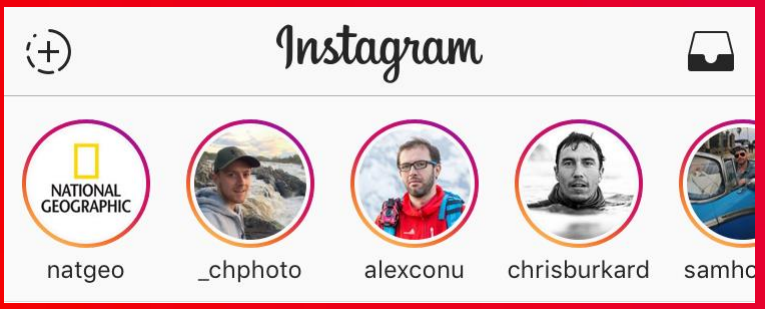
Instagram


Facebook
Snapchat
Instagram
Twitter
Chrome
Gmail
Spotify


Instagram
NATIONAL GEOGRAPHIC
natgeo
_chphoto
alexconu
chrisburkard


Instagram
Fast beautiful photo sharing

PROJECT DESCRIPTION

This Project is about INSTAGRAM USER ANALYTICS.

User analysis is the process by which we get to know how users use it and interact with our digital product (software or mobile application) in an attempt to derive business insights for marketing, product & development teams.
These insights are then used by teams across the business to launch a new marketing campaign, decide on features to build for an app, track the success of the app by measuring user engagement and improve the experience altogether.

PROJECT DESCRIPTION

PROJECT MANAGEMENT

So To handle this project I need to attend the lectures so that I can attend the questions provided in the project correctly and make my report in powerpoint to submit my project on time .

For doing this project first I need to answer the Queries asked by the Product team of the Instagram and have to help them out by the output from the respective queries.

So the first step would be writing the queries for each and every question with the help of dataset provided in the db- fiddle. Then after finding the right output I have to analyse the tables and screenshot them for putting them in my ppt.

PROJECT RESEARCH

Instagram User Analytics

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

i.)**Rewarding Most Loyal Users:** People who have been using the platform for the longest time.

Schema SQL

```sql
CREATE DATABASE ig_clone;

USE ig_clone;

/*Users*/
CREATE TABLE users(
    id INT AUTO_INCREMENT UNIQUE PRIMARY KEY,
    username VARCHAR(255) NOT NULL,
    created_at TIMESTAMP DEFAULT NOW()
);

/*Photos*/
CREATE TABLE photos(
    id INT AUTO_INCREMENT PRIMARY KEY,
    image_url VARCHAR(355) NOT NULL,
    user_id INT NOT NULL,
```

Text to DDL

Query SQL

```sql
Question 1 :-
Rewarding the most loyal users.
People who have been using the platform for the longest time.

YOUR TASK:
Find the 5 oldest users of the instagram from the database provided.
**/

# query:
select
    username,
    created_at
from
    ig_clone.users
order by created_at
limit 5;
```

Results

Copy as Markdown

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

ii.)Remind Inactive Users to Start Posting: By sending them promotional emails to post their 1st photo.
Your Task: Find the users who have never posted a single photo on Instagram

Query

Query SQL

```sql
# Your Task: Find the users who have never posted a single photo on Instagram

select
    u.username
from
    ig_clone.users u
left join
    ig_clone.photos p
on u.id=p.user_id
where p.user_id is null
order by
    u.username;
```

OUTPUT

Results

Copy as Markdown

Query #1 Execution time: 1ms

username
Aniya_Hackett
Bartholome.Bernhard
Bethany20
Darby_Herzog
David.Osinski47
Duane60
Esmeralda.Mraz57
Esther.Zulauf61
Franco_Keebler64
Hulda.Macejkovic
Jaclyn81
Janelle.Nikolaus81

Results

Copy as Markdown

Jessyca_West
Julien_Schmidt
Kasandra_Homenick
Leslie67
Linnea59
Maxwell.Halvorson
Mckenna17
Mike.Auer39
Morgan.Kassulke
Nia_Haag
Ollie_Ledner37
Pearl7
Rocio33
Tierra.Trantow

iii.) Declaring Contest Winner: The team started a contest and the user who gets the most likes on a single photo will win the contest now they wish to declare the winner.

Your Task: Identify the winner of the contest and provide their details to the team

Schema SQL

```
4
5  /*Users*/
6  CREATE TABLE users(
7      id INT AUTO_INCREMENT UNIQUE PRIMARY KEY,
8      username VARCHAR(255) NOT NULL,
9      created_at TIMESTAMP DEFAULT NOW()
10 );
11
12 /*Photos*/
13 CREATE TABLE photos(
14     id INT AUTO_INCREMENT PRIMARY KEY,
15     image_url VARCHAR(355) NOT NULL,
16     user_id INT NOT NULL,
17     created_dat TIMESTAMP DEFAULT NOW(),
18     FOREIGN KEY(user_id) REFERENCES users(id)
19 );
```

Text to DDL

Query SQL

```
1  # Your Task: Identify the winner of the contest and provide their details to the
   team
2
3
4  select likes.photo_id, users.username,count(likes.user_id) as like_user
5  from ig_clone.likes likes
6  inner join ig_clone.photos photos
7  on likes.photo_id=photos.id
8  inner join ig_clone.users users
9  on photos.user_id=users.id
10 group by likes.photo_id,users.username
11 order by like_user desc
12 limit 1;
13
```

Results

Copy as Markdown

Query #1 Execution time: 3ms

photo_id	username	like_user
145	Zack_Kemmer93	48

iv.)Hashtag Researching: A partner brand wants to know, which hashtags to use in the post to reach the most people on the platform.
Your Task: Identify and suggest the top 5 most commonly used hashtags on the platform.

QUERY

Query SQL

```sql
# Your Task: Identify and suggest the top 5 most commonly used hashtags on the
platform

select tags.tag_name,count(pt.photo_id)as times_of_tags_used
from ig_clone.photo_tags pt
inner join ig_clone.tags
on pt.tag_id=tags.id
group by tags.tag_name
order by times_of_tags_used desc
limit 5;


```

OUTPUT

Results

Copy as Markdown

Query #1 **Execution time: 1ms**

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

v.)Launch AD Campaign: The team wants to know, which day would be the best day to launch ADs.

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

QUERY

Query SQL

```sql
# Your Task: What day of the week do most users register on? Provide insights on when
to schedule an ad campaign.

select
    weekday(created_at) as weekday,
    count(username) as num_of_users
from ig_clone.users
group by
    1
order by
    2 desc
Limit 5;
```

OUTPUT

Results

Copy as Markdown

Query #1 **Execution time: 1ms**

weekday	num_of_users
3	16
6	16
4	15
1	14
0	14

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.

- **User Engagement:** Are users still as active and post on Instagram or they are making fewer posts

Your Task: Provide how many times does average user posts on Instagram.

QUERY

Query SQL

```sql
# Your Task: Provide how many times does average user posts on Instagram. Also, provide the total number of photos on Instagram/total number of users


with CTE AS (
select
    u.id as userid,
    count(p.id) as photoid
from
    ig_clone.users u
left join
    ig_clone.photos p
on u.id = p.user_id
group by
    u.id
)
select sum(PHOTOID)/COUNT(USERID) as post_per_user
from CTE
where
    photoid>0

```

OUTPUT

Results

Copy as Markdown

Query #1 Execution time: 1ms

post_per_user
3.4730

User Engagement: Are users still as active and post on Instagram or they are making fewer posts

- Your Task: **Also, provide the total number of photos on Instagram/total number of users.**

QUERY

Query SQL

```sql
# Your Task: Provide how many times does average user posts on Instagram. Also, provide the total number of photos on Instagram/total number of users

with CTE as (
SELECT
    u.id as userid,
    count(p.id) as photoid
from
    ig_clone.users u
LEFT join
    ig_clone.photos p
on u.id = p.user_id
group by
    u.id
)
select
    sum(photoid) as total_photos,
    count(userid) as total_userid,
    sum(photoid)/ count(userid) as photos_user

from
    CTE
```

OUTPUT

Results

Copy as Markdown

Query #1 **Execution time: 1ms**

total_photos	total_users	avg_users
257	100	2.5700

- **Bots & fake accounts**: the investors want to know if the platform is crowded with fake and dummy accounts
  your task: 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).

QUERY

Query SQL

```sql
With photo_count as (
select
    user_id,
    count(photo_id) as num_likes
from
    ig_clone.likes
group by
    user_id
order by
    num_likes desc
)
select
    *
from photo_count
where
    num_likes = (Select count(*) from ig_clone.photos)
```

OUTPUT

Results

Copy as Markdown

Query #1 Execution time: 3ms

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

RESULTS

ACHIVEMENTS

While making this project I have learned the following things:-

- How to write Queries, determine the output and analyse it based on the question given.
- I always had problem on what columns to select according to question. So, I think after doing this project I had become more precise and clear on what columns to select as per question given.
- How to install and use MySql server and write queries on it.
- On how to write Queries in a more simplified Way.
- When to use Operators and Functions.