



UI/Frontend : Frontend/UI is where users will interact with the website. It allows users to view the current weather of the city they wish, search by city, view 5-day forecast, save favorite locations and share their dashboard.

Technologies: HTML, CSS, Javascript, React, ThreeJS

Server: Acts as a backend interface that receives requests from the frontend, processes them and communicates with the database and the weather API

Technologies: Node.js/Express

Database: Store user information, dashboards, favorite locations, friends and other personalized settings. MongoDB/MySQL

Technologies: Manages single instance of API client to make weather data requests and maintain efficiency
API Client: Singleton Pattern:

Facade: Service Pattern: Simplify interactions by providing a single access point to complex API calls, data processing and caching
Facade Pattern

API Adapter: Utilizes the adapter pattern to communicate with the weather API and the server. The adapter translates the API's response efficiently into a format for the web application

Technologies: Code modules or microservices that use REST API calls.