Project Title: Emergency Shelter Occupancy and Weather Conditions in Alberta (2020-2024) with comparison of weather conditions data

Dataset Sources:

1. Emergency Shelter Occupancy Summary (2020-2024)

- Source: Alberta Daily Emergency Shelter Reports
- Collection Method: Daily report of shelter occupancy data by emergency shelters.
- Date of Collection: Data is from 2020 to 2024 with 12months for each year.

2. Alberta Weather Data (2020 – 2024)

- Source: Weather data collected from various cities in Alberta.
- Collection Method: Weather data includes date, temperature, humidity, and conditions, is collected from various cities.
- Date of Collection: Data is from 2020 to 2024 with 12months for each year.

Initial Data Overview:

1. Shelter Occupancy Data:
- Contains statistics about occupancy and capacity but the data needs further cleaning as well.

2. Alberta Weather Data:

- Includes weather parameters like temperature (min/max), humidity, solar energy, wind speed, and weather conditions for each day for each year from 2020 to 2024.

Dataset Features:

1. Dependent Variable:

Emergency shelter occupancy rates (from shelter dataset)

2. Independent Variables:

Weather conditions: Temperature, humidity, solar energy, wind speed, snow , windspeed etc. (from weather dataset)

Ethical Assessment:

Data Privacy: We have make sure that no personal information is present in the dataset. Because this is occupancy data.

Use of Data: Data will be used for research and analysis of shelter capacity in relation to environmental conditions, ensuring its application benefits for public services.

Next Steps:

1. Data Cleaning:

Remove non-data rows from the shelter dataset and align the weather data for meaningful analysis.

2. Analysis Plan:

Investigate correlations between weather conditions and emergency shelter occupancy to understand potential weather-related trends and predictions.

3. Data Analysis:

Explore correlations between weather conditions and shelter occupancy to identify trends.

4. Visualization:

Create visualizations to display the trends over time, such as temperature versus occupancy rates.