

Kimberly Tobias
Assignment 9

Functional Dependencies:

People: $Pid \rightarrow \text{PersonName, StreetNumber, StreetName, City, State, ZipCode, PhoneNumber}$

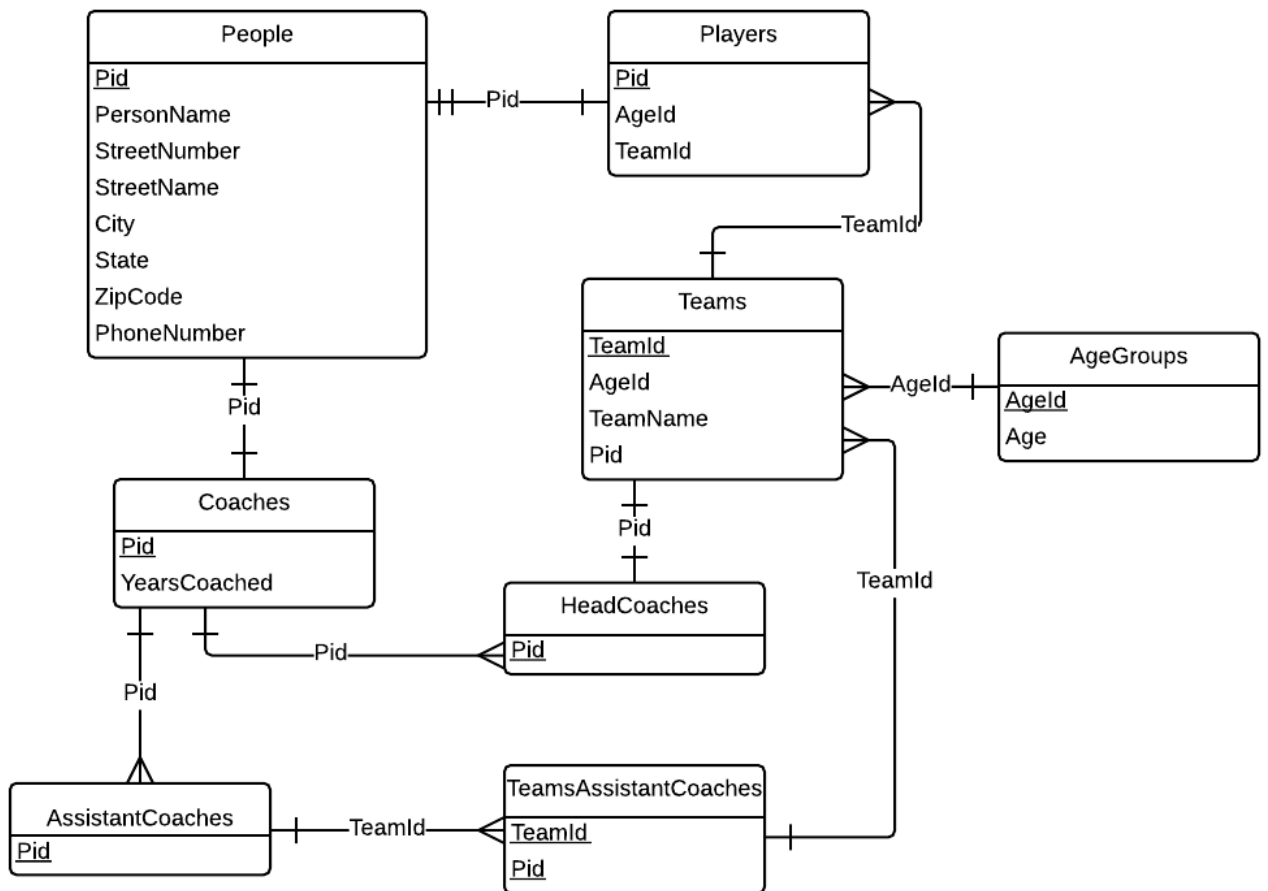
Players: $Pid \rightarrow \text{AgeId, TeamId}$

Teams: $\text{TeamId} \rightarrow \text{AgeId, TeamName, Pid}$ (****Aid and Pid need to be unique)

AgeGroups: $\text{AgeId} \rightarrow \text{Age}$

Coaches: $Pid \rightarrow \text{YearsCoached}$

TeamsAssistantCoaches: TeamId, Pid



This table is in third normal form because it is in 1NF and 2NF. The table is in 1NF because the intersection of any given row and column is atomic. The table is in 2NF because there are no partial primary keys, and all keys depend on a particular primary key. There are no insert anomalies or delete anomalies meaning that a player can be inserted or deleted without a team inserting and deleting their existence.

In the teams table, there must be a unique aid and pid because each head coach can only be a head coach of one team per age group!