Python YouTube API

Exploratory Data Analysis of the Top 9
Food and Drink YouTube Channels in Mexico

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Description

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In the vibrant world of YouTube content, the realm of food and drink channels stands as a unique and flavorful niche. As an enthusiast of both culinary arts and data analytics, this project aims to uncover:
What characteristics do the 9 most popular food and drink YouTube channels in Mexico share?

Mis Pastelitos

La Capital

Jauja Cocina Mexicana

El Guzzi

Marisolpink

De mi Rancho a Tu Cocina

Jennifer Salas Postres

Raul Bartender

La Ruta de la Garnacha

Specific questions

The following questions **guide** the project and shed light on **anyone who wants to create a YouTube channel**, regardless of whether they are professional chefs or home cooks.

Specific questions
What is the impact of user likes and comments on a video's performance?
Is there an ideal video duration?
Should video titles be short and catchy, or detailed and descriptive?
How many tags do the most popular videos have?
What are the best day of the week to upload content?
What are the most frequently used words in video titles?

Methodology

Steps followed:

Current stage

Obtaining Video Metadata

Preprocessing of the Data

Exploratory Data Analysis

Natural Language Processing

Sharing Findings & Conclusions

Using **<u>YouTube API</u>**, I created a dataset with info from a total of **6,504 videos***.

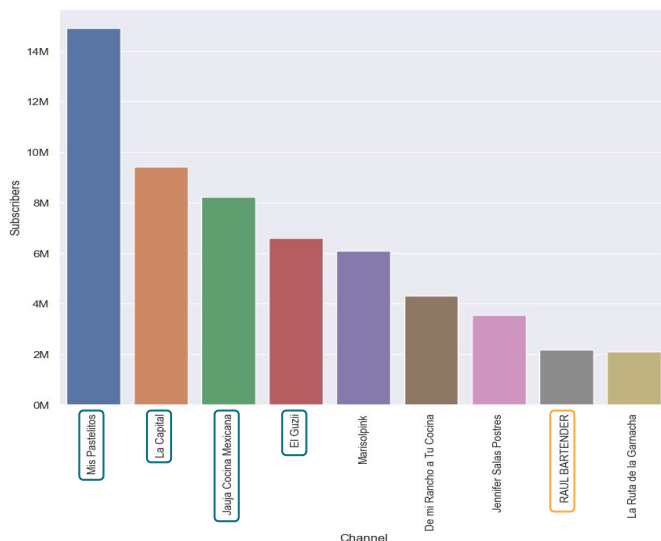* Which were all the videos available as of September 20th, 2023.

YouTube Data API Overview. (2022, March 4). Google. https://developers.google.com/youtube/v3/getting-started

Overview of the channels

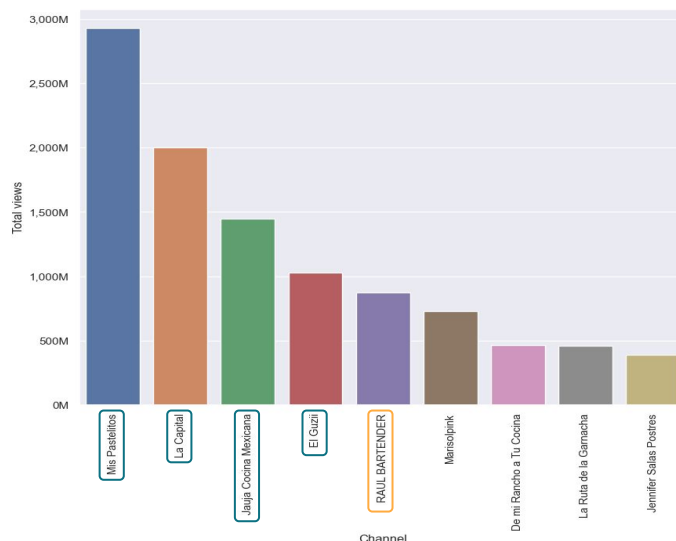The **top 4** channels in **subscribers** have the **most views**.

The **rest of the channels** **rank differently in views and subscribers**.
E.g: 'RAUL BARTENDER' has drastically more views than subscribers.

Total subscribers per channel in millions

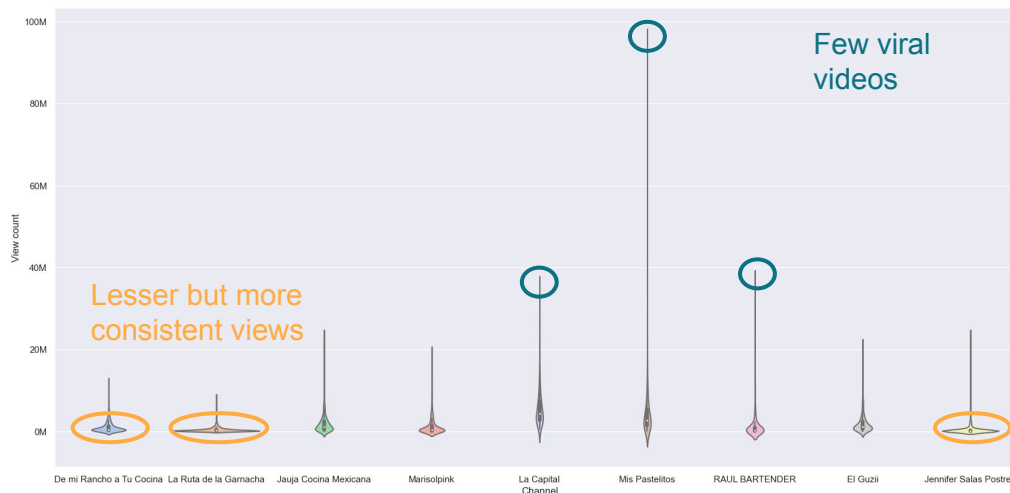Total views per channel in millions

Overview of the channels

Some channels showcase **significant disparities** with a **few viral videos** and fewer views in the rest of their videos. E.g. 'Mis Pastelitos', 'RAUL BARTENDER' & 'La Capital'

Other channels have **less views in general**, but a **more even distribution**.
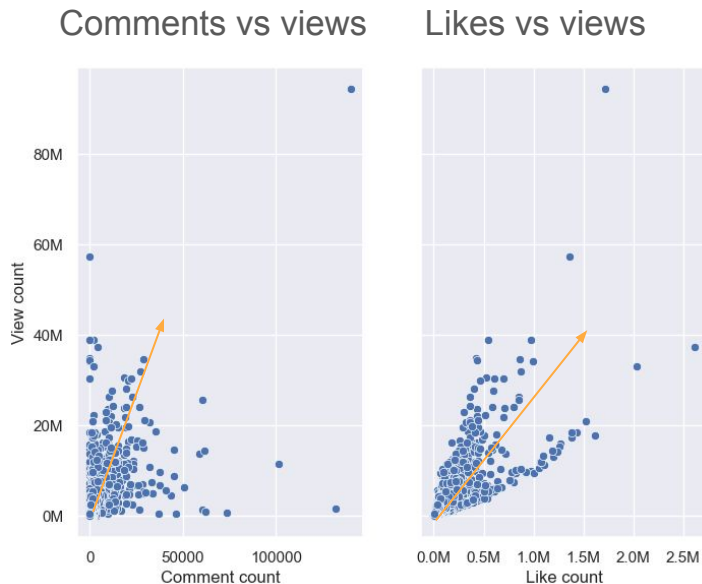E.g. 'La Ruta de la Garnacha' & 'De mi Rancho a Tu Cocina'

View distribution

What is the impact of likes and comments on views?

The scatterplots display a **positive correlation** of views and engagement, which means that **videos with more likes and comments tend to have more views**, and vice versa.

This correlation is **stronger with likes**, suggesting **viewers leave more likes than comments**.
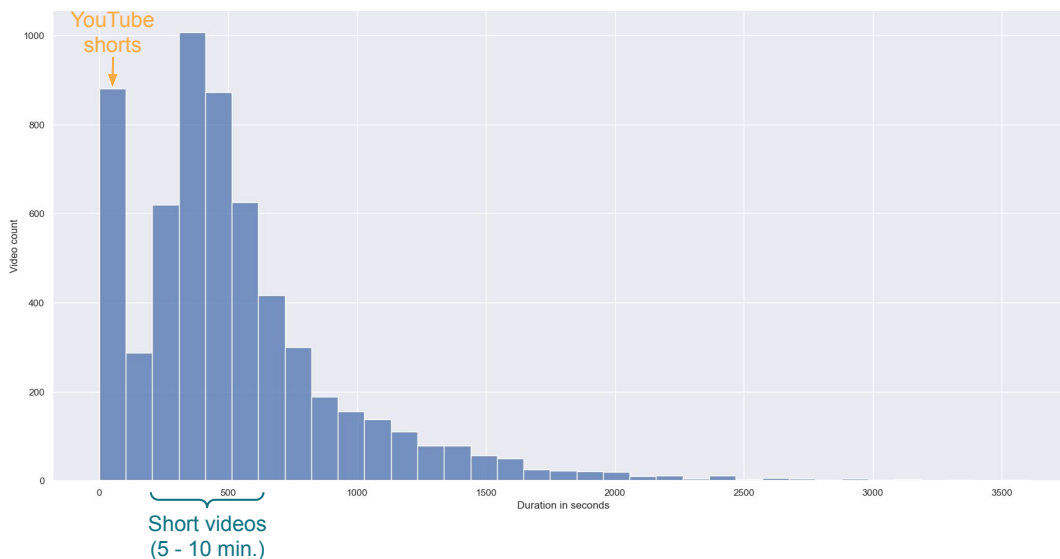
Is there an ideal video duration?

The duration of most videos is either 0–100 s. (0–1:40 min.) or 300–600 s. (5:00–10:00 min.), which fall under the categories of **YouTube shorts** or **short videos**.

So, we can safely infer that **<u>successful creators in the niche post shorts or < 10 min. videos</u>**.
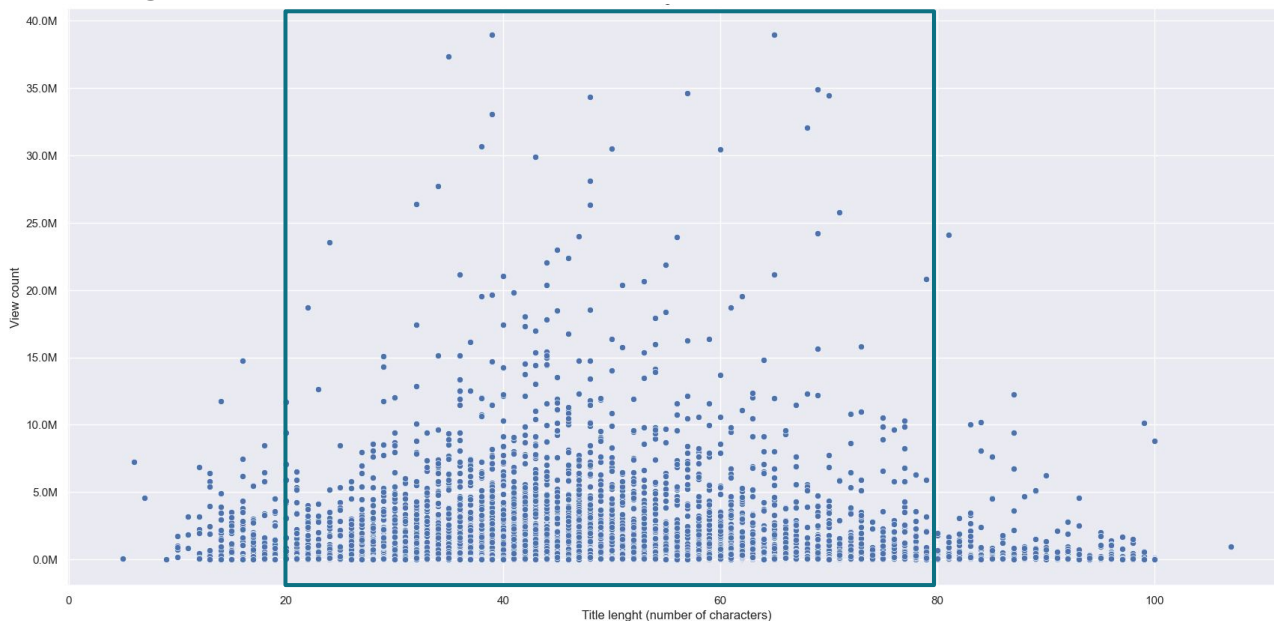
Video length

Should video titles be short and catchy, or detailed?

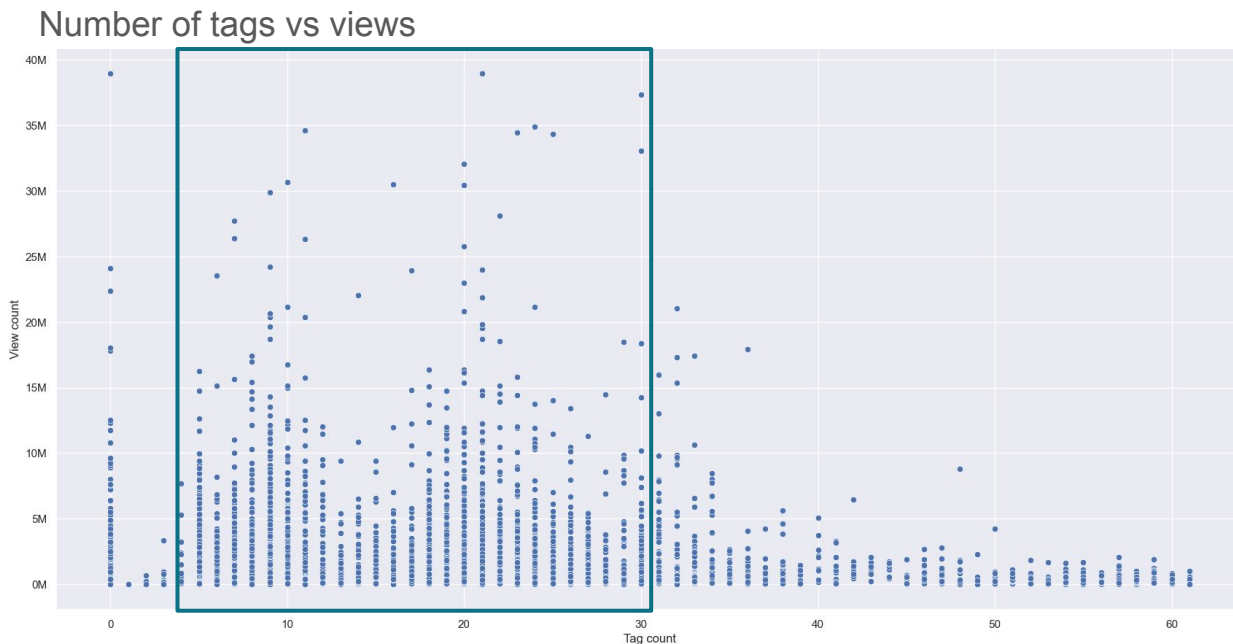**There does not seem to be a clear connection between title length and views**.

However, **most videos** fall between the broad **range of 20 – 80 characters**.

Title length vs views

How many tags do the most popular videos have?

Most videos feature between **5 – 30 tags**. However, there does not seem to be a strong connection between tags and views. Although it is worth noting that, **with the exception of 0, fewer or too many tags may be associated with lower views**.
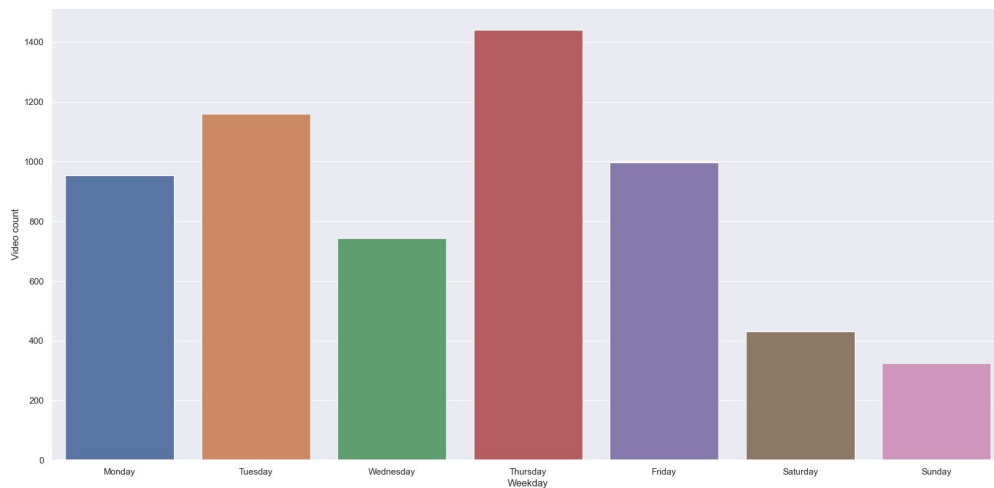
Number of tags vs views

What are the best day of the week to upload content?

<u>The ideal upload schedule for your channel depends on your strategy</u>: Compete with popular channels when they upload their videos, or collect the views from less competitive days

Most uploads occur on **Tuesdays** and **Thursdays**; while **the least** happen on **the weekend**. This suggests that viewers may watch more videos of the niche during weekdays, or that creators might use weekends to create the content they release over the week.
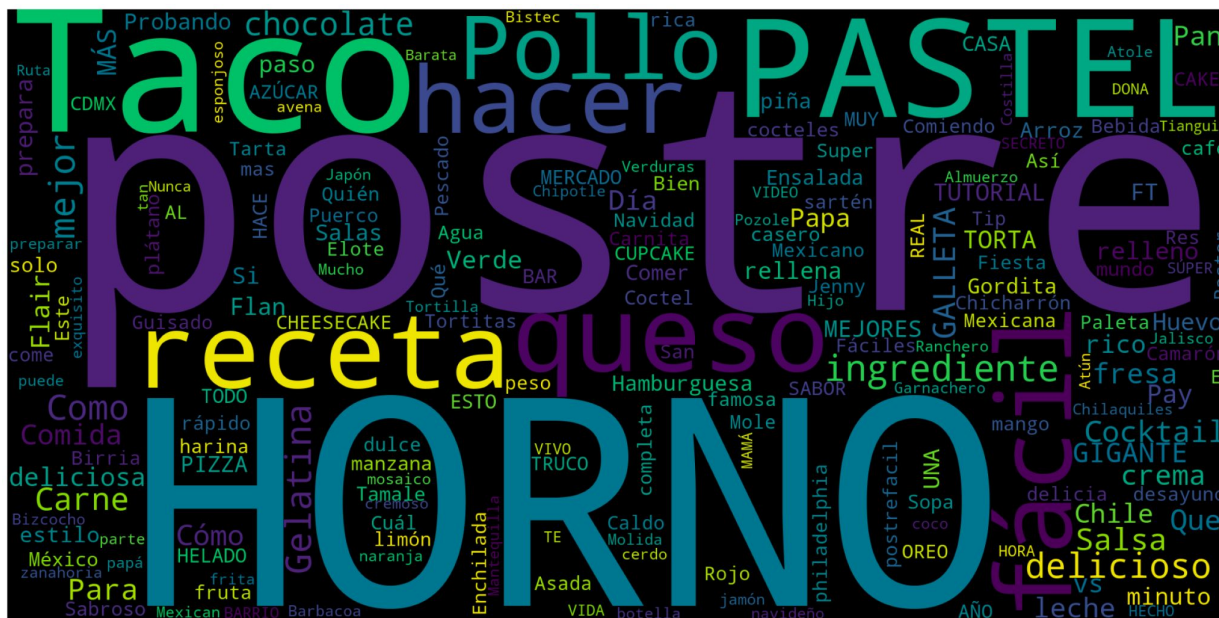
Upload schedule

What are the most frequently used words in titles?

Postre, *horno*, *taco*, *pastel*, *receta*, *fácil*, *queso*, *pollo* and *hacer**. All these words are commonly **associated with desserts**, **tutorials** and **mexican food**.

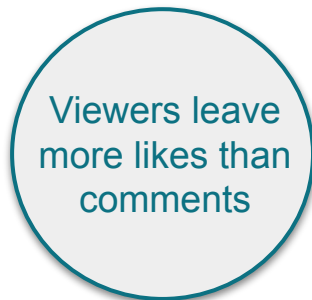Words commonly used in the titles of the videos from the niche

* The size of each word in a Word Cloud reflects their repetitiveness.
The meaning in English of each word in consecutive order is: dessert, oven, taco, recipe, easy, cheese, chicken, make

Conclusions

Based on our data exploration of the top 9 channels on the niche, we can conclude that:

Engagement has a positive correlation with views:

(More likes & comments ➡ More views)

(Viewers leave more likes than comments)

Titles are typically **20 – 80 characters long,** and most commonly use these words:

Postre	Taco	Receta
Horno	Pastel	Fácil
Queso	Pollo	Hacer

✔ **Do**

Post

[Youtube shorts]

and / or

[< 10 min. videos]

Upload videos* on

[Tuesday / Thursday]

or

[Saturday / Sunday]

❌ **Don't**

Make your titles

[Too looooooong]

or

[Too short]

Use

[< 5 tags]

or

[> 30 tags]

Scan the QR code or click the link below to access the git repository with the code!

https://github.com/almartinezga/Data_Analysis_Portfolio/blob/main/Python_YouTube%20API/EDA_YouTube%20API.ipynb

Acknowledgement

I would like to extend my appreciation to **'Thu Vu Data Analytics'** for their invaluable guidance, as I drew **inspiration** from her video 'YouTube API for Python: How to Create a Unique Data Portfolio Project.'

I used her code as a foundation for my Data Analysis project. However, I have made several modifications and enhancements to tailor the analysis to my specific goals and requirements. While the initial code provided valuable insights, I have adapted it to suit the unique aspects of my project.

References

Thu Vu data analytics. (2022, January 22). Youtube API for Python: How to Create a Unique Data Portfolio Project [video]. Youtube. https://www.youtube.com/watch?v=D56_Cx36oGY&t=558s&ab_channel=ThuVudataanalytics

Top 1000 canales de YouTube de Comida y bebida en México. *HypeAuditor*. https://hypeauditor.com/es/top-youtube-food-drinks-mexico/

YouTube Data API Overview. (2022, March 4). *Google*. https://developers.google.com/youtube/v3/getting-started