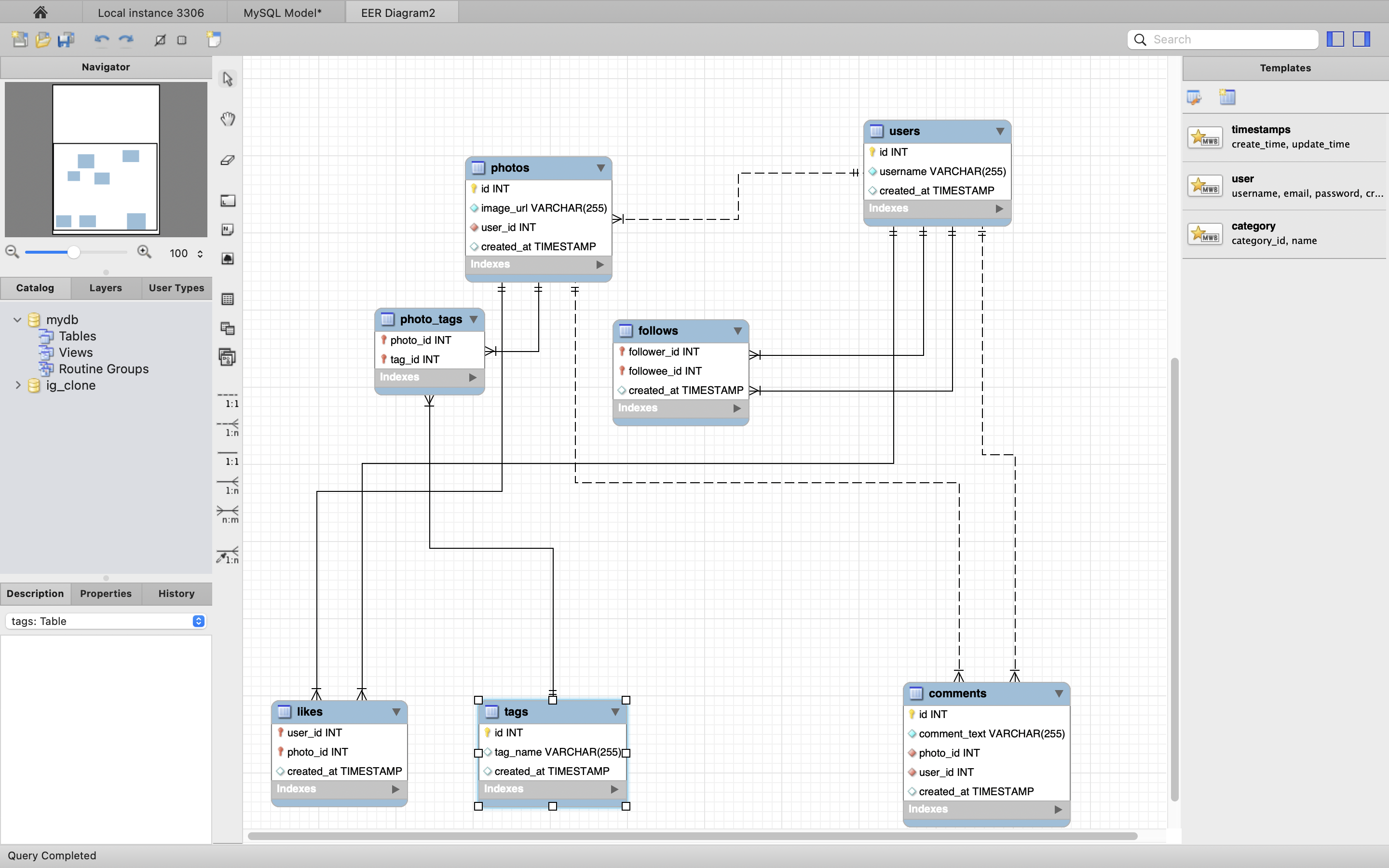
--Question 1: Create an ER diagram or draw a schema for the given database.



-- Question 2: We want to reward the user who has been around the longest, Find the 5 oldest users.

Select \* from users

order by created\_at asc

limit 5;

-- Question 3: To understand when to run the ad campaign, figure out the day of the week most users register on?

With day\_count as(

Select DAYNAME(created\_at) AS day\_of\_week, COUNT(\*) AS user\_count

from users

group by DAYNAME(created\_at))

Select user\_count, day\_of\_week from day\_count where user\_count = (Select max(user\_count) from day\_count);

;

-- Question 4: To target inactive users in an email ad campaign, find the users who have never posted a photo.

Select id,username from users

where id not in (Select user\_id from photos)

-- Question 5: Suppose you are running a contest to find out who got the most likes on a photo. Find out who won?

with count\_of\_like as (

Select count(l.photo\_id) as like\_count, l.photo\_id from likes l group by l.photo\_id)

Select username from count\_of\_like cl, users u, photos p where p.user\_id = u.id and cl.photo\_id = p.id

and cl.like\_count = (Select max(like\_count) from count\_of\_like);

-- Question 6: The investors want to know how many times does the average user post.

with count\_of\_post as (

Select count(p.id) as photo\_count, p.user\_id from photos p group by p.user\_id)

Select avg(photo\_count) from count\_of\_post;

-- Question 7: A brand wants to know which hashtag to use on a post, and find the top 5 most used hashtags.

with count\_of\_tags as (

Select count(tag\_id) as tag\_count, tag\_id from photo\_tags group by tag\_id)

Select ct.tag\_count, t.tag\_name from count\_of\_tags ct, tags t where t.id = ct.tag\_id

order by tag\_count desc, tag\_name asc LIMIT 5;

-- Question 8: To find out if there are bots, find users who have liked every single photo on the site.

with bot\_finder as (Select count(photo\_id) Photo\_count, user\_id from likes group by user\_id)

Select Photo\_count, username from bot\_finder btf, users u where btf.user\_id = u.id

and photo\_count = (Select count(id) from photos);

-- Question 9: To know who the celebrities are, find users who have never commented on a photo.

Select \* from users

where id not in (Select user\_id from comments);

-- Question 10: Now it's time to find both of them together, find the users who have never commented on any photo or have commented on every photo.

Select id, username from users where id in(

(with No\_comments as (Select \* from users where id not in (Select user\_id from comments))

Select id from No\_comments)

union all

(with count\_of\_photos as (Select count(photo\_id) Photo\_count, user\_id from comments group by user\_Id),

every\_comment as (Select \* from count\_of\_photos where photo\_count = (Select count(id) from photos))

Select user\_id from every\_comment));