

User Story 1:

Understanding Engagement Metrics Across Data Science Channels:

As a Data Science Content Manager, I want to analyze the engagement metrics (viewCount, likeCount, commentCount) of data science-related YouTube channels, so that I can identify the most engaging content and understand what type of videos resonate most with our audience.

Business Query:

1. Which YouTube channel has the highest average views? (Total Views/Number of Videos)

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1 --user story 1

2 -- 1. which channel has the highest average views?

3 select channelTitle, avg(viewCount) as average_views from `youtube_analytics.info` a left join `youtube_analytics.count` b

4 on a.video_id = b.video_id

5 group by channelTitle

6 order by 2 desc

7

Press Option+F1 f

Query results

📄 SAVE RESULTS

🔍 EXPLOR

JOB INFORMATION

RESULTS

CHART

JSON

EXECUTION DETAILS

EXECUTION GRAPH

Row	channelTitle	average_views
1	Corey Schafer	419933.1145833...
2	StatQuest with Josh Starmer	290044.7756097...
3	Tina Huang	166834.7771428...
4	Luke Barousse	156949.4336283...
5	Alex The Analyst	115651.5024390...
6	sentdex	108760.8097560...
7	Data School	107177.6249999...
8	Ken Jee	37204.33658536...
9	Krish Naik	32278.71707317...
10	codebasics	20702.34634146...
11	Data Science Dojo	1623.512195121...

2. What kind of videos have the most number of views per channel?

Query runner interface showing a SQL query and its results.

Query:

```
--2. which are the videos with most number of views per channel?
SELECT channelTitle, Title, viewCount
FROM (
SELECT channelTitle, Title, viewCount, ROW_NUMBER() OVER (PARTITION BY channelTitle ORDER BY viewCount DESC) as row_num
FROM `youtube_analytics.info` a left join `youtube_analytics.count` b on a.video_id = b.video_id) sub
WHERE sub.row_num = 1
ORDER BY viewCount DESC;
```

Query results:

Row	channelTitle	Title	viewCount
1	Corey Schafer	Python OOP Tutorial 1: Classes...	4400598.0
2	Luke Barousse	Become a DATA ANALYST with NO degree?!? The Google Data Analytics Professional Certificate	4272267.0
3	Tina Huang	How I would learn to code (if I ...	3368224.0
4	StatQuest with Josh Starmer	StatQuest: Principal Componen...	2801533.0
5	Alex The Analyst	Data Analyst Portfolio Project SQL Data Exploration Project 1/4	1851848.0
6	Ken Jee	How I Would Learn Data Scienc...	1400869.0

3. Which videos of each youtube channel is the least engaging with the videos being atleast 1 year old?

Query runner interface showing a SQL query and its results.

Query:

```
--3. which videos of each youtube channel is least engaging, also the videos should be atleast 1 year old?
SELECT channelTitle, Title, viewCount, publishedAt
FROM (SELECT channelTitle, Title, viewCount, publishedAt, ROW_NUMBER() OVER (PARTITION BY channelTitle ORDER BY viewCount) as row_num
FROM `youtube_analytics.info` a left join `youtube_analytics.count` b on a.video_id = b.video_id
left join `youtube_analytics.publish_info` c on a.video_id = c.video_id
where c.publishedAt <= TIMESTAMP_SUB(CURRENT_TIMESTAMP(), INTERVAL 365 DAY)) sub
WHERE sub.row_num = 1
ORDER BY viewCount DESC;
```

Query results:

Row	channelTitle	Title	viewCount	publishedAt
1	Krish Naik	Live After A Long Time- Lets Talk About Updates On Data Science	7000.0	2023-04-...
2	Tina Huang	3rd Year CS Resume (and asian drink) Review Reviewing Your Resumes Ep. 2	3191.0	2020-08-18 14:00:08 UTC
3	sentdex	Barber MSP Yellow/Group 3 PC...	2831.0	2018-10-22 15:57:36 UTC
4	Luke Barousse	M1 vs Intel Mac for Python 🐍	1744.0	2021-01-03 00:17:39 UTC
5	Alex The Analyst	2020 Year End Review + Upco...	1565.0	2020-12-31 12:00:01 UTC
6	Ken Jee	5 Data Science Resolutions for ...	478.0	2019-12-27 14:00:07 UTC
7	Data Science Dojo	Data Analyst Roadmap: Career ...	361.0	2022-08-17 08:12:10 UTC

User Story 2:

As a Data Science Content Strategist, I want to analyze the impact of publishing day and time on the engagement of videos, so that I can optimize the release schedule to maximize views and interactions.

Business Query:

1. Videos published on which day have a higher viewCount?

🔍 User_story_2

▶ RUN

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```
1 --1. Videos published on which day have a higher viewCount?
2 SELECT publishDayName, avg(viewcount) as average_views from `youtube_analytics.info` a left join `youtube_analytics.publish_info` b
3 on a.video_id = b.video_id
4 left join `youtube_analytics.count` c on a.video_id = c.video_id
5 where b.publishedAt >= TIMESTAMP_SUB(CURRENT_TIMESTAMP(), INTERVAL 365 DAY)
6 group by publishDayName
7 order by 2 desc
8
```

Press Option+F1 for Access

Query results

💾 SAVE RESULTS

📊 EXPLORE DATA

JOB INFORMATION		RESULTS	CHART	JSON	EXECUTION DETAILS	EXECUTION GRAPH
Row	publishDayName	average_views				
1	Saturday	38610.67647058...				
2	Friday	29809.09708737...				
3	Thursday	26842.35593220...				
4	Tuesday	25131.76106194...				
5	Sunday	19356.31746031...				
6	Wednesday	18538.58823529...				
7	Monday	18417.21333333...				

2. Videos published on which hour of the day have a higher viewCount?

🔍 User_story_2

▶ RUN

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```
9 --2. Videos published on which hour of the day have a higher viewCount?
10 SELECT extract(hour from publishedAt) AS HOUR, round(avg(viewcount),2) as avg_view_count from `youtube_analytics.info` a left join
11 `youtube_analytics.publish_info` b
12 on a.video_id = b.video_id
13 left join `youtube_analytics.count` c on a.video_id = c.video_id
14 where b.publishedAt >= TIMESTAMP_SUB(CURRENT_TIMESTAMP(), INTERVAL 365 DAY)
15 group by 1
16 order by 2 desc
17
```

Press Option+F1 for Access

Query results

💾 SAVE RESULTS

📊 EXPLORE DATA

JOB INFORMATION		RESULTS	CHART	JSON	EXECUTION DETAILS	EXECUTION GRAPH
Row	HOUR	avg_view_count				
1	19	74636.92				
2	13	54609.25				
3	17	48012.13				
4	10	43111.25				
5	3	38950.13				
6	16	37406.08				
7	8	37237.53				
8	11	30317.27				
9	14	27491.0				
10	18	20162.22				
11	15	19311.58				

3. Which are the favorite days for youtubers to publish the videos?

Q User_story_2

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```
17 --3. which are the favourite days for youtubers to post the videos?
18 WITH CombinedData AS (SELECT a.channelTitle, b.publishDayName
19 FROM `youtube_analytics.info` a
20 JOIN `youtube_analytics.publish_info` b ON a.video_id = b.video_id
21 JOIN `youtube_analytics.count` c ON a.video_id = c.video_id),
22 DayFrequency AS (SELECT channelTitle, publishDayName, COUNT(*) AS video_count FROM CombinedData
23 GROUP BY channelTitle, publishDayName),
24 MaxDayFrequency AS (SELECT channelTitle, publishDayName, video_count, RANK() OVER (PARTITION BY channelTitle ORDER BY video_count DESC)
25 AS rank FROM DayFrequency)
26 SELECT channelTitle, publishDayName, video_count
27 FROM MaxDayFrequency
28 WHERE rank = 1
29 ORDER BY channelTitle;
```

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Query results

SAVE RESULTS

EXPLORE DATA

JOB INFORMATION		RESULTS	CHART	JSON	EXECUTION DETAILS	EXECUTION GRAPH
Row	channelTitle	publishDayName	video_count			
1	Alex The Analyst	Tuesday	141			
2	Corey Schafer	Wednesday	49			
3	Data School	Tuesday	30			
4	Data Science Dojo	Thursday	87			
5	Ken Jee	Friday	90			
6	Krish Naik	Thursday	32			
7	Krish Naik	Friday	32			