



Department of Electrical and Computer Engineering
University of Puerto Rico Mayagüez Campus
CIIC 4060/ICOM 5016 – Introduction to Database Systems

Spring 2018 Term Project
Social Messaging Application Phase I:
Conceptual Design

Gladymar O'Neill
Kristalys Ruiz
Cristian Duque
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User: Refers to every user in the UI.

Attributes:	uid: user id, primary key.	[serial]
	name: first_name and last_name composite attribute.	[varchar(30)]
	phone: phone number a user uses to register in the system.	[varchar(11)]
	email: email used to register to the system.	[varchar(40)]
	password: password for the user login	[varchar(10)]
	is_active: will determine if the user is currently active.	[boolean]

Relationships of User:

Owns: A user is mapped to **Chats**. A user can be the administrator of a chat

Participates: A user is mapped to **Chats**. A user participates in a particular chat.

Owns: A user is mapped to **Contact_list**. A user owns a contact list of users of the application.

Sends: A user is mapped to **Messages**. A user sends a message to a chat.

Liked by: A user is mapped to **Messages**. A user can like a message.

Disliked by: A user is mapped to **Messages**. A user can dislike a message.

Contact_list: Refers to all the contacts (users) a particular user has.

Attributes:	lid: refers to the id of the contact list.	[integer]
	owner: refers to the owner of the contact list.	[integer]

Relationships of Contact_list:

Has: Relationship between contact list and user that establish that a contact list has one or more users.

Chats: Relation to maintain a record of all of the chats that have been created in the system

Attributes:	cid: chat id.	[serial]
	chat_name: name of the chat.	[varchar(30)]
	owner: refers to the user id in the User table of the person that created the chat	[integer]

Relationships of Chats

Contains: A chat list is mapped with **Messages** to refer to the number of messages the chat has.

Message: refers to every message send in any chat

Attributes:	mid: message id.	[serial]
	text: the body of the message.	[varchar(200)]
	sender: refers to the user id who sent the message.	[integer]
	date: the date the messages was sent.	[date]
	time: the time the message was sent.	[time]
	chat_sent_to_id: refers to the chat the message was sent to.	[integer]

Relationships of Message:

Reply: Relationship between two messages, the original message and its reply.

Attributes:	reply_mid: id of the reply message.	[serial]
	replying_to_mid: id of the message that is being replied.	[integer]

Contains: A message is mapped to **Hashtags**. A message can contain a particular hashtag.

Hashtags: Relation that states all the hashtags used in every message on the system in any chat. This will be used to manage trending topics in the web application

Attributes:	hashid: hashtag id	[serial]
	hashname: the text after the # in a hashtag	[varchar(200)]