### **Assignment for Python Developer**

**Project Title:** Weather Data Aggregator and Analyzer

**Objective:** Create a Python application that fetches weather data from a public API, stores it in a local database, and provides analysis and visualization of the weather trends over time.

**Requirements:**

1. **Fetch Data:**
   * Use a public weather API (e.g., OpenWeatherMap, WeatherStack).
   * Fetch weather data for a specified location (e.g., temperature, humidity, wind speed) at regular intervals (e.g., hourly).
2. **Store Data:**
   * Use SQLite or any other lightweight database to store the fetched weather data.
   * Ensure the database schema is well-designed to handle time-series data.
3. **Analyze Data:**
   * Provide basic statistical analysis (e.g., average temperature, humidity trends).
   * Implement functionality to query data for specific date ranges.
4. **Visualize Data:**
   * Use a Python library such as Matplotlib or Seaborn to visualize the weather data.
   * Provide plots for temperature trends, humidity trends, and other relevant metrics.
5. **Documentation:**
   * Write clear and concise documentation on how to set up and run the application.
   * Include comments and docstrings in the code for better understanding.

**Submission:**

* Source code files.
* A README file with setup instructions.
* Example output of the analysis and visualizations.