Uriel Chávez Flores

IG clone exercises solutions

1. Find the 5 oldest users.

```
SELECT * FROM users ORDER BY created_at LIMIT 5;
```

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

2. What day of the week do most users register on?

```sql
SELECT DATE_FORMAT(created_at,"%W") AS weekday,
       COUNT(*) AS total
FROM users
GROUP BY weekday
ORDER BY total DESC;
```

weekday	total
Sunday	16
Thursday	16
Friday	15
Monday	14
Tuesday	14
Wednesday	13
Saturday	12

3. Find the users who have never posted a photo

```sql
SELECT
    users.id,
    username
FROM users
LEFT JOIN photos
    ON users.id = photos.user_id
WHERE
    photos.id IS NULL
;
```

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

4. Who uploaded the most liked photo?

```sql
SELECT
    users.username,
    photos.id as pShoto_id,
    COUNT(*) AS total_likes
FROM photos
JOIN likes
    ON likes.photo_id = photos.id
JOIN users
    ON users.id = photos.user_id
GROUP BY photos.id
ORDER BY total_likes DESC
LIMIT 1
;
```

```
+---------------+-----------+-------------+
| username      | pShoto_id | total_likes |
+---------------+-----------+-------------+
| Zack_Kemmer93 |       145 |          48 |
+---------------+-----------+-------------+
```

5. How many times does the average user post?

My solution:

```sql
SELECT
    AVG(n_photos) AS average
FROM(
    SELECT
        CASE
            WHEN photos.id IS NULL THEN 0
            ELSE COUNT(*)
        END AS n_photos
    FROM users
    LEFT JOIN photos
        ON users.id = photos.user_id
    GROUP BY users.id
) AS photos_by_users;
```

```
+---------+
| average |
+---------+
|  2.5700 |
+---------+
```

Instructor's solution:

```sql
SELECT
    (SELECT Count(*) FROM   photos) / (SELECT Count(*) FROM   users) AS avg;
```

```
+--------+
| avg    |
+--------+
| 2.5700 |
+--------+
```

6. What are the top 5 most commonly used hashtags?

```sql
SELECT
    tags.tag_name,
    COUNT(*) AS total_tags
FROM tags
JOIN photo_tags
    ON tags.id = tag_id
GROUP BY tags.tag_name
ORDER BY total_tags DESC
LIMIT 5
;
```

tag_name	total_tags
smile	59
beach	42
party	39
fun	38
lol	24

7. Find users who have liked every single photo on the site

```sql
SELECT
    users.id,
    username
FROM users
JOIN likes
    ON users.id = likes.user_id
GROUP BY users.id
HAVING COUNT(*) = (SELECT COUNT(*) FROM photos)
;
```

id	username
5	Aniya_Hackett
14	Jaclyn81
21	Rocio33
24	Maxwell.Halvorson
36	Ollie_Ledner37
41	Mckenna17
54	Duane60
57	Julien_Schmidt
66	Mike.Auer39
71	Nia_Haag
75	Leslie67
76	Janelle.Nikolaus81
91	Bethany20

8. Find users who have never commented on a photo

```sql
SELECT
    users.id,
    username,
    CASE
        WHEN ISNULL(comments.id) THEN 0
        ELSE COUNT(*)
    END AS n_comments
FROM users
LEFT JOIN comments
    ON users.id = comments.user_id
GROUP BY users.id
HAVING n_comments = 0
;
```

id	username	n_comments
1	Kenton_Kirlin	0
7	Kasandra_Homenick	0
23	Eveline95	0
25	Tierra.Trantow	0
29	Jaime53	0
34	Pearl7	0
45	David.Osinski47	0
49	Morgan.Kassulke	0
51	Mariano_Koch3	0
53	Linnea59	0
58	Aurelie71	0
59	Cesar93	0
64	Florence99	0
68	Franco_Keebler64	0
74	Hulda.Macejkovic	0
77	Donald.Fritsch	0
80	Darby_Herzog	0
81	Esther.Zulauf61	0
83	Bartholome.Bernhard	0
86	Delfina_VonRueden68	0
88	Clint27	0
89	Jessyca_West	0
90	Esmeralda.Mraz57	0

9. Find the percentage of our users who have either never commented on a photo or have commented on every photo

```sql
SELECT
    ((
    SELECT
        COUNT(*)
    FROM(
        SELECT
            users.id,
            username,
            CASE
                WHEN ISNULL(comments.id) THEN 0
                ELSE COUNT(*)
            END AS n_comments
        FROM users
        LEFT JOIN comments
            ON users.id = comments.user_id
        GROUP BY users.id
        HAVING n_comments = 0
        ) AS no_comments
    ) + (
    SELECT
        COUNT(*)
    FROM(
        SELECT
            users.id,
            username
        FROM users
        JOIN comments
            ON users.id = comments.user_id
        GROUP BY users.id
        HAVING COUNT(*) = (SELECT COUNT(*) FROM photos)
    ) AS all_commented
    ))
    / COUNT(*) * 100
    AS percentage
FROM
    users
;
```

```
+------------+
| percentage |
+------------+
|    36.0000 |
+------------+
```