Football League Information System (FLIS)

A Football League Information System (FLIS) is a relational database schema that manages the information of a football league for a given season. We consider a FLIS that consists of several teams, the teams' players, the managers who manage the teams, the match information, scores, and the match referees.

Certain rules have to be followed in the FLIS:

- A player cannot play for more than one team.
- Each player is associated with player id, name, date of birth and a jersey number, which is unique for a team.
- A manager cannot be associated with more than one team.
- Each manager has a manager id, name, date of birth, the year since she/he is managing the team.
- A team has a team id, name, city, playground name, and two jersey colors - home jersey color and away jersey color.
- Each match is played between two teams - the host team and the guest team.
  - The match is played on the host team's playground.
- There can be only one match per day (date).
- Each match is conducted by 4 referees. The role types of the referees are as follows:
  - Referee (main referee)
  - Assistant referee-1
  - Assistant referee-2
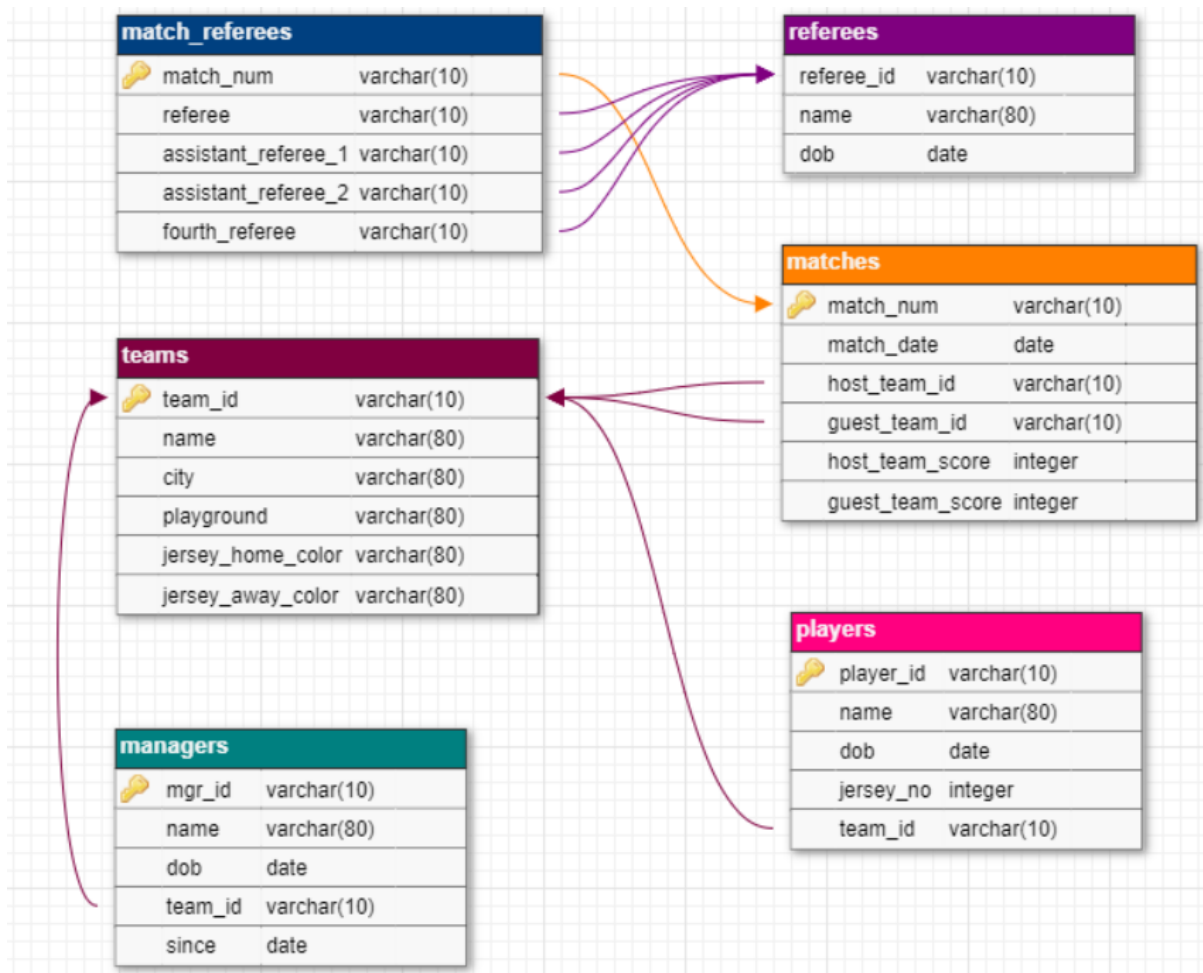 - Fourth referee

FLIS Schema

Table descriptions:

teams table: (PK: *team_id*)
- *team_id*: ID of the football team, e.g., T0001, T0002
- *name*: name of the team name
- *city*: city of the team
- *playground*: name of the playground of the football team
- *jersey_home_color*: home jersey color
- *jersey_away_color*: away jersey color

players table: (PK: *player_id*)
- *player_id*: ID of the player, e.g., P1001, P2001
- *name*: player's name
- *dob:* date of birth of the players
- *jersey_no*: jersey no of the players
- *team_id*: team id of the players refer to teams

managers table: (PK: *mgr_id*)
- *mgr_id*: ID of the manger, e.g. M0001, M0002
- *name:* name of the manager
- *dob:* date of birth of the manager
- *team_id:* ID of the football team, e.g., T0001, T0002
- *since:* date since the manager associated with the team

matches table:(PK: *match_num*)
- *match_num*: match number, e.g. M0001, M0002
- *match_date*: match date
- *host_team_id*: host team id (matches played on host team's playground)
- *guest_team_id*: guest team id
- *host_team_score*: host team score
- *guest_team_score*: guest team score

referees table: (PK: *referee_id*)
- *referee_id*: referee_id, e.g. R0001, R0002
- *name*: name of the referees
- *dob*: date of birth of referees

match_referees table: (PK: *match_num, referee_id*)
- *match_num*: match number, e.g., M0001, M0002
- *referee*: the referee id for the main referee
- *assistant_referee_1*: the referee id for the first assistant referee
- *assistant_referee_2*: the referee id for the second assistant referee
- *fourth_referee*: the referee id for the fourth referee