Instagram User Analytics

SQL Tasks:

A) Marketing Analysis:

1.Loyal User Reward:

Query:

```sql
select *  from ig_clone.users
select username, created_at from ig_clone.users
order by created_at
limit 5
```

Output:

username	created_at
Darby_Herzog	2016-05-06 00:14:21
Emilio_Bernier52	2016-05-06 13:04:30
Elenor88	2016-05-08 01:30:41
Nicole71	2016-05-09 17:30:22
Jordyn.Jacobson2	2016-05-14 07:56:26

2.Inacative User Engagement:

Query:

```sql
select * from ig_clone.users as a
left join ig_clone.photos as b
on a. id = b.user_id
where b.user_id is null
```

Output:

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

3.Contest Winner Declaration:

Query:

```
select * from
(select user_id,count(photo_id) as cnt from ig_clone.likes
group by user_id
order by cnt desc) as a
left join ig_clone.users as b
on a.user_id = b.id
```

Output:

user_id	cnt	id	username	created_at
21	257	21	Rocio33	2017-01-23 11:51:15
71	257	71	Nia_Haag	2016-05-14 15:38:50
5	257	5	Aniya_Hackett	2016-12-07 01:04:39
66	257	66	Mike.Auer39	2016-07-01 17:36:15
41	257	41	Mckenna17	2016-07-17 17:25:45
14	257	14	Jaclyn81	2017-02-06 23:29:16
57	257	57	Julien_Schmidt	2017-02-02 23:12:48
24	257	24	Maxwell.Halvorson	2017-04-18 02:32:44
76	257	76	Janelle.Nikolaus81	2016-07-21 09:26:09
75	257	75	Leslie67	2016-09-21 05:14:01
54	257	54	Duane60	2016-12-21 04:43:38
91	257	91	Bethany20	2016-06-03 23:31:53
36	257	36	Ollie_Ledner37	2016-08-04 15:42:20
16	103	16	Annalise.McKenzi…	2016-08-02 21:32:46
96	98	96	Keenan.Schamber…	2016-08-28 14:57:28
69	97	69	Karley_Bosco	2016-06-24 23:38:52
65	96	65	Adelle96	2016-10-01 00:37:57
2	94	2	Andre_Purdy85	2017-04-02 17:11:21
26	94	26	Josianne.Friesen	2016-06-07 12:47:01
4	93	4	Arely_Bogan63	2016-08-13 01:28:43
13	93	13	Alexandro35	2017-03-29 17:09:02
87	92	87	Rick29	2017-02-24 11:25:08
35	92	35	Lennie_Hartmann40	2017-03-30 03:25:22
93	91	93	Willie_Leuschke	2017-02-15 01:40:53
92	91	92	Frederik_Rice	2016-07-06 21:56:29
22	91	22	Kenneth64	2016-12-27 09:48:17
32	91	32	Irwin.Larson	2016-08-26 19:36:22
19	90	19	Hailee26	2017-04-29 18:53:40
39	89	39	Kelsi26	2016-06-08 17:48:08
11	89	11	Justina.Gaylord27	2017-05-04 16:32:16
46	88	46	Malinda_Streich	2016-07-09 21:37:08
62	88	62	Ressie_Stanton46	2016-12-20 15:09:09
70	88	70	Erick5	2017-04-05 23:44:47
31	88	31	Aiyana_Hoeger	2016-09-29 20:28:12
10	87	10	Presley_McClure	2016-08-07 16:25:49
42	87	42	Maya.Farrell	2016-12-11 18:04:45
85	87	85	Milford_Gleichner42	2017-04-30 07:50:51
20	87	20	̶ ̶ha.Kihn	2016-08-31 02:42:30
44	86	44	̶ ̶ ̶46	2016-07-07 11:40:27
43	86	43	Janet.Armstrong	2016-10-06 07:57:44
60	86	60	Sam52	2017-03-30 22:03:45
67	86	67	Emilio_Bernier52	2016-05-06 13:04:30
95	86	95	Nicole71	2016-05-09 17:30:22
73	86	73	Jaylan.Lakin	2016-06-10 23:58:52
38	85	38	Jordyn.Jacobson2	2016-05-14 07:56:26
9	85	9	Gus93	2016-06-24 19:36:31
52	85	52	Zack_Kemmer93	2017-01-01 05:58:22

72	85	72	Kathryn80	2016-10-11 09:01:57
40	85	40	Rafael.Hickle2	2016-05-19 09:51:26
15	84	15	Billy52	2016-10-05 14:10:20
37	84	37	Yazmin_Mills95	2016-07-27 00:56:44
82	84	82	Aracely.Johnston98	2016-07-25 18:49:10
94	84	94	Damon35	2016-10-31 14:44:27
61	83	61	Jayson65	2016-10-14 19:10:53
63	83	63	Elenor88	2016-05-08 01:30:41
78	83	78	Colten.Harris76	2016-10-10 02:38:53
6	82	6	Travon.Waters	2017-04-30 13:26:14
100	82	100	Javonte83	2017-03-27 22:06:37
18	82	18	Odessa2	2016-10-21 18:16:56
30	81	30	Kaley9	2016-09-23 21:24:20

3	79	3	Harley_Lind18	2017-02-21 11:12:33
27	79	27	Darwin29	2017-03-18 03:10:07
17	78	17	Norbert_Carroll35	2017-02-06 22:05:43
55	78	55	Meggie_Doyle	2017-04-04 12:17:34
33	77	33	Yvette.Gottlieb91	2016-11-14 12:32:01
12	77	12	Dereck65	2017-01-19 01:34:14
28	77	28	Dario77	2016-08-18 07:15:03
47	76	47	Harrison.Beatty50	2016-09-02 03:48:38
48	75	48	Granville_Kutch	2016-06-26 03:10:22
79	75	79	Katarina.Dibbert	2016-11-03 13:14:11
84	75	84	Alysa22	2017-01-01 17:44:43
98	74	98	Imani_Nicolas17	2017-01-31 22:59:34
99	74	99	Alek_Watsica	2016-12-10 07:43:58
97	69	97	Tomas.Beatty93	2017-02-11 11:38:55

4.Hashtag Research:

Query:

```
create table ig_clone.tags_most as
select * from ig_clone.tags as a
left join ig_clone.photo_tags as b
on a.id = b.tag_id

select tag_name,count(tag_id) as cnt from ig_clone.tags_most
group by tag_name
order by cnt desc
limit 5
```

Output:

tag_name	cnt
smile	59
beach	42
party	39
fun	38
concert	24

5.Ad Campaign Launch:

Query:

```sql
select week(created_at) as wk,
count(week(created_at)) as cnt from ig_clone.users
group by wk
order by cnt desc
```

Output:

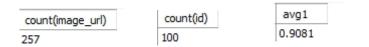| wk	cnt
18	5
6	5
40	4
13	4
27	4
19	4

B) Investor Metrics:

1.User Engagement:

Query:

```sql
select b.user_id, count(a.id) from ig_clone.users as a
left join ig_clone.photos as b
on a.id = b.user_id
group by b.user_id
```

```
select count(id) from ig_clone.users
select count(image_url)from ig_clone.photos

select count(b.image_url)/count(a.id) as avg1 from ig_clone.users as a
left join ig_clone.photos as b
on a.id=b.user_id
```

Output:

count(image_url)
257

count(id)
100

avg1
0.9081

2.Bots & Fake Accounts:

Query:

```
select user_id,count(photo_id) as cnt from ig_clone.likes
group by user_id
order by cnt desc
limit 13;
```

Output:

user_id	cnt
71	257
54	257
91	257
5	257
57	257
41	257
75	257
76	257
36	257
21	257
66	257
14	257
24	257