Sweater Weather app

This app would help users know what to wear depending on the weather. Users can input their location and the app would access weather data for the location from an API. Open-Meteo.com is a free weather API with JSON format and includes a Python SDK. I am planning to use Streamlit for GUI after developing it for a Command Line Interface.

The app would include visual icons of the weather or of possible outfits. There could be a personalized experience by taking wind or UV into consideration, users could be advised to bring a scarf or apply sunscreen. Users will also get information about the weather throughout the day so they know what to pack.

One challenge could be knowing how to provide useful suggestions since every user will have different preferences on what to wear in different climates. Potential features that could be implemented are user preferences like warmer clothing if they are often cold. I am unsure how I could implement the option to indicate what the user will be doing as going to work on a snowy day would be different than going on a run on a snowy day.

Vignettes

1. User Inputs Location

   Sue lives in Des Moines. With the ever-changing Iowa weather sometimes she struggles to know what to wear. She opens the Sweater Weather app and sees a text box where she is prompted to input her location. When Sue selects her location, the API scrapes the weather data for her city. There are UX features like a predictive text box that lets her autofill her city and state.

Based on the temperature of 50º and probability of rain in the afternoon, the app recommends she wears pants, a long sleeve shirt, and packs a rain jacket. She enjoys the personalized experience and that the app reminds her to bring an umbrella.

2. User Inputs Activity (optional)

Brenna is a runner in Chicago. In winter she struggles to know what to wear when running outside in the cold. She opens the Sweater Weather app and inputs her location. Then another text box appears that is labeled as optional and prompts the user to choose an activity from the list: outdoor run, walking commute, or social event. She chooses outdoor exercise and presses the green “Go” button.

She receives a personalized result for a snowy run in Chicago. The clothing includes athletic wear, gloves, a hat, and long socks. The clothing is indicated by small visual icons. A text banner appears wishing her a good run.

Technical flow

Weather data will be requested from Open-Meteo which is updated every hour and provides data on temperature, rain, and wind. The user will input their location and has the option to choose an activity. Their location will be used to fetch data from the API.

Users will have a text box input for location, an optional drop-down menu for activity, and a go button to start the process.

Outfit details are from a specific set of rules. For example, if the weather is above 90º the user will get shorts and a short sleeve t-shirt. If the weather is below 40º, the user will get pants, a long sleeve shirt, and a jacket.

Steps

- Required: Location (text field)

- Optional: Activity (dropdown)
- Click "Go"
- Query sent to Open-Meteo API with geolocation
- Response includes temperature, precipitation, wind, UV index, etc. (JSON)
- Data is parsed
- Clothing suggestions generated using decision tree or logic rules
- Output: Text, outfit icons, optional advice/reminder

Unknowns

I don’t know how to use Streamlit. I want my CLI to end up on Streamlit to make it more user friendly but I am unsure how Streamlit works.

I don’t know if I need to add another step for the users or if I am missing something that users need to use the app.