This document outlines the scope of developing the AI-driven weather information application, including objectives, deliverables, assumptions, constraints, and the overall approach.

**1. Purpose**:

To develop an application that functions similarly to ChatGPT, accepts user inputs, processes them using AI, and executes specific REST API calls to return appropriate weather data using the OpenWeatherMap API available on RapidAPI.

**Objectives**:

* Develop an AI-driven interface to accept and process user queries.
* Integrate OpenWeatherMap API to fetch weather data.
* Provide accurate weather information based on user inputs.

**2. System Components**:

* User Interface (UI)
* AI Processing Engine
* OpenWeatherMap API Integration
* Data Processing and Response Module

#### **3. Objectives**

* Create a user-friendly interface to capture user inputs.
* Implement AI to interpret user queries.
* Develop a backend to handle API requests to OpenWeatherMap.
* Return processed weather data to users in a comprehensible format.

#### **4. Deliverables**

* Functional user interface.
* AI processing module.
* Integration with OpenWeatherMap API via RapidAPI.
* Documentation and user guide.

#### **5. Scope Description**

**Inclusions**:

* AI-driven query processing.
* Weather data retrieval via OpenWeatherMap API.
* User interface for input and output.

**Exclusions**:

* Detailed weather forecasting and analysis beyond provided API data.
* Non-weather related functionalities.

#### **6. Assumptions**

* OpenWeatherMap API will provide reliable and accurate data.
* Users will have internet connectivity to access the application.

#### **7. Constraints**

* Limited to data provided by the OpenWeatherMap API.
* Development must adhere to RapidAPI usage limits and terms.

#### **8. Milestones**

* Initial Requirements Gathering
* UI Design Completion
* AI Integration
* API Integration
* Testing and QA
* Deployment

#### **9. Acceptance Criteria**

* Accurate processing of user queries.
* Reliable data retrieval from OpenWeatherMap API.
* Positive user feedback on the interface and functionality.

#### **10. Change Control Process**

* Any changes to the scope will be documented and approved by the project manager.