Chapter 1

Task 1 - Textual description of a database

1.1 Aim

Football manager database in order to be able to simulate football manager game.
It needs to reflect realistically status, description, attributes of entities connected with football in order to ensure better simulation.

1.2 Objects

We choose miminial 5 entites to make our task easier

- Player - Football players who are involved in matches, are signed to clubs, are coached by specific staff, they are the most important entity in the database as they are base for the whole database to function properly. Their behavior needs to be simulated not only during games but also after and before games.
  Rating for several attributes (stamina, teamwork, etc.), favourite position, reputation, contract status (is player loaned out from another club for example or maybe they do not have a club at all), injuries, retirement, age, wages, transfer value,

- Club - budget (for wages, transfers), players assigned to club, staff assigned to club, competitions the club is taking part in, facilities quality (like stadium, training ground), reputation, stadium location, country of origin,

- Match - Clubs taking part in (from which we derivate staff and players), score, statistics (like shots on target), attendance, weather, duration (90

minutes or extended time), date, referee name,

- Manager - attributes (scout skills, management skills, couch skills), reputation, retirement, age, wages

- Competition - list of matches, schedule, clubs involved, prize, country of origin, list of stadiums, reputation (importance of the tournament)
(not tournament because tournament usually refers to like cup competitions not leauge ones)

1.3   Requirements concerning data

Player and staff attributes are between 1 and 10
Positions are restricted to Goalkeeper, Defender, Midfield and Attacker
Reputation are restricted between 1 and 5 (as in stars with 1 between each step)
Quality of facilities are restricted between 1 and 5
Type of staff - Manager, Coach, Scout,
Competition should have at least one match
Weather restricted to Sunny, Rainy, Snowy,

1.4   Business Activities

Activities we would like to cover are, players exchanged between clubs, player signed to club, player released from club (end of contract for example)
clubs taking part in matches, clubs hiring players and staff, clubs taking part in competition, players playing in matches
staff being exchanged between clubs, staff signed to club, staff released from club,
Competition organizing matches

Chapter 2

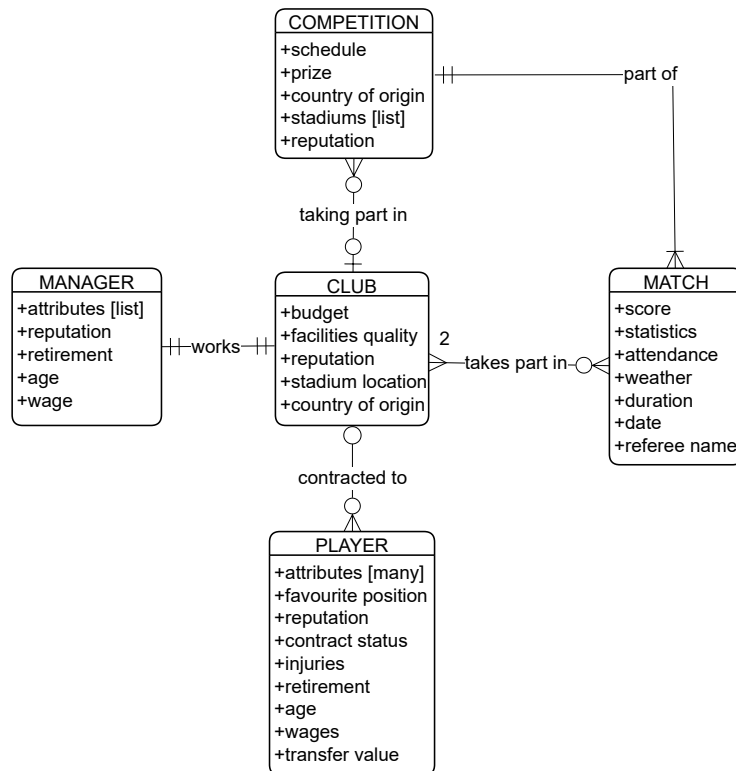# Task 2 - ERD - Entity Relationship Diagram

Figure 2.1: ERD