

CSC343 A3

ER MODELLING AND DATABASE DESIGN

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Part I

Assumptions

1 Setup and login phase

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

Conference participant multiplicity. Every user can participate in at most one role per conference, otherwise we have a conflict of interest. (E.g. a chair has the power to choose who gets to review a paper, so she might choose herself.)

Conference topic multiplicity. Every conference can define its own topics, or use existing topics from other conferences.

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

2 Submission phase

Author conference participation. An author may have an account without being registered in any conference. She may upload a paper without submitting it to any one.

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

Reviewer preference: bidding process. To bid on a paper, a reviewer expresses her level of interest by assigning an integer between 0 (low) and 5 (high).

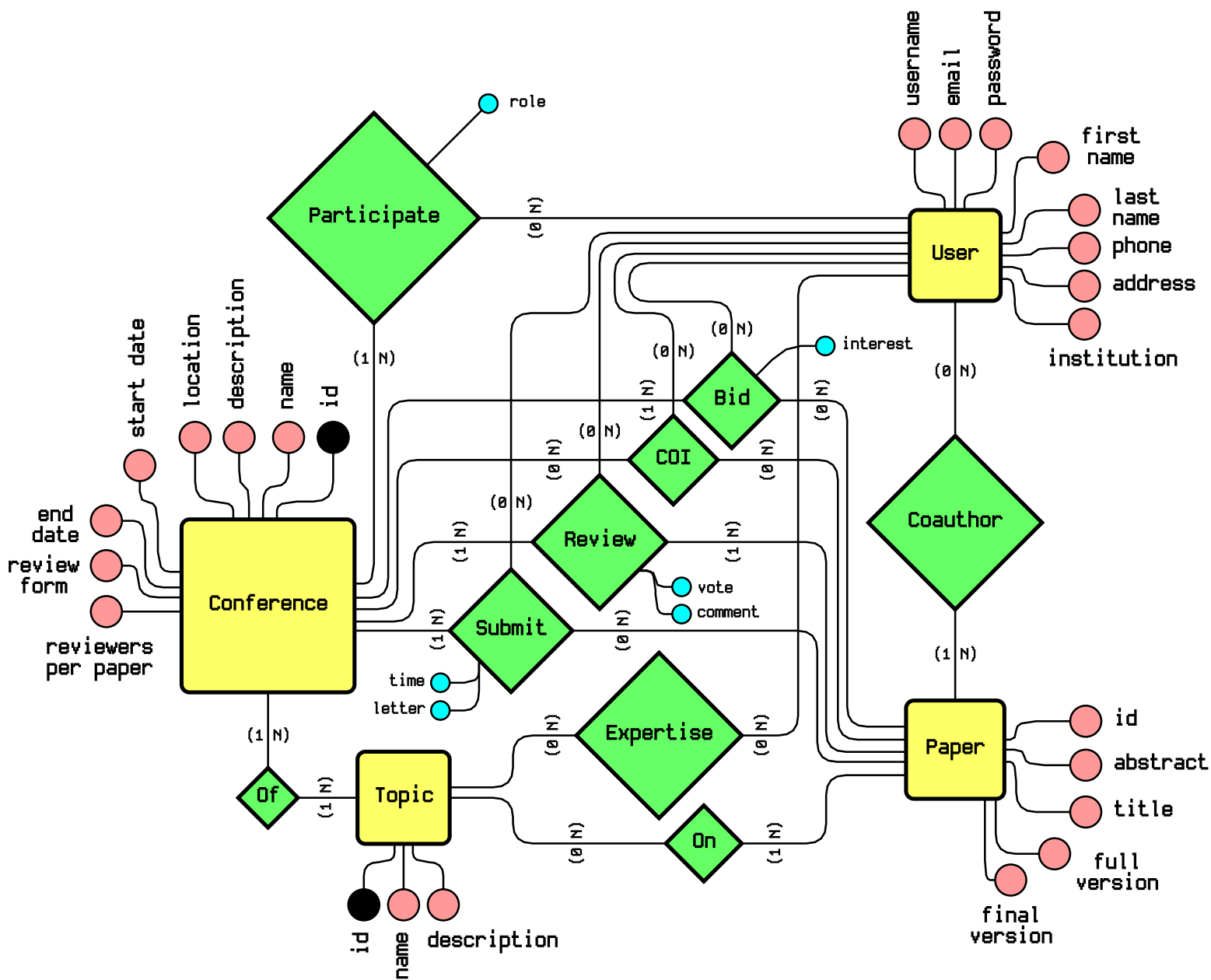
Reviewer's choice. A reviewer casts a vote of YES or NO on whether or not she thinks the paper should be published.

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

Users: (User name, E-mail, Password, First name, Last name, Institution, Address, Phone number)

User's expertise: (User name, Topic ID)

User's bid for paper: (User name, Paper ID, Conference ID, Interest)

User's COI: (User name, Paper ID, Conference ID)

User's review: (User name, Paper ID, Conference ID, Vote, Comment)

User's submission: (User name, Paper ID, Conference ID, Time, Letter)

Papers: (Paper ID, Abstract, Title, Full version, Final version)

Paper's co-authors: (Paper ID, User name)

Paper's topic: (Paper ID, Topic ID)

Conferences: (Conference ID, Name, Description, Location, Start date, End date, Review form, Reviewers per paper)

Committee: (Conference ID, User name, Role)

Conference's topics: (Conference ID, Topic ID)

Topics: (Topic ID, Name, Description)

Part IV

PostgreSQL database definition