CS157A Team 2
Database Design Documentation
A Book Reading and Review Web Application

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1 Entities

1.1 Users

Users are defined as those who have valid a valid account login for the website. The attributes for Users are as follows:

- type: A user can be of two types, admin or regular. Admins have special privileges

- username: The unique identifier by which a user's information is tracked

1.2 Content

Content come in many forms. There are four subclasses of Content, but it possible that there exist an item that is only classifiable as Content and none of its subclasses.
The attributes for Content are as follows:

- id: The unique content identifier

- title: The name/title of the content

- date: The date the content was published, if available

1.3 Books

Books are a special case of Content. They have special attributes which sets them apart; however, books inherit the primary key from content. In addition, books have the following attributes.

- ISBN: the ISBN of the book

- publisher: the publisher of the book

- author: The author of the book

- genre: the genre of the book

1.4 Magazines

Magazines are a special case of Content. They have special attributes which sets them apart; however, magazines inherit the primary key from content. In addition, magazines have the following attributes.

- issueNum: the issue number of the magazine.

1.5 Newspapers

Newspapers are a special case of Content. They have special attributes which sets them apart; however, Newspapers inherit the primary key from content. In addition, magazines have the following attributes.

- location: the locality of a Newspaper, if available.

- publication: the name of the newspaper publication

1.6 Articles

Articles are standalone pieces of writing which may, in some cases, be significant enough to publish on the web application as it's own piece of media. Articles inherit the primary key from Content but have additional relationships, as described in the relationships section. Articles also have the following additional attributes:

- author: the author of the article

1.7 Reviews

Reviews are the way by which users rate their satisfaction with a particular piece of content. Reviews consist of the following attributes.

- rating: the rating given (out of 5)

- comment: the comment left in addition to the rating (optional)

2 Relationships

2.1 User Writes Reviews

A user (admin or regular) is the author of zero or many reviews.

2.2 Review Written for Content

A piece of content can obtain many reviews, but each review only belongs to one particular piece of content.

2.3 User Favorites Content

A user can favorite content, which allows them to keep track of their favorite items. Content can be favorited by zero or many users. Users can favorite zero or many pieces of content.

2.4 User Reads Book

A user can read zero or many books, and a book may be read by zero or many users.

2.5   Article is in Newspaper

If a standalone article is posted, it may have originally existed within a particular newspaper publication.

2.6   Article is in Magazine

If a standalone article is posted, it may have originally existed within a particular magazine.