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Lab 9

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1. Functional dependencies:

People

$\text{peopleID} \rightarrow \text{firstName, lastName, address, phoneNumber}$

Players

$\text{peopleID} \rightarrow \text{heightIN, weightLBS}$

Coaches

$\text{peopleID} \rightarrow \text{yearsCoached}$

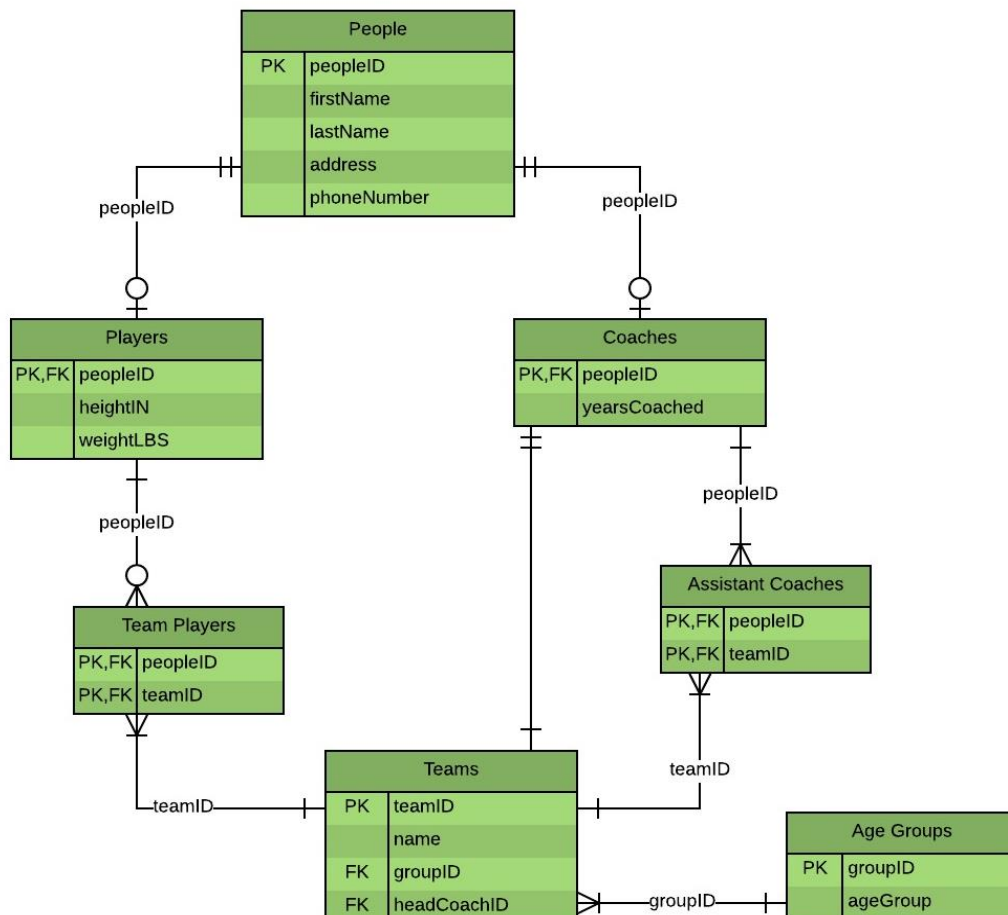
Teams

$\text{teamID} \rightarrow \text{name, groupID, headCoachID}$

Age Groups

$\text{groupID} \rightarrow \text{ageGroup}$

2. E/R Diagram:



3. This database is in 3NF and BCNF because it is in 1NF and 2NF. It is in 1NF because the intersection of all rows and columns are atomic. There are no partial dependencies and no multi-key dependencies. There is also no delete, insert, or update anomalies. Therefore, a player can be added to the database with a peopleID. Lastly, to make it in BCNF, there are no multiple, transitive dependencies involving candidate keys.

*Professor said in class no SQL file was needed for this lab