

Edward Achziger

Database Management

4/12/2016

Normalization 3

1. FD's of all the tables

People

(Pid) → FName, LName, PnNum, Address

Players

(Bid) → DOB, FavPos

Coaches

(Cid) → YrNum

Assistant Coach

Aid → AgGroup

AgeGroups

(AgGroup) → Desc

Teams

(HCid, AgGroup) → Name

YouthLeague

(TeamID) → Bid, Cid

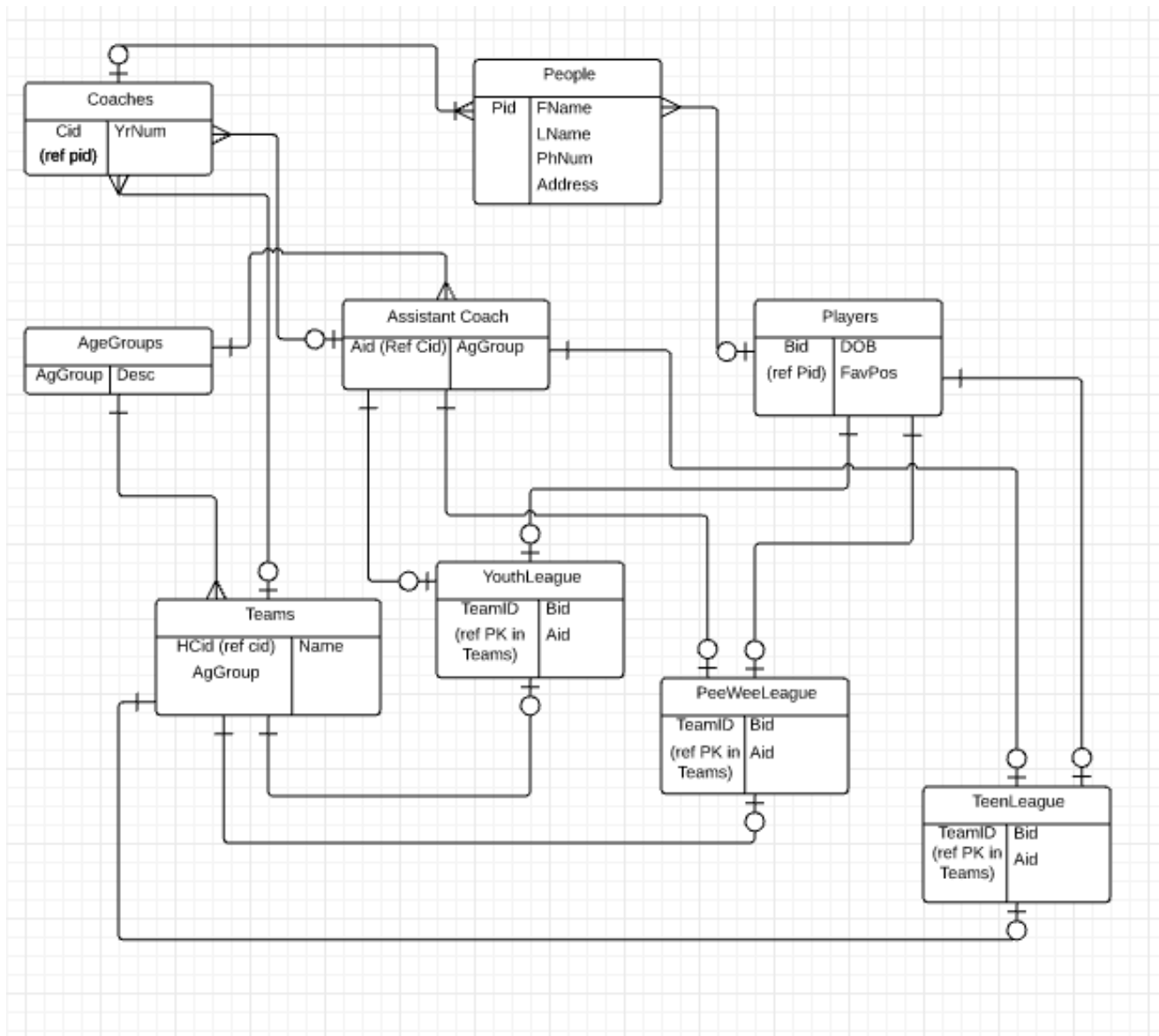
PeeWeeLeague

(TeamID) → Bid, Cid

TeenLeague

(TeamID) → Bid, Cid

2. ER Diagram



3. The database above is 3rd Normal form and even better Boyce Codd because it has no multiple key dependencies and their even better no interior transitive dependencies. With the use of synonyms I created primary keys of different tables primarily using the original Pid data tag. With that said all the primary keys in the table call on one or two columns on the table that are not candidate keys. For example, in the teams table I used a composite key of HCid (which is a synonym for Cid in coaches) and AgGroup to call on the names of each team in the overall youth league. Name is not a candidate keys because there can be the same team name for teams in different age groups. The only interior transitive dependencies that could arise in the table would be in the People Table, where in theory everyone could have unique phone numbers and addresses. But in concept of a Little League people

roster, many parents would be coaching their kids, who most likely live in their parents same address and have their parents same primary phone number.