Data Management Plan
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1.1. Project Overview

Research Objective
This project aims to collect weather data across five cities in the American Northeast with the goal of analyzing climate patterns between them.

Data Types and Sources
- Primary Dataset: OpenWeatherMap API (free tier)
- Data Types: Temperature, humidity, precipitation, wind speed
- Geographic Scope: Northeastern Cities (Portland, Boston, Burlington, New York, Albany)
- Time Range: Current conditions + 5-day forecast
- Data Format: Semi-structured (JSON)

1.2 Data Collection

Collection Methods
The data for this dataset is collected through a series of meteorological sources, including weather and remote satellites, airport and ground weather stations, and the aggregate METAR report used by pilots.

Ethical and Legal Compliance
Data from this set contains no information about any person. Its free tier is distributed under a Creative Commons License, with weather risk information available under individual agreements.

1.3 Data Storage and Security

Storage Infrastructure
Files will be stored in a private organizational GitHub repository in contextually appropriate folders, with API keys stored locally. Folders will follow the structure outlined in the assignment rubric with corresponding naming conventions.

Access Controls and Security
Access to this agent will be limited to the developer (Liz Luggelle) and the instructor for grading purposes. The data used in this collection agent is free for use on the OpenWeather website with a free account.