Assignment 1

Due Sep 10 by 9:59pm **Points** 100 **Submitting** a file upload
File Types pdf and png **Available** Sep 2 at 5pm - Sep 12 at 11:59pm 10 days

This assignment was locked Sep 12 at 11:59pm.

Now that you've learned about the ER diagram and had some practice making them, it's time to show me what you've learned!

Remember that for all assignments in this course you must hand in your own individual work. If you have questions on what is or is not allowed, please **contact me (mailto:k.applebaum@csus.edu)** before starting work.

The assignment

Your fellow students have decided to make a website called RateMyHornet, where you can rate your CSUS professors. You have been asked to create the ER diagram that reflects the following requirements:

- Professors have a unique ID. Professors also have a name, consisting of first and last, but there may be more than one professor with the same name. Professors have multiple email addresses. Professors also have an average rating.
- Courses have a unique catalog number. Courses also have a unique description, number of units, and may have a GE area.
- Courses can have more than one section, or possibly no sections at all (for example, a new course that hasn't been scheduled yet).
- Sections have a section ID that distinguishes it from other sections of the same course. A section ID is made up of a section # (an integer) and the semester (such as "Fall 2020"). Sections also have a room number.
- A professor must teach at least one section. A section is only taught by a single professor.
- Students have a unique ID and a name consisting of first and last name. Like professors, there may be more than one student with the same name. Students have a major and can have multiple email addresses.
- Students can take many sections and sections can have many students. For each section a student is enrolled in they can leave a rating and record the grade they received.

What to hand in

Create this ER diagram using the notation from class – do not use other notations such as from software engineering.

Your diagram must look professional and be legible -- check out the **Before You Start page** for tips about software to do this. Hand drawn diagrams will have points deducted.

Your diagram must be turned in on Canvas as a PDF or a PNG file. You do not need your name or student ID on the assignment because Canvas will link the document to you. Be sure to double check your assignment for missed details and include any assumptions you made (there should be few to none). Do not use assumptions that conflict with the user requirements.

You can submit as many times as you want, but I will only look at your last submission. The assignment is **due September 10th at 9.59 p.m.**. (Remember that Canvas doesn't give you any leeway on the submission time -- 10:00 p.m. on Sept 10th **is a late submission** with a 25 point deduction!)

Assignment 1						
Criteria	**Ratings**					**Pts**
Entities and attributes Identify all entities and attributes in the user requirements, and correctly map them to the ER diagram with notation we used in class. (MO2.1, MO2.3, CO1)	**30.0 pts** **Full Marks** All entities correctly identified and drawn in the ER diagram using correct notation. All attributes correctly identified, mapped to their corresponding entities, and drawn on the ER diagram with notation that is correct for the type of attribute. No entities or attributes appear on the ER diagram that were not in the user requirements.	**25.0 pts** **Good Marks** One entity or attribute missing from the ER diagram, or minor mistakes in notation.	**20.0 pts** **Partial Marks** More than one entity or attribute missing from the ER diagram, or extra entities or attributes added. Multiple mistakes in notation.	**10.0 pts** **Needs Improvement** Most entities or attributes not correct. Many mistakes in notation.	**0.0 pts** **No Marks** No submission or all attributes missing or all entities missing.	30.0 pts

Relationships Identify all relationships between entities in the user requirements, including recursive relationships, and map them to the ER diagram using correct notation. (MO2.1, MO2.3, CO1)	**15.0 pts** **Full Marks** All relationships correctly identified and drawn on the ER diagram. Relationship names will make sense to most users. Recursive relationships, if any, are identified and correctly drawn including roles.	**10.0 pts** **Good Marks** One relationship missing or drawn incorrectly or is missing attributes. A recursive relationship is missing roles.	**5.0 pts** **Needs Improvement** Several relationships missing or extra relationships added. Recursive relationship, if any, was misidentified or drawn between different entities. Incorrect notation used.	**0.0 pts** **No Marks** No submission or no relationships shown.	15.0 pts
Weak Entities All weak entities are identified and correctly drawn on the ER diagram, along with their identifying relationship. (MO2.1, MO2.2, MO2.3, CO1)	**20.0 pts** **Full Marks** All weak entities are correctly identified in the user requirements and drawn on the ER diagram with correct notation. All identifying relationships are shown on the ER diagram with correct notation.	**12.0 pts** **Partial Marks** Weak entity identified and drawn on the ER diagram, but identifying relationship is not shown.	**6.0 pts** **Needs Improvement** Identifying relationship shown between two weak entities or two strong entities.	**0.0 pts** **No Marks** No submission or no weak entities shown on the ER diagram.	20.0 pts
Keys All minimal keys are shown on the ER diagram with correct notation, including weak and composite keys. (MO2.1, MO2.3, CO1)	**10.0 pts** **Full Marks** All minimal keys are shown on the ER diagram with correct notation. Weak keys have correct notation. Any composite keys have correct notation. No non-key attributes are shown as keys.	**5.0 pts** **Partial Marks** One key is missing or a non-key attribute is shown as a key. Weak key or composite keys are misidentified.	**0.0 pts** **No Marks** No submission or multiple errors on keys.	10.0 pts
Cardinality	**10.0 pts**	**5.0 pts**	**0.0 pts**	

All cardinalities are identified in the user requirements and correctly drawn on the ER diagram. (MO2.1, MO2.3, MO2.4, CO1)	**Full Marks** All cardinalities are identified and drawn on the ER diagram with correct notation.	**Partial Marks** One pair of cardinalities is backwards, missing, or incorrect.	**No Marks** No submission or multiple errors or missing cardinalities.		10.0 pts
Participation Constraints All total and partial participation constraints are identified in the user requirements and drawn on the ER diagram with correct notation. (MO2.1, MO2.3, MO2.4, CO1)	**15.0 pts** **Full Marks** All total and partial participation constraints are identified in the user requirements and drawn on the ER diagram with correct notation.	**10.0 pts** **Partial Marks** One set of participation constraints is missing or incorrect on the ER diagram.	**5.0 pts** **Needs Improvement** Multiple participation constraints are missing or incorrect.	**0.0 pts** **No Marks** No submission.	15.0 pts
					Total Points: 100.0