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NR427

FINAL PROJECT

Denver's Decade: Analyzing Ten Years of Weather Patterns

Specific Questions to Answer or Tasks to Complete-

Trend Analysis: How have the average temperatures, precipitation, and snowfall in Denver changed over the past decade?

Seasonal Variability: What are the seasonal patterns in temperature, precipitation, and snowfall?

Yearly Extremes: Identify the years with the highest and lowest average temperatures, most precipitation, and greatest snowfall.

Visual Representation: Create both static and interactive visualizations to represent the trends and distributions of weather data spatially and temporally.

Python Libraries to be Used-

Pandas: For data manipulation and analysis. It provides structure and operations for manipulating numerical tables and time series.

Matplotlib: For creating static line graphs, bar charts, and box plots to visualize trends and distributions.

Folium: For building interactive maps to visually display how weather patterns vary across different areas of Denver in zip code 80249. Perhaps another zip code as well.

NumPy: Might be used for additional numerical operations where required.

Data Utilization-

Source: The dataset consists of 10 years of weather data for Denver, including daily or monthly metrics on precipitation, snowfall, and average temperatures.

Origin: This data is sourced from publicly available weather database NOAA (National Oceanic and Atmospheric Administration) and National Centers for Environmental Information as CSV files.