CSC343 A3

ER MODELLING AND DATABASE DESIGN

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Sunday 18 November 2012

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Part I

Assumptions

1 Setup and login phase

Conference admin info. For these and attributes of other entities and relationships, please see ER diagram in the next part.

File storage. We'll only store filenames of papers, forms, letters in the database. The files themselves will be stored on a hard drive somewhere outside the database.

2 Submission phase

Unique paperID. Every paper will have a unique paperID across all conferences. This will remove the need to have Paper as a weak entity depending on Conference.

Different submissions are different papers. An author has the option to update an existing submission instead of submitting an identical copy, but that's application, not database-level design, so we don't have to worry about that.

Author VS coauthor. We don't distinguish between authors and coauthors: everyone author of a paper is a coauthor.

3 Reviewing phase

Number of reviewers. Each conference has a fixed number of reviewers assigned per paper.

Reviewer expertise. Each reviewer may have multiple areas of expertise, which correspond to paper topics.

Reviewer paper preference. A reviewer may express preference for a particular paper.

Bidding process. Since we have no way of knowing what the process is—each conference may have their own odd way of doing things—we can only care about the result of that process, which we assume to be, for each paper, a list of points assigned to reviewers who have expressed an interest in that paper. Again, how those points are scored is a mystery: they could be picking numbers out of a hat. The reviewers with the highest scores get to review the paper.

4 Decision and publishing phase

One letter per paper. The chair sends only one acceptance notification letter per paper, to the coauthor who submitted it.

Part II

ER diagram

Part III

Relational schema

Part IV

PostgreSQL database definition