Instagram User Analytics

A) Marketing: The marketing team wants to launch some campaigns, and they need your help with the following

Query 1:

Find the 5 oldest users of the Instagram from the database provided

```
SELECT *
FROM users
WHERE created_at is not null
ORDER BY created_at desc
LIMIT 5;
```

OUTPUT:

	id	username	created_at
▶	11	Justina.Gaylord27	2017-05-04 16:32:16
	6	Travon.Waters	2017-04-30 13:26:14
	85	Milford_Gleichner42	2017-04-30 07:50:51
	19	Hailee26	2017-04-29 18:53:40
	24	Maxwell.Halvorson	2017-04-18 02:32:44
*	NULL	NULL	NULL

QUERY 2:

Find the users who have never posted a single photo on Instagram

```
SELECT u.*

FROM users u

LEFT JOIN photos p ON u.id = p.user_id

WHERE p.user_id is null;
```

OUTPUT:

5	Aniya_Hackett	2016-12-07 01:04:39
7	Kasandra_Homenick	2016-12-12 06:50:08
14	Jaclyn81	2017-02-06 23:29:16
21	Rocio33	2017-01-23 11:51:15
24	Maxwell.Halvorson	2017-04-18 02:32:44
25	Tierra.Trantow	2016-10-03 12:49:21
34	Pearl7	2016-07-08 21:42:01
36	Ollie_Ledner37	2016-08-04 15:42:20
41	Mckenna17	2016-07-17 17:25:45
45	David.Osinski47	2017-02-05 21:23:37
49	Morgan.Kassulke	2016-10-30 12:42:31
53	Linnea59	2017-02-07 07:49:34
54	Duane60	2016-12-21 04:43:38
57	Julien_Schmidt	2017-02-02 23:12:48
66	Mike.Auer39	2016-07-01 17:36:15
68	Franco_Keebler64	2016-11-13 20:09:27
71	Nia_Haag	2016-05-14 15:38:50
74	Hulda.Macejkovic	2017-01-25 17:17:28
75	Leslie67	2016-09-21 05:14:01
76	Janelle.Nikolaus81	2016-07-21 09:26:09
80	Darby_Herzog	2016-05-06 00:14:21
81	Esther.Zulauf61	2017-01-14 17:02:34
83	Bartholome.Bernhard	2016-11-06 02:31:23
89	Jessyca_West	2016-09-14 23:47:05
90	Esmeralda.Mraz57	2017-03-03 11:52:27
91	Bethany20	2016-06-03 23:31:53

Query3:

Identify the winner with the greatest number of likes in the contest and provide their details to the team

```
SELECT users.username,photo_id,COUNT(*) AS most_liked

FROM likes

INNER JOIN users ON users.id=likes.user_id

GROUP BY photo_id

ORDER BY most_liked DESC

LIMIT 1;
```

OUTPUT:

	username	photo_id	most_liked
▶	Harley_Lind18	145	48

QUERY 4:

Identify and suggest the top 5 most commonly used hashtags on the platform

```
SELECT photo_id,id,tag_name

FROM photo_tags

INNER JOIN tags

ON photo_tags.photo_id = tags.id;
```

OUTPUT:

	photo_id	id	tag_name
▶	8	8	beauty
	8	8	beauty
	8	8	beauty
	8	8	beauty
	7	7	delicious
	7	7	delicious
	7	7	delicious
	7	7	delicious
	10	10	dreamy
	19	19	drunk
	5	5	food
	5	5	food
	5	5	food
	5	5	food
	6	6	foodie
	6	6	foodie
	6	6	foodie
	6	6	foodie
	13	13	fun
	13	13	fun
	12	12	happy
	4	4	landscape
	4	4	landscape
	4	4	landscape
	4	4	landscape

11	11	lol
11	11	lol
11	11	lol
17	17	party
17	17	party
17	17	party
2	2	photogra...
2	2	photogra...
2	2	photogra...
2	2	photogra...
21	21	smile
21	21	smile
21	21	smile
21	21	smile
9	9	stunning
14	14	style
14	14	style
3	3	sunrise
1	1	sunset
1	1	sunset
1	1	sunset
1	1	sunset
1	1	sunset

QUERY 5:

What day of the week do most users register on? Provide insights on when to schedule an ad campaign

```
SELECT created_at, count(*) created_at

FROM users

WHERE created_at is not null;
```

OUTPUT:

	created_at	created_at
▶	2017-02-16 18:22:11	100

B) Investor Metrics: Our investors want to know if Instagram is performing well and is not becoming redundant like Facebook, they want to assess the app on the following grounds

QUERY 1:

Provide how many times does average user posts on Instagram. Also, provide the total number of photos on Instagram/total number of users

```
SELECT COUNT(*) as active

FROM users u

INNER JOIN photos p ON u.id = p.user_id

ORDER BY active;
```

OUTPUT:

	active
▶	257

```
select COUNT(photos.user_id)/COUNT(users.id) as a

from users,photos;
```

OUTPUT:

	a
▶	1.0000

QUERY 2:

Provide data on users (bots) who have liked every single photo on the site (since any normal user would not be able to do this).

```
select COUNT(user_id)

from likes

where user_id=100;
```

OUTPUT:

	COUNT(user_id)
▶	82