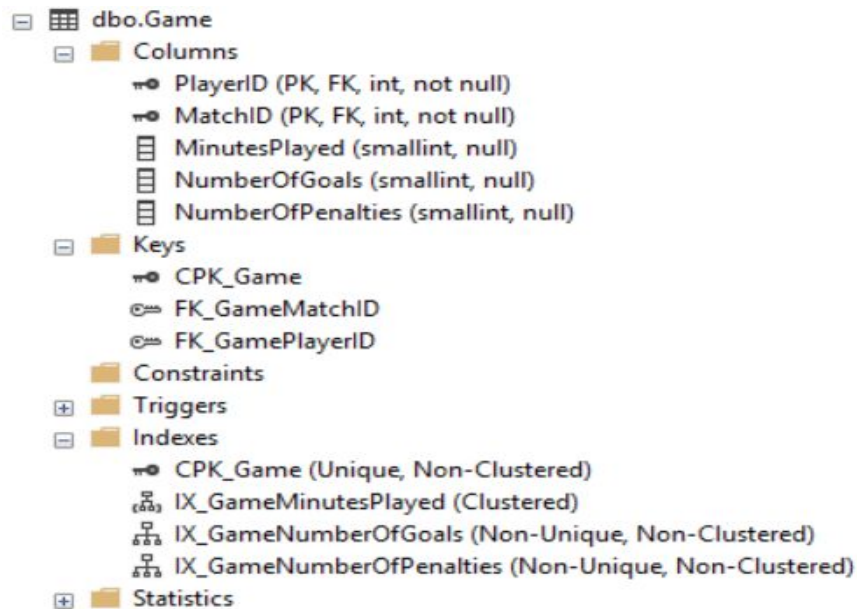
This is the Field Sponsorship table that tracks the sponsor that is assigned to each field. The table also tracks which season the sponsorship occurs.



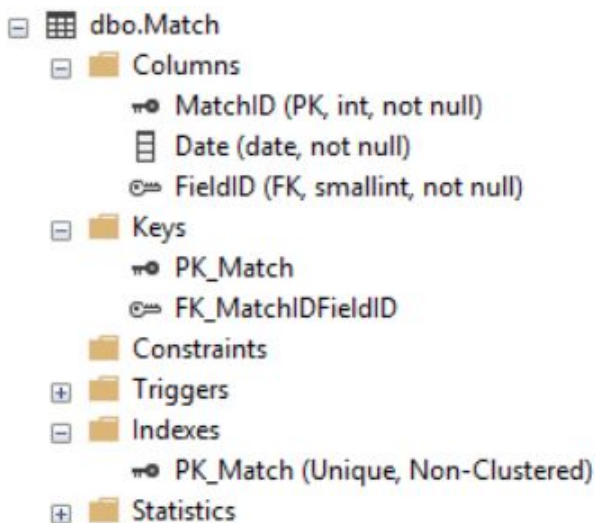
This is the Field Table that tracks the location of the field.



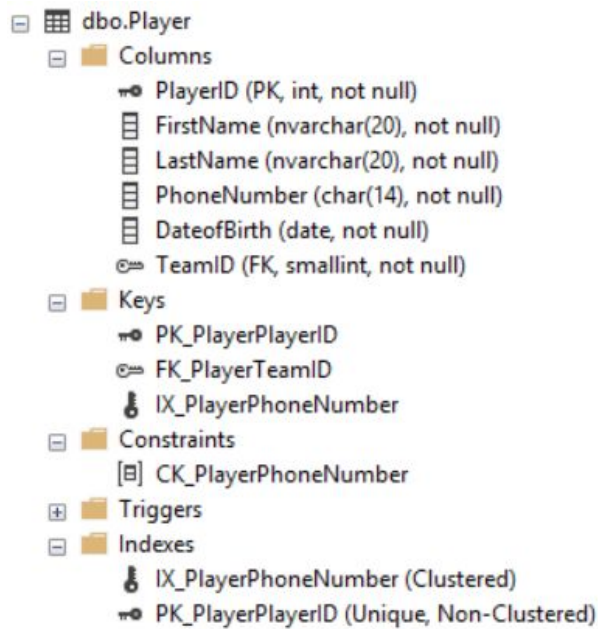
The Game Table tracks player statistics including Number of Goals, Number of Penalties, and minutes played. The table is made up of a CPK including PlayerID and MatchID.



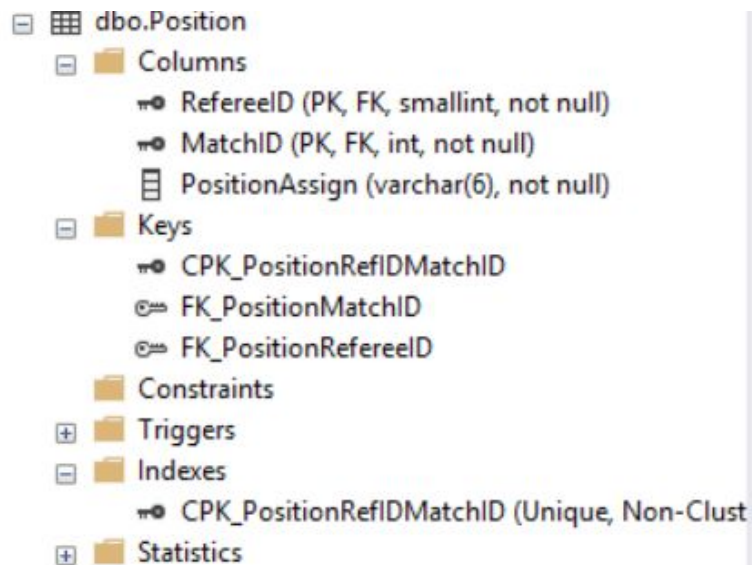
The Match table tracks the MatchID and date of the match, this table is mainly used as the primary key table for all the linking FK's.



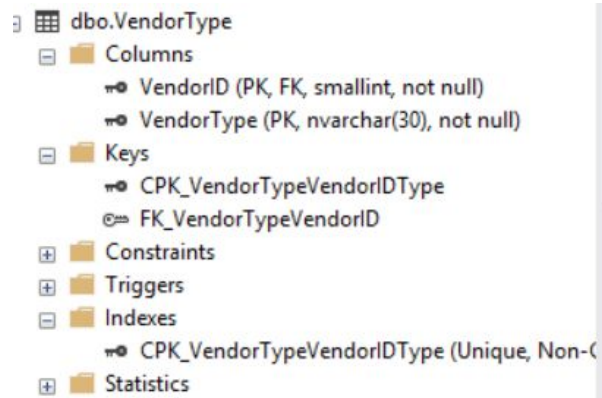
The Player table is used to track the player's attributes along with linking them back to the team they play for.



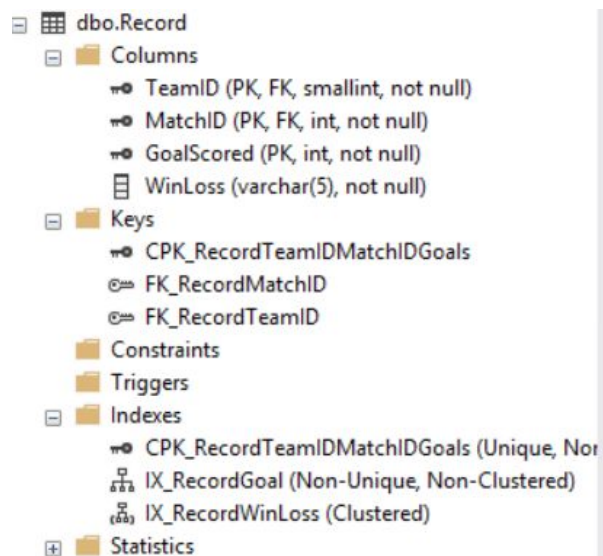
The position table is used to track the Head or Line position of each Referee and the CPK is RefereeID and MatchID.



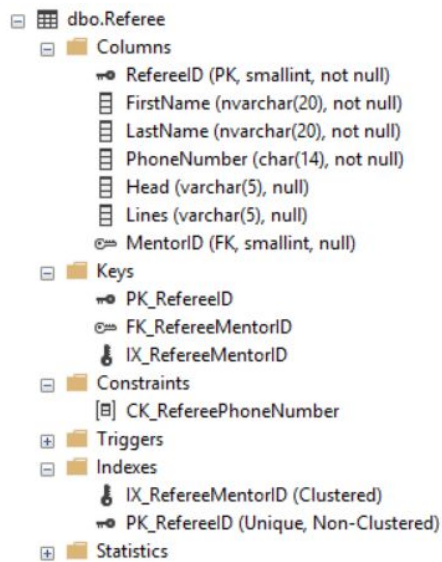
The Vendor Type table allows for the database to track which vendor is assigned to certain type of item they sell.



The Record table is used to track the score of each game, linking back to the Team table and the match table.



The Referee table tracks the referee's that the league has to offer, as well as listing the mentorID's of the referees.



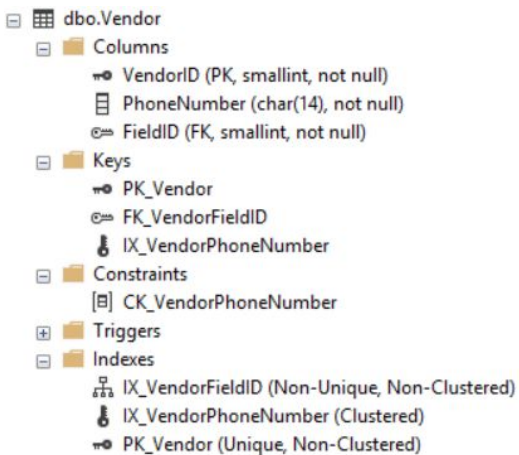
The sponsor Table is used to track the sponsor's that the soccer league works with.



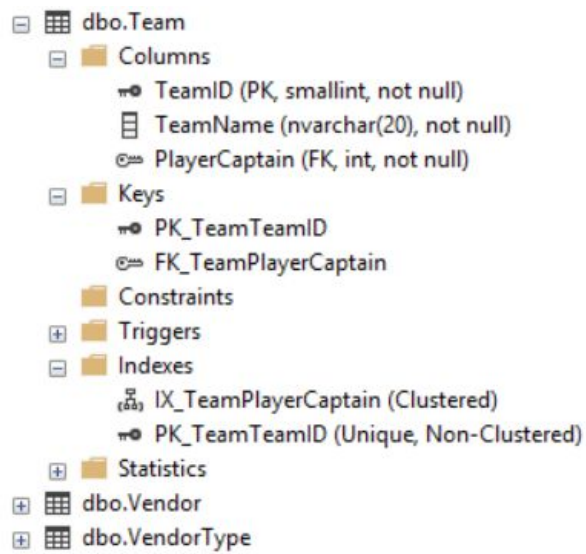
The sponsorship table is used to track which sponsor works with a certain team.



The Vendor table is used to track the vendor that is assigned to certain field.



The team table is used to list all the teams that the league has to offer. Also linking back to the Sponsor table.



Table_vw

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'DESKTOP-JHART31\SQLEXPRESS01'. The 'Views' folder is expanded, showing 'dbo.RefereeAssignment_vw'. The main pane shows the SQL query editor with the following code:

```
create view scoutingReport_vw as
select Player.LastName as 'Player Last Name', Player.PlayerID as 'Player', Player.DateOfBirth as 'DOB', Game.Minutes as 'Game Minutes'
from Player inner join Game
ON Player.PlayerID = Game.PlayerID
inner join Match on Game.MatchID = Match.MatchID
```

Below the query editor, the 'Results' tab shows the output of the query. The results are displayed in a table with the following columns: Player Last Name, Player, DOB, Play Time, Goals, Day, and MatchID. The table contains 12 rows of data.

| | Player Last Name | Player | DOB | Play Time | Goals | Day | MatchID |
|----|------------------|--------|------------|-----------|-------|------------|---------|
| 1 | Keller | 103 | 1998-03-04 | 10 | 0 | 2019-03-04 | 101 |
| 2 | Tell | 105 | 1997-04-05 | 2 | 0 | 2019-03-04 | 101 |
| 3 | Shady | 106 | 1996-08-09 | 20 | 4 | 2019-03-04 | 101 |
| 4 | Cuny | 107 | 1997-12-03 | 20 | 1 | 2019-03-04 | 101 |
| 5 | Lamar | 108 | 1997-11-04 | 50 | 4 | 2019-03-04 | 101 |
| 6 | Graham | 109 | 1997-09-11 | 30 | 1 | 2019-03-04 | 101 |
| 7 | Dre | 110 | 1997-04-11 | 50 | 1 | 2019-03-04 | 102 |
| 8 | Dogg | 111 | 1997-02-02 | 10 | 0 | 2019-03-04 | 102 |
| 9 | Cube | 112 | 1998-04-09 | 10 | 0 | 2019-03-04 | 102 |
| 10 | Wayne | 113 | 1998-03-02 | 20 | 1 | 2019-03-04 | 102 |
| 11 | Cole | 114 | 1996-10-12 | 25 | 1 | 2019-03-04 | 102 |
| 12 | Big | 115 | 1998-10-13 | 50 | 3 | 2019-03-04 | 102 |

The status bar at the bottom indicates that the query was executed successfully, showing the file path, database name, and the number of rows returned (12 rows).

Object Explorer

Connect

DESKTOP-JHART31\SQLEXPRESS01 (SQL Server 14.0.)

- Databases
 - System Databases
 - Database Snapshots
 - Project1
 - SoccerFinal
 - Database Diagrams
 - Tables
 - Views
 - System Views
 - dbo.RefereeAssignment_vw
 - dbo.scoutingReport_vw
 - External Resources
 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
 - Security
 - Server Objects
 - Replication
 - PolyBase
 - Management
 - XEvent Profiler

DESKTOP-JHART31\scoutingReport_vw

SQLQuery2.sql - DE...JHART31\Justi (53)*

SQLQuery1.sql - DE...JHART31\Justi (55)*

Player

- * (All Columns)
- ☒ PlayerID
- ☐ FirstName
- ☒ LastName
- ☐ PhoneNumber

Game

- * (All Columns)
- ☐ MatchID
- ☐ PlayerID
- ☒ MinutesPlayed
- ☒ NumberofGoals

Match

- * (All Columns)
- ☒ MatchID
- ☒ Date
- ☐ FieldID

| Column | Alias | Table | Outp... | Sort Type | Sort Order | Filter | Or... | Or... | Or... |
|---------------|------------|--------|-------------------------------------|-----------|------------|--------|-------|-------|-------|
| LastName | [Player... | Player | <input checked="" type="checkbox"/> | | | | | | |
| PlayerID | Player | Player | <input checked="" type="checkbox"/> | | | | | | |
| DateofBirth | DOB | Player | <input checked="" type="checkbox"/> | | | | | | |
| MinutesPlayed | [Play T... | Game | <input checked="" type="checkbox"/> | | | | | | |
| NumberofGo... | Goals | Game | <input checked="" type="checkbox"/> | | | | | | |

```

SELECT  dbo.Player.LastName AS [Player Last Name], dbo.Player.PlayerID AS Player, dbo.Player.DateofBirth AS DOB, dbo.Game.MinutesPlayed AS [Play Time], dbo.Game.Numbero
FROM    dbo.Match.MatchID
        dbo.Player INNER JOIN
        dbo.Game ON dbo.Player.PlayerID = dbo.Game.PlayerID INNER JOIN
        dbo.Match ON dbo.Game.MatchID = dbo.Match.MatchID
  
```

0 of 0

Object Explorer

Connect

DESKTOP-JHART31\SQLEXPRESS01 (SQL Server 14.0.1000 - DESKTOP-...

Databases

System Databases

Database Snapshots

Project1

SoccerFinal

Database Diagrams

dbo.SoccerFinal2

Tables

System Tables

FileTables

External Tables

Graph Tables

dbo.Field

dbo.FieldSponsorship

dbo.Game

dbo.Match

dbo.Player

dbo.Position

Columns

RefereeID (PK, FK, smallint, not null)

MatchID (PK, FK, int, not null)

PositionAssign (varchar(6), not null)

Keys

Constraints

Triggers

Indexes

Statistics

dbo.Record

dbo.Referee

dbo.Sponsor

dbo.Sponsorship

dbo.Team

dbo.Vendor

SQLQuery2.sql - DE...JHART31\Justi (53))*

DESKTOP-JHART31\...coutingReport_vw

SQLQuery1.sql - DE...JHART31\Justi (55))*

```

create view RefereeAssignment_vw as
select Referee.LastName as 'Referee', Referee.PhoneNumber as 'Phone', Position.PositionAssign as 'Position', Posit
from Referee join Position
on Referee.RefereeID = Position.RefereeID
join Match on Position.MatchID = Match.MatchID

```

100 %

Results

| | Referee | Phone | Position | Ref ID | Day | MatchID |
|---|---------|--------------|----------|--------|------------|---------|
| 1 | Phantom | 323 323-4333 | Head | 101 | 2019-03-04 | 101 |
| 2 | Jong | 322 322-2922 | Line | 102 | 2019-03-04 | 101 |
| 3 | Jong | 322 322-2922 | Line | 102 | 2019-03-04 | 102 |
| 4 | Rem | 322 533-2211 | Line | 103 | 2019-03-04 | 101 |
| 5 | Rem | 322 533-2211 | Line | 103 | 2019-03-04 | 102 |
| 6 | Rami | 399 992-0923 | Head | 104 | 2019-03-04 | 102 |

Messages

Query executed successfully.

DESKTOP-JHART31\SQLEXPRESS0... | DESKTOP-JHART31\Justi ... | SoccerFinal | 00:00:00 | 6 rows

Object Explorer

Connect

DESKTOP-JHART31\SQLEXPRESS01 (SQL Server 14.0.1000 - DESKTOP-JH...

Databases

System Databases

Database Snapshots

Project1

SoccerFinal

Database Diagrams

Tables

Views

System Views

dbo.RefereeAssignment_vw

dbo.ScoutingReport_vw

External Resources

Synonyms

Programmability

Service Broker

Storage

Security

Security

Server Objects

Replication

PolyBase

Management

XEvent Profiler

DESKTOP-JHART31\...reeAssignment_vw

SQLQuery2.sql - DE...JHART31\Oustri (53))

DESKTOP-JHART31\...coutingReport_vw

Referee

* (All Columns)

RefereeID

FirstName

LastName

PhoneNumber

Position

* (All Columns)

RefereeID

MatchID

PositionAssign

Match

* (All Columns)

MatchID

Date

FieldID

| Column | Alias | Table | Outp... | Sort Type | Sort Order | Filter | Or... | Or... |
|----------------|----------|----------|-------------------------------------|-----------|------------|--------|-------|-------|
| LastName | Referee | Referee | <input checked="" type="checkbox"/> | | | | | |
| PhoneNumber | Phone | Referee | <input checked="" type="checkbox"/> | | | | | |
| PositionAssign | Position | Position | <input checked="" type="checkbox"/> | | | | | |
| RefereeID | [Ref ID] | Position | <input checked="" type="checkbox"/> | | | | | |

```

SELECT      dbo.Referee.LastName AS Referee, dbo.Referee.PhoneNumber AS Phone, dbo.Position.PositionAssign AS Position, dbo.Position.RefereeID AS RefereeID
FROM        dbo.Referee INNER JOIN
            dbo.Position ON dbo.Referee.RefereeID = dbo.Position.RefereeID INNER JOIN
            dbo.Match ON dbo.Position.MatchID = dbo.Match.MatchID
  
```

SPROCS

```
USE [SoccerFinal]
GO

/***** Object: StoredProcedure [dbo].[GoalandMinsReport]    Script Date: 4/23/2019 10:12:04 AM *****/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO

create proc [dbo].[GoalandMinsReport]
as
begin
select Player.LastName as 'Player Last Name', Player.PlayerID as 'Player', Player.DateOfBirth as 'DOB', Game.MinutesPlayed as 'Pl
from Player inner join Game
ON Player.PlayerID = Game.PlayerID
inner join Match on Game.MatchID = Match.MatchID
Select Sum(NumberOfGoals) as 'Total Goals', MinutesPlayed as 'Minutes Played', PlayerID as 'Player'
from Game
where MinutesPlayed > 15
group by NumberOfGoals, MinutesPlayed, PlayerID
order by NumberOfGoals DESC
end;
GO
```

100 %

Connected. (1/1)

DESKTOP-JHART31\SQLEXPRESS0... | DESKTOP-JHART31\Justi ... | SoccerFinal | 00:00:00 | 0 rows

```
create proc [dbo].[GoalandMinsReport]
as
begin
select Player.LastName as 'Player Last Name', Player.PlayerID as 'Player', Player.DateOfBirth as 'DOB', Game.MinutesPlayed as 'Pl
from Player inner join Game
ON Player.PlayerID = Game.PlayerID
inner join Match on Game.MatchID = Match.MatchID
Select Sum(NumberOfGoals) as 'Total Goals', MinutesPlayed as 'Minutes Played', PlayerID as 'Player'
from Game
where MinutesPlayed > 15
group by NumberOfGoals, MinutesPlayed, PlayerID
order by NumberOfGoals DESC
end;
```

100 %

Results Messages

| | Player Last Name | Player | DOB | Play Time | Goals | Day | MatchID |
|---|------------------|--------|------------|-----------|-------|------------|---------|
| 1 | Keller | 103 | 1998-03-04 | 10 | 0 | 2019-03-04 | 101 |
| 2 | Tell | 105 | 1997-04-05 | 2 | 0 | 2019-03-04 | 101 |
| 3 | Shady | 106 | 1996-08-09 | 20 | 4 | 2019-03-04 | 101 |
| 4 | Cury | 107 | 1997-12-03 | 20 | 1 | 2019-03-04 | 101 |
| 5 | Lamar | 108 | 1997-11-04 | 50 | 4 | 2019-03-04 | 101 |
| 6 | Graham | 109 | 1997-09-11 | 30 | 1 | 2019-03-04 | 101 |
| 7 | Dre | 110 | 1997-04-11 | 50 | 1 | 2019-03-04 | 102 |
| 8 | Dogg | 111 | 1997-02-02 | 10 | 0 | 2019-03-04 | 102 |

| | Total Goals | Minutes Played | Player |
|---|-------------|----------------|--------|
| 1 | 4 | 20 | 106 |
| 2 | 4 | 50 | 108 |
| 3 | 3 | 50 | 115 |
| 4 | 1 | 20 | 107 |
| 5 | 1 | 20 | 113 |
| 6 | 1 | 25 | 114 |
| 7 | 1 | 30 | 109 |
| 8 | 1 | 50 | 110 |

Query executed successfully.

DESKTOP-JHART31\SQLEXPRESS0... | DESKTOP-JHART31\Justi ... | SoccerFinal | 00:00:00 | 20 rows

Object Explorer

- DESKTOP-JHART31\SQLEXPRESS01 (SQL Server 14.0.)
 - Databases
 - System Databases
 - Database Snapshots
 - Project1
 - SoccerFinal
 - Database Diagrams
 - Tables
 - Views
 - External Resources
 - Synonyms
 - Programmability
 - Stored Procedures
 - System Stored Procedures
 - dbo.GoalandMinsReport
 - dbo.HeadRefAppearance
 - Functions
 - Database Triggers
 - Assemblies
 - Types
 - Rules
 - Defaults
 - Sequences
 - Service Broker
 - Storage
 - Security
 - Security
 - Server Objects
 - Replication
 - PolyBase
 - Management
 - XEvent Profiler

- DESKTOP-JHART31\SQLEXPRESS (SQL Server 14.0.10)

SQLQuery5.sql - DE...JHART31\Justi (57) | SQLQuery3.sql - DE...JHART31\Justi (56) | SQLQuery2.sql - DE...JHART31\Justi (53)*

```

USE [SoccerFinal]
GO

/***** Object: StoredProcedure [dbo].[HeadRefAppearance]    Script Date: 4/23/2019 10:20:44 AM *****/
SET ANSI_NULLS ON
GO

SET QUOTED_IDENTIFIER ON
GO

create proc [dbo].[HeadRefAppearance]
as
begin
select Referee.LastName as 'Referee', Referee.PhoneNumber as 'Phone', Position.PositionAssign as 'Position', Position.RefereeID as 'Ref #',
from Referee join Position
on Referee.RefereeID = Position.RefereeID
join Match on Position.MatchID = Match.MatchID
select count(PositionAssign) as 'Number of Head Ref Appearances', RefereeID as 'Ref #'
from Position
where PositionAssign LIKE 'H%'
group by PositionAssign, RefereeID
Order by RefereeID ASC
end;
GO
  
```

100 % | Connected. (1/1) | DESKTOP-JHART31\SQLEXPRESS01... | DESKTOP-JHART31\Justi ... | SoccerFinal | 00:00:00 | 0 rows

Object Explorer

- DESKTOP-JHART31\SQLEXPRESS01 (SQL Server 14.0.)
 - Databases
 - System Databases
 - Database Snapshots
 - Project1
 - SoccerFinal
 - Database Diagrams
 - Tables
 - Views
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 - Security
 - Security
 - Server Objects
 - Replication
 - PolyBase
 - Management
 - XEvent Profiler
- DESKTOP-JHART31\SQLEXPRESS (SQL Server 14.0.10)

SQLQuery5.sql - DE...JHART31\Justi (57) | SQLQuery3.sql - DE...JHART31\Justi (56) | SQLQuery2.sql - DE...JHART31\Justi (53)*

```

SET QUOTED_IDENTIFIER ON
GO

create proc [dbo].[HeadRefAppearance]
as
begin
select Referee.LastName as 'Referee', Referee.PhoneNumber as 'Phone', Position.PositionAssign as 'Position', Position.RefereeID as 'Ref #',
from Referee join Position
on Referee.RefereeID = Position.RefereeID
join Match on Position.MatchID = Match.MatchID
select count(PositionAssign) as 'Number of Head Ref Appearances', RefereeID as 'Ref #'
from Position
where PositionAssign LIKE 'H%'
group by PositionAssign, RefereeID
Order by RefereeID ASC
end;
GO
  
```

100 % | Query executed successfully. | DESKTOP-JHART31\SQLEXPRESS01... | DESKTOP-JHART31\Justi ... | SoccerFinal | 00:00:00 | 8 rows

| Referee | Phone | Position | Ref ID | Day | MatchID |
|---------|--------------|----------|--------|------------|---------|
| Phantom | 323 323-4333 | Head | 101 | 2019-03-04 | 101 |
| Jong | 322 322-2922 | Line | 102 | 2019-03-04 | 101 |
| Jong | 322 322-2922 | Line | 102 | 2019-03-04 | 102 |
| Rem | 322 533-2211 | Line | 103 | 2019-03-04 | 101 |
| Rem | 322 533-2211 | Line | 103 | 2019-03-04 | 102 |
| Rami | 399 992-0923 | Head | 104 | 2019-03-04 | 102 |

| Number of Head Ref Appearances | Ref # |
|--------------------------------|-------|
| 1 | 101 |
| 1 | 104 |

SSRS Reports

Leauge Scouting Report

| Last Name | PlayerID | DOB | Play Time | Goals | Match Date |
|-----------|----------|------------|-----------|----------|------------|
| Big | 115 | 13/10/1998 | 50 | 3 | 04/03/2019 |
| | | | <u>50</u> | <u>3</u> | |
| Cole | 114 | 12/10/1996 | 25 | 1 | 04/03/2019 |
| | | | <u>25</u> | <u>1</u> | |
| Cube | 112 | 09/04/1998 | 10 | 0 | 04/03/2019 |
| | | | <u>10</u> | <u>0</u> | |
| Curry | 107 | 03/12/1997 | 20 | 1 | 04/03/2019 |
| | | | <u>20</u> | <u>1</u> | |
| Dogg | 111 | 02/02/1997 | 10 | 0 | 04/03/2019 |
| | | | <u>10</u> | <u>0</u> | |
| Dre | 110 | 11/04/1997 | 50 | 1 | 04/03/2019 |
| | | | <u>50</u> | <u>1</u> | |
| Graham | 109 | 11/09/1997 | 30 | 1 | 04/03/2019 |
| | | | <u>30</u> | <u>1</u> | |
| Keller | 103 | 04/03/1998 | 10 | 0 | 04/03/2019 |
| | | | <u>10</u> | <u>0</u> | |
| Lamar | 108 | 04/11/1997 | 50 | 4 | 04/03/2019 |
| | | | <u>50</u> | <u>4</u> | |
| Shady | 106 | 09/08/1996 | 20 | 4 | 04/03/2019 |
| | | | <u>20</u> | <u>4</u> | |
| Tell | 105 | 05/04/1997 | 2 | 0 | 04/03/2019 |
| | | | <u>2</u> | <u>0</u> | |
| Wayne | 113 | 02/03/1998 | 20 | 1 | 04/03/2019 |
| | | | <u>20</u> | <u>1</u> | |

Total Goals:

16

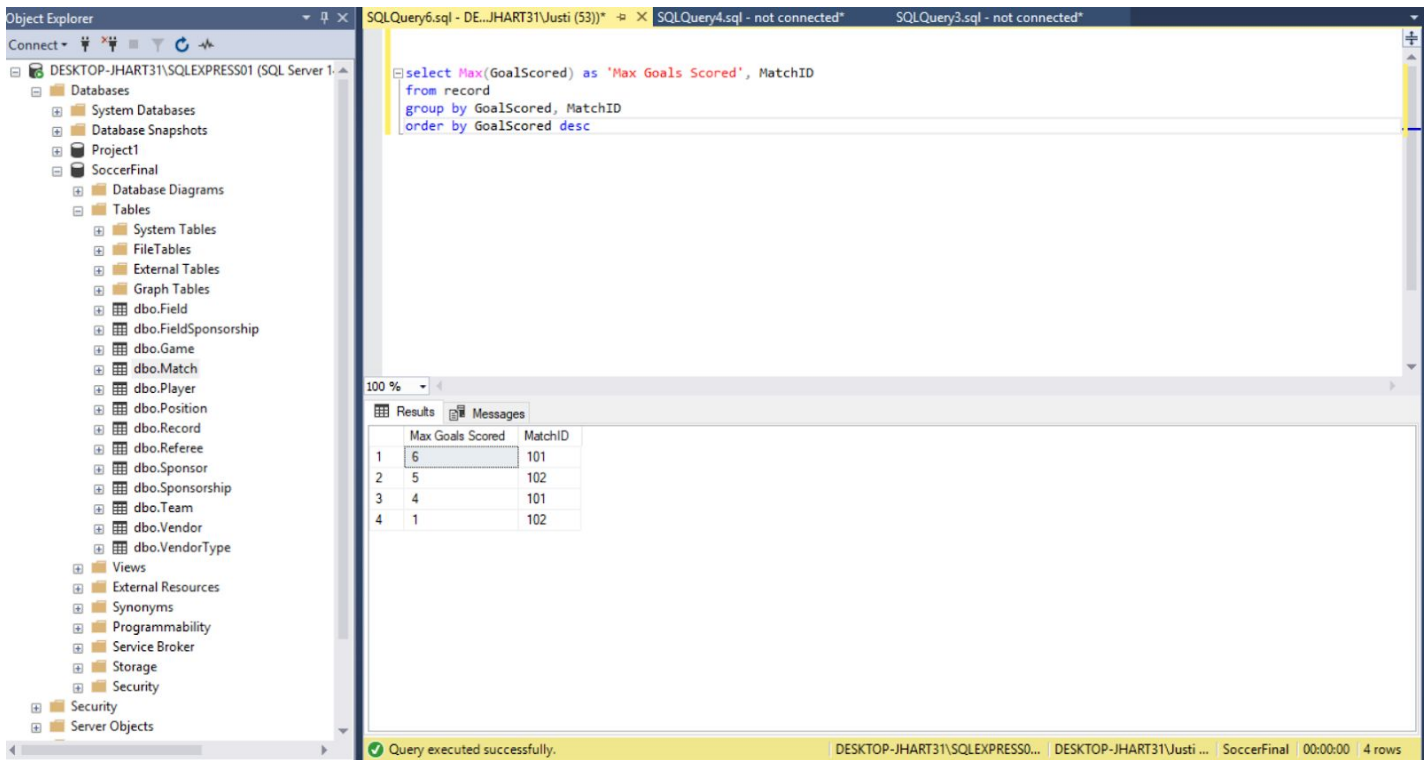
Referee Report

| Referee | Phone | Position | Ref ID | Day | Match ID |
|---------|--------------|----------|--------|------------|----------|
| Jong | | | | | |
| | 322 322-2922 | Line | 102 | 04/03/2019 | 101 |
| | 322 322-2922 | Line | 102 | 04/03/2019 | 102 |
| Phantom | | | | | |
| | 323 323-4333 | Head | 101 | 04/03/2019 | 101 |
| Rami | | | | | |
| | 399 992-0923 | Head | 104 | 04/03/2019 | 102 |
| Rem | | | | | |
| | 322 533-2211 | Line | 103 | 04/03/2019 | 101 |
| | 322 533-2211 | Line | 103 | 04/03/2019 | 102 |

User Acceptance Test Query

Question: Show me the max goals scored in each match.

Answer:



The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'DESKTOP-JHART31\SQLEXPRESS01 (SQL Server 1...)'. The 'SoccerFinal' database is expanded, showing various tables and views. The main query window on the right contains the following SQL query:

```
select Max(GoalScored) as 'Max Goals Scored', MatchID
from record
group by GoalScored, MatchID
order by GoalScored desc
```

Below the query window, the 'Results' tab shows the output of the query. The results are displayed in a table with two columns: 'Max Goals Scored' and 'MatchID'. The table contains four rows of data:

| | Max Goals Scored | MatchID |
|---|------------------|---------|
| 1 | 6 | 101 |
| 2 | 5 | 102 |
| 3 | 4 | 101 |
| 4 | 1 | 102 |

The status bar at the bottom indicates that the query was executed successfully, showing the server name 'DESKTOP-JHART31\SQLEXPRESS01', the database 'SoccerFinal', and the execution time '00:00:00' with '4 rows' returned.

Question: Show me which Refs were a “Head” referee for each match that has been played.

Answers:

The screenshot displays the SQL Server Enterprise Manager interface. On the left, the Object Explorer shows the database structure for 'DESKTOP-JHART31\SQLEXPRESS01 (SQL Server 1.0)'. The 'Tables' folder is expanded, listing various tables including 'dbo.Referee', 'dbo.Match', and 'dbo.Position'. The main window shows a SQL query in the 'SQLQuery6.sql' tab:

```
select Referee.LastName as 'Ref', Referee.Head as 'Status', Position.MatchID as 'MatchID'
from Referee right join position
on Referee.RefereeID = Position.RefereeID
where Head is not null
order by MatchID DESC
```

Below the query editor, the 'Results' pane shows the output of the query, which consists of two rows:

| | Ref | Status | MatchID |
|---|---------|--------|---------|
| 1 | Rami | Head | 102 |
| 2 | Phantom | Head | 101 |

The status bar at the bottom indicates that the query was executed successfully and returned 2 rows.

Question: Show me each teams' players number of goals, number penalties, and how often a player scores a goal. Also I would like to know who has scored more than two goals.

Answer:

SQLQuery9.sql - DE...JHART31\Justi (54)* - P X

```

begin
select Player.LastName as 'Player Last Name', Player.TeamID as 'TeamID', MinutesPlayed / nullif(NumberOfGoals,0) as 'How Often Playe
isnull(convert(varchar(10),NumberOfPenalties), 'Forfeit') as 'Penalties', isnull(convert(varchar(10),NumberOfGoals), 'Forfeit') as '
from Player
inner join Game ON Player.PlayerID = Game.PlayerID
select count(NumberOfGoals) as 'Goals Greater than 2', playerID as 'PlayerID'
from game
where NumberOfGoals > 2
group by NumberOfGoals, PlayerID
end;

```

100 %

Results Messages

| | Player Last Name | TeamID | How Often Player Scores | Penalties | Number of Goals |
|----|------------------|--------|-------------------------|-----------|-----------------|
| 1 | Fob | 105 | NULL | Forfeit | Forfeit |
| 2 | France | 105 | NULL | Forfeit | Forfeit |
| 3 | Micro | 105 | NULL | Forfeit | Forfeit |
| 4 | Tell | 101 | NULL | 3 | 0 |
| 5 | Keller | 101 | NULL | 0 | 0 |
| 6 | Dogg | 103 | NULL | 0 | 0 |
| 7 | Cube | 103 | NULL | 0 | 0 |
| 8 | Shady | 101 | 5 | 1 | 4 |
| 9 | Curry | 102 | 20 | 1 | 1 |
| 10 | Wayne | 104 | 20 | 0 | 1 |
| 11 | Cole | 104 | 25 | 0 | 1 |
| 12 | Graham | 102 | 30 | 1 | 1 |
| 13 | Lamar | 102 | 12 | 0 | 4 |
| 14 | Dre | 103 | 50 | 1 | 1 |
| 15 | Big | 104 | 16 | 3 | 3 |

| | Goals Greater than 2 | PlayerID |
|---|----------------------|----------|
| 1 | 1 | 106 |
| 2 | 1 | 108 |
| 3 | 1 | 115 |

Query executed successfully. | DESKTOP-JHART31\SQLEXPRESS0... | DESKTOP-JHART31\Justi ... | SoccerFinal | 00:00:00 | 15 rows