

Meteoblue CLI Weather App

A command-line weather application that fetches detailed weather forecasts from the Meteoblue API and formats them into an easy-to-read ASCII report.

Features

- Fetch current weather data using the **Meteoblue API**.
 - Supports custom locations using the **OpenStreetMap Nominatim API**.
 - Formats weather data into **ASCII art-based reports**.
 - Saves reports to disk for offline viewing.
 - Automatically backs up weather data in a structured directory.
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Directory Structure

```
.
├── main.py                # The entry point for the application
├── data_parser.py         # Handles data fetching and parsing
├── ascii_formatter.py     # Formats weather data into ASCII and saves output
├── meteoblue
│   ├── pictograms/       # (Optional) Contains weather pictograms
│   ├── weather_cache/    # Contains cached weather reports
│   └── pictocodes.json   # Maps weather codes to descriptions
└── README.md             # Documentation
```

Prerequisites

- **Python 3.8+**
 - Required Python packages:
 - requests
 - json
 - Meteoblue API Key: Sign up and generate your API key at [Meteoblue](#).
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Installation

1. Clone this repository:

```
git clone https://github.com/<your-username>/meteoblue-cli.git
cd meteoblue-cli
```

2. Install dependencies:

```
pip install -r requirements.txt
```

3. Add your **Meteoblue API key**:

- Open `main.py` and replace `API_KEY` with your key:

```
API_KEY = "your_api_key_here"
```

Usage

Fetch and Display Weather

1. Run the app:

```
python main.py
```

2. Enter a location or let the app use the default (e.g., Varanasi, India). The ASCII report will be generated and saved to `meteobluе/weather_cache/weather_report.txt`.
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Example Output

Console Output:

```
Location: Varanasi, India
Latitude: 25.29
Longitude: 82.99
```

```
Weather Report:
```

```
-----
Temperature: 28 °C
Rainfall: 2.5 mm
Snowfall: 0 mm
Humidity: 70%
Windspeed: 3 m/s
-----
```

Saved ASCII Report:

```
Location: Varanasi, India
Latitude: 25.29
Longitude: 82.99
```

```
Weather Summary:
```

```
-----
Temperature:      28 °C
Rainfall:         2.5 mm
Snowfall:         0 mm
Humidity:         70%
Windspeed:        3 m/s
Cloud Cover:      20%
Sunshine Hours:   8 h
Visibility:       10 km
-----
```

```
Sunlight:    06:12 AM - 06:48 PM
Moonlight:   07:03 PM - 05:18 AM
```

Configuration

API Key

Update the `API_KEY` variable in `main.py` with your personal Meteoblue API key.

Custom Locations

Modify the `location` variable in `main.py` to use a city name or coordinates:

```
location = "New York, USA" # City name
location = "40.66, -73.93" # Latitude, Longitude
```

Directory Structure

- Weather reports are cached in `meteoblue/weather_cache/`.
 - Backups are stored in `meteoblue/weather_backups/`.
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Contributing

1. Fork the repository.
 2. Create a feature branch:

```
git checkout -b feature-name
```
 3. Commit your changes:

```
git commit -m "Add feature-name"
```
 4. Push to your fork:

```
git push origin feature-name
```
 5. Submit a pull request!
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License

This project is licensed under the MIT License. See the [LICENSE](#) file for details.

Acknowledgments

- **Meteoblue** for the API.
 - **OpenStreetMap Nominatim** for geolocation data.
 - ASCII formatting inspiration from the `wtr.in` project.
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Future Features

- Multi-language support for weather descriptions.
- Integration with advanced weather metrics like air quality and UV index.
- Dynamic terminal visualizations for sunrise/sunset.

Feel free to reach out for questions or suggestions!