ENSF 608

Databases

Assignment 1

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Design Explanation

The strong entities in the diagram include Person, Author, Reviewer, Paper, and System, since they can exist independently and may have their unique identifier. On the other hand, the weak entity types, Review and Conference Topic, depend on the Reviewer and Paper entities, respectively, to exist. Finally, the Author and Reviewer subclasses are created based on the ability to inherit repetitive attributes. While the subclasses for Paper exist to create more specialized versions of this entity in order to meet the requirements of the manuscript review.

Assumptions:

- A Reviewer can exist in the system without needing to submit a Review first (a paper takes time to be reviewed before finalization).
- The System can keep track of the total number of papers reviewed by a Reviewer, as well as store a detailed rating for each paper based on the relationship between the Paper and the Reviewer.
- The overall recommendation is a single attribute for the assigned relationship between the Paper and Reviewer and the authors to whom it is sent.

The key attribute of the Person entity will be the email address, which will be used as the unique identifier for the individuals. This is because both the Author and the Reviewer can only have one email address, and it will serve as the identifier for each individual.

The EER diagram will have a many-to-many relationship between the Paper and the Reviewer entities. This is because a Paper can be assigned to multiple reviewers, and a Reviewer can be assigned to multiple papers to review.

Additionally, in this diagram, the derived attribute is the detailed rating. This rating will be derived by combining all the review entities' attributes to give the paper an overall score.

EER Diagram for the Manuscript Review