

SOLUTION

Class diagram ARENA system

Based on the Glossary of requirement specification, the entity classes identified are:

Classes:

Game, Players, Match, Tournament, League, TournamentStyle

Associations:

- League and Game (a league is associated to 1 specific game),
- League and TournamentStyle (based on the Glossary: A league is associated with a specific Game/sport and a Tournament Style). If Tournament links to TournamentStyle then it can happen that 2 tournaments of the same league may get different tournament style. League links Tournamentstyle will ensure all tournaments of the same league get the same style.
- League/Tournament and Players (player applies to a league),
- League and Tournament (1 league has several tournaments, so every tournament attached to league will get the same tournamentstyle which is associated to that league, and a tournament is linked to only 1 league).
- Tournament and Match (a tournament is a series of matches)
- Players and Matches (players play in matches. Here we have a constraint as we had Player applied to a league, so that means for example, only players applied to a league ABC can take part of matches belong to tournaments which belongs to that league ABC)

Note: StyleName is key of TournamentStyle

Diagram:

