

Climate Change Analysis — Final Report

1) Basic Details

- Name: Vaibhav Parmar
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- Institution: Atmiya University
- Project Title: Climate Change Analysis
- Tech Stack: Python, Pandas, Matplotlib

2) Dataset

- Rows after cleaning: 522 (removed duplicates: 0)
- Time range: 2020–2023

3) What I Did

- Loaded the CSV and standardized column names.
- Removed exact duplicates and trimmed text fields.
- Identified a time column (if present) and computed yearly averages for numeric metrics.
- Plotted simple line charts with a 5-year rolling mean for smooth trends.
- Exported helper tables (yearly means and correlations).

4) Insights

- Metrics analyzed: Likescount, Commentscount.
- Likescount increased from 2020 (2.53) to 2023 (4.58).
- Commentscount increased from 2020 (7.28) to 2023 (11.87).
- Strongest yearly correlation observed between likescount and commentscount ($\text{corr} \approx 0.28$).

5) Challenges

Some date values had timezone info and some numeric fields were text-formatted; these were normalized safely. Minor missing values were handled without removing useful data.

6) Conclusion

The analysis summarizes how the dataset's key metrics change over time. The figures and tables make trends easy to explain clearly in a short presentation.

7) How to Run

- Open and run: Climate_Change_EDA_SubmitReady.ipynb
- Check outputs in: outputs_climate_submit/