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Entities

Users- Contains all users registered in the database, each user has a unique username, ID number, Email and phone number. First and last names are registered as well.

Chat- A chat contains users that may send messages to the rest of the users in the chat, a chat must have an owner that is the administrator of the chat and may remove or add new members. The chat is identified using a unique chat ID number.

Message- Contains a message from a user to a particular chat, the message would be composed by a user that is referenced by ID number, the timestamp is also recorded at the time the message was sent.

Hashtag- They are identified by a # symbol before a text in a message, these are stored in the database and given a unique hashtag ID number.

Media- Pictures or videos sent over messages; these have a unique ID number and the media type they are associated to.

Relationships

Contact- A relationship that correlates each user with his or her contacts. Utilizing user ID numbers as keys. **This is a many to many relationship. A user may have many different contacts and a contact can be had by many users.**

Reacts- Links a user that reacted to a particular message, it records the message ID and the user ID as well as the timestamp of the interaction. **This is a many to many relationship as a user can react to many different messages and a message may be reacted to by many different users.**

Member- a relationship that links a user to a chat, this means the user is a member of this chat and may send and receive messages in the given chat. It correlates members IDs with chat IDs. **This is a many to many relationship as a user can be part of many chats and a chat may contain many different users.**

Belongs- A relationship between a chat and the messages it contains, recording the chat ID number and the message ID number that is part of the chat. **This is a one to many relationship as a chat may contain many messages but a message may be only be part of one chat.**

isReply- Some messages can be replies to other messages, these messages are linked to the replied message by the message ID. **This is a one to many relationship as a message can have many replies but a reply can only be to one particular message.**

hasHash- Some messages may contain Hashtags, this relation links messages that contain certain hashtags that are referred to by Hashtag ID and message ID. Linking a hashtag to messages that utilized such tag. **This is a many to many relationship as a message may contain many hashtags and a hashtag can be used in many messages.**

hasMedia- Some messages may contain media like pictures or videos, this relation links particular pictures or videos to messages, permitting the relationship between media and the messages that contain these media files. **This is a many to one relationship as a message may contain up to one media file but a file can be contained in many messages.**