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CS 435

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Assignment 1 Description

**Description**

For this assignment, we are required to create a Journal Review database application in which Authors submit their papers for publication. The Reviewers will judge the Authors’ paper by giving it a grade on a 1 to 10 scale across various categories.

**Explanation**

Firstly, for the “Person” entity, I decided to make the key as the email because it will be unique. Other attributes include the First and Last Name (together, not separated) and the affiliation. A “Person” can be one of two weak entities: an “Author” or a “Reviewer”. The relationship between a “Person” and the two weak entities are 1-to-1 because an “Author” can’t be a “Reviewer” and vice versa. The weak entity “Author” contains a relationship to the entity “Paper” in which they “write” the “Paper”. Also, the “Reviewer” contains further attributes in which the “Author” does not have; specifically, a Phone Number and multi-valued Topics. The “Reviewer” has a relationship to the “Paper” entity called “reviews”. This relationship has a multi-valued attribute comment and an attribute recommendation to clarify if the paper should be considered well-written or not. Additionally, the “Reviewer” has a relationship to the weak entity “Scale” because a “Reviewer” will determine the appropriate point breakdown for each paper they “review”. Finally, the “Paper” entity contains attributes such as ID (key), title, abstract, and name of the file. This entity has a relationship with both an “Author” and a “Reviewer”, thus explaining why the respective relationships should be M:N.

**Entities**

1. Entity: Person

Attribute(s): Email (key), First and Last Name, Affiliation

Relationship(s): “is” Author, “is” Reviewer

1. Entity: Paper

Attribute(s): ID (key), Title, Abstract, Name of File

**Weak Entities**

1. Weak Entity: Author

Attribute(s): Is Contact Author (true or false)

Relationship(s): “is” Person, “writes” Paper

1. Weak Entity: Reviewer

Attribute(s): Phone Number, Topic (multi-valued)

Relationship(s): “is” Person, “reviews” Paper, “determines” Scale

1. Weak Entity: Scale

Attribute(s): Technical Merit, Readability, Originability, Relevance

**Relationships**

1. Relationship: “is”

Person “is” Author, Person “is” Reviewer

1. Relationship: “writes”

Author “writes” Paper

1. Relationship: “reviews”

Attribute(s): Comment (multi-valued), Recommendation

Reviewer “reviews” Paper

1. Relationship: “determines”

Attribute(s): Technical Merit, Readability, Originability, Relevance

Reviewer “determines” Scale