OdinSchool
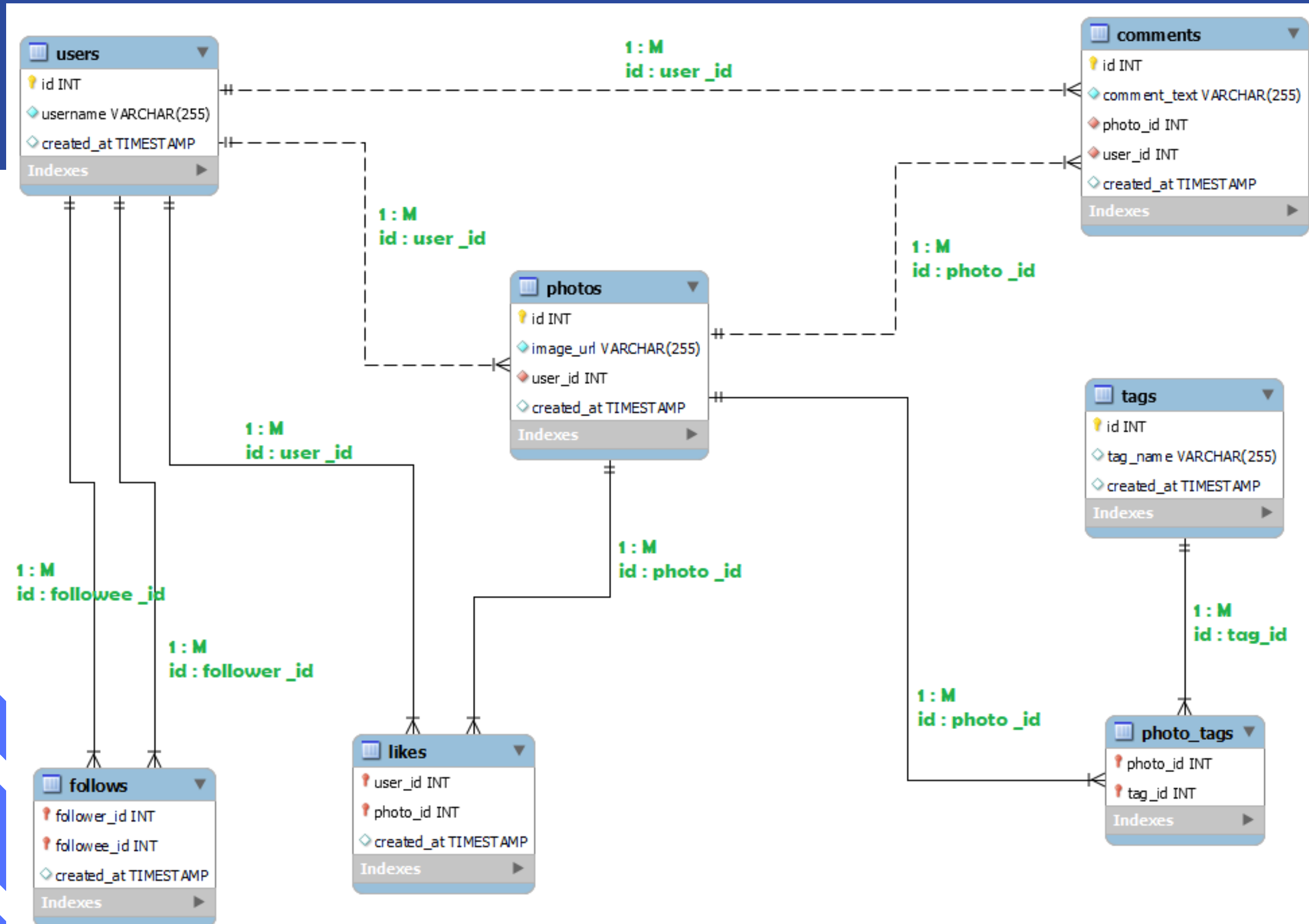
# MANDATORY PROJECT(ADV. SQL)

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DS22 BATCH

# 1.CREATE AN ER DIAGRAM OR DRAW A SCHEMA FOR THE GIVEN DATABASE.

# 2.WE WANT TO REWARD THE USER WHO HAS BEEN AROUND THE LONGEST, FIND THE 5 OLDEST USERS.

## QUERY:-

```
SELECT ID,USERNAME,CREATED_AT,
(SELECT DATEDIFF(NOW(),CREATED_AT))
        AS NOOFDAYS
      FROM USERS
ORDER BY CREATED_AT ASC
      LIMIT 5;
```

## OUTPUT:-

| id | username | created_at | NoOfDays |
|----|----------|------------|----------|
| 80 | Darby_Herzog | 2016-05-06 00:14:21 | 2448 |
| 67 | Emilio_Bernier52 | 2016-05-06 13:04:30 | 2448 |
| 63 | Elenor88 | 2016-05-08 01:30:41 | 2446 |
| 95 | Nicole71 | 2016-05-09 17:30:22 | 2445 |
| 38 | Jordyn.Jacobson2 | 2016-05-14 07:56:26 | 2440 |

# 3.TO UNDERSTAND WHEN TO RUN THE AD CAMPAIGN, FIGURE OUT THE DAY OF THE WEEK MOST USERS REGISTER ON?

## QUERY:-

```
SELECT DAYNAME(CREATED_AT) AS
            REGISTEREDON
   ,COUNT(ID) AS NOOFUSERS
         FROM USERS
    GROUP BY REGISTEREDON
ORDER BY COUNT(ID) DESC;
```

## OUTPUT:-

| RegisteredOn | NoOfUsers |
|---|---|
| Thursday | 16 |
| Sunday | 16 |
| Friday | 15 |
| Tuesday | 14 |
| Monday | 14 |
| Wednesday | 13 |
| Saturday | 12 |

## CONCLUSION:-

Most Users Registered on Thursday and Sunday , So, Thursday Or Sunday will be the best day to run the AD Campaign.

# 4.TO TARGET INACTIVE USERS IN AN EMAIL AD CAMPAIGN, FIND THE USERS WHO HAVE NEVER POSTED A PHOTO.

## QUERY:-

```
SELECT U.ID,U.USERNAME
FROM USERS U
LEFT JOIN PHOTOS P
ON
U.ID=P.USER_ID
WHERE P.ID IS NULL;
```

## OUTPUT:-

| # ID | username |
|------|----------|
| 5 | Aniya_Hackett |
| 7 | Kasandra_Homenick |
| 14 | Jaclyn81 |
| 21 | Rocio33 |
| 24 | Maxwell.Halvorson |
| 25 | Tierra.Trantow |
| 34 | Pearl7 |
| 36 | Ollie_Ledner37 |
| 41 | Mckenna17 |
| 45 | David.Osinski47 |
| 49 | Morgan.Kassulke |
| 53 | Linnea59 |
| 54 | Duane60 |
| 57 | Julien_Schmidt |
| 66 | Mike.Auer39 |
| 68 | Franco_Keebler64 |
| 71 | Nia_Haag |
| 74 | Hulda.Macejkovic |
| 75 | Leslie67 |
| 76 | Janelle.Nikolaus81 |
| 80 | Darby_Herzog |
| 81 | Esther.Zulauf61 |
| 83 | Bartholome.Bernhard |
| 89 | Jessyca_West |
| 90 | Esmeralda.Mraz57 |
| 91 | Bethany20 |

26 Rows returned.

## CONCLUSION:-
There are 26 users who never posted a photo.

# 5. SUPPOSE YOU ARE RUNNING A CONTEST TO FIND OUT WHO GOT THE MOST LIKES ON A PHOTO. FIND OUT WHO WON?

## QUERY:-

```
WITH LIKESCOUNT AS
/*I HAVE CREATED A COMMON TABLE EXPRESSION CONSIST OF PHOTOID AND NO. OF LIKES ON THAT PHOTO*/
(
SELECT L.PHOTO_ID,COUNT(L.PHOTO_ID) AS NOOFLIKES
FROM PHOTOS P
INNER JOIN LIKES L ON P.ID=L.PHOTO_ID
GROUP BY L.PHOTO_ID
)
/*THEN I JOINED THAT LIKESCOUNT TABLE WITH USERS AND PHOTOS TABLE TO GET THE USERNAME OF USER WHO POSTED THAT PHOTO*/
SELECT LC.PHOTO_ID,LC.NOOFLIKES
,U.USERNAME AS USERNAME
,U.ID AS USER_ID
FROM LIKESCOUNT LC
INNER JOIN PHOTOS P
ON
P.ID=LC.PHOTO_ID
INNER JOIN USERS U
ON
P.USER_ID=U.ID
GROUP BY LC.PHOTO_ID
ORDER BY LC.NOOFLIKES DESC
LIMIT 1;
```

# 5.SUPPOSE YOU ARE RUNNING A CONTEST TO FIND OUT WHO GOT THE MOST LIKES ON A PHOTO. FIND OUT WHO WON?

# OUTPUT:-

| photo_id | NoOfLikes | UserName | User_id |
|----------|-----------|----------|---------|
| 145 | 48 | Zack_Kemmer93 | 52 |

# CONCLUSION:-

The Contest won by User with username Zack_Kemmer93 and user_id 52 who got 48 likes on his photo with photo_id 145.

# 6.THE INVESTORS WANT TO KNOW HOW MANY TIMES DOES THE AVERAGE USER POST.

## QUERY:-

```
SELECT ROUND((SELECT COUNT(*) FROM PHOTOS)/(SELECT COUNT(*)
FROM USERS),2) AS AVGPOST;
```

## OUTPUT:-

AVGPOST

2.57

## CONCLUSION:-

So, we can say that on an average every user do more than 2 posts.

# 7.A BRAND WANTS TO KNOW WHICH HASHTAG TO USE ON A POST, AND FIND THE TOP 5 MOST USED HASHTAGS.

## QUERY:-

```
SELECT pt.tag_id,t.tag_name
,count(pt.photo_id) as NoOfTimesUsed
FROM tags t
INNER JOIN photo_tags pt
on
pt.tag_id=t.id
GROUP BY pt.tag_id
ORDER BY NoOfTimesUsed DESC
LIMIT 5;
```

## OUTPUT:-

| tag_id | tag_name | NoOfTimesUsed |
|--------|----------|---------------|
| 21     | smile    | 59            |
| 20     | beach    | 42            |
| 17     | party    | 39            |
| 13     | fun      | 38            |
| 18     | concert  | 24            |

## CONCLUSION:-

These are the 5 most popular hashtags used by users on their post.

# 8.TO FIND OUT IF THERE ARE BOTS, FIND USERS WHO HAVE LIKED EVERY SINGLE PHOTO ON THE SITE.

## QUERY:-

```
SELECT u.id as UserID
,u.username as UserName
,count(l.photo_id) as TotalLikesByUser
FROM users u
INNER JOIN likes l
ON
l.user_id=u.id
GROUP BY UserName
HAVING TotalLikesByUser = (SELECT COUNT(*) FROM
photos);
```

## OUTPUT:-

| UserID | UserName | TotalLikesByUser |
|--------|----------|------------------|
| 5 | Aniya_Hackett | 257 |
| 91 | Bethany20 | 257 |
| 54 | Duane60 | 257 |
| 14 | Jaclyn81 | 257 |
| 76 | Janelle.Nikolaus81 | 257 |
| 57 | Julien_Schmidt | 257 |
| 75 | Leslie67 | 257 |
| 24 | Maxwell.Halvorson | 257 |
| 41 | Mckenna17 | 257 |
| 66 | Mike.Auer39 | 257 |
| 71 | Nia_Haag | 257 |
| 36 | Ollie_Ledner37 | 257 |
| 21 | Rocio33 | 257 |

## CONCLUSION:-

we found 13 users who liked on every photo posted.
so ,we can say that these are the Bots.

# 9. TO KNOW WHO THE CELEBRITIES ARE, FIND USERS WHO HAVE NEVER COMMENTED ON A PHOTO.

## QUERY:-

```
CREATE VIEW V_NeverCommented AS
/*I have created here a view of Users
who have never commented on a photo*/
SELECT u.id,u.username
FROM users u
LEFT JOIN comments c
ON
c.user_id=u.id
WHERE c.id IS NULL;


SELECT * FROM V_NeverCommented;
```

## OUTPUT:-

```
# id username
58 Aurelie71
83 Bartholome.Bernhard
59 Cesar93
88 Clint27
80 Darby_Herzog
45 David.Osinski47
86 Delfina_VonRueden68
77 Donald.Fritsch
90 Esmeralda.Mraz57
81 Esther.Zulauf61
23 Eveline95
64 Florence99
68 Franco_Keebler64
74 Hulda.Macejkovic
29 Jaime53
89 Jessyca_West
7 Kasandra_Homenick
1 Kenton_Kirlin
53 Linnea59
51 Mariano_Koch3
49 Morgan.Kassulke
34 Pearl7
25 Tierra.Trantow
```

23 ROWS RETURNED.

# 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.

## QUERY:-

```
CREATE VIEW V_CommEveryPic AS
/*I have created here a view which shows users who have commented on every photo*/
SELECT u.id as UserID,u.username as UserName,count(c.id) as TotalCommentsByUser
FROM users u
INNER JOIN comments c ON c.user_id=u.id
GROUP BY UserName
HAVING TotalCommentsByUser = (SELECT COUNT(*) FROM photos);


SELECT * FROM V_CommEveryPic;


/*HERE I HAVE DONE UNION BETWEEN BOTH VIEWS TO GET THE DISTINCT USERS FROM BOTH THE
VIEWS.*/
SELECT id,username from V_NeverCommented /*USERS WHO NEVER COMMENTED*/
UNION
SELECT UserID,UserName from V_CommEveryPic;  /*USERS WHO COMMENTED ON EVERY PHOTO*/
```

# OUTPUT:-

36 ROWS RETURNED.

```
# id username
58 Aurelie71
83 Bartholome.Bernhard
59 Cesar93
88 Clint27
80 Darby_Herzog
45 David.Osinski47
86 Delfina_VonRueden68
77 Donald.Fritsch
90 Esmeralda.Mraz57
81 Esther.Zulauf61
23 Eveline95
64 Florence99
68 Franco_Keebler64
74 Hulda.Macejkovic
29 Jaime53
89 Jessyca_West
7 Kasandra_Homenick
1 Kenton_Kirlin
53 Linnea59
51 Mariano_Koch3
49 Morgan.Kassulke
34 Pearl7
25 Tierra.Trantow
5 Aniya_Hackett
91 Bethany20
54 Duane60
14 Jaclyn81
76 Janelle.Nikolaus81
57 Julien_Schmidt
75 Leslie67
24 Maxwell.Halvorson
41 Mckenna17
66 Mike.Auer39
71 Nia_Haag
36 Ollie_Ledner37
21 Rocio33
```

# Thank You