

CS 350 – DATABASE SYSTEMS TERM PROJECT PART 1: Data Requirements & E/R Design

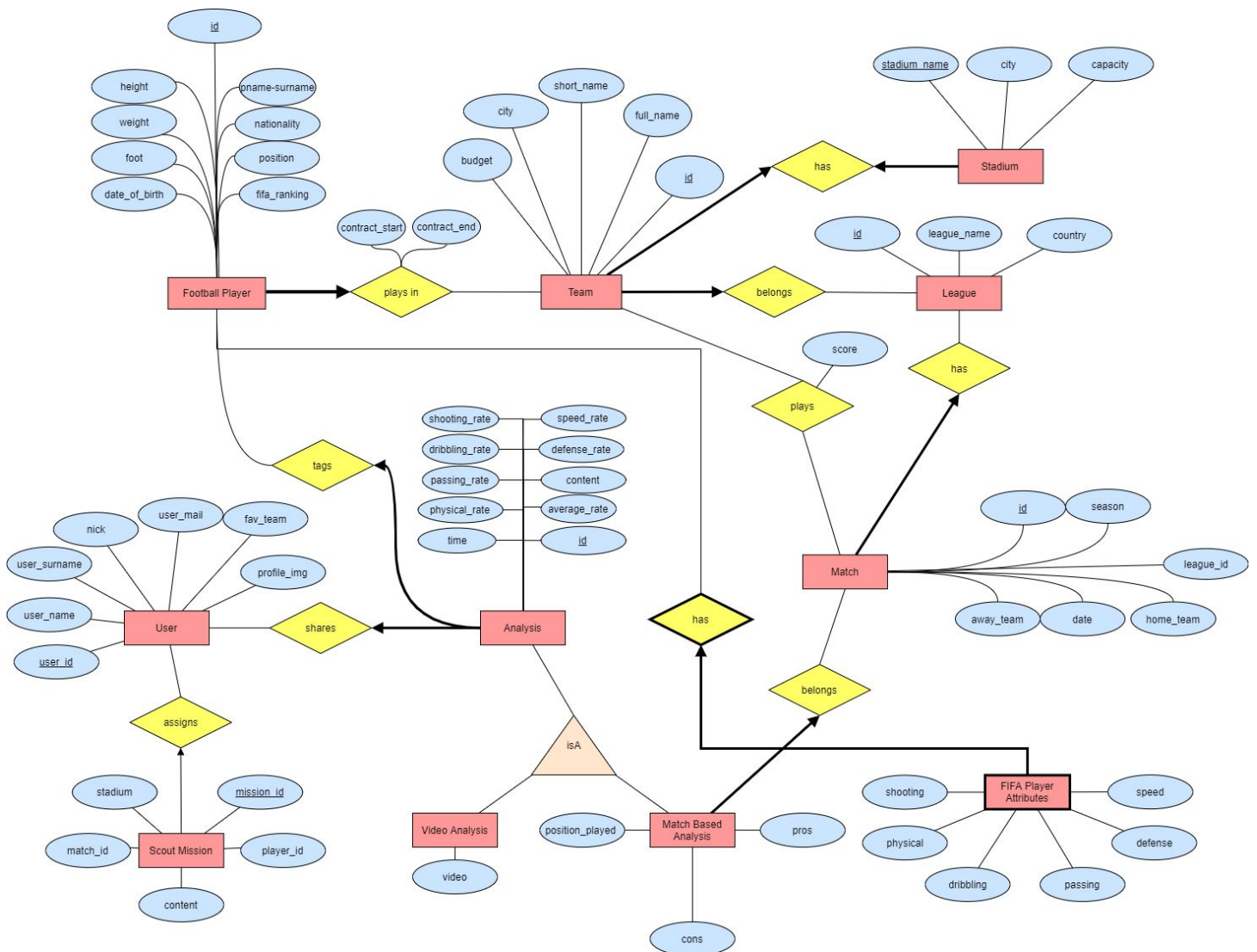
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Data Requirements

- Each football player has a id, pname-surname, nationality, position, fifa_ranking, height, weight, foot and date_of _birth.
- Each team has an id, full_ name, short_name, city and budget.
- Each stadium has a stadium_name, city and capacity.
- Each league has an id, league_name and country.
- Each match has a id, season, stadium, league_id, home_team, away_team and date.
- Each FIFA player attributes has a dribbling, shooting, physical, speed, defense and passing.
- Each user has a user_id, user_name, user_surname, nick, user_mail, fav_team and profile_img.
- Each scout mission has a mission_id, stadium, player_id, match_id and content.
- Each analysis has a id, time, content, shooting_rate, dribbling_rate, passing_rate, physical_rate, speed_rate, defense_rate and average_rate.
- Each video analysis **isA** analysis and has a video attribute.
- Each match based analysis **isA** analysis and has a pros, cons and position_played.
- Each match based analysis belongs to **exactly one match**.
- A match may have **0 or more match based analysis**.
- Each team has **exactly one** stadium.
- Each stadium has **exactly one** team.
- Each Football Player plays in **exactly one** team during the contract_start and contract_end time.
- A Football Player may have **0 or more FIFA Player Attributes**.
- FIFA Player Attributes entity is weak, it exists **if and only if there exists a Football player**.
- A team may have **0 or more football players**.
- Each team belongs to **exactly one** league.
- A league may have **0 or more teams**.
- A team may play **0 or more** matches where this relation has score attribute.
- A match should be played by **exactly 2 team**.(*Since there is no representation of this relationship, it is shown as many to many relationship in ER diagram)

- Each match has **exactly one** league to be played.
- A league may have **0 or more matches**.
- A user may share **0 or more analysis**.
- Each analysis has **exactly one** User (owner).
- Each analysis tags **exactly one** football player.
- A football player may have **0 or more analysis**.
- A user may assign to **0 or more Scout missions**.
- A scout mission should have **either 0 or 1** user.

ER Design



**As I also mentioned above Team and Match has many to many relationship because of the case.

** Additionally, I plan to use Google Authentication for login in my tool.