

Wei Wei

CS460 Programming Assignment 1 Photoshare

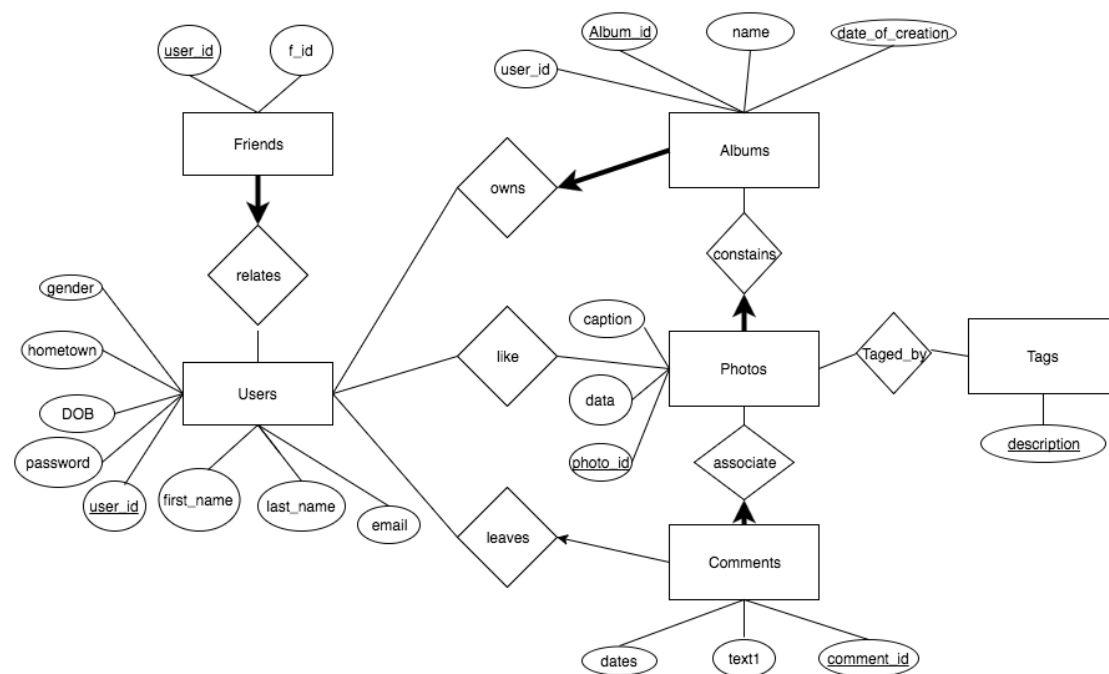
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Project description & overall design:

My code strictly follows the skeleton and which includes schema.sql for mysql; app.py and html templates for the photoshare website.

Database Design:



Cardinalities:

- Friends:
 - Many to one (friends has total participation)
 - One user can have many friends.
 - One relationship must belong to exactly one User.
- Leaves:
 - Many to one
 - One user can leave multiple comments.
 - Since anonymous users can leave comments, Comments do not

necessarily contain a user_id

- Owns:
 - Many to one (albums has total participation)
 - One album has exactly one owner.
 - One user can own many albums.
- Contains:
 - Many to one (photo has total participation)
 - One photo associates with only one album.
 - One album can contain many photos.
- Associate:
 - Many to one (comment has total participation)
 - One comment associates with only exactly one photo.
 - One photo can associate with many comments.
- Taged_by:
 - Many to many
 - One photo can have many tags.
 - One tag can have many photos.
- like:
 - Many to many
 - Many users can like one photo.
 - Many photos can be liked by one user.

Relational model:

- Users (User_id, first_name, last_name, email, DOB, hometown, gender, password)
- Friends (User1_id, f_id)
- Albums (Album_id, name, user_id, date_of_creation)
- Photos (Photo_id, Album_id, caption, data)
- Tags (description)
- Comments (Comment_id, text1, dates, Photo_id)
- leaves (user_id, Comment_id)
- taged_by (description, Photo_id)
- likes (user_id, Photo_id)

General Constraints (Check or Assertion):

1. Users table: the value of gender can only be 'F' or 'M'
CHECK (gender = 'M' OR gender = 'F')
2. All tags must be a single word (no spaces) and lower case
CHECK (lower(description) = description)
CHECK (description NOT LIKE '% %')

Assumptions:

1. For the tag recommendation functionality, if the user types in tags which all of them does not exist, the website will return the first tag he enters.