

Players

- player_id (key)
- player_name
- age
- team_id (foreign key)
- position
- games_played
- touchdowns
- interceptions

Teams

team_id (key)

- team_name
- conference
- division
- season
- wins
- losses
- ties

Functional dependencies:

- player_id -> player_name, age, team_id, position, games_played, touchdowns, interceptions
- team_id -> team_name, conference, division, season, wins, losses, ties

To normalize to 3NF:

1. Create a new table for the attributes dependent only on player_id: player_id, player_name, age, position, games_played, touchdowns, interceptions.
2. Create a new table for the attributes dependent only on team_id: team_id, team_name, conference, division, season, wins, losses, ties.
3. Create a third table to connect the two entities: player_id, team_id.

In this new structure, there are no transitive dependencies, and each table represents a single entity or relationship.