

CS4.301: Data and Applications (Monsoon 2022)

Homework – 2

Submission Due: Oct 23, 2022 (11:59 p.m.)

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1 Assigned Task

Design an ER diagram for the same mini world that you were given for Homework 1. However, you will be drawing the ER diagram of the mini world based on a different team's requirements analysis document. The ER model should capture all entities (subclass, generalization, weak, if any) and the relationships stated in the requirements document.

Since the team's requirements document is different, you are expected to review and evaluate the requirements analysis document based on several parameters such as:

- Are the requirements complete or missing something?
- Are any requirements incorrectly included?
- How easy is it to design the ER model with these set of requirements?

If you believe that some inconsistencies exist in the requirements document, you can **rectify** them. Be sure to mention each point in your analysis section of this submission.

2 How to draw

- You are free to draw your ER diagram using any digital tool such as [creately](https://creately.com/), draw.io, [lucidchart](https://lucidchart.com/).
- We urge you to use the notations used by the textbook (minor variations will be acceptable, considering the tool's limitations).
- Use (min-max) notation for cardinality and participation constraints. It is possible to miss some details with ER diagrams, so ensure you spend some time on this.
- Common mistakes include missing cardinality constraints, ambiguous participation constraints, and undifferentiated attributes (multivalued, primary key, etc.). Make sure to avoid these.

What exactly is the composite attributes in Name
Which strong entity each weak entity is related to
in Invested by (M,N) and (1,N) ???
racer, investor weak entity??

which attribute is number of companies a derived attribute of?

3 Submission Instructions

- The document that is assigned to you for this homework can be found in the last column (HW 2 Requirement Document Links) of [this sheet](#). You will do this HW in the same group as you did HW1.
- Your submission must include a single PDF named <teamnumber>.pdf (without the < and >) containing the ER diagram and the critical evaluation (analysis) of the requirements document.

4 Additional Note

- As mentioned above, the mini world remains the same, although the requirements document is different.
- The evaluation of the requirements document will have no effect on the team being evaluated. This is just to test your ability to analyze and identify whether a requirements document is comprehensive enough or not.