INSTAGRAM USER ANALYTIC

Project Description: This project delves into Instagram user analytics to uncover valuable insights for business growth. By leveraging SQL and MySQL Workbench, we analyze user interactions and engagement to address key questions from the marketing and investment teams. Our findings on user loyalty, inactivity, content performance, and platform health inform strategic decisions for Instagram's future development.

Approach of project: A data-driven approach was employed to analyze Instagram user behavior. The project commenced with a thorough exploration of the provided database using SQL queries to extract relevant data points. Key metrics and user segments were identified to address the specified business questions. Data cleaning and preprocessing ensured data accuracy and consistency. Descriptive and exploratory analysis techniques were applied to derive meaningful insights from the extracted data.

Technologies used: The project primarily utilized SQL and MySQL Workbench as the core technologies for data extraction and analysis. SQL's powerful querying capabilities facilitated efficient data retrieval and manipulation. MySQL Workbench provided a user-friendly interface for database management and query execution. These tools were instrumental in transforming raw data into actionable insights.

PROJECT INSIGHTS:

A) Marketing Analysis:

1) Loyal User Reward: Users who have been on the platform the longest.

Conclusion: Following are the oldest users. (top 5)

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

Code:

```
SELECT * FROM users

ORDER BY created_at

LIMIT 5;
```

2) Inactive user Engagement: Remind inactive users to start posting by sending them notifications, emails, etc.

Conclusion: These are the users who have not posted.

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) Contest Winner Declaration: A contest was held to determine the most-liked photo on the platform. The team needs to identify the user associated with this winning image.

Conclusion: User with most likes on his /her single post is

Zack_Kemmer93 145 https://jarret.name 48

Code:

```
SELECT username, photos.id, photos.image_url,
count(likes.user_id) AS total
FROM photos
INNER JOIN likes ON likes.photo_id = photos.id
INNER JOIN users ON photos.user_id = users.id
GROUP BY photos.id
ORDER BY total DESC
LIMIT 1;
```

4) Hashtag Research: The analysis of hashtag usage reveals the most prevalent hashtags on the platform, offering valuable insights for the partner brand. By incorporating these top-performing hashtags into their content strategy, the brand can significantly increase its visibility and reach a wider audience. It is recommended to monitor hashtag trends regularly to adapt to evolving user preferences and maintain maximum impact.

Conclusion: There are some trending hashtags which a partner brand can use.

smile	59
beach	42
party	39
fun	38
concert	24

Code:

```
SELECT
tags.tag_name,
COUNT(*) AS total
FROM photo_tags
JOIN tags ON photo_tags.tag_id = tags.id
GROUP BY tags.id
ORDER BY total DESC
LIMIT 5;
```

5) Ad Campaign Launch: The analysis of user registration patterns indicates that [day of week] is the most opportune day for launching ad campaigns on Instagram. By aligning ad launches with this peak registration period, the marketing team can maximize campaign visibility and engagement. Additionally, understanding user acquisition trends can inform targeted ad targeting and messaging strategies for optimal campaign performance.

Conclusion: The best day of the week to launch ad is

Thursday 16

Code:

```
SELECT

DAYNAME(created_at) AS day, count(*) as total

FROM users

GROUP BY day

ORDER BY total DESC

LIMIT 1;
```

B) Investor Metrics:

1) User Engagement: The average number of posts per user and photos per user metrics provide valuable insights into overall user engagement on the platform. [Include specific findings, e.g., "The average of X posts per user indicates a [high/low] level of user activity."] These findings can be used to assess platform health, identify potential engagement trends, and inform strategies to encourage user participation and content creation.

Conclusion: The average number of posts per user on Instagram.3

2.5700

Code:

```
SELECT(SELECT COUNT(*) FROM photos) / (SELECT COUNT(*) FROM users) AS
avg;
```

2) Bots & Fake Accounts: The identification of users who have liked every single photo on the platform suggests the potential presence of bot accounts. The existence of these accounts could artificially inflate engagement metrics and distort platform analytics. It is crucial to implement robust measures to detect and remove such accounts to maintain platform integrity and provide accurate insights for stakeholders.

Conclusion: Bots who have liked every single photo on the site.

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

Code:

```
SELECT user_id, COUNT(*) as num_likes
FROM likes
GROUP BY user_id
HAVING num_likes = (SELECT COUNT(*) FROM photos);
SELECT u.username, COUNT(*) as num_likes
FROM users u
JOIN likes l ON u.id = l.user_id
GROUP BY u.id
HAVING num_likes = (SELECT COUNT(*) FROM photos);
```