

Data and Applications Group Assignment - 2

Team AGDP

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Are the requirements complete or missing something?

Some inconsistencies that we observed in the requirements were

1. There is no specific entity that handles teams and team events in the tournament.
2. "Event Venues" entity has no primary key specified. We can solve this by setting "Venue name" as primary key for the "Event Venues" entity.
3. In "Event Venues" entity, instead of storing "Event names" as a multi-valued attribute, creating a relationship event "occurs at" event venue will be a better option.
4. In relationships, whether participation is total or partial w.r.t the entities involved is not clearly mentioned.

Are any requirements incorrectly included?

1. In the relationship between Participants/Coaches and lodging venues, lodging venues is not specified as an entity type though it is an attribute in both "Coaches and Participants" entity so naturally there would be no need for such a relationship.
2. Medal tally entity is observed to be redundant as it can be derived from the "Events" entity as winners are already stored there.
3. Instead of storing names of events in the "Participants" entity, it would be more advisable to store the ID of the event, which would help in querying event related information.
4. Attributes "winner", "runner up" and "first runner up" in "Events" entity must store the ID of the participant rather than storing the name of the participant, which would help in querying participant related information like country etc.
5. In "Events" entity, if attributes "Age Criteria" and "Gender Criteria" are single-valued, it will result in redundant entries since a event can have multiple age and gender categories. One solution can be to make both the attributes multi-valued.

6. "Event name from available events" attribute from "Spectators" entity should hold ID of the event rather than storing the name of the event.
7. "Event time" and "Event venue" attributes from the "Spectators" entity should rather be a part of the "Events" entity, and for tickets these attributes will be retrieved from the "Events" entity using "Event ID from available events" attribute.
8. In relationship "Between Medal's Tally and Events", there is no direct relation between individual events and medal tally of individual countries.
9. Coach attribute has been specified in the "Participant" entity (single-valued) so the relationship "Between Coaches and Participants" should be 1:N. However, it has been specified that one participant can have multiple coaches, which is a contradiction.

How easy is it to design the EER model with these set of requirements?

The requirements are mostly well listed and all the required data has been accommodated in the corresponding entities/relationships, however there are a few errors and inconsistencies in the requirements, which have been identified and neglected while designing the EER model.

EER MODEL



