



Jake's List

The DB model will support a website which hosts ads posted by users and belonging to categories specific to certain communities.

- User Information:
 - A user has a unique username as well as a password which are used in combination to login to Jake's List.
 - The user also provides a name, date of birth, gender, email address, and date of last logout. We also want to know the number of ads a user has created.
- City and region:
 - A city (like LA) has a state, name, and description.
 - A city may include one or more regions (like central LA, West LA, etc.) where a region has its own unique id and has a name.
 - Each region belongs to exactly one city.
- Community and Category:
 - A community (like the community of graduate students) has a name and a unique identifier, as well as a description.
 - A community includes some categories (like books for sale, place for rent, etc.) where each category is an umbrella term for a topic of interest for members of that community.
 - Each category belongs to one community.
 - Each user can follow a number of categories and would be able to see a list of ads created since the last time the logged out.
- Ad:
 - A user may create advertisements (a.k.a. ads).
 - An ad has a title, price, detailed description, post date, and the last date the ad was edited.
 - It can also have one or more images and if it has, we need to store in the database the URL of the Amazon S3 bucket (which is a cloudbased storage system) so we can later access the images of the ad (one URL for all images).
 - An ad is assigned to a specific category. Also, an ad is assigned to a region, so the visitors of the website know where the item is located. e.g., a student can post the ad in the 'books for sale' category in the 'grad. students' community in the 'central LA' region.
 - An ad has a status, which is a value from the list: active, expired, and deleted.
 - Our system does not delete the ads and just 'soft deletes' them, meaning that it assigns a status of 'deleted' to those ads that were deleted by the user.
 - An ad can be 'liked' by users
- Messaging
 - Each user has an inbox and an outbox and may send a message to another user.
 - A message contains a topic, a body, a receiver and a sender.
 - Each time a user sends a message to another user, the message lands in the recipient's inbox and the sender's outbox.