

Insights of Project 2

Python

Data Preparation & Cleaning

- Loaded YouTube data from a CSV/Excel file.
 - Dropped missing values and cleaned category/type fields for consistency.
 - Converted necessary columns (views, subscribers) into numerical formats for analysis.
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Exploratory Data Analysis (EDA)

- Analyzed the distribution of views, likes, subscribers, and earnings.
 - Identified **top-performing categories**: Music and Entertainment dominate in views and subscribers.
 - Found correlations between channel types, earnings, and subscriber growth.
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Sentiment Analysis on Video Titles and Tags

- Used NLP (NLTK library) to perform sentiment analysis on titles and tags.
 - Majority of titles showed neutral to positive sentiment.
 - Helpful for identifying emotional impact on audience engagement.
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Top Channel Insights

- Word cloud visualization created to show the most subscribed channels.
- Pie chart built to showcase top 8 YouTubers by view share.

Summary of Python-Driven Insights

Focus Area	Insight	Recommended Action
Popular Categories	Music and Entertainment generate the highest traffic	Content creators can target these genres
Sentiment Impact	Neutral/Positive sentiment dominates successful titles	Crafting positive messaging can help boost reach
Top Channels	Certain channels lead by large margins	Analyze their strategies for best practices

Tableau

Dashboard Overview

- Developed an interactive dashboard featuring category filters, title-based sentiment trends, and revenue maps.
 - Includes drop-down selectors for Title, Youtuber, Channel Type, and Category.
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Most Popular Genres (Categories)

- Music and Entertainment categories hold the highest viewership across all channels analyzed.
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Subscribers Analysis

- Visualization shows subscriber distribution based on channel type (Entertainment and Music lead).
- Top 10 subscribed channels visualized with a word cloud for quick reference.

Sentiment Analysis of Titles and Tags

- Timeline chart shows sentiment variation over different channels.
- Useful to spot periods of major positive/negative reception.

Earnings by Country

- Built a world map showing highest yearly earnings geographically.
- U.S., India, and Brazil among top countries with highest YouTube revenue.

Conclusion

- The project highlights how category choice, sentiment strategy, and regional targeting play critical roles in YouTube success.
 - Data-driven decision-making can significantly help YouTubers optimize content strategies for better engagement and profitability.
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