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Report on COVID-19 Data Visualization Program

1. Overview:

The COVID-19 Data Visualization Program aims to provide insights into COVID-19 data through visualizations. Implemented in Python, the program utilizes Pandas for data manipulation and Matplotlib for plotting.

2. Features Included:

The program focuses on two main visualization features:

- Line Plot: Displays the confirmed cases over time for a specific country.
- Bar Plot: Illustrates the increase of COVID-19 cases in the US over time, skipping every 10 dates.

3. Usage and Implementation:

Reading Data: Utilizes Pandas' read_csv() function to ingest COVID-19 data from a CSV file.

- Line Plot (Confirmed Cases Over Time): The function plot_confirmed_cases_over_time(country_name, skip_dates=5) plots confirmed cases over time for a specified country. Users can adjust the skip_dates parameter to control the density of dates displayed on the plot.
- Bar Plot (US Cases Over Time): The function plot_us_cases_over_time() selects the first 5 rows of data for the US, skipping every 10 dates to create a bar plot illustrating the increase in COVID-19 cases over time.

4. Proof Images:

Line Plot (Confirmed Cases Over Time for the US):
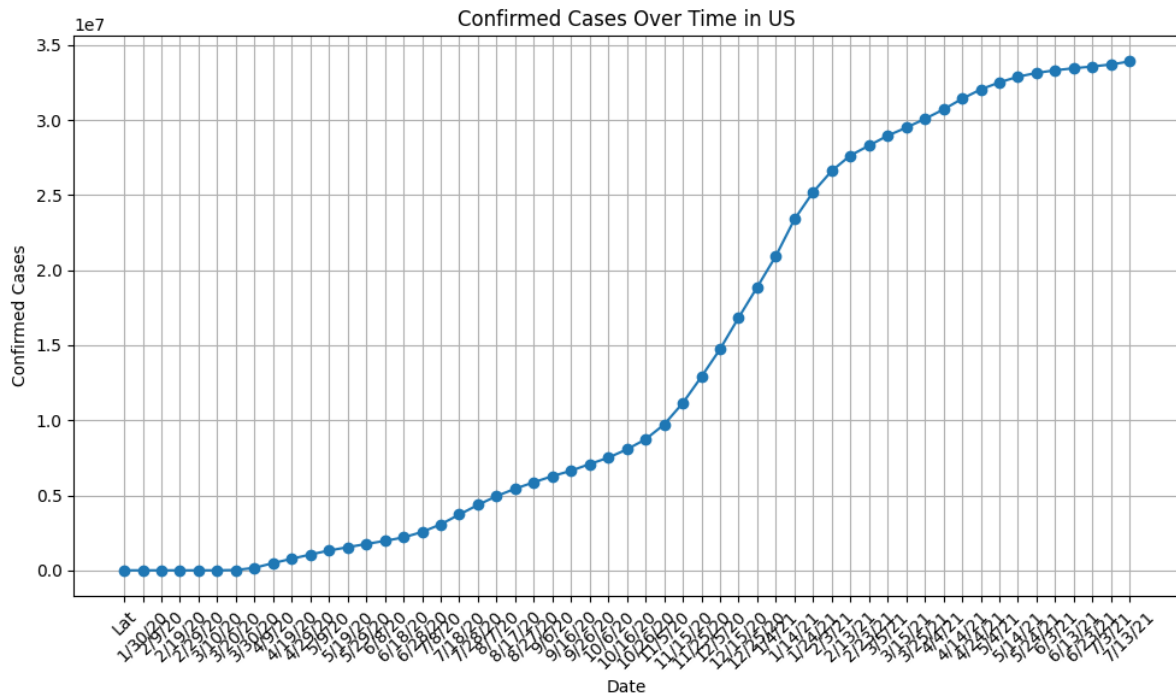
Bar Plot (US Cases Over Time):
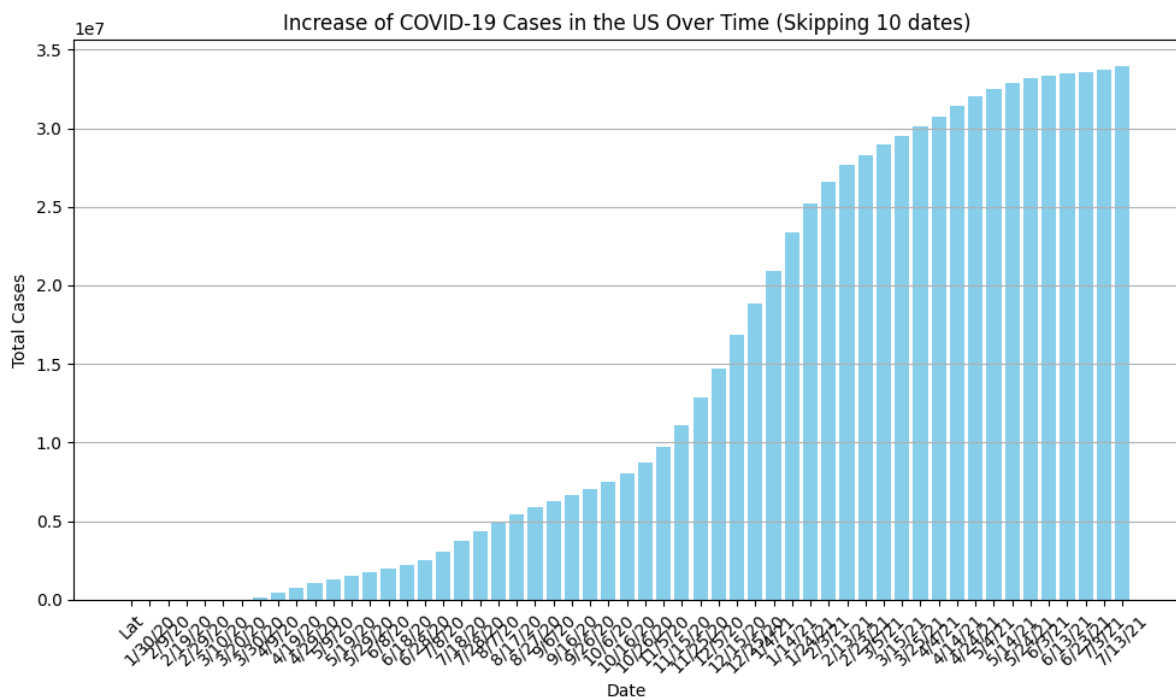
Comments:

Observing the COVID-19 trend in the United States through a line graph, we can see a gradual increase over time. Initially, there was a slight uptick, but as time progressed, the increase became exponential, multiplying significantly.

5. Conclusion:

The COVID-19 Data Visualization Program provides a simplified approach to exploring COVID-19 data through line and bar plots. These visualizations offer valuable insights into the progression of the pandemic, aiding in understanding trends and patterns over time.