Business Analytics with Digital Marketing

BUSINESS ANALYTICS

CAPSTONE PROJECT

Submitted By:

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Instagram User Analytics

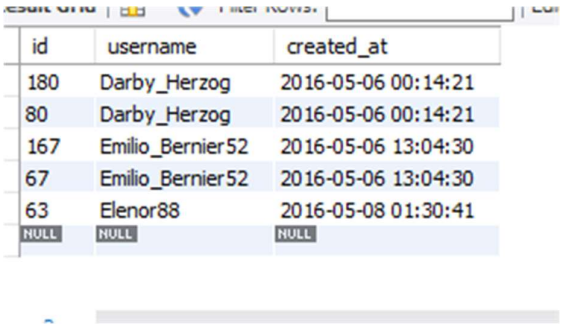
➡ Marketing Analysis:

I) Loyal User Reward:

INPUT:

```
select * from users
order by created_at asc
limit 5
```

OUTPUT:



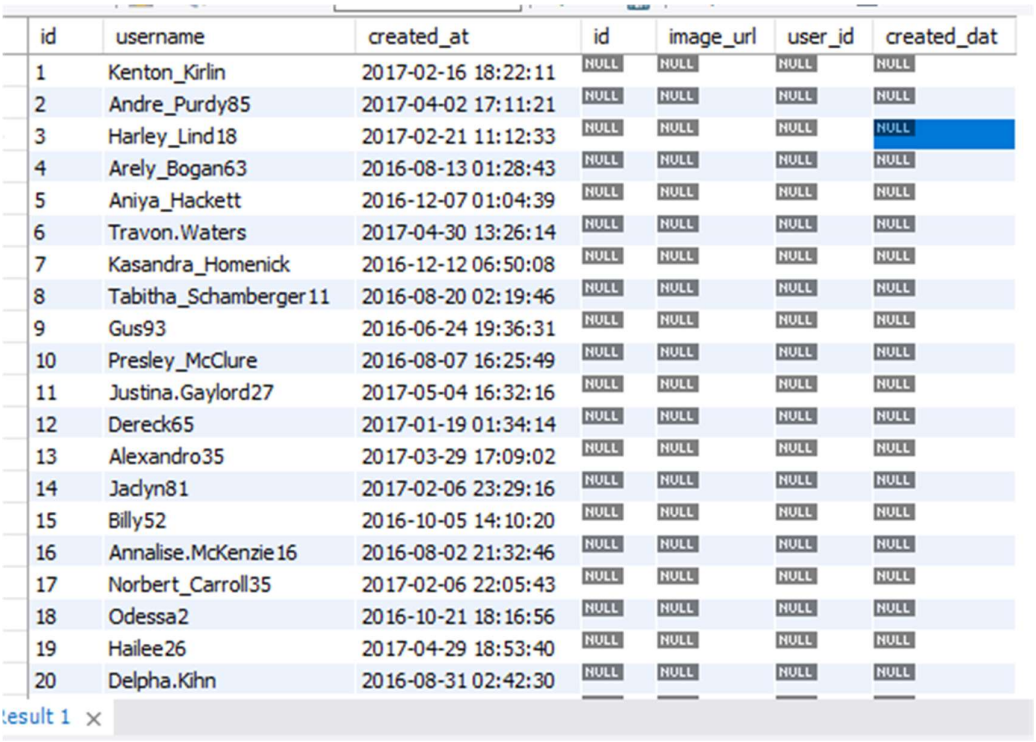
id	username	created_at
180	Darby_Herzog	2016-05-06 00:14:21
80	Darby_Herzog	2016-05-06 00:14:21
167	Emilio_Bernier52	2016-05-06 13:04:30
67	Emilio_Bernier52	2016-05-06 13:04:30
63	Elenor88	2016-05-08 01:30:41
NULL	NULL	NULL

II) Inactive User Engagement:

INPUT:

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

OUTPUT:



id	username	created_at	id	image_url	user_id	created_dat
1	Kenton_Kirlin	2017-02-16 18:22:11	NULL	NULL	NULL	NULL
2	Andre_Purdy85	2017-04-02 17:11:21	NULL	NULL	NULL	NULL
3	Harley_Lind18	2017-02-21 11:12:33	NULL	NULL	NULL	NULL
4	Arely_Bogan63	2016-08-13 01:28:43	NULL	NULL	NULL	NULL
5	Aniya_Hackett	2016-12-07 01:04:39	NULL	NULL	NULL	NULL
6	Travon.Waters	2017-04-30 13:26:14	NULL	NULL	NULL	NULL
7	Kasandra_Homenick	2016-12-12 06:50:08	NULL	NULL	NULL	NULL
8	Tabitha_Schamberger11	2016-08-20 02:19:46	NULL	NULL	NULL	NULL
9	Gus93	2016-06-24 19:36:31	NULL	NULL	NULL	NULL
10	Presley_McClure	2016-08-07 16:25:49	NULL	NULL	NULL	NULL
11	Justina.Gaylord27	2017-05-04 16:32:16	NULL	NULL	NULL	NULL
12	Dereck65	2017-01-19 01:34:14	NULL	NULL	NULL	NULL
13	Alexandro35	2017-03-29 17:09:02	NULL	NULL	NULL	NULL
14	Jaclyn81	2017-02-06 23:29:16	NULL	NULL	NULL	NULL
15	Billy52	2016-10-05 14:10:20	NULL	NULL	NULL	NULL
16	Annalise.McKenzie16	2016-08-02 21:32:46	NULL	NULL	NULL	NULL
17	Norbert_Carroll35	2017-02-06 22:05:43	NULL	NULL	NULL	NULL
18	Odessa2	2016-10-21 18:16:56	NULL	NULL	NULL	NULL
19	Hailee26	2017-04-29 18:53:40	NULL	NULL	NULL	NULL
20	Delpha.Kihn	2016-08-31 02:42:30	NULL	NULL	NULL	NULL

esult 1 ×

III) Contest Winner Declaration:

INPUT:

```
select * from
(select user_id, count(photo_id) as cnt from likes
group by user_id
order by cnt desc) as a
left join 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	Jadyn81	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

IV) Hashtag Research:

INPUT:

```
select a.tag_name, count(b.tag_id) as cnt from tags as a
left join photo_tags as b
on a.id=b.tag_id
group by a.tag_name
order by cnt desc limit 5
```

OUTPUT:

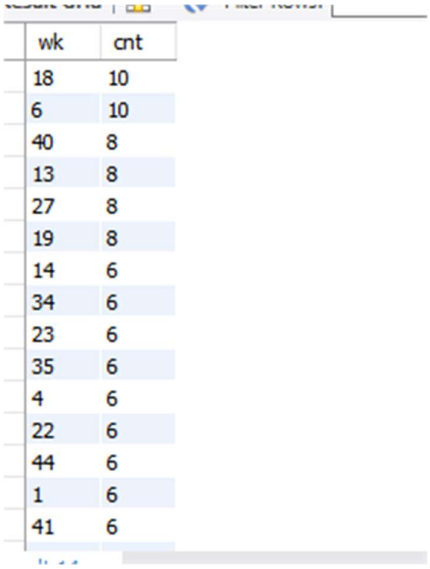
tag_name	cnt
smile	59
beach	42
party	39
fun	38
concert	24

V) Ad Campaign Launch:

INPUT:

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

OUTPUT:



wk	cnt
18	10
6	10
40	8
13	8
27	8
19	8
14	6
34	6
23	6
35	6
4	6
22	6
44	6
1	6
41	6

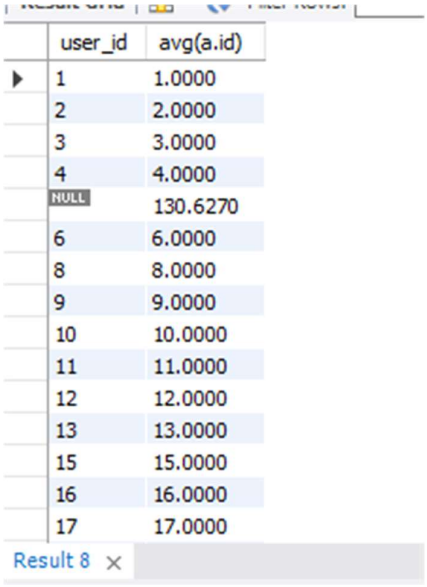
Investor Metrics:

VI) User Engagement:

INPUT:

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

OUTPUT:



user_id	avg(a.id)
1	1.0000
2	2.0000
3	3.0000
4	4.0000
NULL	130.6270
6	6.0000
8	8.0000
9	9.0000
10	10.0000
11	11.0000
12	12.0000
13	13.0000
15	15.0000
16	16.0000
17	17.0000

Result 8

INPUT:

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

OUTPUT:

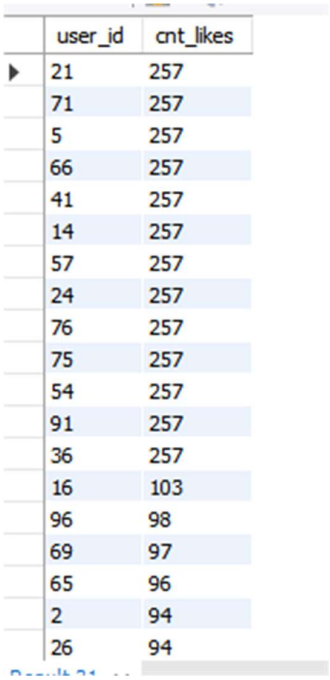
avg1
0.9081

VII) Bots & Fake Accounts:

INPUT:

```
select user_id, count(photo_id) as cnt_likes from likes
group by user_id
order by cnt_likes desc;
```

OUTPUT:



user_id	cnt_likes
21	257
71	257
5	257
66	257
41	257
14	257
57	257
24	257
76	257
75	257
54	257
91	257
36	257
16	103
96	98
69	97
65	96
2	94
26	94

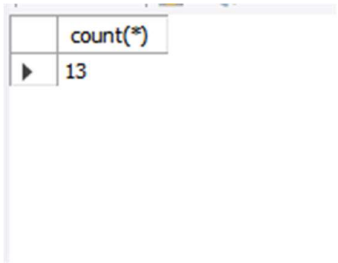
INPUT:

```
create table fake_id
select user_id, count(photo_id) as cnt_likes from likes
group by user_id
order by cnt_likes desc;
```

INPUT:

```
select count(*)from fake_id
where cnt_likes= '257'
```

OUTPUT:



count(*)
13