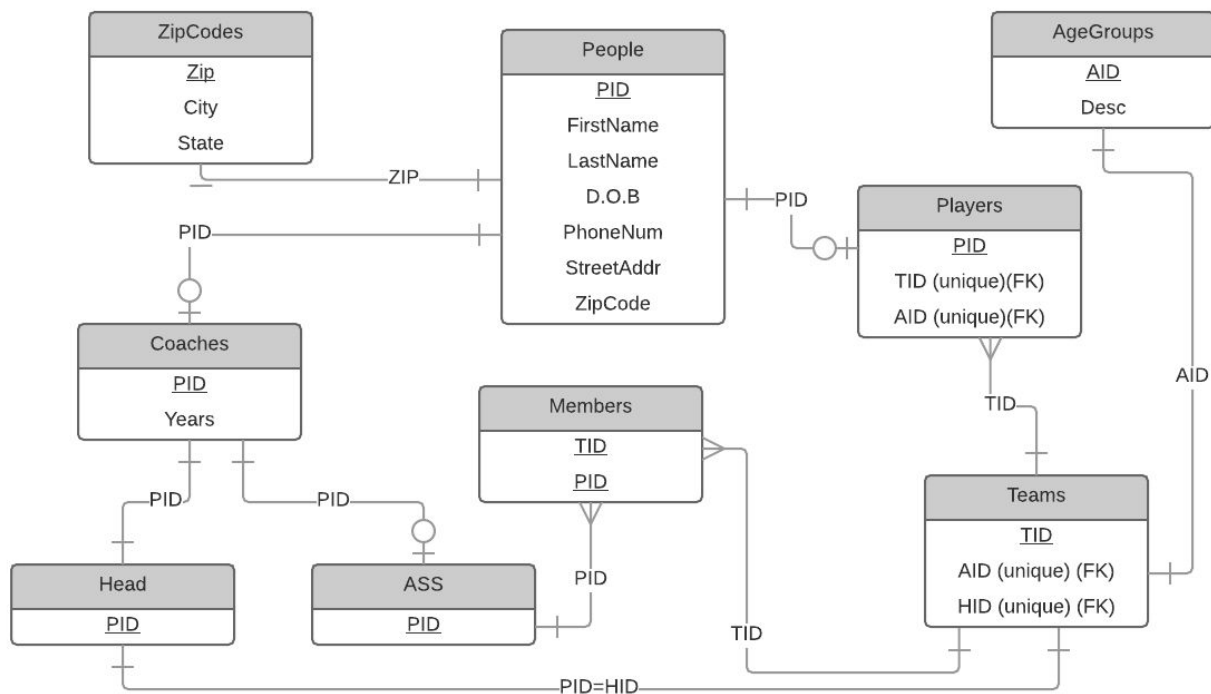


Lab 9

1. Functional Dependencies:

- a. *Zipcodes*: $\text{Zip} \rightarrow \text{City}, \text{State}$
- b. *People*: $\text{PID} \rightarrow \text{FirstName}, \text{LastName}, \text{DOB}, \text{PhoneNum}, \text{StreetAddr}, \text{Zipcode}$
- c. *Coaches*: $\text{PID} \rightarrow \text{Years}$
- d. *AgeGroups*: $\text{AID} \rightarrow \text{Desc}$
- e. *Players*: $\text{PID} \rightarrow \text{TID}, \text{AID}$
- f. *Teams*: $\text{TID} \rightarrow \text{AID}, \text{HID}$

2.



3. Reasons my DB is in 3NF:

- a. All tables when filled will be able to be anatomic
- b. There are no partial-key dependencies.
In each table, fields are determined by 1 field of primary key. For example, in the coaches table, years is functionally dependent on the primary key, PID. If the primary key was actually a composite key of PID + [another field] and years was functionally dependent on PID, this would not be in 2NF and therefore not in 3NF.
- c. There are no multi-key dependencies

- i. For each table, each field is functionally dependent on only the primary key. For example, in the people table, first name is functionally dependent on PID. If first name was functionally dependent on last name, which is functionally dependent on PID, this would not be in 3NF.