

Data Portfolio: Excel to Power BI

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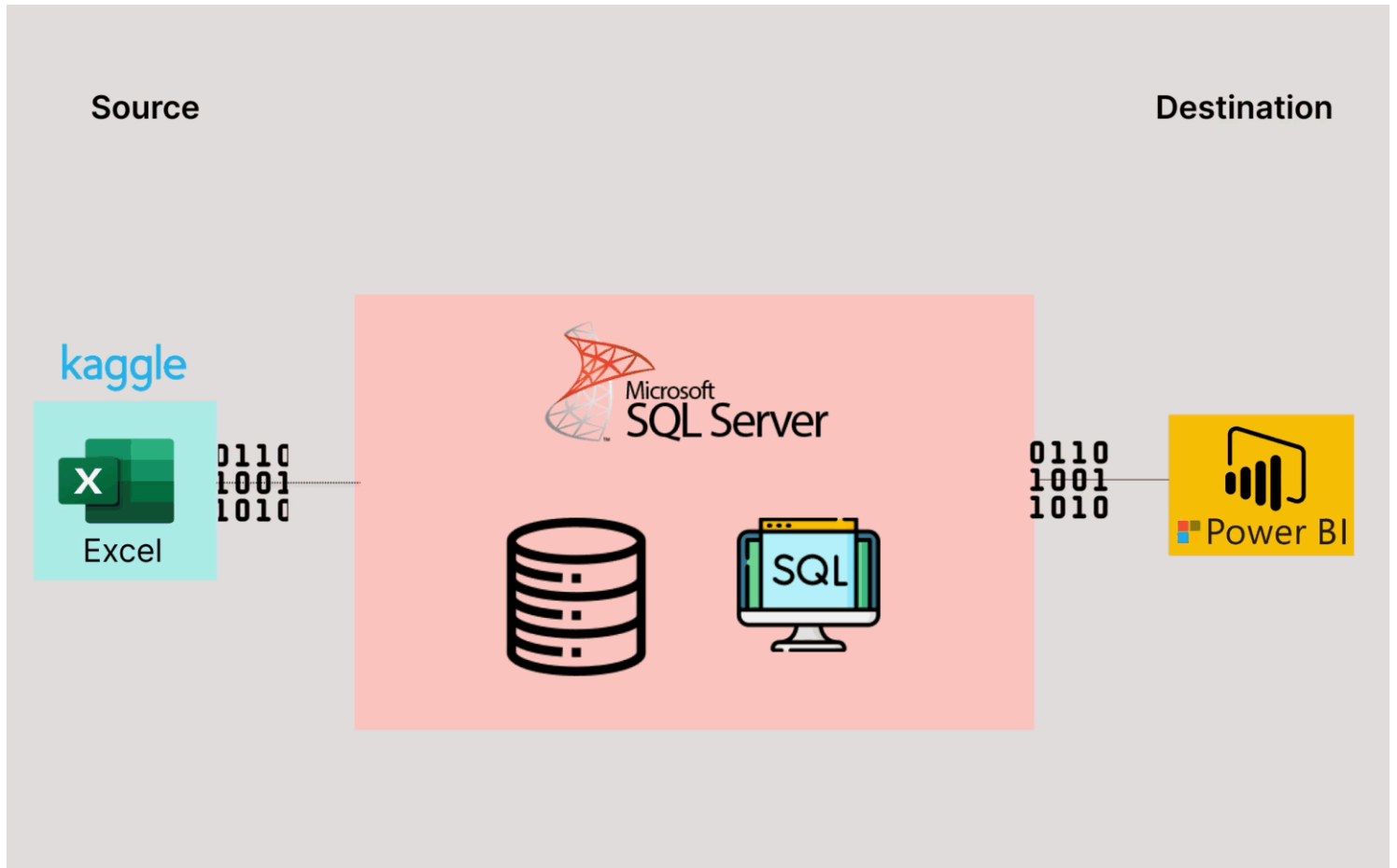


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Objective

- What is the key pain point?

The Head of Marketing wants to find out who the top YouTubers are in 2024 to decide on which YouTubers would be best to run marketing campaigns throughout the rest of the year.

- What is the ideal solution?

To create a dashboard that provides insights into the top UK YouTubers in 2024 that includes their

- subscriber count
- total views
- total videos, and
- engagement metrics

This will help the marketing team make informed decisions about which YouTubers to collaborate with for their marketing campaigns.

User story

As the Head of Marketing, I want to use a dashboard that analyses YouTube channel data in the UK

This dashboard should allow me to identify the top performing channels based on metrics like subscriber base and average views.

With this information, I can make more informed decisions about which Youtubers are right to collaborate with, and therefore maximize how effective each marketing campaign is.

Data source

- What data is needed to achieve our objective?

We need data on the top UK YouTubers in 2024 that includes their

- channel names
- total subscribers
- total views
- total videos uploaded

- Where is the data coming from? The data is sourced from Kaggle (an Excel extract), [see here to find it.](#)

Stages

- Design
- Development
- Testing
- Analysis

Design

Dashboard components required

- What should the dashboard contain based on the requirements provided?

To understand what it should contain, we need to figure out what questions we need the dashboard to answer:

1. Who are the top 10 YouTubers with the most subscribers?
2. Which 3 channels have uploaded the most videos?
3. Which 3 channels have the most views?

4. Which 3 channels have the highest average views per video?
5. Which 3 channels have the highest views per subscriber ratio?
6. Which 3 channels have the highest subscriber engagement rate per video uploaded?

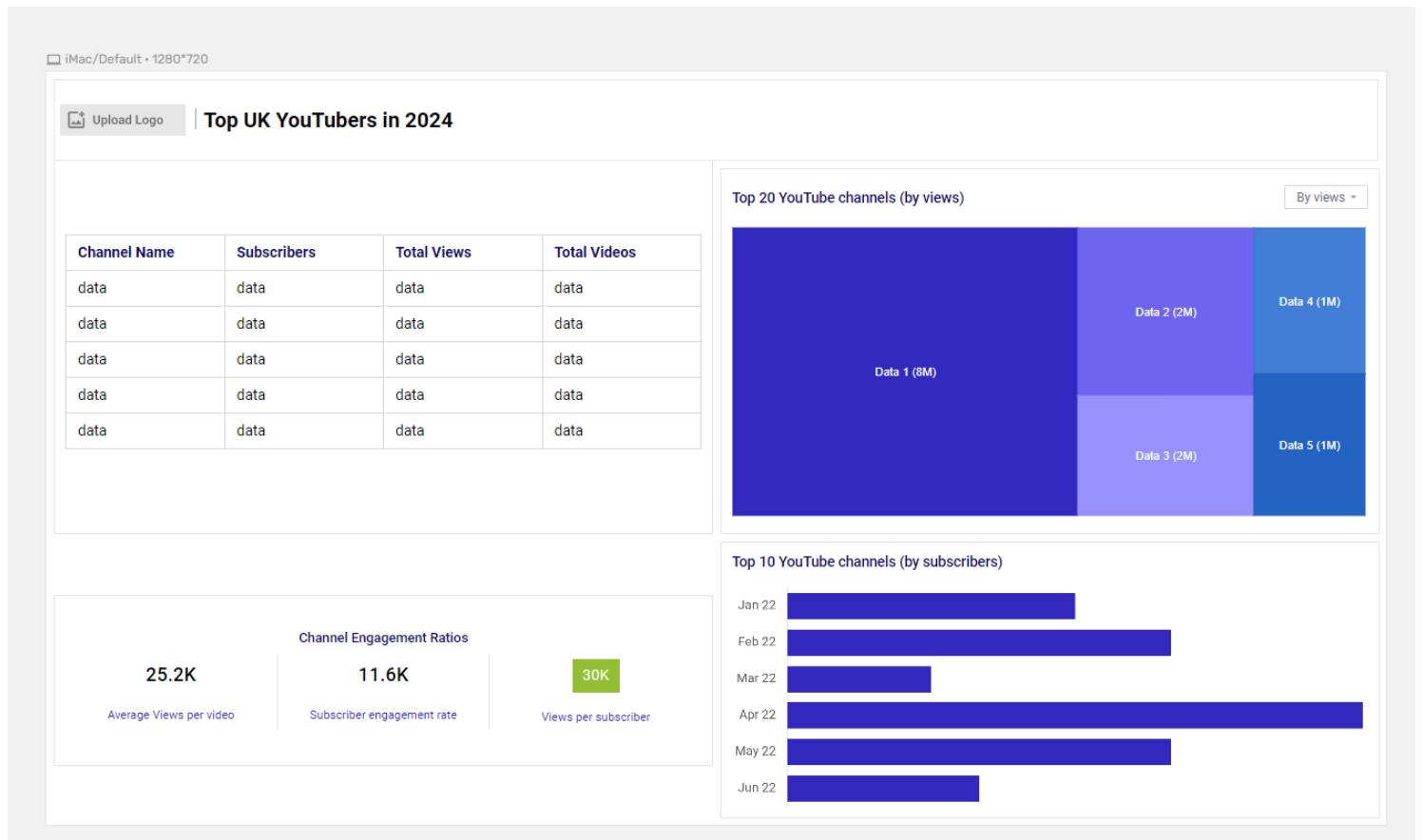
For now, these are some of the questions we need to answer, this may change as we progress down our analysis.

Dashboard mockup

- What should it look like?

Some of the data visuals that may be appropriate in answering our questions include:

1. Table
2. Treemap
3. Scorecards
4. Horizontal bar chart



Tools

Tool	Purpose
Excel	Exploring the data
SQL Server	Cleaning, testing, and analyzing the data
Power BI	Visualizing the data via interactive dashboards
GitHub	Hosting the project documentation and version control
Mokkup AI	Designing the wireframe/mockup of the dashboard

Development

Pseudocode

- What's the general approach in creating this solution from start to finish?
 1. Get the data
 2. Explore the data in Excel
 3. Load the data into SQL Server
 4. Clean the data with SQL
 5. Test the data with SQL
 6. Visualize the data in Power BI
 7. Generate the findings based on the insights
 8. Write the documentation + commentary
 9. Publish the data to GitHub Pages

Data exploration notes

This is the stage where you have a scan of what's in the data, errors, inconsistencies, bugs, weird and corrupted characters etc

- What are your initial observations with this dataset? What's caught your attention so far?
 1. There are at least 4 columns that contain the data we need for this analysis, which signals we have everything we need from the file without needing to contact the client for any more data.
 2. The first column contains the channel ID with what appears to be channel IDs, which are separated by a @ symbol - we need to extract the channel names from this.

3. Some of the cells and header names are in a different language - we need to confirm if these columns are needed, and if so, we need to address them.
4. We have more data than we need, so some of these columns would need to be removed

Data cleaning

- What do we expect the clean data to look like? (What should it contain? What constraints should we apply to it?)

The aim is to refine our dataset to ensure it is structured and ready for analysis.

The cleaned data should meet the following criteria and constraints:

- Only relevant columns should be retained.
- All data types should be appropriate for the contents of each column.
- No column should contain null values, indicating complete data for all records.

Below is a table outlining the constraints on our cleaned dataset:

Property	Description
Number of Rows	100
Number of Columns	4

And here is a tabular representation of the expected schema for the clean data:

Column Name	Data Type	Nullable
channel_name	VARCHAR	NO
total_subscribers	INTEGER	NO
total_views	INTEGER	NO
total_videos	INTEGER	NO

- What steps are needed to clean and shape the data into the desired format?
 1. Remove unnecessary columns by only selecting the ones you need
 2. Extract Youtube channel names from the first column
 3. Rename columns using aliases

Transform the data

```
/*
# 1. Select the required columns
# 2. Extract the channel name from the 'NOMBRE' column
*/

-- 1.
SELECT
    SUBSTRING(NOMBRE, 1, CHARINDEX('@', NOMBRE) -1) AS channel_name, -- 2.
    total_subscribers,
    total_views,
    total_videos

FROM
    top_uk_youtubers_2024
```

Create the SQL view

```
/*
# 1. Create a view to store the transformed data
# 2. Cast the extracted channel name as VARCHAR(100)
# 3. Select the required columns from the top_uk_youtubers_2024 SQL table
*/

-- 1.
CREATE VIEW view_uk_youtubers_2024 AS

-- 2.
SELECT
    CAST(SUBSTRING(NOMBRE, 1, CHARINDEX('@', NOMBRE) -1) AS VARCHAR(100)) AS channel_name,
    total_subscribers,
    total_views,
    total_videos

-- 3.
FROM
    top_uk_youtubers_2024
```

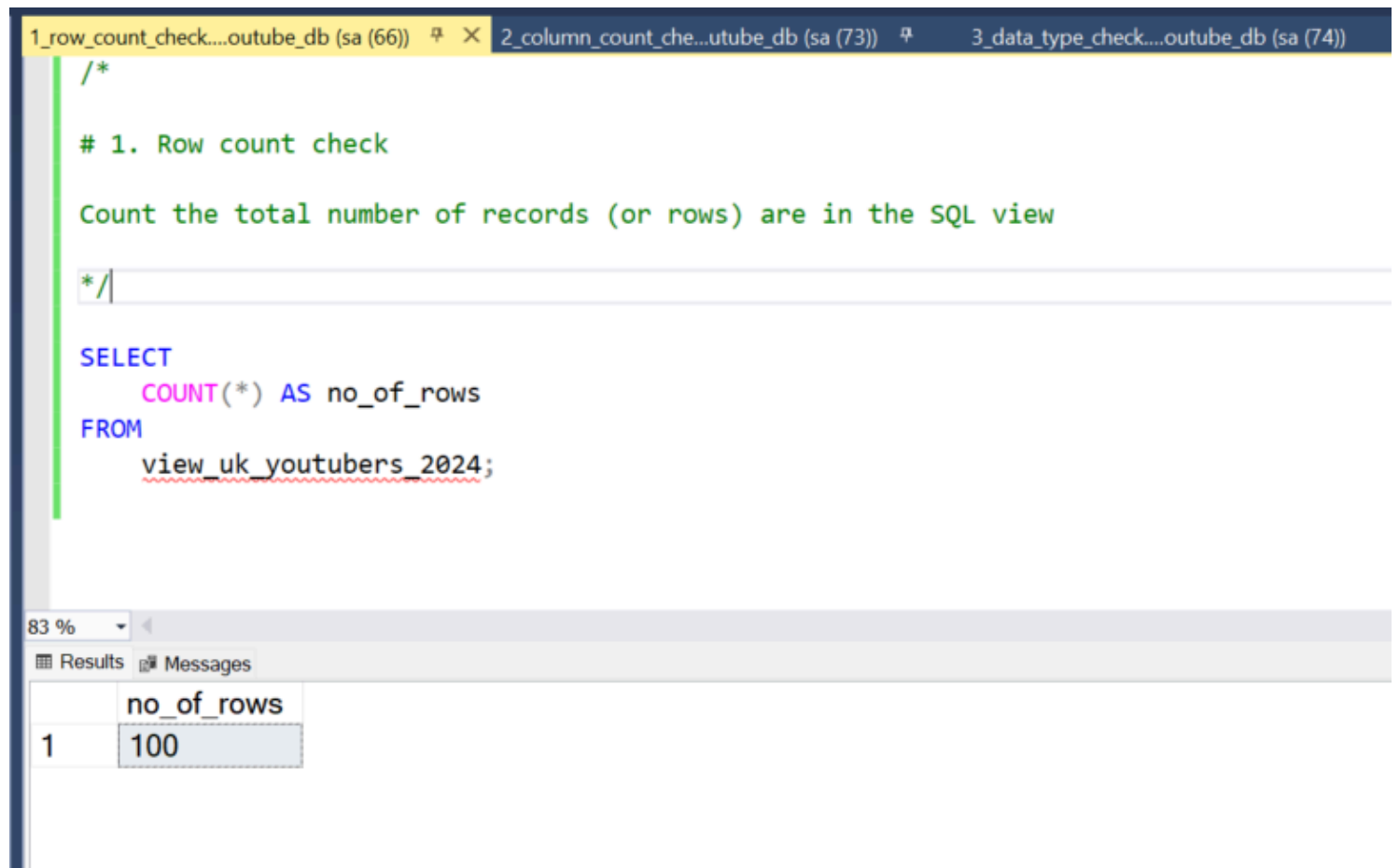
Testing

- What data quality and validation checks are you going to create?

Here are the data quality tests conducted:

Row count check

```
/*  
# Count the total number of records (or rows) are in the SQL view  
*/  
  
SELECT  
    COUNT(*) AS no_of_rows  
FROM  
    view_uk_youtubers_2024;
```



The screenshot shows a SQL IDE interface with three tabs: '1_row_count_check...outube_db (sa (66))', '2_column_count_che...utube_db (sa (73))', and '3_data_type_check...outube_db (sa (74))'. The active tab displays the following SQL code:

```
/*  
# 1. Row count check  
Count the total number of records (or rows) are in the SQL view  
*/  
  
SELECT  
    COUNT(*) AS no_of_rows  
FROM  
    view_uk_youtubers_2024;
```

Below the code editor, the 'Results' pane shows a table with one row and one column:

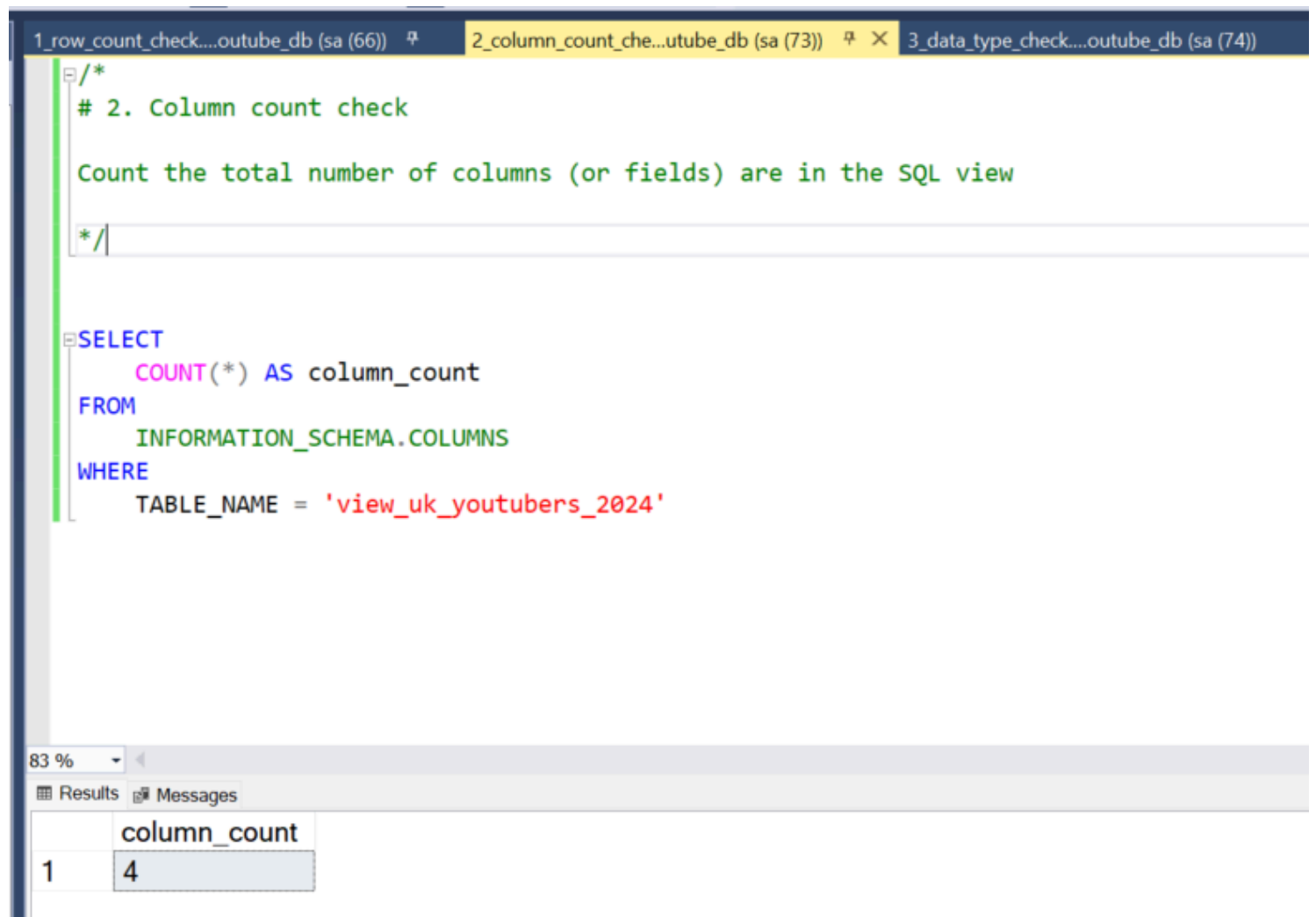
	no_of_rows
1	100

Column count check

SQL query

```
/*  
# Count the total number of columns (or fields) are in the SQL view  
*/  
  
SELECT  
    COUNT(*) AS column_count  
FROM  
    INFORMATION_SCHEMA.COLUMNS  
WHERE  
    TABLE_NAME = 'view_uk_youtubers_2024'
```

Output



The screenshot shows a SQL IDE interface with three tabs: '1_row_count_check...outube_db (sa (66))', '2_column_count_che...utube_db (sa (73))', and '3_data_type_check...outube_db (sa (74))'. The active tab '2_column_count_che...utube_db (sa (73))' displays the following SQL query:

```
/*  
# 2. Column count check  
Count the total number of columns (or fields) are in the SQL view  
*/  
  
SELECT  
    COUNT(*) AS column_count  
FROM  
    INFORMATION_SCHEMA.COLUMNS  
WHERE  
    TABLE_NAME = 'view_uk_youtubers_2024'
```

Below the query editor, the 'Results' pane shows a single row of data:

	column_count
1	4

Data type check

SQL query

```
/*  
# Check the data types of each column from the view by checking the INFORMATION SCHEMA view  
*/  
  
-- 1.  
SELECT  
    COLUMN_NAME,  
    DATA_TYPE  
FROM  
    INFORMATION_SCHEMA.COLUMNS  
WHERE  
    TABLE_NAME = 'view_uk_youtubers_2024';
```

Output

```
1_row_count_check...outube_db (sa (66)) 2_column_count_che...utube_db (sa (73)) 3_data_type_check...outube_db (sa (74)) 4_c
```

```
/*  
# 3. Data type check  
Check the data types of each column from the view by checking the INFORMATION SCHEMA view  
*/  
  
SELECT  
    COLUMN_NAME,  
    DATA_TYPE  
FROM  
    INFORMATION_SCHEMA.COLUMNS  
WHERE  
    TABLE_NAME = 'view_uk_youtubers_2024';
```

83 %

Results Messages

	COLUMN_NAME	DATA_TYPE
1	channel_name	varchar
2	total_subscribers	int
3	total_views	bigint
4	total_videos	int

Duplicate count check

SQL query

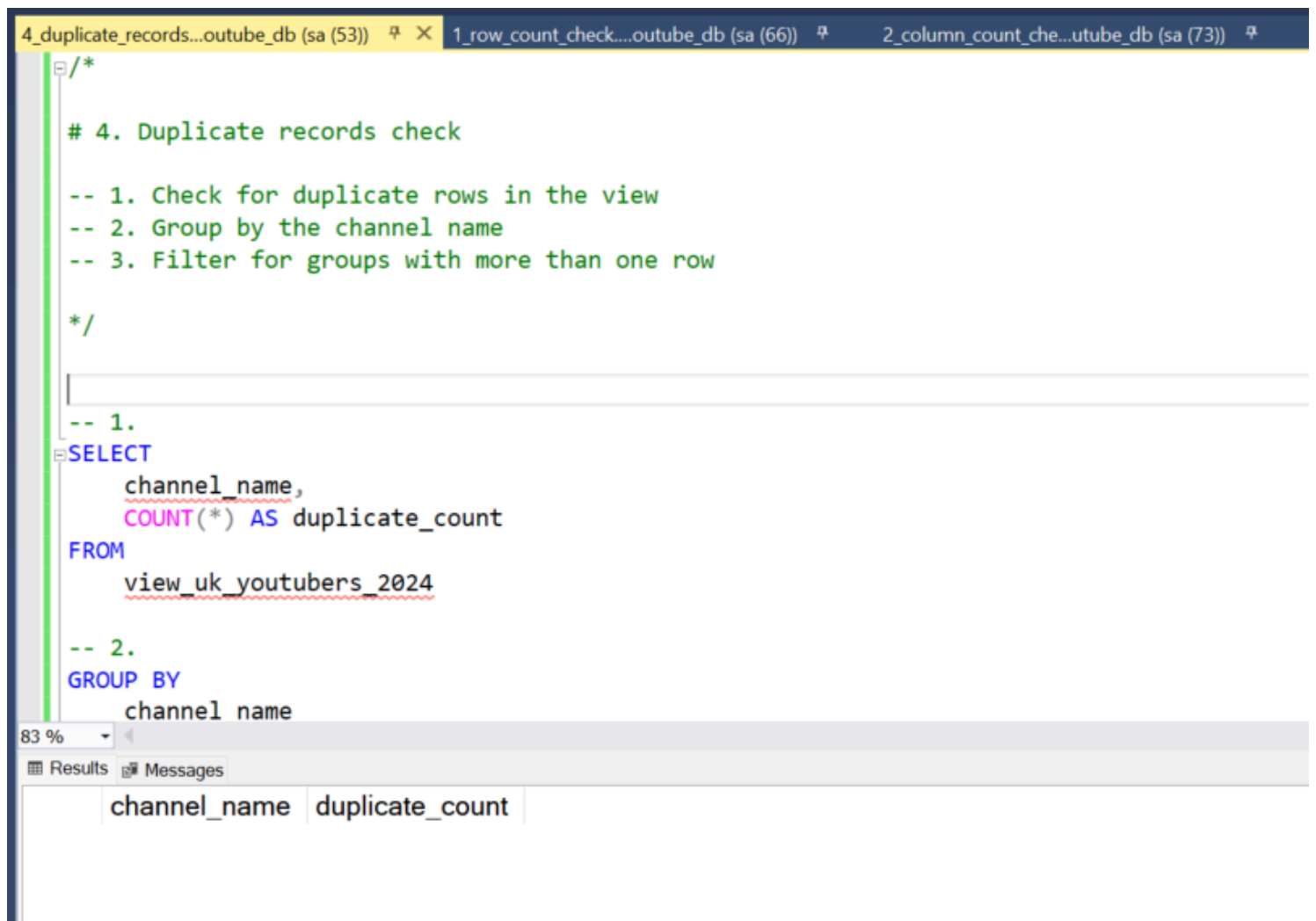
```
/*  
# 1. Check for duplicate rows in the view  
# 2. Group by the channel name  
# 3. Filter for groups with more than one row  
*/  
  
-- 1.  
SELECT  
    channel_name,
```

```
    COUNT(*) AS duplicate_count
FROM
    view_uk_youtubers_2024

-- 2.
GROUP BY
    channel_name

-- 3.
HAVING
    COUNT(*) > 1;
```

Output



The screenshot shows a SQL IDE with three tabs: "4_duplicate_records...outube_db (sa (53))", "1_row_count_check...outube_db (sa (66))", and "2_column_count_che...utube_db (sa (73))". The active tab displays a SQL query with comments. The query is a SELECT statement that groups records by channel name and counts duplicates. The output pane shows a table with two columns: "channel_name" and "duplicate_count".

```
/*
# 4. Duplicate records check

-- 1. Check for duplicate rows in the view
-- 2. Group by the channel name
-- 3. Filter for groups with more than one row

*/

-- 1.
SELECT
    channel_name,
    COUNT(*) AS duplicate_count
FROM
    view_uk_youtubers_2024

-- 2.
GROUP BY
    channel name
```

83 %

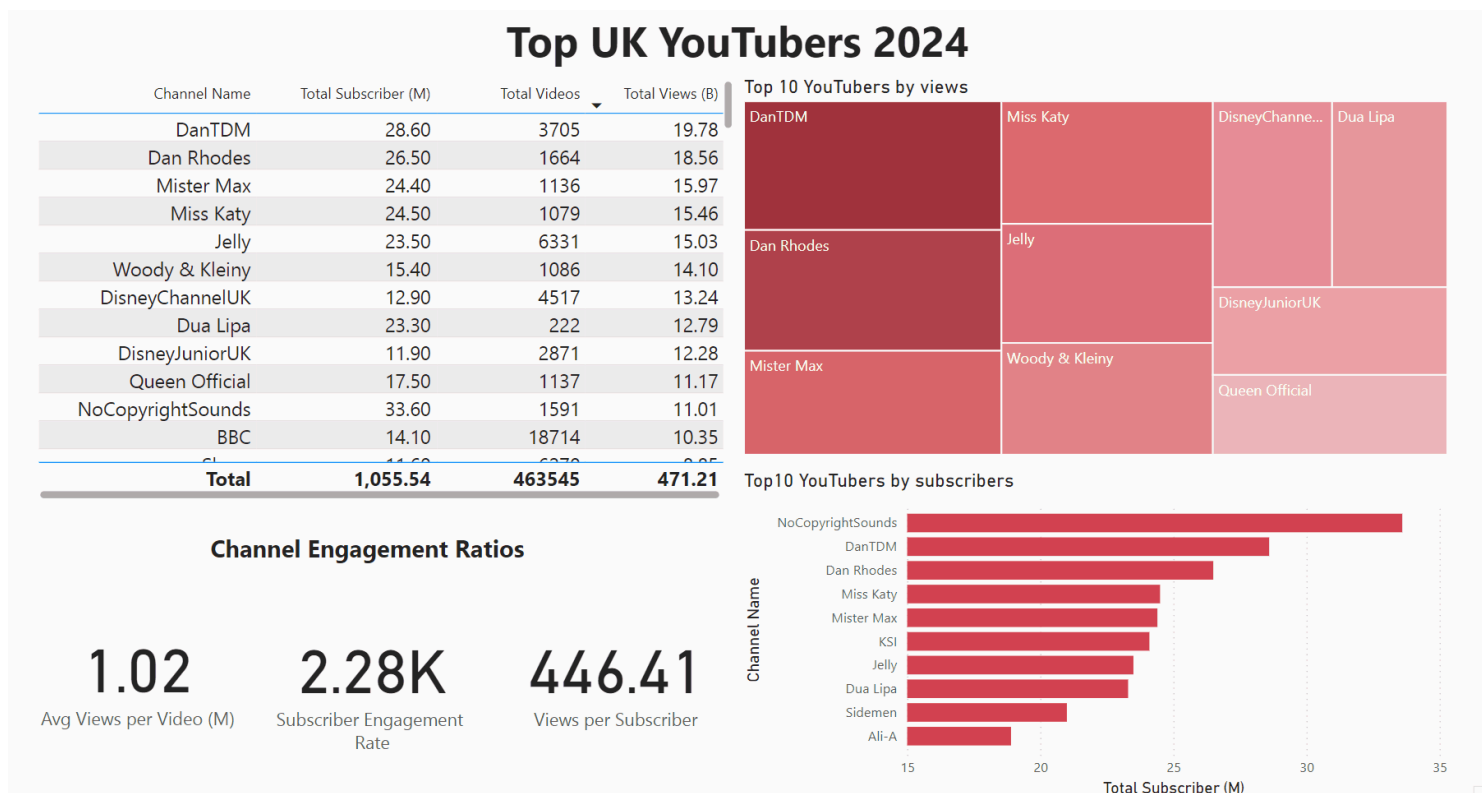
Results Messages

channel_name	duplicate_count
--------------	-----------------

Visualization

Results

- What does the dashboard look like?



This shows the Top UK Youtubers in 2024 so far.

DAX Measures

1. Total Subscribers (M)

```
Total Subscribers (M) =  
VAR million = 1000000  
VAR sumOfSubscribers = SUM(view_uk_youtubers_2024[total_subscribers])  
VAR totalSubscribers = DIVIDE(sumOfSubscribers,million)  
  
RETURN totalSubscribers
```

2. Total Views (B)

```
Total Views (B) =  
VAR billion = 1000000000  
VAR sumOfTotalViews = SUM(view_uk_youtubers_2024[total_views])  
VAR totalViews = ROUND(sumOfTotalViews / billion, 2)  
  
RETURN totalViews
```

3. Total Videos

```
Total Videos =  
VAR totalVideos = SUM(view_uk_youtubers_2024[total_videos])  
  
RETURN totalVideos
```

4. Average Views Per Video (M)

```
Average Views per Video (M) =  
VAR sumOfTotalViews = SUM(view_uk_youtubers_2024[total_views])  
VAR sumOfTotalVideos = SUM(view_uk_youtubers_2024[total_videos])  
VAR avgViewsPerVideo = DIVIDE(sumOfTotalViews, sumOfTotalVideos, BLANK())  
VAR finalAvgViewsPerVideo = DIVIDE(avgViewsPerVideo, 1000000, BLANK())  
  
RETURN finalAvgViewsPerVideo
```

5. Subscriber Engagement Rate

```
Subscriber Engagement Rate =  
VAR sumOfTotalSubscribers = SUM(view_uk_youtubers_2024[total_subscribers])  
VAR sumOfTotalVideos = SUM(view_uk_youtubers_2024[total_videos])  
VAR subscriberEngRate = DIVIDE(sumOfTotalSubscribers, sumOfTotalVideos, BLANK())  
  
RETURN subscriberEngRate
```

6. Views per subscriber

```
Views Per Subscriber =  
VAR sumOfTotalViews = SUM(view_uk_youtubers_2024[total_views])  
VAR sumOfTotalSubscribers = SUM(view_uk_youtubers_2024[total_subscribers])  
VAR viewsPerSubscriber = DIVIDE(sumOfTotalViews, sumOfTotalSubscribers, BLANK())  
  
RETURN viewsPerSubscriber
```

Analysis

Findings

- What did we find?

For this analysis, we're going to focus on the questions below to get the information we need for our marketing client -

Here are the key questions we need to answer for our marketing client:

1. Who are the top 10 YouTubers with the most subscribers?
2. Which 3 channels have uploaded the most videos?
3. Which 3 channels have the most views?
4. Which 3 channels have the highest average views per video?
5. Which 3 channels have the highest views per subscriber ratio?
6. Which 3 channels have the highest subscriber engagement rate per video uploaded?

1. Who are the top 10 YouTubers with the most subscribers?

Rank	Channel Name	Subscribers (M)
1	NoCopyrightSounds	33.60
2	DanTDM	28.60
3	Dan Rhodes	26.50
4	Miss Katy	24.50
5	Mister Max	24.40

Rank	Channel Name	Subscribers (M)
6	KSI	24.10
7	Jelly	23.50
8	Dua Lipa	23.30
9	Sidemen	21.00
10	Ali-A	18.90

2. Which 3 channels have uploaded the most videos?

Rank	Channel Name	Videos Uploaded
1	GRM Daily	14,696
2	Manchester City	8,248
3	Yogscast	6,435

3. Which 3 channels have the most views?

Rank	Channel Name	Total Views (B)
1	DanTDM	19.78
2	Dan Rhodes	18.56
3	Mister Max	15.97

4. Which 3 channels have the highest average views per video?

Channel Name	Average Views per Video (M)
Mark Ronson	32.27
Jessie J	5.97
Dua Lipa	5.76

5. Which 3 channels have the highest views per subscriber ratio?

Rank	Channel Name	Views per Subscriber
1	GRM Daily	1185.79
2	Nickelodeon	1061.04
3	Disney Junior UK	1031.97

6. Which 3 channels have the highest subscriber engagement rate per video uploaded?

Rank	Channel Name	Subscriber Engagement Rate
1	Mark Ronson	343,000
2	Jessie J	110,416.67
3	Dua Lipa	104,954.95

Notes

For this analysis, we'll prioritize analysing the metrics that are important in generating the expected ROI for our marketing client, which are the YouTube channels with the most

- subscribers
- total views
- videos uploaded

Validation

1. Youtubers with the most subscribers

Calculation breakdown

Campaign idea = product placement

1. NoCopyrightSounds
 - Average views per video = 6.92 million

- Product cost = \$5
- Potential units sold per video = 6.92 million x 2% conversion rate = 138,400 units sold
- Potential revenue per video = 138,400 x \$5 = \$692,000
- Campaign cost (one-time fee) = \$50,000
- **Net profit = \$692,000 - \$50,000 = \$642,000**

b. DanTDM

- Average views per video = 5.34 million
- Product cost = \$5
- Potential units sold per video = 5.34 million x 2% conversion rate = 106,800 units sold
- Potential revenue per video = 106,800 x \$5 = \$534,000
- Campaign cost (one-time fee) = \$50,000
- **Net profit = \$534,000 - \$50,000 = \$484,000**

c. Dan Rhodes

- Average views per video = 11.15 million
- Product cost = \$5
- Potential units sold per video = 11.15 million x 2% conversion rate = 223,000 units sold
- Potential revenue per video = 223,000 x \$5 = \$1,115,000
- Campaign cost (one-time fee) = \$50,000
- **Net profit = \$1,115,000 - \$50,000 = \$1,065,000**

Best option from category: Dan Rhodes

SQL query

```

/*

# 1. Define variables
# 2. Create a CTE that rounds the average views per video
# 3. Select the column you need and create calculated columns from existing ones
# 4. Filter results by Youtube channels
# 5. Sort results by net profits (from highest to lowest)

*/

-- 1.
DECLARE @conversionRate FLOAT = 0.02;           -- The conversion rate @ 2%
DECLARE @productCost   FLOAT = 5.0;           -- The product cost @ $5
DECLARE @campaignCost  FLOAT = 50000.0;      -- The campaign cost @ $50,000

```

```

-- 2.
WITH ChannelData AS (
    SELECT
        channel_name,
        total_views,
        total_videos,
        ROUND((CAST(total_views AS FLOAT) / total_videos), -4) AS rounded_avg_views_per_video
    FROM
        youtube_db.dbo.view_uk_youtubers_2024
)

-- 3.
SELECT
    channel_name,
    rounded_avg_views_per_video,
    (rounded_avg_views_per_video * @conversionRate) AS potential_units_sold_per_video,
    (rounded_avg_views_per_video * @conversionRate * @productCost) AS potential_revenue_per_
    ((rounded_avg_views_per_video * @conversionRate * @productCost) - @campaignCost) AS net_
FROM
    ChannelData

-- 4.
WHERE
    channel_name in ('NoCopyrightSounds', 'DanTDM', 'Dan Rhodes')

-- 5.
ORDER BY
    net_profit DESC

```

Output

```

youtubers_with_mos...utube_db (sa (69)) × youtubers_with_mos...utube_db (sa (56)) youtubers_with_mos...utube_db (sa (55)) 2_column_count_che...utube_db (sa (73))
/*
# 1. Define variables
# 2. Create a CTE that rounds the average views per video
# 3. Select the column you need and create calculated columns from existing ones
# 4. Filter results by Youtube channels
# 5. Sort results by net profits (from highest to lowest)
*/

-- 1.
DECLARE @conversionRate FLOAT = 0.02;      -- The conversion rate @ 2%
DECLARE @productCost FLOAT = 5.0;         -- The product cost @ $5
DECLARE @campaignCost FLOAT = 50000.0;    -- The campaign cost @ $50,000

-- 2.
WITH ChannelData AS (
    SELECT
        channel_name,
        total_views,
        total_videos,
        ROUND((CAST(total_views AS FLOAT) / total_videos), -4) AS rounded_avg_views_per_video
    FROM
        youtube_db.dbo.view_uk_youtubers_2024
)

-- 3.
SELECT
    channel_name,
    rounded_avg_views_per_video,
    potential_units_sold_per_video,
    potential_revenue_per_video,
    net_profit
FROM ChannelData
ORDER BY net_profit DESC;

```

83 %

Results Messages

	channel_name	rounded_avg_views_per_video	potential_units_sold_per_video	potential_revenue_per_video	net_profit
1	Dan Rhodes	11150000	223000	1115000	1065000
2	NoCopyrightSounds	6920000	138400	692000	642000
3	DanTDM	5340000	106800	534000	484000

Query executed successfully.

2. Youtubers with the most videos uploaded

Calculation breakdown

Campaign idea = sponsored video series

1. GRM Daily

- Average views per video = 510,000
- Product cost = \$5
- Potential units sold per video = 510,000 x 2% conversion rate = 10,200 units sold
- Potential revenue per video = 10,200 x \$5 = \$51,000
- Campaign cost (11-videos @ \$5,000 each) = \$55,000
- **Net profit = \$51,000 - \$55,000 = -\$4,000 (potential loss)**

b. Manchester City

- Average views per video = 240,000
- Product cost = \$5
- Potential units sold per video = 240,000 x 2% conversion rate = 4,800 units sold
- Potential revenue per video = 4,800 x \$5 = \$24,000
- Campaign cost (11-videos @ \$5,000 each) = \$55,000
- **Net profit = \$24,000 - \$55,000 = -\$31,000 (potential loss)**

b. Yogscast

- Average views per video = 710,000
- Product cost = \$5
- Potential units sold per video = 710,000 x 2% conversion rate = 14,200 units sold
- Potential revenue per video = 14,200 x \$5 = \$71,000
- Campaign cost (11-videos @ \$5,000 each) = \$55,000
- **Net profit = \$71,000 - \$55,000 = \$16,000 (profit)**

Best option from category: Yogscast

SQL query

```
/*
# 1. Define variables
# 2. Create a CTE that rounds the average views per video
# 3. Select the columns you need and create calculated columns from existing ones
# 4. Filter results by YouTube channels
# 5. Sort results by net profits (from highest to lowest)
*/

-- 1.
DECLARE @conversionRate FLOAT = 0.02;           -- The conversion rate @ 2%
DECLARE @productCost FLOAT = 5.0;              -- The product cost @ $5
DECLARE @campaignCostPerVideo FLOAT = 5000.0;  -- The campaign cost per video @ $5,000
DECLARE @numberOfVideos INT = 11;             -- The number of videos (11)

-- 2.
WITH ChannelData AS (
    SELECT
        channel_name,
        total_views,
        total_videos,
```

```

        ROUND((CAST(total_views AS FLOAT) / total_videos), -4) AS rounded_avg_views_per_video
    FROM
        youtube_db.dbo.view_uk_youtubers_2024
)

-- 3.
SELECT
    channel_name,
    rounded_avg_views_per_video,
    (rounded_avg_views_per_video * @conversionRate) AS potential_units_sold_per_video,
    (rounded_avg_views_per_video * @conversionRate * @productCost) AS potential_revenue_per_
    ((rounded_avg_views_per_video * @conversionRate * @productCost) - (@campaignCostPerVideo
FROM
    ChannelData

-- 4.
WHERE
    channel_name IN ('GRM Daily', 'Man City', 'YOGSCAST Lewis & Simon ')

-- 5.
ORDER BY
    net_profit DESC;

```

Output

```

youtubers_with_mos...utube_db (sa (69))  youtubers_with_mos...utube_db (sa (56))  youtubers_with_mos...utube_db (sa (55))  2_column_count_che...utube_db (sa (73))  1_row_cc
/*
# 1. Define variables
# 2. Create a CTE that rounds the average views per video
# 3. Select the columns you need and create calculated columns from existing ones
# 4. Filter results by YouTube channels
# 5. Sort results by net profits (from highest to lowest)
*/

-- 1.
DECLARE @conversionRate FLOAT = 0.02;           -- The conversion rate @ 2%
DECLARE @productCost FLOAT = 5.0;              -- The product cost @ $5
DECLARE @campaignCostPerVideo FLOAT = 5000.0;   -- The campaign cost per video @ $5,000
DECLARE @numberOfVideos INT = 11;              -- The number of videos (11)

-- 2.
WITH ChannelData AS (
    SELECT
        channel_name,
        total_views,
        total_videos,
        ROUND((CAST(total_views AS FLOAT) / total_videos), -4) AS rounded_avg_views_per_video
    FROM
        youtube_db.dbo.view_uk_youtubers_2024
)

-- 3.
SELECT
    channel_name,
    rounded_avg_views_per_video,
    potential_units_sold_per_video,
    potential_revenue_per_video,
    net_profit

```

83 %

Results Messages

	channel_name	rounded_avg_views_per_video	potential_units_sold_per_video	potential_revenue_per_video	net_profit
1	YOGSCAST Lewis & Simon	710000	14200	71000	16000
2	GRM Daily	510000	10200	51000	-4000
3	Man City	240000	4800	24000	-31000

Query executed successfully.

3. Youtubers with the most views

Calculation breakdown

Campaign idea = Influencer marketing

a. DanTDM

- Average views per video = 5.34 million
- Product cost = \$5
- Potential units sold per video = 5.34 million x 2% conversion rate = 106,800 units sold
- Potential revenue per video = 106,800 x \$5 = \$534,000
- Campaign cost (3-month contract) = \$130,000
- **Net profit = \$534,000 - \$130,000 = \$404,000**

b. Dan Rhodes

- Average views per video = 11.15 million
- Product cost = \$5
- Potential units sold per video = 11.15 million x 2% conversion rate = 223,000 units sold
- Potential revenue per video = 223,000 x \$5 = \$1,115,000
- Campaign cost (3-month contract) = \$130,000
- **Net profit = \$1,115,000 - \$130,000 = \$985,000**

c. Mister Max

- Average views per video = 14.06 million
- Product cost = \$5
- Potential units sold per video = 14.06 million x 2% conversion rate = 281,200 units sold
- Potential revenue per video = 281,200 x \$5 = \$1,406,000
- Campaign cost (3-month contract) = \$130,000
- **Net profit = \$1,406,000 - \$130,000 = \$1,276,000**

Best option from category: Mister Max

SQL query

```
/*
# 1. Define variables
# 2. Create a CTE that rounds the average views per video
# 3. Select the columns you need and create calculated columns from existing ones
# 4. Filter results by YouTube channels
# 5. Sort results by net profits (from highest to lowest)
*/

-- 1.
DECLARE @conversionRate FLOAT = 0.02;           -- The conversion rate @ 2%
DECLARE @productCost MONEY = 5.0;              -- The product cost @ $5
DECLARE @campaignCost MONEY = 130000.0;       -- The campaign cost @ $130,000

-- 2.
WITH ChannelData AS (
    SELECT
        channel_name,
        total_views,
```



```

        total_videos,
        ROUND(CAST(total_views AS FLOAT) / total_videos, -4) AS avg_views_per_video
FROM
    youtube_db.dbo.view_uk_youtubers_2024
)

-- 3.
SELECT
    channel_name,
    avg_views_per_video,
    (avg_views_per_video * @conversionRate) AS potential_units_sold_per_video,
    (avg_views_per_video * @conversionRate * @productCost) AS potential_revenue_per_video,
    (avg_views_per_video * @conversionRate * @productCost) - @campaignCost AS net_profit
FROM
    ChannelData

-- 4.
WHERE
    channel_name IN ('Mister Max', 'DanTDM', 'Dan Rhodes')

-- 5.
ORDER BY
    net_profit DESC;

```

Output

```

youtubers_with_mos...utube_db (sa (69))  youtubers_with_mos...utube_db (sa (56))  youtubers_with_mos...utube_db (sa (55))  2_column_count_che...utube_db (sa (73))
/*
# 1. Define variables
# 2. Create a CTE that rounds the average views per video
# 3. Select the columns you need and create calculated columns from existing ones
# 4. Filter results by YouTube channels
# 5. Sort results by net profits (from highest to lowest)
*/

-- 1.
DECLARE @conversionRate FLOAT = 0.02;           -- The conversion rate @ 2%
DECLARE @productCost MONEY = 5.0;              -- The product cost @ $5
DECLARE @campaignCost MONEY = 130000.0;       -- The campaign cost @ $130,000

-- 2.
WITH ChannelData AS (
    SELECT
        channel_name,
        total_views,
        total_videos,
        ROUND(CAST(total_views AS FLOAT) / total_videos, -4) AS avg_views_per_video
    FROM
        youtube_db.dbo.view_uk_youtubers_2024
)

-- 3.
SELECT
    channel_name,
    avg_views_per_video,
    (avg_views_per_video * @conversionRate) AS potential_units_sold_per_video

```

83 %

Results Messages

	channel_name	avg_views_per_video	potential_units_sold_per_video	potential_revenue_per_video	net_profit
1	Mister Max	14060000	281200	1406000	1276000
2	Dan Rhodes	11150000	223000	1115000	985000
3	DanTDM	5340000	106800	534000	404000

Query executed successfully.

Discovery

- What did we learn?

We discovered that

1. NoCopyrightSOunds, Dan Rhodes and DanTDM are the channels with the most subscribers in the UK
2. GRM Daily, Man City and Yogscast are the channels with the most videos uploaded
3. DanTDM, Dan RHodes and Mister Max are the channels with the most views
4. Entertainment channels are useful for broader reach, as the channels posting consistently on their platforms and generating the most engagement are focus on entertainment and music

Recommendations

- What do you recommend based on the insights gathered?
 1. Dan Rhodes is the best YouTube channel to collaborate with if we want to maximize visibility because this channel has the most YouTube subscribers in the UK
 2. Although GRM Daily, Man City and Yogcasts are regular publishers on YouTube, it may be worth considering whether collaborating with them with the current budget caps are worth the effort, as the potential return on investments is significantly lower compared to the other channels.
 3. Mister Max is the best YouTuber to collaborate with if we're interested in maximizing reach, but collaborating with DanTDM and Dan Rhodes may be better long-term options considering the fact that they both have large subscriber bases and are averaging significantly high number of views.
 4. The top 3 channels to form collaborations with are NoCopyrightSounds, DanTDM and Dan Rhodes based on this analysis, because they attract the most engagement on their channels consistently.

Potential ROI

- What ROI do we expect if we take this course of action?
 1. Setting up a collaboration deal with Dan Rhodes would make the client a net profit of \$1,065,000 per video
 2. An influencer marketing contract with Mister Max can see the client generate a net profit of \$1,276,000
 3. If we go with a product placement campaign with DanTDM, this could generate the client approximately \$484,000 per video. If we advance with an influencer marketing campaign deal instead, this would make the client a one-off net profit of \$404,000.
 4. NoCopyrightSounds could profit the client \$642,000 per video too (which is worth considering)

Action plan

- What course of action should we take and why?

Based on our analysis, we believe the best channel to advance a long-term partnership deal with to promote the client's products is the Dan Rhodes channel.

We'll have conversations with the marketing client to forecast what they also expect from this collaboration. Once we observe we're hitting the expected milestones, we'll advance with potential partnerships with DanTDM, Mister Max and NoCopyrightSounds channels in the future.

- What steps do we take to implement the recommended decisions effectively?
 1. Reach out to the teams behind each of these channels, starting with Dan Rhodes
 2. Negotiate contracts within the budgets allocated to each marketing campaign
 3. Kick off the campaigns and track each of their performances against the KPIs
 4. Review how the campaigns have gone, gather insights and optimize based on feedback from converted customers and each channel's audiences
-