

Internship Project Report

YouTube Trending Video Analytics

Introduction

This report outlines my work as a Data Analyst Intern at Elevate Labs, where I was assigned a real-world analytics project focused on understanding YouTube video trends across multiple countries. The objective was to build a dashboard and derive actionable insights from the dataset.

Objective

- Analyze YouTube trending video data from different countries.
- Identify most popular video genres/categories.
- Perform sentiment analysis on video titles and tags.
- Build a dashboard to visually present region-wise trends and sentiments.
- Deliver a report with insights and storytelling.

Dataset Description

- Source: Public YouTube trending datasets from 45 countries.
- Files: Each country had its own CSV file containing video metadata like title, views, likes, tags, and category IDs.
- Supporting File: category_json.json (mapping category IDs to readable names).

Tools & Technologies Used

- Python (pandas, TextBlob, matplotlib): Data cleaning, sentiment analysis, EDA
- Power BI: Dashboard development
- SQL (within Power BI): Category-wise ranking using aggregate queries
- Excel: Quick previews and formatting

Data Cleaning & Preparation

- Combined CSV files from multiple countries into a unified dataset.
- Cleaned missing values, removed irrelevant columns.
- Mapped categoryId to readable genres using JSON.
- Converted dates to proper datetime formats for time-series analysis.

Sentiment Analysis

- Used TextBlob to calculate polarity and subjectivity of video titles.
- Classified sentiments into: Positive, Neutral, Negative
- Added sentiment scores as new columns to the final dataset.

Dashboard Development (Power BI)

Created an interactive Power BI Dashboard that included:

- Most Popular Genres: Ranked by average views across all countries.
- Sentiment Distribution: Visualized counts of positive, neutral, and negative sentiments.
- Country Comparison: Analyzed trending patterns across regions.

Learnings & Takeaways

- Understood full data pipeline: cleaning, processing, analysis, visualization.
- Hands-on experience with Power BI and sentiment analysis.
- Improved data storytelling and regional trend comparison skills.

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