

# Weather app

## Project: Weather App (Jetpack Compose Edition)

### Core Features

- **Real-Time Weather Fetching:** Get current weather data by calling the **OpenWeatherMap API**.
  - **City Selection:** Users can set or change the city via a **Settings screen**.
  - **Weather Display:** Shows current temperature, conditions, and other relevant info on the **Home screen**.
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### Tech Stack & Architecture

- **Retrofit (Network Call):**
    - Makes HTTP requests to the **OpenWeatherMap API**.
    - Parses JSON responses into data classes using **Gson** or **Moshi**.
    - Simple and efficient setup for RESTful APIs.
  - **Jetpack DataStore (Caching & Preferences):**
    - Replaces `SharedPreferences` for a modern, type-safe way to persist key-value data.
    - Used to store the **selected city** and **last fetched weather data**.
    - Supports **asynchronous data access** with Kotlin Coroutines and **Flow**.
  - **Jetpack Compose UI:**
    - Built with **Composable functions** for the Home and Settings screens.
    - Displays weather info using intuitive layouts (cards, icons, formatted text).
  - **Navigation Compose:**
    - Manages screen transitions between **Home** and **Settings**.
    - City settings are read and passed seamlessly using state and ViewModels.
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### Why It's a Great Project

- A practical introduction to **Retrofit**, **Jetpack DataStore**, and handling **network responses**.
- Shows how to build reactive UIs using **Jetpack Compose** and **Kotlin Flow**.

- Demonstrates clean **navigation** and **state management** in a real-world app.
- Easy to extend—add features like hourly/daily forecasts, dark mode, location-based search, or offline caching.