Project Synopsis

Anga app is a web application which outlines weather details at any particular city. The features which will be displayed include but not limited to the following.

- Temperature
- Windspeed
- Humidity
- Weather Description
- Prediction of rain or snow
- Language feature

Problem Statement

Current weather apps although they have worked on simplicity and speed which will be clearly displayed in my weather app too. Language feature like Swahili and other minority languages lack proving a challenging aspect in local Kenyan communities and farmers. There is a need for a streamlined application which prioritizes user-friendly interfaces, delivering real-time, precise weather details for easier decision making in farming and other daily activities.

Proposed Solution

In overcoming the challenges outlined above I am going to use my knowledge of Html, CSS and JavaScript for easy navigation, efficiency, accurate and fast data collection.

Project Objective

To design and implement efficient and user-friendly system that aids local mwananchi on weather details at any location he/she is currently at. The project aims for the following.

- User-friendly Interface
- Accurate weather details
- Fast data fetching
- Language Translation Feature.

Technology/Methodology Used

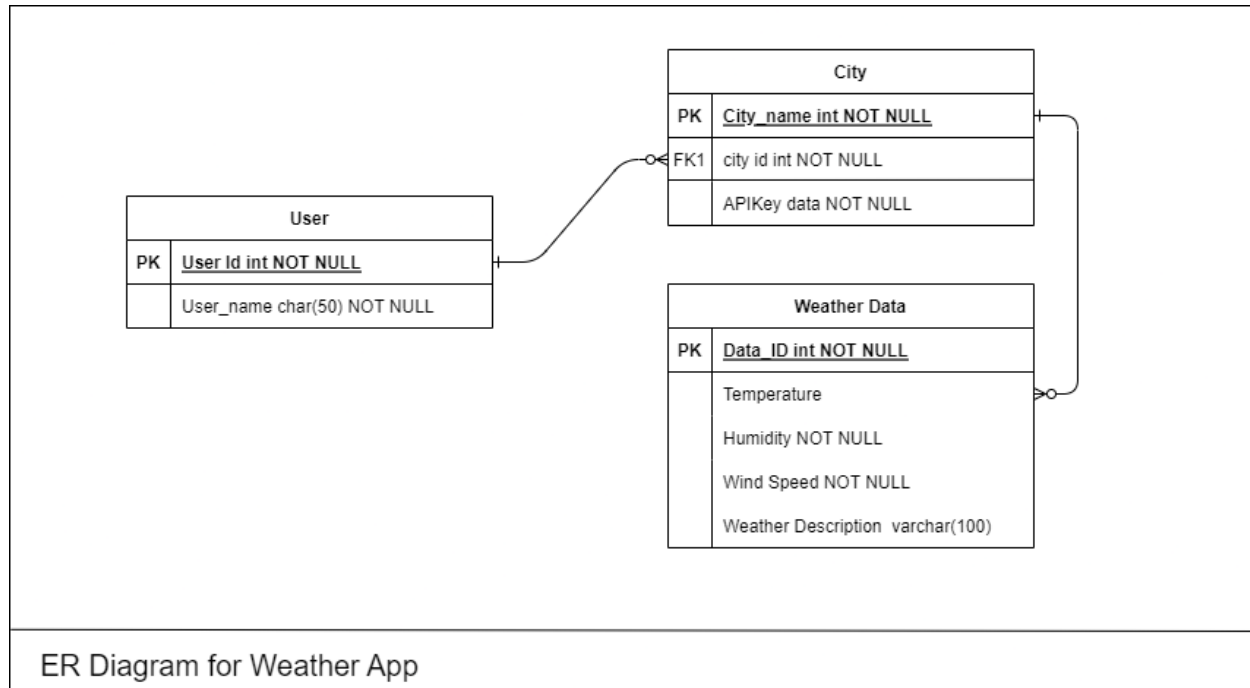HTML and CSS – for frontend development

JavaScript – for backend development.

OpenWeatherMap's API for weather data.

Other various API's which exist that I would also give a try (not sure though).

- AccuWeather API ; most popular and reliable API realtime observatory from land, sea and air.
- DarkSky API.
- Weather Underground

Entity Relationship Model (ER Diagram)

ER Diagram for Weather App

Entities for the Anga app:

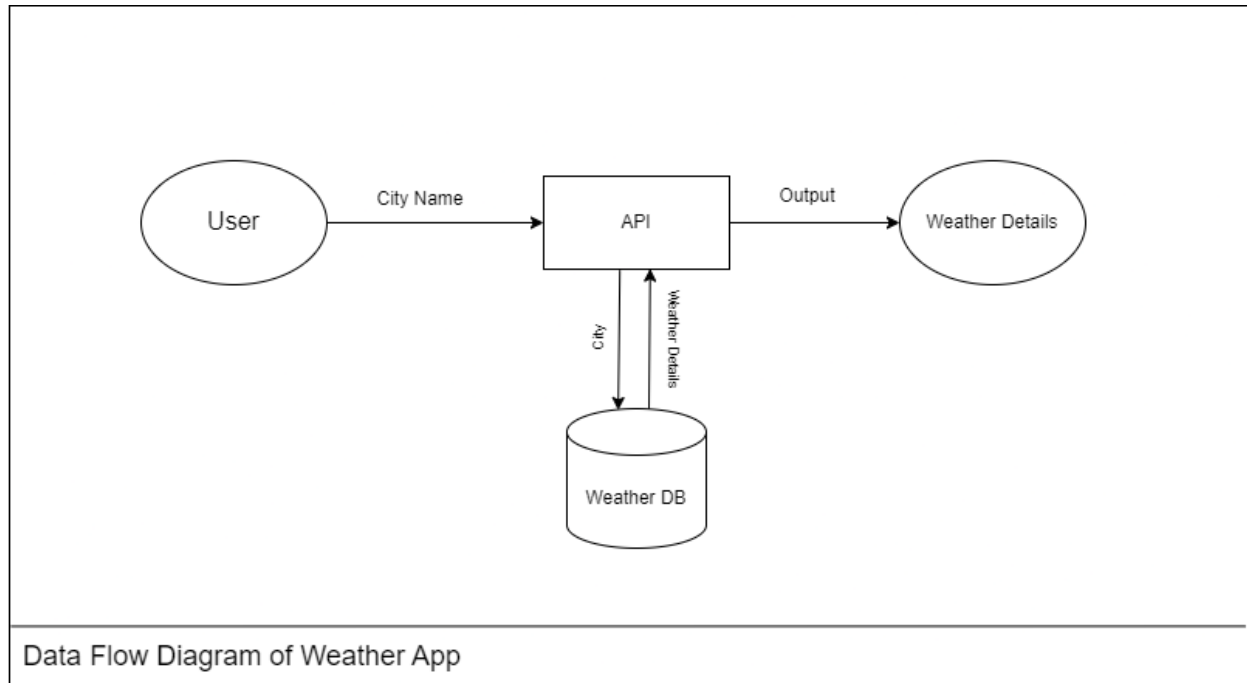User: Attributes User Id (Primary Key)

City: Attributes: City Name (Primary Key), API Key Value

Weather Details: Attributes: Temperature, Wind Speed, Weather Description, Humidity.

Relation between the entities

User enters the city name in the application. API returns a list of weather details with all the attributes.

Flow Chart

Data Flow Diagram of Weather App

Future Scope of the Project

For now, the project will only be web based but as time goes the following might be included for a better experience of Anga app.

- Development of both iOS App (App Store) and Android App (Play Store).
- Enhanced security measures
- Integration of AI and ML
- Implementation of User Feedback

Project Dependencies for better Experience/Functionality

- API integration
- Geolocation Features
- Server
- Data Storage
- Internet Connectivity