

## Final Project Phase 1: Chicago Press Database Design

### Due Dates

Phase I due Sunday, January 30, 2011 by 11:59 p.m. (central time)

Phase II due Sunday, February 20, 2011 by 11:59 p.m. (central time)

Phase III due Thursday, March 10, 2011 by 11:59 p.m. (central time)

### Project Deliverables: Phase I

In Phase I, you will be responsible for submitting the conceptual model of your database in a UML-formatted entity-relationship (E-R) diagram. To simplify the E-R diagram only show entities, relationships, and the cardinality ratio and participation constraint of each relationship. State any assumptions you make when creating the E-R model (if necessary).

### Background

Chicago Press is a local publishing firm. They publish more than 200 books per year. The majority of their publications are hardbound non-fiction. They work with a book from conception through production and post-production (marketing and sales).

### Problem Statement

Chicago Press wants to redesign the system they use for its production phase. Chicago Press staff members currently use a number of manual processes to guide them through the production of new publications. This process is cumbersome and difficult to manage. Deadlines are being missed, and information is being duplicated. To address these problems, Chicago Press would like to implement a centralized database system to enter, track, and monitor all the details of book production.

### Requirements

Use the following requirements to design and implement a book production database for Chicago Press.

#### Books

When a book is proposed, Chicago Press records details of the book proposal. Details on the proposal include the book identification (ID), proposed title, proposed subtitle, and date proposed. If a book is accepted for production, the final title may differ from the proposed title, but this proposal record allows Chicago Press to maintain a history of the original title.

Upon acceptance for publication, a transmittal record is created for each book. The transmittal record signifies the acceptance of a book and the transition from proposal to production status. Details on the transmittal include the book ID, transmittal date, staff approval, contract date, and project manager.

Once in production, details on a book include the book ID, title, subtitle, ISBN, ISBN-13, description, publication date, and number of pages.

A single media type identifies each book. The types include hardbound, softbound, electronic (pdf), and multimedia.

Each book is also assigned one or more topic areas. These topic areas include general management, human resources, supply chain management, risk assessment, and many others. The topic areas are used for marketing purposes and for cross-selling products.

#### Authors

Details on an author include full name, address, phone, e-mail address, and a short biography. An author can write many books, and a book can be written by more than one author. The database should be able to handle these requirements.

#### Reviewers

Each book is reviewed by one or more reviewers. The types of reviewers are professional (or expert) and media. Professional reviewers are employed during book production to validate content. Professional reviews are used internally to make edits and modifications to book content. Media reviewers represent the press, and the reviews are usually printed in other publications. These types of reviews are used for marketing.

Details on each reviewer include full name, address, phone, and e-mail address. In addition to the demographic information stored on each reviewer, an expert reviewer may also have one or more areas of expertise (e.g., management, finance, information technology, etc.). These areas of expertise must be cataloged in the database.

A reviewer may review many books, and a book is often reviewed by more than one reviewer. The database should be able to handle these requirements.

#### **Staff/Projects**

Chicago Press must maintain data on its *staff*. This includes staff ID, name, title, phone number, and e-mail. The *staff* is assigned to manage different books in production. A staff member will manage a number of different books over time. In general, a book is only managed by one staff person. However, on occasion, a book may have two project managers. The details held on a project include the book title, staff person(s) assigned, date assigned, and date filed (which includes a link to the actual project files).

#### **Vendors**

Chicago Press makes use of different vendors during the production process. For example, they may use one vendor for page composition, another for book cover design, and another for binding and printing. Details held on a vendor include company name, address, telephone number, and business (composition, cover design, etc).

#### **RFP Tracking**

When a segment of book production is outsourced, Chicago Press uses a request for proposal (RFP) process. The production of each book may involve one or more RFPs, which are sent to a number of different vendors. Chicago Press must track each RFP that is sent, which vendors respond, and which vendor is selected for the project. Data held on each includes the book title, project description, vendor name, date sent, date received, and date selected.