YOUTUBE TRENDING VIDEO ANALYSIS

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Abstract:

This project focuses on analyzing trending YouTube videos from 10 different countries. The aim was to identify popular video categories, top-performing channels, and engagement patterns by studying metrics such as views, likes, comments, and publish dates. The project also compares audience behavior across different countries and highlights global and regional content trends on YouTube. Data visualization techniques were used to present the findings clearly and effectively.

Introduction:

YouTube is one of the largest video-sharing platforms globally, with millions of videos uploaded daily. This study was conducted to analyze trending video patterns from 10 countries: India, United States, United Kingdom, Canada, Germany, France, Japan, Russia, Brazil, and South Korea. The purpose was to discover which video categories trend the most, which YouTube channels perform best, and what engagement trends can be observed across these countries. The findings offer valuable insights for content creators, marketers, and social media analysts.

Tools Used:

- **Python:** Data cleaning, analysis, and visualization (Pandas, Matplotlib, Seaborn libraries)

- **Jupyter Notebook:** Code execution and project management

- **Power BI / Excel:** For additional charts and dashboards (optional)

- **YouTube Trending Dataset:** Collected from Kaggle/YouTube API

Steps Involved in Building the Project:

1. **Data Collection:**
   Downloaded trending video data from 10 countries via a publicly available dataset.

2. **Data Cleaning:**
   Removed null values, duplicate records, and formatted dates and numerical values properly.

3. **Data Analysis:**
   - Identified top trending video categories in each country.
   - Found top-performing YouTube channels by views and number of trending videos.
   - Analyzed engagement metrics such as average views, likes, and comments.

4. **Visualization:**
   Created bar charts, pie charts, and correlation heatmaps to visually represent the analysis results.

5. **Interpretation:**
   Derived insights and compared content trends and audience engagement patterns across countries.

Conclusion:

The analysis revealed that **Music, Entertainment, and Sports** are the most popular categories globally. Channels like **T-Series** and **MrBeast** consistently appear on trending lists in their respective regions. The engagement patterns showed that Fridays and weekends attract more trending videos. There's a strong positive correlation between views and likes on trending content. These insights highlight how regional preferences and cultural factors influence video trends on YouTube.