YouTube Trending Video Analytics Project

1. Objective

* The main objective of this project is to analyze and compare YouTube trending videos data from India and the United States. The goal is to extract insights using data analytics and visualize them through charts and an interactive dashboard.

2. Tools & Technologies Used

* Python (Jupyter Notebook) – for data preprocessing and EDA
* Pandas, Seaborn, Matplotlib – Python libraries for analysis and visualization
* Tableau – for interactive data visualization and dashboard creation

3. Datasets Used

* INvideos.csv – Trending YouTube videos in India
* USvideos.csv – Trending YouTube videos in the US
* IN\_category\_id.json – Category mapping for India
* US\_category\_id.json – Category mapping for the US

4. Project Steps

* **Data Cleaning & Preprocessing**

Removed duplicate rows

Handled null values

Mapped category IDs to their names

* **Data Merging**

Combined India and US datasets

Added a 'Country' column for identification

* **Exploratory Data Analysis (EDA)**

Checked for correlations (views, likes, comments)

Analyzed top channels and categories

Time-based and popularity trend analysis

4. Visualizations in Tableau

* Created key charts like:
* Likes vs Views
* Country-wise video distribution (Pie Chart)
* Bar/Line charts
* Built an interactive dashboard

5. Insights Gained

* Strong correlation between likes and views
* Certain categories like Entertainment and Music trend more frequently
* Few channels repeatedly appear in trending sections
* India had higher engagement in terms of likes compared to the US

6. Conclusion

* This project helped me understand how to work with real-time datasets, perform meaningful analysis, and visualize data effectively. It improved my practical knowledge of Python and Tableau, and gave me insights into digital content trends across countries.