

SCHEMA:

```
CREATE DATABASE IF NOT EXISTS photoshare;  
USE photoshare;
```

```
CREATE TABLE Users(  
    user_id INTEGER AUTO_INCREMENT,  
    first_name VARCHAR(100) NOT NULL,  
    last_name VARCHAR(100) NOT NULL,  
    email VARCHAR(100) UNIQUE NOT NULL,  
    birth_date DATE NOT NULL,  
    hometown VARCHAR(100),  
    gender VARCHAR(100),  
    score INTEGER,  
    password VARCHAR(100) NOT NULL,  
    PRIMARY KEY (user_id)  
);
```

```
INSERT INTO Users (user_id, first_name, last_name, email, birth_date, score, password)  
VALUES (-1, "Anon", "Anonymous", "anon@anon.com", 0000-00-00, 0, "anon");
```

```
CREATE TABLE Friends(  
    user_id1 INTEGER,  
    user_id2 INTEGER,  
    PRIMARY KEY (user_id1, user_id2),  
    FOREIGN KEY (user_id1)  
        REFERENCES Users(user_id)  
    ON DELETE CASCADE,  
    FOREIGN KEY (user_id2)  
        REFERENCES Users(user_id)  
    ON DELETE CASCADE,  
    CONSTRAINT selfFriend  
        CHECK (NOT user_id1 = user_id2)  
);
```

```
CREATE TABLE Albums(  
    albums_id INTEGER AUTO_INCREMENT,  
    name VARCHAR(100),  
    date DATE,  
    user_id INTEGER NOT NULL,  
    PRIMARY KEY (albums_id),  
    FOREIGN KEY (user_id)  
        REFERENCES Users(user_id)  
    ON DELETE CASCADE
```

```
);
```

```
CREATE TABLE Tags(  
    tag_id INTEGER AUTO_INCREMENT,  
    name VARCHAR(100),  
    num_photos INTEGER,  
    PRIMARY KEY (tag_id)  
);
```

```
INSERT INTO Tags (tag_id, name, num_photos) VALUES (-1, "empty", 0);
```

```
CREATE TABLE Photos(  
    photo_id INTEGER AUTO_INCREMENT,  
    caption VARCHAR(100),  
    imgdata LONGTEXT,  
    albums_id INTEGER NOT NULL,  
    user_id INTEGER NOT NULL,  
    num_likes INTEGER NOT NULL,  
    PRIMARY KEY (photo_id),  
    FOREIGN KEY (albums_id)  
        REFERENCES Albums (albums_id)  
        ON DELETE CASCADE,  
    FOREIGN KEY (user_id)  
        REFERENCES Users (user_id)  
        ON DELETE CASCADE  
);
```

```
CREATE TABLE Tagged(  
    photo_id INTEGER,  
    tag_id INTEGER,  
    user_id INTEGER,  
    PRIMARY KEY (photo_id, tag_id),  
    FOREIGN KEY(photo_id)  
        REFERENCES Photos (photo_id)  
    ON DELETE CASCADE,  
    FOREIGN KEY(tag_id)  
        REFERENCES Tags (tag_id)  
    ON DELETE CASCADE,  
    FOREIGN KEY (user_id)  
        REFERENCES Users (user_id)  
    ON DELETE CASCADE  
);
```

```
CREATE TABLE Comments(  
    user_id INTEGER,  
    photo_id INTEGER,  
    comment VARCHAR(255),  
    PRIMARY KEY (user_id, photo_id),  
    FOREIGN KEY (user_id)  
        REFERENCES Users (user_id)  
    ON DELETE CASCADE,  
    FOREIGN KEY (photo_id)  
        REFERENCES Photos (photo_id)  
    ON DELETE CASCADE  
);
```

```

        comment_id INTEGER AUTO_INCREMENT,
        user_id INTEGER NOT NULL,
        photo_id INTEGER NOT NULL,
        text VARCHAR (255),
        date DATE,
        PRIMARY KEY (comment_id),
        FOREIGN KEY (user_id)
            REFERENCES Users (user_id)
        ON DELETE CASCADE,
        FOREIGN KEY (photo_id)
            REFERENCES Photos (photo_id)
        ON DELETE CASCADE
    );

```

```

CREATE TABLE Likes (
    photo_id INTEGER,
    user_id INTEGER,
    PRIMARY KEY (photo_id , user_id),
    FOREIGN KEY (photo_id)
        REFERENCES Photos (photo_id)
    ON DELETE CASCADE,
    FOREIGN KEY (user_id)
        REFERENCES Users (user_id)
    ON DELETE CASCADE
);

```

Additional Assumptions and Constraints:

- Users cannot upload photos with captions that contain special characters.
- Users cannot create comments with special characters.
- Users cannot create album names with special characters.
- You can upload the same photo
- You must be the owner of a photo to add a tag to it.
- There are no limits to the number of tags on a photo.
- Friendships are one-way
- Different users can create Albums with identical names
- You can't like a photo if you're not logged in
- You can search by comment if you're not logged in
- When commenting on a photo when you're not logged in, the comment shows up as "Anonymous"
- Comments can't be longer than 255 characters
- Users' contribution score is not deducted when photos/albums are deleted