Task 4 - Sentiment Analysis and Visualization using Power BI

Objective:

Analyze and visualize sentiment patterns in social media data to understand public opinion and attitudes towards specific topics or brands.

The dataset contains social media text data with the following key columns:
- **Text / Tweet / Comment:** User-generated content
- **Sentiment:** Positive, Negative, or Neutral
- **Date / Time:** When the post was created
- **User / Source:** Who shared the post or which platform it came from

🧹 Data Cleaning in Power BI
Performed data preprocessing using **Power Query Editor**:
- Removed duplicates and null entries
- Checked for **missing sentiment labels**
- Cleaned unnecessary characters, emojis, and symbols
- Standardized date formats for time-based analysis
- Filtered out irrelevant or blank text rows

🔍 Exploratory Data Analysis (EDA)
Conducted EDA in Power BI to understand sentiment trends and distributions.
Sentiment Distribution
- Count of Positive, Negative, and Neutral comments
- Overall proportion of each sentiment type
Time-Based Trends
- Sentiment trend over time (daily / monthly)
- How opinions change with respect to events or product launches
Platform or User-Level Insights
- Which users or sources generated the most positive or negative comments
- Volume of posts across different sources