

# Instagram user analytics

## Project Description:

The project Instagram user analytics is about providing accurate insights required by the development team to help improve the app and grow business . The main objective of this project is to help the development team and provide them accurate answers from the database that is stored by the app using sql and various other techniques .

In this project ,

1. The marketing team wants to launch some campaigns, and they need help with some insights so we are going to help and provide them the insights they need to make the campaign successful
2. Our investors want to know if Instagram is performing well and is not becoming redundant like Facebook, they want to assess the app, and they want to assess the app on some grounds in which we are going to help them

## Approach :

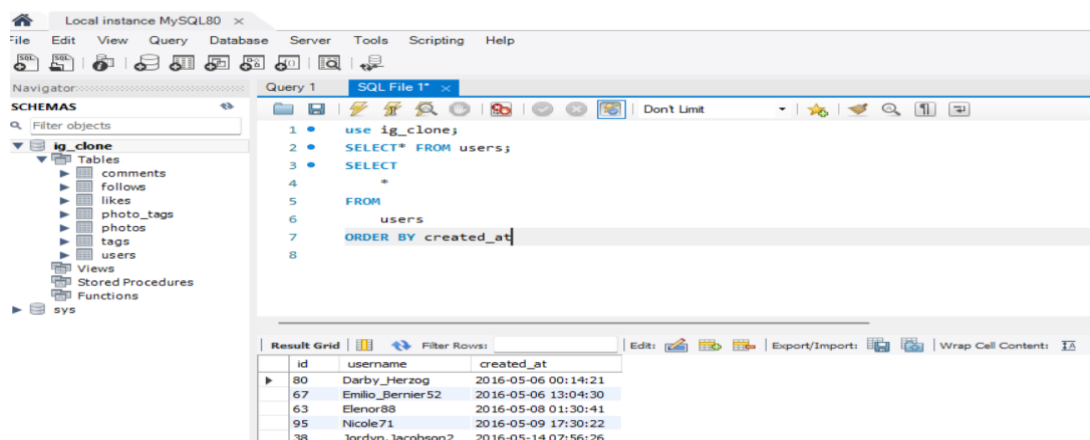
The main approach towards this project to help and assess the development team and investors with the insights they need is by first loading the database provided by the app and performing various sql queries to get the exact insights the team needs quickly.

Tech used : The main software used during the project is MySQL Workbench 8.0 CE since it is very easy to install and use .

## Insights :

### A) Marketing : Insights to the marketing teams are

1. Rewarding Most Loyal Users



The screenshot shows the MySQL Workbench interface. On the left, the 'SCHEMAS' pane shows a database named 'ig\_clone' with tables like 'comments', 'follows', 'likes', 'photo\_tags', 'photos', 'tags', and 'users'. The main editor shows a SQL query: 

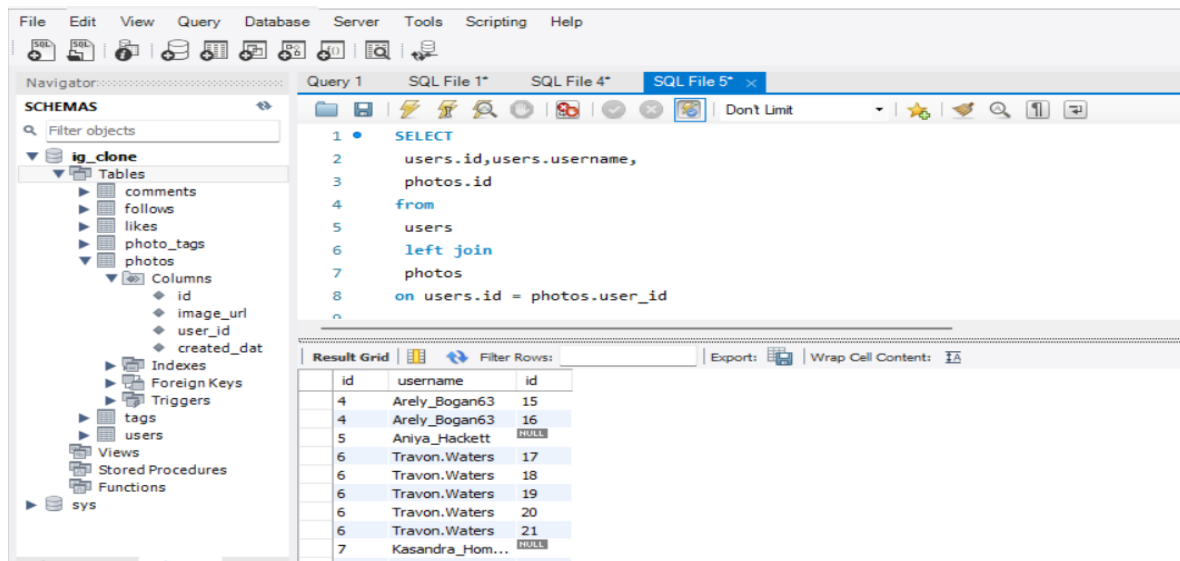
```
1 use ig_clone;
2 SELECT* FROM users;
3 SELECT
4 *
5 FROM
6 users
7 ORDER BY created_at
8
```

 The 'Result Grid' at the bottom displays the results of the query, showing columns 'id', 'username', and 'created\_at'.

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

The most loyal users are Derby\_Herzog , Emilio\_Bernier52 , Elenor88, Nicole71, Jordyn.Jacobson2.

## 2. Remind Inactive Users to Start Posting:



Query 1 SQL File 1\* SQL File 4\* SQL File 5\*

```

1 SELECT
2   users.id,users.username,
3   photos.id
4 from
5   users
6 left join
7   photos
8 on users.id = photos.user_id

```

id	username	id
4	Arely_Bogan63	15
4	Arely_Bogan63	16
5	Aniya_Hackett	NULL
6	Travon.Waters	17
6	Travon.Waters	18
6	Travon.Waters	19
6	Travon.Waters	20
6	Travon.Waters	21
7	Kassandra_Hom...	22

13	Alexandro35	46
14	Jacyn81	NULL
24	Maxwell.Halvo...	NULL
25	Tierra.Trantow	NULL

20	Delpha.Kihn	61
21	Rocio33	NULL

4	Arely_Bogan63	16
5	Aniya_Hackett	NULL

36	Ollie_Ledner37	NULL
37	Yazmin_Mills95	107
38	Jordyn.Jacobs...	108
38	Jordyn.Jacobs...	109
39	Kelsi26	110
40	Rafael.Hickle2	111
41	Mckenna17	NULL

44	Seth46	123
45	David.Osinski47	NULL
46	Malinda_Streich	124
46	Malinda_Streich	125
46	Malinda_Streich	126
46	Malinda_Streich	127
47	Harrison.Beatt...	128
47	Harrison.Beatt...	129
47	Harrison.Beatt...	130
47	Harrison.Beatt...	131
47	Harrison.Beatt...	132
48	Granville_Kutch	133
49	Morgan.Kassulke	NULL

53	Linnea59	NULL
54	Duane60	NULL
55	Meggie_Doyle	147
56	Peter.Stehr0	148
57	Julien_Schmidt	NULL

74	Hulda.Macejkovic	NULL
75	Leslie67	NULL
76	Janelle.Nikolau...	NULL

89	Jessyca_West	NULL	56	Mike_Auer39	NULL
90	Esmeralda.Mra...	NULL	57	Emilio_Bernier52	186
91	Bethany20	NULL	57	Emilio_Bernier52	187
			57	Emilio_Bernier52	188
			58	Franco_Keeble...	NULL
			59	Karley_Bosco	189
			70	Erick5	190
			71	Nia_Haag	NULL

These are the users who have never posted a single photo on Instagram which the company needs to remind to start posting

### 3. Declaring Contest Winner:

The team launched a contest, and they are now ready to name the winner. The contest will be won by the person who receives the most likes on a single photo.

The screenshot shows a SQL query in SQL Studio. The query is as follows:

```

1 select
2   t1.id as p_id, count(*) as likes_no
3 from
4   photos AS t1
5 INNER JOIN
6   likes as t2 on t1.id=t2.user_id
7 GROUP BY(t1.id)
8 ORDER BY(likes_no) DESC

```

The result grid shows the following data:

p_id	likes_no
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

The screenshot shows a SQL query in SQL Studio. The query is as follows:

```

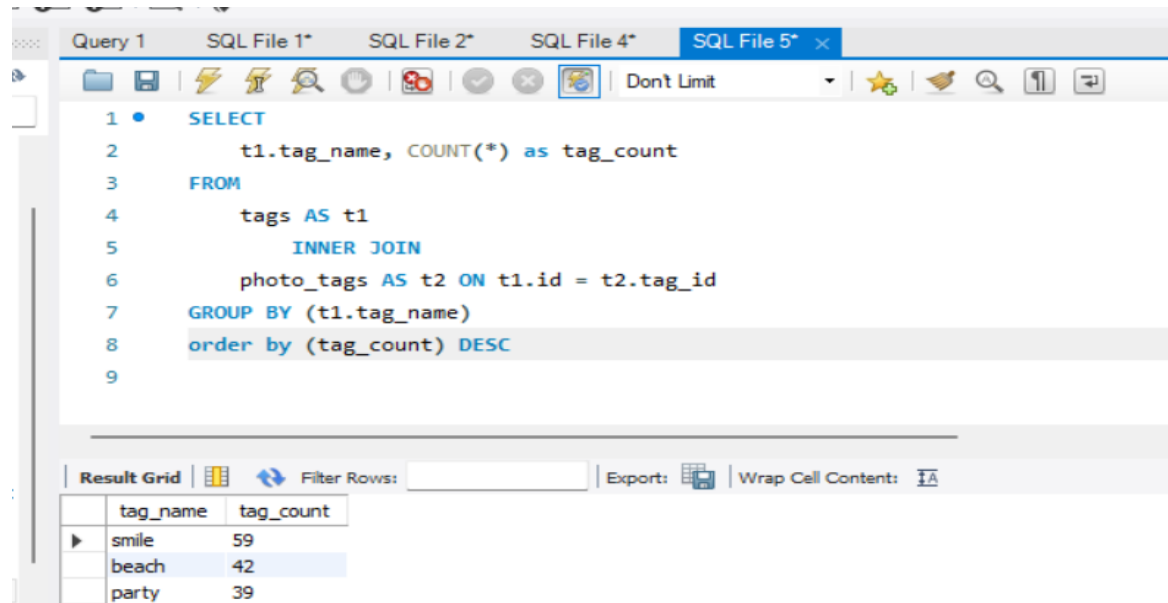
1 select
2   photos.id AS p_id, users.id AS u_id
3 from
4   photos
5 join
6   users on photos.user_id=users.id
7 order by p_id

```

We found the pictures with most likes and then matched those photos to their respective owners with the help of the photo ids and user ids. But since there are multiple photos with the same likes there are multiple owners with highest likes .

#### 4. Hashtag Researching:

Partnering brand wants to know which hashtags is used most



The screenshot shows a SQL query editor with a query to find the most used hashtag. The query is as follows:

```
1 • SELECT
2     t1.tag_name, COUNT(*) as tag_count
3 FROM
4     tags AS t1
5     INNER JOIN
6     photo_tags AS t2 ON t1.id = t2.tag_id
7 GROUP BY (t1.tag_name)
8 order by (tag_count) DESC
9
```

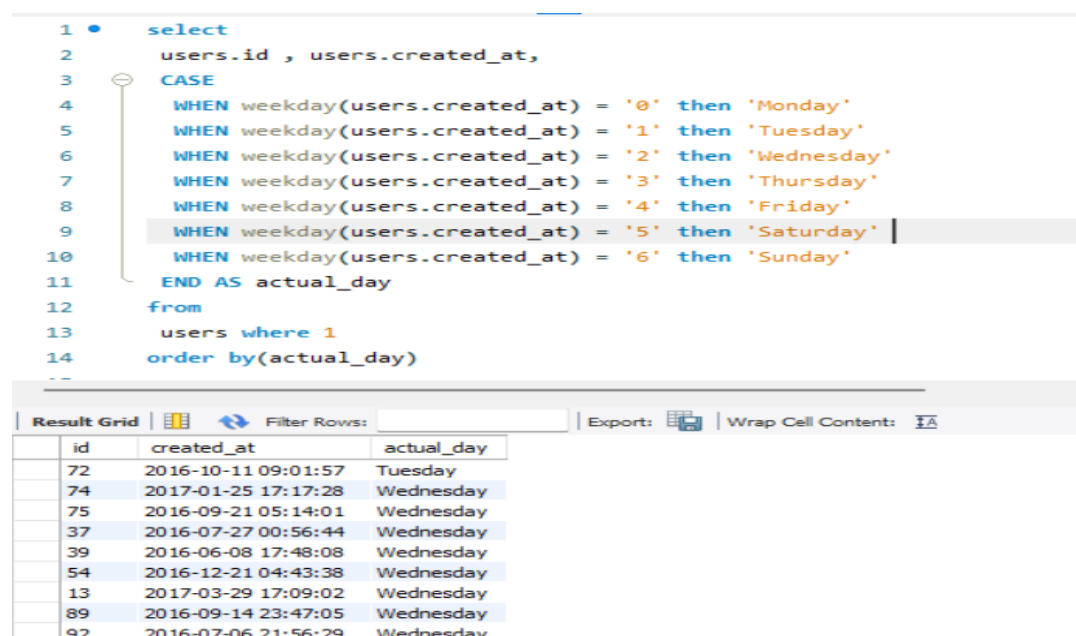
The result grid shows the following data:

tag_name	tag_count
smile	59
beach	42
party	39

Using the above sql query the most used hashtag used is smile .

#### 5. Launch AD Campaign:

Team wants to know the the best day to launch Ads



The screenshot shows a SQL query editor with a query to find the best day to launch ads. The query is as follows:

```
1 • select
2     users.id , users.created_at,
3     CASE
4         WHEN weekday(users.created_at) = '0' then 'Monday'
5         WHEN weekday(users.created_at) = '1' then 'Tuesday'
6         WHEN weekday(users.created_at) = '2' then 'Wednesday'
7         WHEN weekday(users.created_at) = '3' then 'Thursday'
8         WHEN weekday(users.created_at) = '4' then 'Friday'
9         WHEN weekday(users.created_at) = '5' then 'Saturday'
10        WHEN weekday(users.created_at) = '6' then 'Sunday'
11    END AS actual_day
12 from
13     users where 1
14 order by(actual_day)
15
```

The result grid shows the following data:

id	created_at	actual_day
72	2016-10-11 09:01:57	Tuesday
74	2017-01-25 17:17:28	Wednesday
75	2016-09-21 05:14:01	Wednesday
37	2016-07-27 00:56:44	Wednesday
39	2016-06-08 17:48:08	Wednesday
54	2016-12-21 04:43:38	Wednesday
13	2017-03-29 17:09:02	Wednesday
89	2016-09-14 23:47:05	Wednesday
92	2016-07-06 21:56:29	Wednesday

### B) Investor Metrics :

Team wants to find out no of bot accounts on the basis of no of photos liked

We find the no of photos liked by each account by the above query . Results are

75	Leslie07	257
76	Janelle_Nikolaus81	257
78	Colten.Harris76	83
79	Katarina.Dibbert	75
82	Aracely.Johnston98	84
84	Alysa22	75
85	Milford_Gleichner42	87
87	Rick29	92
91	Bethany20	257
96	Ollie_Ledner37	257
37	Yazmin_Mills95	84
38	Jordyn.Jacobson2	85
39	Kelsi26	89
40	Rafael.Hickle2	85
41	McKenna17	257
42	Maya.Farrell	87
43	Janet.Armstrong	86
44	Seth46	86
46	Malinda_Streich	88
47	Harrison.Beatty50	76
48	Granville_Kutch	75
50	Gerard79	81
52	Zack_Kemmer93	85
54	Duane60	257
55	Meggie_Doyle	78
56	Peter.Stehr0	81
57	Julien_Schmidt	257
60	Sam52	86
61	Jayson65	83
62	Ressie_Stanton46	88
63	Elenor88	83
65	Adelle96	96
66	Mike_Auer39	257
67	Emilio_Bernier52	86
69	Karley_Bosco	97
70	Erick5	88
71	Nia_Ruag	257
5	Aniya_Hackett	257
6	Travon.Waters	
8	Tabitha_Schamberger11	79
9	Gus93	85
10	Presley_McClure	87
11	Justina.Gaylord27	89
12	Dereck65	77
13	Alexandro35	93
14	Iaclyn81	257
15	Billy52	84
16	Annalise.McKenzie16	103
17	Norbert_Carroll35	78
18	Odessa2	82
19	Hailee26	90
20	Delpha.Kihn	87
21	Rocio33	257
22	Kenneth64	91
24	Maywell.Habermeyer	257

## Results :

During this project I have learned how a data analysts helps the development team as well as investors in knowing actual insights about the app and help them plan their further moves . I also got experience to use various sql queries which in turn would help me become a better analysts.