Dakota Clark-Singh

CS460 Project Assignment 1: Final Report

User

user-id	first-name	last-name	email	dob	gender	hometown	password

CREATE TABLE User
(user_id INTEGER,
first_name CHAR(20) NOT NULL,
last_name CHAR(20) NOT NULL,
email CHAR(20) NOT NULL UNIQUE,
dob DATE NOT NULL,
gender CHAR(20),
hometown CHAR(20),
password CHAR(20) NOT NULL,
PRIMARY KEY (user_id));

Friends

friendship-id	friend1-id	friend2-id

CREATE TABLE Friends
(friend1_id INTEGER NOT NULL,
friend2_id INTEGER NOT NULL,
PRIMARY KEY (friend1_id, friend2_id),
FOREIGN KEY (friend1_id) REFERENCES User(user_id) ON DELETE CASCADE,
FOREIGN KEY (friend2_id) REFERENCES User(user_id) ON DELETE CASCADE,
CHECK (friend1_id <> friend2_id));

Album

album-id	name	date-of-creation	owner-id

CREATE TABLE Album
(album_id INTEGER,
album_name CHAR(20) NOT NULL,
creation_datetime DATETIME NOT NULL,

owner_id INTEGER NOT NULL,

FOREIGN KEY (owner_id) REFERENCES User(user_id) ON DELETE CASCADE,

PRIMARY KEY (album_id));

Photo

photo-id	data	caption	album-id

CREATE TABLE Photo

(photo_id INTEGER,

photo_data LONGBLOB NOT NULL,

caption CHAR(100),

album_id INTEGER NOT NULL,

upload_datetime DATETIME NOT NULL,

FOREIGN KEY (album_id) REFERENCES Album(album_id) ON DELETE CASCADE,

PRIMARY KEY (photo_id));

Photo-comment

comment-id	text	date	owner-id	photo-id

CREATE TABLE Photo_comment

(comment_id INTEGER,

comment_text CHAR(100) NOT NULL,

comment_datetime DATETIME NOT NULL,

owner_id INTEGER NOT NULL,

photo_id INTEGER NOT NULL,

FOREIGN KEY (owner_id) REFERENCES User(user_id) ON DELETE CASCADE,

FOREIGN KEY (photo_id) REFERENCES Photo(photo_id) ON DELETE CASCADE,

PRIMARY KEY (comment_id));

Photo-like

like-id	owner-id	photo-id

CREATE TABLE Photo_like

(like_id INTEGER,

owner_id INTEGER NOT NULL,

photo_id INTEGER NOT NULL,

FOREIGN KEY (owner_id) REFERENCES User(user_id) ON DELETE CASCADE,

FOREIGN KEY (photo_id) REFERENCES Photo(photo_id) ON DELETE CASCADE,

PRIMARY KEY (like_id));

Tag

tag_name	photo_id

CREATE TABLE Tag
(tag_name CHAR(20) NOT NULL,
photo_id INTEGER NOT NULL,
FOREIGN KEY (photo_id) REFERENCES Photo(photo_id) ON DELETE CASCADE,
PRIMARY KEY (tag_name, photo_id));

Assumptions
- A single photo can have none or more than one tag
- Album can be empty
- Comments and likes must each be associated with exactly one user and one photo
- Photos can have zero or more likes and comments