Instagram User Analytics

A) **Project Description:**This project aims to extract useful insights from raw data/metadata, using various database management tools, and even visualize them to increase the platform's efficiency.

B) **Project Approach:** The project was executed using SOL, where queries were utilized to create a database from the provided raw data. Sorting and data extracting queries were then implemented to obtain the required data/insights.

C) **Tech Stack Used:**The tech stack used included MySQL Workbench 8.0.30.0, which was an excellent tool for querying the database, thanks to its ease of access, simple setup, and GUI, as well as its troubleshooting support.

Project Insights :(Raw Insights :)A) Marketing:

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

Conclusion: These are the oldest user of instagram.

Travon.Waters	2017-04-30 13:26:14
Milford_Gleichner42	2017-04-30 07:50:51
Maxwell.Halvorson	2017-04-18 02:32:44
Justina.Gaylord27	2017-05-04 16:32:16
Hailee26	2017-04-29 18:53:40

Code: select * from users;

select username,created_at from users order by created_at desc limit 5;

2. Remind Inactive Users to Start Posting: By sending them promotional emails to post their 1st photo.

Conclusion:These users were inactive after their first post.

Aniya_Hackett
Kasandra_Homenick
Jaclyn81
Rocio33
Maxwell.Halvorson
Tierra.Trantow
Pearl7
Ollie_Ledner37
Mckenna17
David.Osinski47
Morgan.Kassulke
Linnea59
Duane60
Julien_Schmidt
Mike.Auer39
Franco_Keebler64
Nia_Haag
Hulda.Macejkovic
Leslie67
Janelle.Nikolaus81
Darby_Herzog
Esther.Zulauf61
Bartholome.Bernhard
Jessyca_West
Esmeralda.Mraz57
Bethany20

Code:
```
select username
from users
LEFT join photos
ON users.id=photos.user_id
```

where photos.id IS NULL;

3. 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.

Conclusion: He has the most likes in hip one post.

Code: select * from likes,photos,users;

```
select likes.photo_id,users.username, count(likes.user_id) as likess
from likes inner join photos on likes.photo_id= photos.id
inner join users on photos.user_id=users.id group by
likes.photo_id,users.username order by likess desc;
```

photo_id	username	likess
145	Zack_Kemr	48
127	Malinda_St	43
182	Adelle96	43
123	Seth46	42
30	Presley_Mc	41
52	Annalise.M	41
61	Delpha.Kih	41
147	Meggie_Dc	41
174	Elenor88	41

4. Hashtag Researching: A partner brand wants to know, which hashtags to use in the post to reach the most people on the platform.

Conclusion: These are some trending hastags which a partner brand can use.

smile 59
beach 42
party 39
fun 38
concert 24

Code: select * from photo_tags,tags;
select t.tag_name,count(p.photo_id) as ht from photo_tags p inner join tags t on t.id=p.tag_id group by t.tag_name order by ht desc limit 5;

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

Conclusion: these days would be best for AD campaign.

Thursday	16
Sunday	16
Friday	15
Tuesday	14
Monday	14
Wednesday	13
Saturday	12

Code:
select * from users;
select date_format((created_at), '%W') as dayy,count(username) from users group by 1 order by 2 desc;

6. User Engagement: Are users still as active and post on Instagram or they are making fewer posts
Conclusion: A users avarage post is more than 2.

Totalphotos	total_users	photosperuser
257	100	2.5700

Code: select * from photos;
with base as(
select u.id as userid,count(p.id) as photoid from users u left join photos p on p.user_id= u.id group by u.id)
select sum(photoid) as totalphotos, count(userid) as total_users, sum(photoid)/count(userid) as photoperuser

from base;

7. Bots & Fake Accounts: The investors want to know if the platform is crowded with fake and dummy accounts I

Conclusion: These are some user who can be boat and fake account.

Username	likess
Aniya_Hackett	257
Bethany20	257
Duane60	257
Jaclyn81	257
Janelle.Nikolaus81	257
Julien_Schmidt	257
Leslie67	257
Maxwell.Halvorson	257
Mckenna17	257
Mike.Auer39	257
Nia_Haag	257
Ollie_Ledner37	257
Rocio33	257

Code: select * from users,likes;

```
with base as(
select u.username,count(l.photo_id) as likess from likes l inner join users u on
u.id=l.user_id
group by u.username)
select username,likess from base where likess=(select count(*) from photos)
order by username;
```