

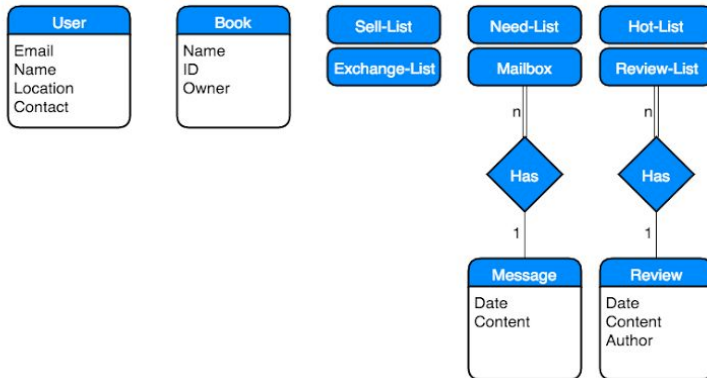
ER Diagram Report

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Application: UBooks

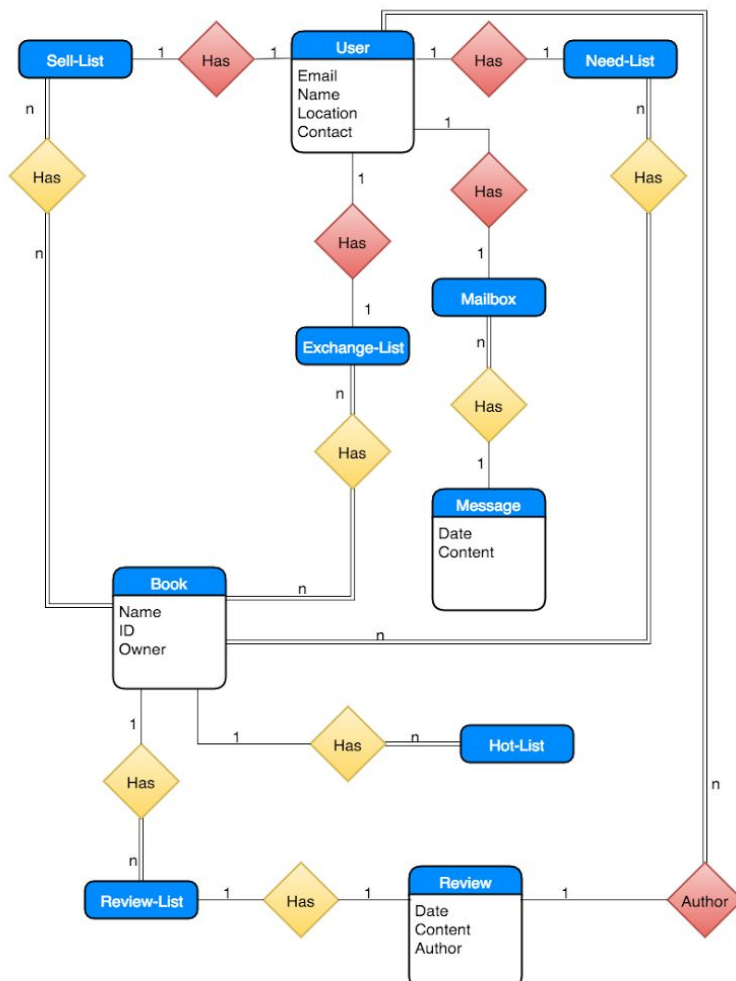
ER Diagram:

1. Entities



2. Diagram

Red relationships illustrate references,
yellow relationships illustrate embeddings



Entities descriptions:

1. Users: It contain all the information about the user, for example, user's email, name, location and contact info. This entity keep tracking the users on UBooks. Every time new user sign up, or user change his information, this database will need to update it.
2. Books: It contain all the information about books, for example, book's name, ID, tag and the book owner. Each book has unique ID, which is use for the developer to tracking for each book. When user post a new book, we will add it into book database.
3. Need-List: This is a list that record the books that the user looking for. It will contain the book information in it. User can access and edit it. He/She will need to enter the books' name, edition, etc. Other users can look at it.
4. Sell-List and Exchange-List: These are lists that record the book that the user want to sell or exchange. It contains tha books information. Every time the books sell or exchange successfully, the books will remove from the list.
5. Mail-Box and Message: Mail-Box is a container for Message. Users can communicate on it. It contains author info, date, and content for each message. Communication between each user will store in this database. User can access the mail box, either read the history or clean it. Those action will update the message database.
6. Review-List and Review: Review-List contains the Review for each book. Users' comment or grade for this book will store on this database. Also, other users can look at it to understand more content about the book.
7. Hot_List: On the home page, will display the hot list of the book that most students look for. It contain the book information. It will keep tracking each book and update the status.

Page/widget:

- BookInfoPage: Contains all the detail of one specific *book entity* in the database(name, ID, owner) and a *Review List* of this book which contains a list of reviews (date, content, and author).
- Front Page: Contains link to Personal Profile page and FAQ (how it works) page. No direct database work here is necessary.
- Home Page: Contains a *Hot List*, which contains a list of recent hot *books* (clicking on any of these books leads to the BookInfoPage), and a link to Personal Profile page.
- How it Works: Contains a brief description about how our website works and a link to Personal Profile Page and FAQ. No direct database work here is necessary.

- Mailbox page: Contains the user's *MailBox* entity, which contains *messages* from the database (content and date).
- Personal Profile page: Contains info about a *User* entity in the database (email, location, name, and contact) and the link to the user's *Exchange List*, *Need List*, *Sell List*, and *Mailbox*.
- Search Page: Contains a search bar in which a user can enter a word or a phrase and use other criterias such as course subject to find a specific book. The page returns a list of *book* entities that match the given query.