The title of my semester project is ‘Hockey League Database’. The inspiration for this is my own hockey league website, which is likely just a front end for a database similar to this. Currently I have 10 entities/tables to handle things such as players, teams, games, etc.

There were some decisions that I made for my database that could have gone one way or another, for example I specified that a player was different from a goalie (goalies are weird anyway, and their statistics are different than player statistics, so I just made them their own entity). I also specified that players, coaches and goalies could exist independent of a team (for example, free agents or fired coaches, etc.). I also specify an injury report for a player or goalie with player\_id as a foreign key. This player\_id can be for a player or goalie, so the primary keys for both should be independent of each other. Each team also has captains, who can be either the captain or an alternate captain. Goalies are not typically captains, so I ignore that edge case in this scenario.

Other decisions that I made were to use schedule as a way to manage the many to many relationship between team and game. This was an elegant solution to ccreating the schedule with as few entities as possible. For simplicity in this implementation, for each game I assigned only one referee (when in fact hockey games typically have 2-4 referees) just so I did not have to manage another many to many relationship. Further iterations of the database design may include a many to many relationship between referees and games, however for now we can just consider the referee entity to be the “head referee” and allow that person to manage the other linesmen. Each game is also assigned a rink.

The design tool that I have been using thus far is draw.io. Draw.io is a generalized diagram creation tool which has lots of the things you need to create ERD’s and a nice intuitive interface to create diagrams. The flexible interface for draw.io also allows you to create diagrams in Chen’s notation, which was useful for the midterm. For the final iteration of the database design project, I likely will have to create something in mysql workbench or another sql tool, however I can do that research and learning later in the term.

See my design for my Hockey League Database below:

