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Database Management Lab 9

Functional Dependencies:

People Table:

PID → FirstName, LastName, Age, Birthdate, Gender, Address

Player Table:

PID, TeamID → FavPosition

Coaches Table:

PID, RoleID → none

HeadCoach Table:

RoleID, CoachID → YearsCoached

Assisstant Coach Table:

RoleID, TeamID → none

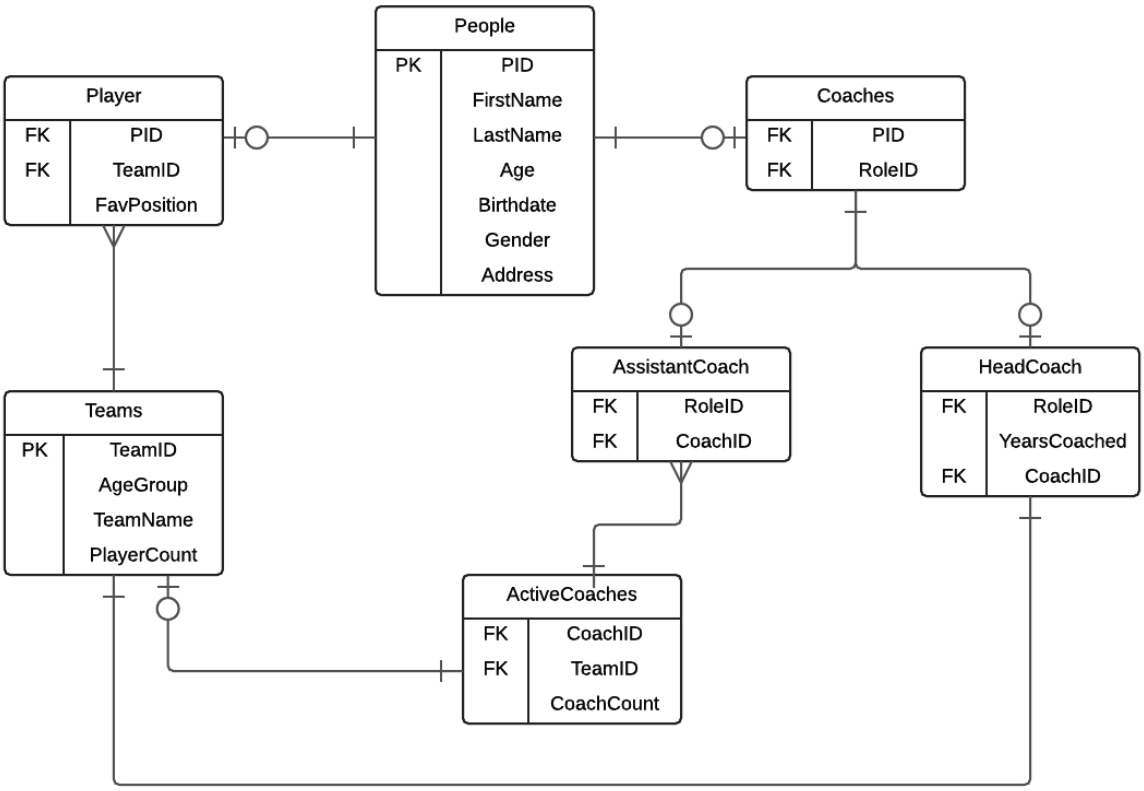
ActiveCoaches Table:

CoachID, TeamID → CoachCount

Teams Table:

TeamID → AgeGroup, TeamName, PlayerCount

ER-Diagram:



Conclusion:

In order for the table to be in 3NF we first have to prove that the database is in 1NF and 2NF. To start each row is atomic or in other words it cannot be broken down anymore. This tells us that we are in 1NF. Next each row is determined by their primary key, for example, you cannot know the address of a person without there PID. This idea follows the 2NF rules. Finally we are in 3NF because there are no transitive dependencies. No transitive dependencies states that no rows are dependent on other rows. This database follows that 3NF too.