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CPSC 321
Dr. Bowers
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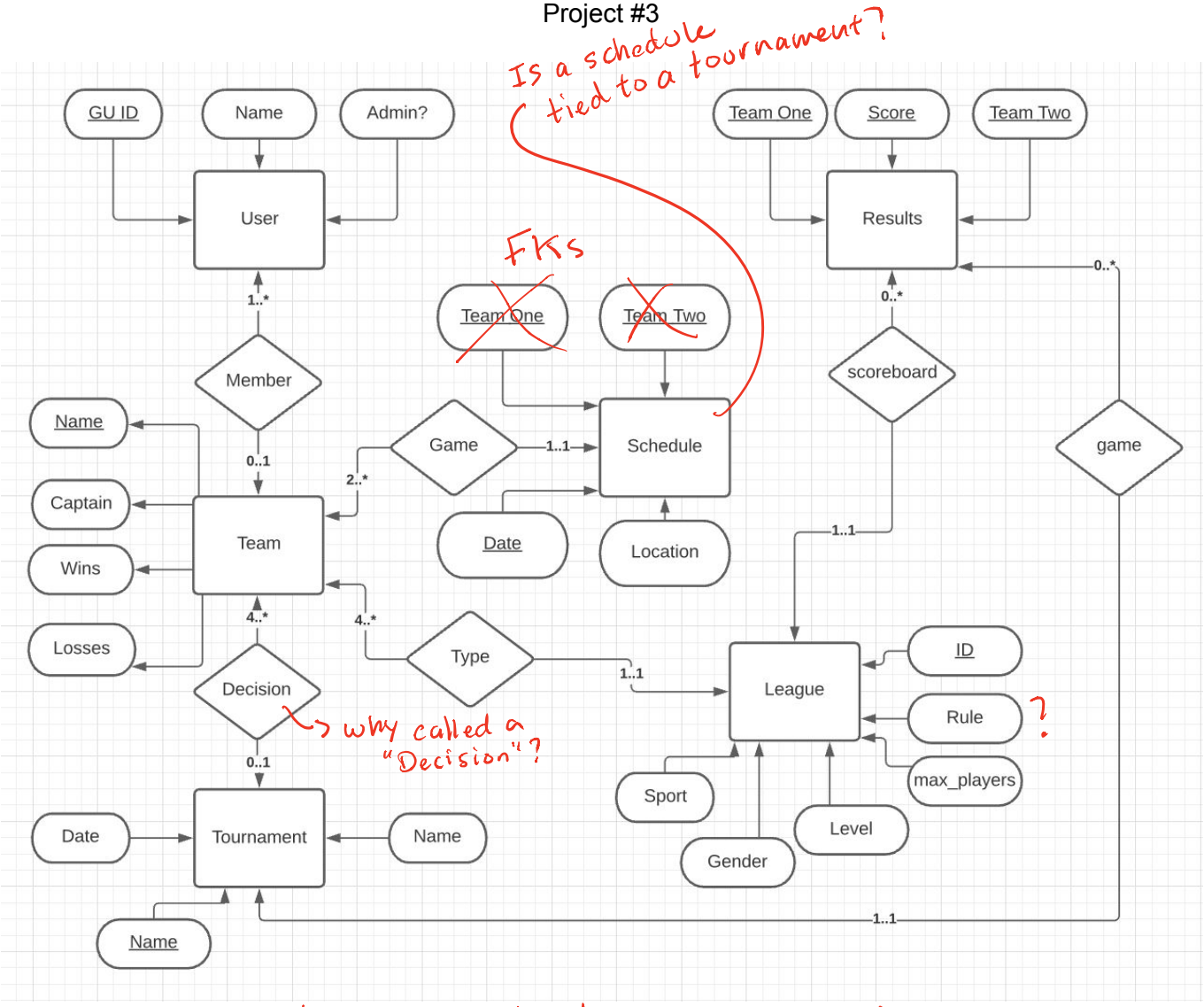
Project #3



2. We took our functional requirements and turned all the nouns into entities and added their respective attributes. We then chose relationships to encapsulate our requirements and added cardinality restraints to capture our application domain. The cardinality constraints for user are implemented so they may only be on one team at a time, or none since any GU student or faculty may be a user. We also added admin as an attribute to user as a boolean data type.

Tournaments require 4 or more teams to participate and a team can either be in one tournament or none at a time. Tournaments have a relationship to results with 0 to many per tournament. Teams are a member of only one league and a league must have 4 or more teams to be established. Teams have their own schedules and each schedule is associated with 2 or more teams since two teams are required to play each other. Result scoreboards only have one league but a league has many results.

3. The only constraints that are involved in our project that we aren't able to capture in an ER diagram revolve around insertion credentials. Specifically, there is a boolean attribute on user that tells if they are an admin. This value being true would allow that user to create tournaments, leagues, admit teams, and make other changes to the backend of the development. At this point, we aren't sure if we need to add weak entities because the entire system almost depends on itself. We plan to talk to Dr. Bowers about this along with functional dependencies as we move forward.

- What about that a Team's result should be connected to the League the Team plays in?
- I think there may be others like this as well...