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Normalization #3
11/13/13

1. Functional Dependencies

People: PID is dependent on firstName, lastName, phoneNumber, DOB, streetAddress, State, zipCode.

Coaches: PID is dependent on yearsCoaching.

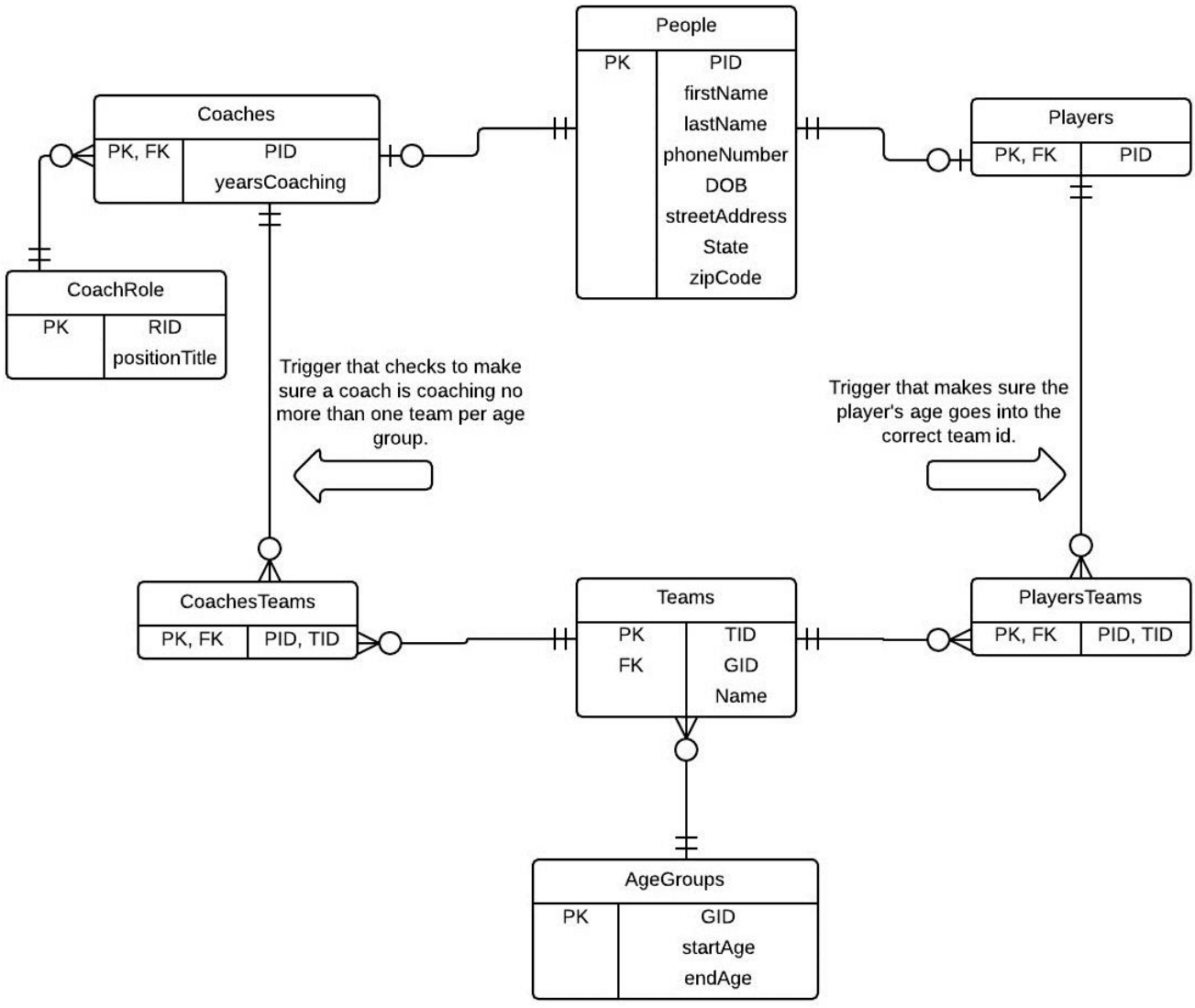
CoachRole: RID is dependent on positionTitle.

Teams: TID is dependent on GID and Name.

CoachesTeams: PID, TID is dependent on coaches PID teams TID.

AgeGroups: GID is dependent on startAge, endAge.

2. ER Diagram



3. My database is in 3NF, because each attribute depends on the key, the whole key, and nothing but the key. Every nonkey attribute depends on all attributes of the primary key. In the People table all of the attributes depend on PID and only PID. CoachesTeams has a composite key of PID and TID. In the CoachRole table the attribute positionTitle depends on RID. In the Teams table GID and Name depend on TID. In the table AgeGroups startAge and endAge depend on GID. The PlayersTeams table has a composite key of PID and TID just like CoachesTeams. Since each of the tables is in 3NF and every nonkey attribute depends on all attributes of the primary key, the entire database is therefore in 3NF.

4. A view to display all the teams in the 10-14 age group.

```
create view TeamsIn10To14AgeGroup as

Select t.TID, t.Name

From Teams t, AgeGroups ag

Where ag.startAge = 10

And ag.endAge = 14

And ag.GID = t.GID;
```