

1. functional dependencies:

PID \rightarrow first_name, last_name, address, phone

HCID \rightarrow yearscoach

ACID \rightarrow yearscoach

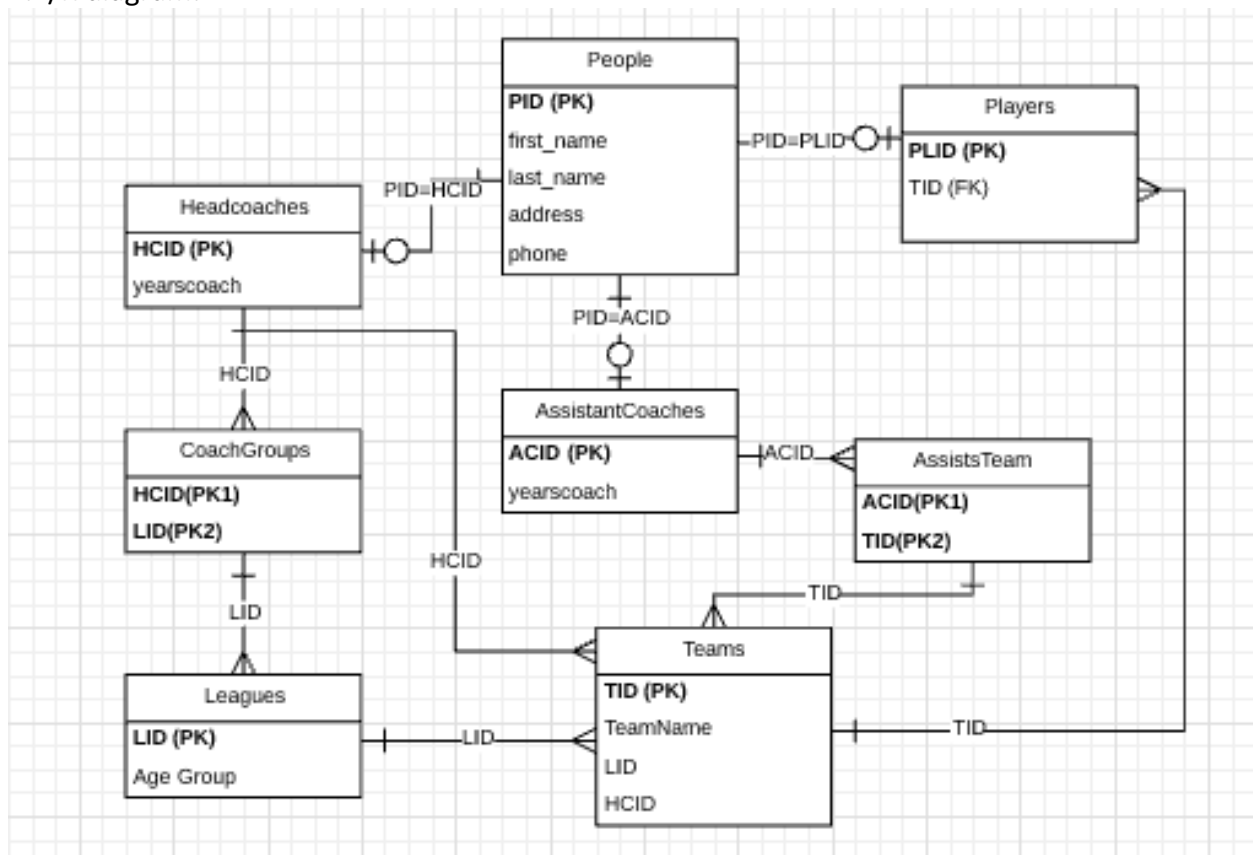
PLID \rightarrow TID

LID \rightarrow AgeGroup

TID \rightarrow TeamName, LID, HCID

[HCID, LID] \rightarrow TID

2. E/R diagram:



3. This database is in *at least* 3NF because it is in 1NF and 2NF and every non-prime attribute in each table describes the key, the whole key, and nothing but the key (so help me Codd!). This database is may also be in BCNF because when looking at the functional dependencies, their form $X \rightarrow Y$ is a trivial functional dependency.