



Functional Dependencies

People:

Pid \rightarrow fname, lname, address, phone#

Players:

Pid \rightarrow age, number

Coaches:

Pid \rightarrow yearsCoaching, typeOfCoach

HeadCoaches:

Pid, agid \rightarrow tid

Note: The composite key of pid and agid will have a unique constraint to prevent the same head coach from being a coach for another team in the same age group. Tid is also unique in order to make sure each team can only have one head coach.

AssistantCoaches:

Pid, agid \rightarrow tid

Note: The composite key of pid and agid will have a unique constraint to prevent the same head coach from being a coach for another team in the same age group.

TeamRosters:

Tid \rightarrow agid, pid

AgeGroups:

Agid \rightarrow minimumAge, maximumAge

Teams:

Tid \rightarrow name, agid

This database is in third normal form because no table in my database contains partial key dependencies or multiple key dependencies. From what I can tell no table violates this rule. HeadCoach and AssistantCoach tables have a candidate

key that appears to follow the rule “the key, the whole key and nothing but the key.”