

YouTube SQL Analysis

By Kanishka Maheshwari







About



Objective



Database Overview



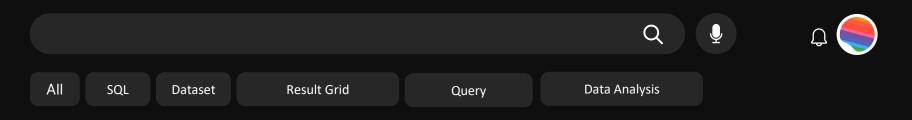
Query 1 to 10



Takeaways



Thank you





Founded in 2005, YouTube is a global video-sharing platform owned by Google. As of January 2024, it boasts over 2.7 billion monthly active users, making it one of the most visited websites worldwide. Users engage by uploading, viewing, liking, commenting, and subscribing to a vast array of content.







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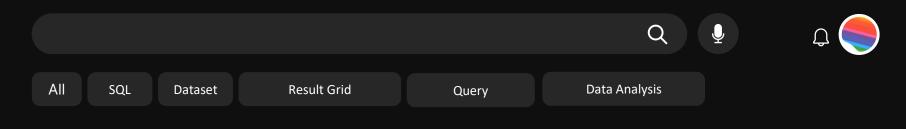
Query 1 to 10



Takeaways



Thank you



Objective

- Identifying top-performing channels by subscribers and engagement.
- Analysing channel revenue metrics.
- Extracting video-wise performance indicators (likes, comments, views).
- Using SQL logic (aggregation, filtering, etc.).











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Takeaways



Thank you

ΑII SQL

Dataset

Result Grid

Query

Data Analysis



Database Overview

youtube_channels Table

channel_id	channel_name	category	subscribers	avg_views	nox_score
1	MrBeast	Entertainment	370M	187.67M	0.5
2	T-Series	Music	288M	336.88K	48.2
3	Cocomelon - Nursery Rhymes	Education	190M	2.95M	0.8
4	SET India	Entertainment	182M	15.61K	4.3
5	Vlad and Niki	Entertainment	135M	3.44M	24.3
6	Kids Diana Show	Entertainment	131M	4.2M	8.5
7	Like Nastya	Entertainment	126M	15.04M	4.8
8	Stokes Twins	People & Blogs	116M	77.77M	5.4
9	Zee Music Company	Music	115M	1.37M	467.1
10	PewDiePie	Gaming	110M	2.98M	0.9

channel_videos Table

video_id	channel_id	video_title	upload_date	views	likes	comments
1	1	Epic Challenge Video	2024-03-01	15,000,000	500,000	10,000
2	2	Best Bollywood Songs	2024-02-15	3,000,000	250,000	5,000
3	3	Kids Learning ABC	2024-01-10	5,000,000	200,000	8,000
4	4	Comedy Skit Compilation	2024-03-05	2,000,000	150,000	3,000
5	5	Vlad and Niki Adventure	2024-02-22	6,000,000	180,000	4,000
6	6	Diana's New Toys	2024-01-30	4,000,000	175,000	3,500
7	7	Fun Family Vlog	2024-02-18	3,500,000	190,000	4,500
8	8	Crazy Stunts Compilation	2024-03-01	8,000,000	210,000	7,000
9	9	Top Music Hits 2024	2024-02-10	1,000,000	50,000	2,000
10	10	Gaming Livestream Highlights	2024-01-20	2,500,000	120,000	6,000

channel_engagement Table

engagement_id	channel_id	likes_per_video	comments_per_video	shares_per_video
1	1	450,000.50	12,000.75	30,000.25
2	2	300,000.20	10,000.00	25,000.10
3	3	200,000.15	8,000.25	20,000.50
4	4	150,000.75	5,000.60	18,000.80
5	5	180,000.50	4,000.90	15,000.60
6	6	175,000.35	3,500.75	14,000.40
7	7	190,000.45	4,500.85	17,000.20
8	8	210,000.30	7,000.25	20,000.35
9	9	50,000.00	2,000.75	5,000.80
10	10	120,000.90	6,000.35	9,000.50

channel_revenue Table

revenue_id	channel_id	monthly_revenue	yearly_revenue
1	1	5,000,000.00	60,000,000.00
2	2	4,500,000.00	54,000,000.00
3	3	1,500,000.00	18,000,000.00
4	4	1,200,000.00	14,400,000.00
5	5	900,000.00	10,800,000.00
6	6	850,000.00	10,200,000.00
7	7	800,000.00	9,600,000.00
8	8	780,000.00	9,360,000.00
9	9	750,000.00	9,000,000.00
10	10	700,000.00	8,400,000.00

							10	10	700,000.00	8,400,000.00	ı
							9	9	750,000.00	9,000,000.00	
0	10	Gaming Livestream Highlights	2024-01-20	2,500,000	120,000	6,000	8	8	780,000.00	9,360,000.00	







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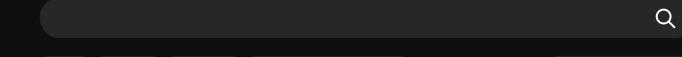
Query 1 to 10



Takeaways



Thank you



Result Grid



All

SQL

Dataset

Problem Statements

Query

- 1. Top 5 most subscribed YouTube channels.
- 2. Total yearly revenue of all channels.
- 3. Videos uploaded by 'MrBeast'.
- 4. Average engagement (likes & comments) for each channel.
- 5. Channels with a NOX score higher than 10 (highest to lowest score).

6. Most commented video.

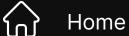
Data Analysis

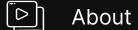
- 7. Total channels per category.
- 8. Channel names starting with "M" and ending with "t".
- 9. Videos uploaded between

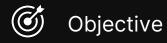
'2024-03-01' and '2024-08-01'.

10. Top 3 most liked videos.











Takeaways

Thank you

1. Top 5 most subscribed YouTube channels.







All SQL Data Analysis Dataset Result Grid Query

```
SELECT
                                                       #Subscribers #Channels
    channel_id,
    channel name,
    subscribers,
    CASE
        WHEN subscribers LIKE '%M' THEN REPLACE(subscribers, 'M', '') * 1000000
        ELSE subscribers
    END AS numeric_equivalent
FROM
    youtube channels
ORDER BY numeric equivalent DESC
LIMIT 5:
                                                subscribers
    channel id
                 channel name
                                                             numeric equivalent
                 MrBeast
                                               370M
                                                            370000000
```

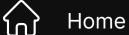


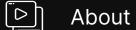












Objective

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Query 2

Takeaways

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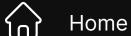


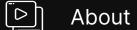


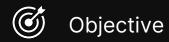








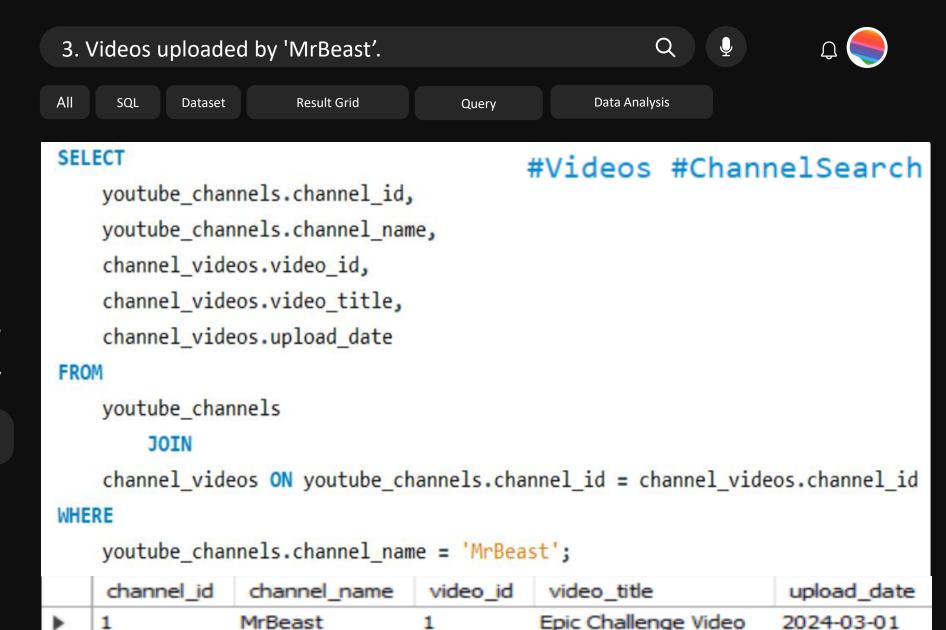






Takeaways

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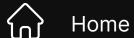


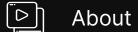


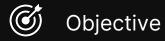


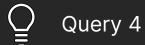












Takeaways

Thank you

4. Average engagement for each channel.







ΑII SQL Result Grid Data Analysis Dataset Query

SELECT #Engagement #Averages

```
youtube_channels.channel_id,
youtube_channels.channel_name,
channel_engagement.likes_per_video AS avg_likes,
channel_engagement.comments_per_video AS avg_comments
```

FROM

youtube_channels

JOIN

channel_engagement ON youtube_channels.channel_id = channel_engagement.channel_id;

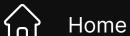
	channel_id	channel_name	avg_likes	avg_comments
▶	1	MrBeast	450000.50	12000.75
	2	T-Series	300000.20	10000.00
	3	Cocomelon - Nursery Rhymes	200000.15	8000.25
	4	SET India	150000.75	5000.60
	5	Vlad and Niki	180000.50	4000.90
	6	Kids Diana Show	175000.35	3500.75
	7	Like Nastya	190000.45	4500.85
	8	Stokes Twins	210000.30	7000.25
	9	Zee Music Company	50000.00	2000.75
	10	PewDiePie	120000.90	6000.35











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All SQL Dataset Result Grid Query Data Analysis

SELECT * FROM youtube_channels

#NoxScore #Filter

WHERE nox_score > 10

ORDER BY nox_score DESC;

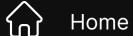
	channel_id	channel_name	category	subscribers	avg_views	nox_score
١	9	Zee Music Company	Music	115M	1.37M	467.10
	2	T-Series	Music	288M	336.88K	48.20
	5	Vlad and Niki	Entertainment	135M	3.44M	24.30
	NULL	NULL	NULL	NULL	NULL	NULL

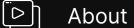


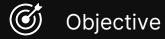








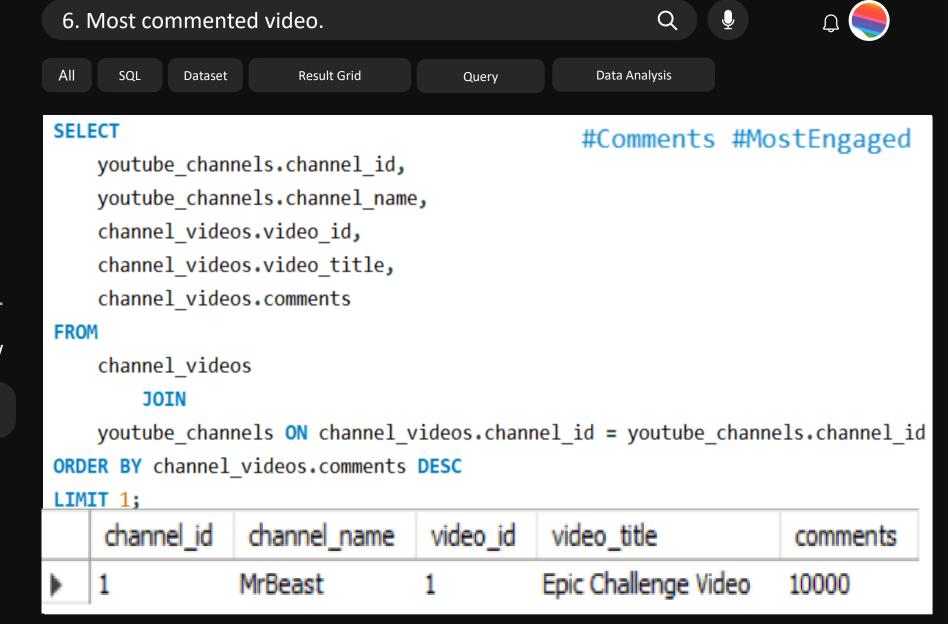






Takeaways

••) Thank you

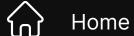




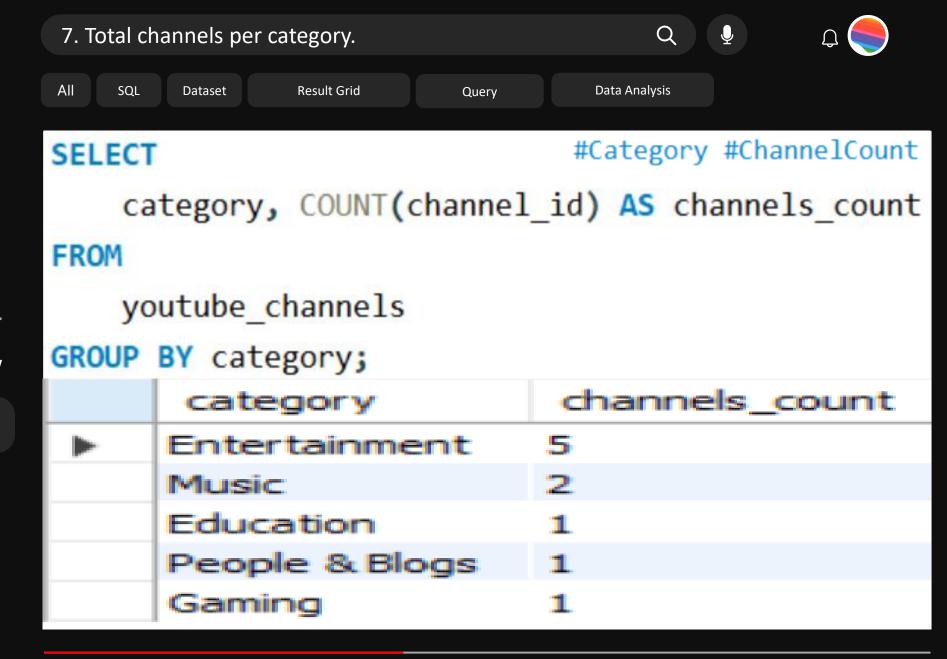




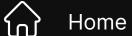




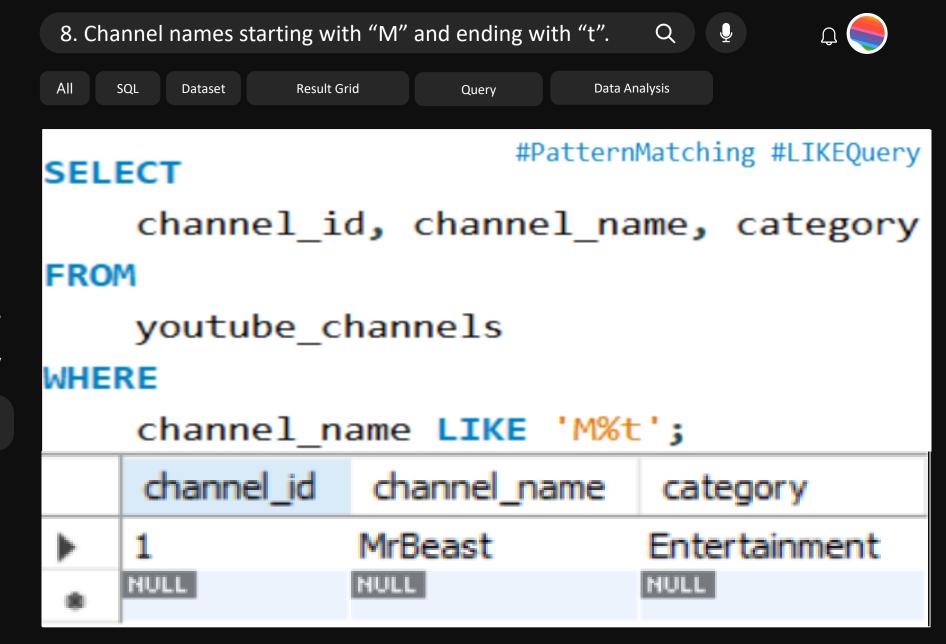
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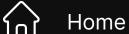


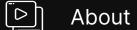


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Query 9

Takeaways

Thank you

9. Videos uploaded between '2024-03-01' & '2024-08-01'. Q All SQL Result Grid Data Analysis **Dataset** Query SELECT #DateRange #VideoUpload youtube channels.channel name, channel videos.video title, channel_videos.upload_date FROM channel_videos JOIN youtube_channels ON channel_videos.channel_id = youtube_channels.channel_id

WHERE

upload date BETWEEN '2024-03-01' AND '2024-08-01';

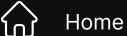
	channel_name	video_title	upload_date
•	MrBeast	Epic Challenge Video	2024-03-01
	SET India	Comedy Skit Compilation	2024-03-05
	Stokes Twins	Crazy Stunts Compilation	2024-03-01

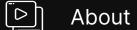


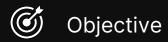












Query 10

Takeaways

Thank you

10. Top 3 most liked videos.



Crazy Stunts Compilation





250000

210000

All SQL **Data Analysis** Dataset Result Grid Query

```
SELECT
                                                       #Likes #TopVideos
    youtube channels.channel id,
    youtube_channels.channel_name,
    channel_videos.video_id,
    channel_videos.video_title,
    channel_videos.likes
FROM
    youtube channels
        JOIN
    channel_videos ON youtube_channels.channel_id = channel_videos.channel_id
ORDER BY channel_videos.likes DESC
LIMIT 3:
    channel id
                 channel_name
                                            video_title
                                                                      likes
                                 video id
                                           Epic Challenge Video
                MrBeast
                                                                     500000
                                 1
                                           Best Bollywood Songs
```

2





T-Series

Stokes Twins







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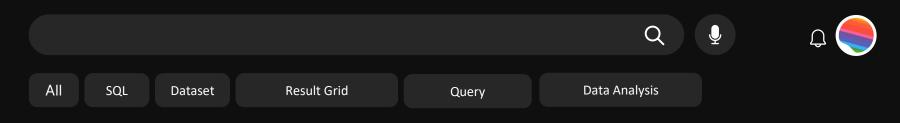
Query 1 to 10



Takeaways



Thank you



Observations



Recommendations

- ✓ Top 5 Channels Dominate ——>
 Subscriptions.
- Analyze top channels' content strategy (content format, posting schedule).

- ✓ Revenue Varies Heavily by Channel.
- Implement high-revenue channels' monetization.
- ✓ Engagement Levels Differ Across Channels'.
- Boost audience interaction.
- Channels with High NOX —— Optimize content for NOX scores.
 Scores Identified.
- ✓ Category Distribution Uneven.
 - \longrightarrow

Inform content diversification.







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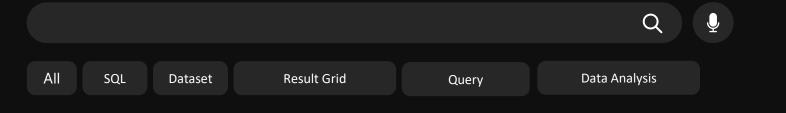
Query 1 to 10



Takeaways



Thank you



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