Instagram User Analytics

BY
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Project Ajenda

Derived business insights for marketing, product & development teams which can be 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 while helping the business grow

Approach:

1. Database creation: Created and inserted data in the database using DDL and DML SQL queries provided by the product manager(as per the project) in the MySQL database using MySQL workbench.
2. Extraction of insights: After creating the database required insights are generated from the database tables by running SQL queries in MySQL workbench.

Tech-Stack Used

Used MySQL workbench 8.0 community server version 8.0.40 which is owned by oracle

Task 1: Find the 5 oldest users of Instagram

```
1 df1
```

	id	username	created_at
0	80	Darby_Herzog	2016-05-06 00:14:21
1	67	Emilio_Bernier52	2016-05-06 13:04:30
2	63	Elenor88	2016-05-08 01:30:41
3	95	Nicole71	2016-05-09 17:30:22
4	38	Jordyn.Jacobson2	2016-05-14 07:56:26

Insights: A list of top 5 oldest users has been successfully identified on Instagram based on their account creation dates.
This information could be used for historical analysis and understanding the growth of the platform over time. The marketing team can also reward the most loyal users/customers from the business.

Task 2: Find the users who have never posted a single photo on Instagram.

Insights: The list of users who have never posted any photos on Instagram has been generated.

This information could be valuable for targeted outreach or understanding the behavior of users who are less engaged with posting photos. The marketing team can remind the inactive users by sending promotional emails to them

```
1 df2
```

	id	username
0	5	Aniya_Hackett
1	7	Kasandra_Homenick
2	14	Jaclyn81
3	21	Rocio33
4	24	Maxwell.Halvorson
5	25	Tierra.Trantow
6	34	Pearl7
7	36	Ollie_Ledner37
8	41	Mckenna17
9	45	David.Osinski47
10	49	Morgan.Kassulke
11	53	Linnea59
12	54	Duane60
13	57	Julien_Schmidt
14	66	Mike.Auer39
15	68	Franco_Keebler64
16	71	Nia_Haag
17	74	Hulda.Macejkovic
18	75	Leslie67
19	76	Janelle.Nikolaus81
20	80	Darby_Herzog
21	81	Esther.Zulauf61
22	83	Bartholome.Bernhard
23	89	Jessyca_West
24	90	Esmeralda.Mraz57
25	91	Bethany20

Task 3: Identify the winner of the contest and provide their details to the team

```
1  df4
```

	id	username	photo_id	max_count
0	52	Zack_Kemmer93	145	48

Insights: The above data frame shows that User with username Zack_Kemmer93 has posted a Photo with Photo ID 145 has got the most likes (48).

The below plot shows the top 10 most liked photos.

The plot supports our finding in above observations that User with username Zack_Kemmer93 who posted a photo with Photo ID 145 has got the most likes.

The plot also shows that all the top 10 most liked Photos have more than 40 likes.

Task 4: Identify and suggest the top 5 most commonly used hashtags on the platform.

Insights: The most commonly used hashtag names and the number of times they have been used on the platform have been identified.

Businesses can leverage these hashtags in their marketing campaigns such as brand promotions to increase visibility and engagement

```
1 df5
```

	id	tag_name
0	21	smile
1	20	beach
2	17	party
3	13	fun
4	18	concert

Task5: Determine the day of the week when most users register on Instagram. Provide insights on when to schedule an ad campaign.

```
1 df6
```

	Day_Name	Count
0	Thursday	16
1	Sunday	16
2	Friday	15
3	Tuesday	14
4	Monday	14
5	Wednesday	13
6	Saturday	12

I Insights: The distribution of user registrations by day of the week has been provided.

This information can guide the scheduling of ad campaigns, focusing efforts on days when new user registrations are higher

Task 6: Provide the average user posting frequency and total photos per user

Insights: The average user posts twice on Instagram, and there is an average of 2.57 photos per user.

The investors of the business by accessing the average posting frequency can plan content and engagement strategies.

```
1 df7
```

	avg(cnt)
0	2.57

```
1 df8
```

	no_ph_by_no_users
0	2.57

Task 7: Identify users (bots) who have liked every photo on the site

```
1 df9
```

	user_id	username	cnt
0	5	Aniya_Hackett	257
1	14	Jaclyn81	257
2	21	Rocio33	257
3	24	Maxwell.Halvorson	257
4	36	Ollie_Ledner37	257
5	41	Mckenna17	257
6	54	Duane60	257
7	57	Julien_Schmidt	257
8	66	Mike.Auer39	257
9	71	Nia_Haag	257
10	75	Leslie67	257
11	76	Janelle.Nikolaus81	257
12	91	Bethany20	257

Insights: A list of users who have liked every single photo on the site has been generated.

The fake accounts or bots can be removed to enhance user experience and check the actual performance of the business.

Result

Learnt the fundamentals of data analysis using SQL queries on how to extract insights from the database which can be used to track the user engagement and engagement with the product (both desktop and mobile application) which would be an attempt to derive business insights for marketing, product & development teams.

Thank you!

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Source For Database