**Loading the Dataset:-**

Import the necessary libraries (such as Pandas).

Load the dataset into a Data Frame using Pandas' read\_csv () function.

Display the first few rows of the dataset to understand its structure using the head () function.

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**Explore the Data:-**

Check the data types of each column using the info () method.

Get summary statistics of the dataset using the describe () method.

Identify any missing or null values within the dataset and visualize them if necessary.A screenshot of a computer

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**Cleaning the Data**: -

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**Convert Data: -**

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Time-Series Analysis

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A graph showing a graph of a temperature

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Regional Comparisons:-

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Time-Series Analysis (Visualizing Temperature Over Time) :-

Plot Global Temperature Over Time

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 **Loading the Dataset:**

* Import the necessary libraries (such as Pandas and NumPy).
* Load the dataset into a DataFrame using Pandas' read\_csv() function.
* Display the first few rows of the dataset to understand its structure using the head() function.

 **Explore the Data:**

* Check the data types of each column using the info() method.
* Get summary statistics of the dataset using the describe() method.
* Identify any missing or null values within the dataset and visualize them if necessary.

 **Cleaning the Data:**

* Handle missing values by either removing rows/columns or filling them with appropriate values.
* Remove duplicate records, if any, to ensure data consistency.
* Normalize or standardize the data if required, to bring all values onto a common scale without distorting differences in the ranges of values.

 **Convert Data:**

* Convert data types to appropriate formats (e.g., converting date columns to datetime format).
* Create new columns or features from existing data to enhance the dataset for analysis.

 **Time-Series Analysis:**

* Set the date column as the index of the DataFrame to facilitate time-series analysis.
* Resample the data to different time frequencies (e.g., monthly, yearly) as needed.
* Identify and analyze trends, seasonality, and patterns in the time-series data.

 **Regional Comparisons:**

* Group the dataset by regions or other relevant categories to compare data points.
* Use aggregation functions like mean(), median(), or sum() to calculate statistical measures for each region.
* Visualize the regional comparisons using bar plots, box plots, or other suitable charts.

 **Time-Series Analysis (Visualizing Temperature Over Time):**

* Plot time-series graphs to visualize temperature trends over time using libraries like Matplotlib or Seaborn.
* Use different plotting techniques (line plots, scatter plots) to highlight trends, patterns, and anomalies in the temperature data.

 **Plot Global Temperature Over Time:**

* Aggregate the data to a global scale by calculating mean temperatures for each time period.
* Plot the global temperature trends using time-series plots.
* Add titles, labels, and legends to the plot for clarity and better understandin