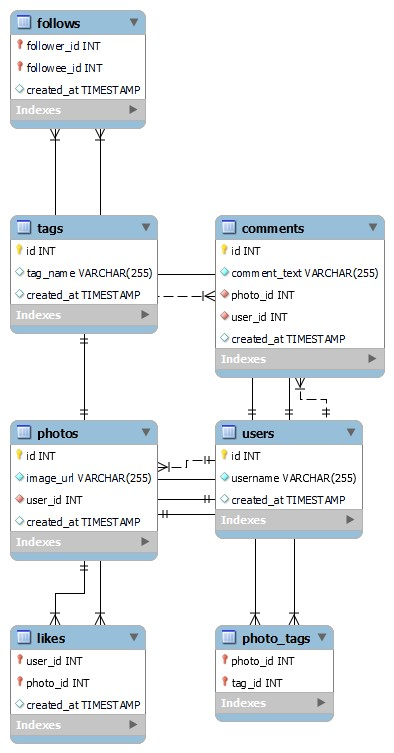
Project SQL 201 of Pritam Rakshit, Student ID - S4088

1. Create an ER diagram or draw a schema for the given database.



1. We want to reward the user who has been around the longest, Find the 5 oldest users.

select username, created\_at from users order by created\_at asc limit 5;

1. To target inactive users in an email ad campaign, find the users who have never posted a photo.

select \* from users where id not in( select user\_id from photos);

1. Suppose you are running a contest to find out who got the most likes on a photo. Find out who won?

select u.username,l.photo\_id,count(\*) as total\_likes from likes l join photos p on l.photo\_id=p.id join users u on p.user\_id=u.id

group by u.username,l.photo\_id order by total\_likes desc limit 1;

1. The investors want to know how many times does the average user post.

SELECT COUNT(\*) / COUNT(DISTINCT user\_id) AS average\_posts

FROM photos;

1. A brand wants to know which hashtag to use on a post, and find the top 5 most used hashtags.

select tag\_name as photo\_type,tag\_id, count(\*) as top\_five from photo\_tags pt join tags t

on pt.tag\_id=t.id group by tag\_id order by top\_five desc limit 5;

1. To find out if there are bots, find users who have liked every single photo on the site.

select u.username,count(\*) from users u where id in(select l.user\_id from

likes l join photos p on l.photo\_id=p.id or u.id=p.user\_id and u.id=l.user\_id)

group by u.username;

1. Find the users who have created instagramid in may and select top 5 newest joinees from it?

select username, created\_at from users where extract( month from created\_at)=5

order by created\_at desc limit 5;

1. Can you help me find the users whose name starts with c and ends with any number and have posted the photos as well as liked the photos?

select u.username from users u where id in(select l.user\_id from likes l join photos p on l.photo\_id=p.id and u.id=p.user\_id and u.id=l.user\_id

and u.username rlike '^[c].\*[^a-z]');

1. Demonstrate the top 30 usernames to the company who have posted photos in the range of 3 to 5.

select username,user\_id,count(\*) as photos\_range from photos p join users u on u.id=p.user\_id

group by username,user\_id having count(\*) between 3 and 5 limit 30;