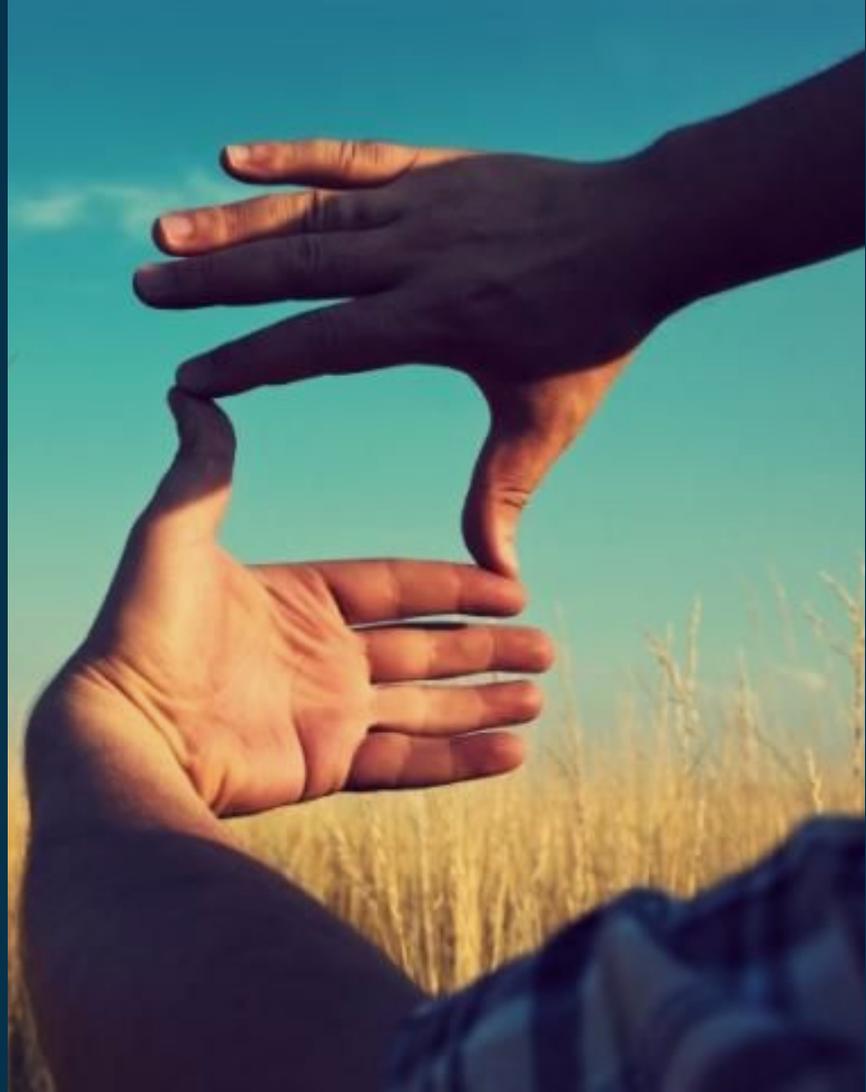# ANDROID DEV

SunSpotter

ANDROID

The Pacific Northwest in the winter is a gray and dreary place. For this project, I am building

An app that

will let users find out if there will be any sun nearby in the future--and if so, when!

What are the User Stories?

The user stories of the SunSpotter app are:

As a user, I want to...

- ➜ See if and when there will be any sun in the near future.

- ➜ See a future weather forecast so I can plan to find the sun.

- ➜ Specify my location so I can see if there will be sunshine near me.

Layout & Appearance

➔ Top: A User Input and a Search button

➔ Middle: A display that shows an image of whether there will be any sun in the near future
- ◆ Shows a sun if there will be a sun
- ◆ Shows a cloud otherwise

➔ Bottom: A scrollable list of tri-hourly forecast in the next few days
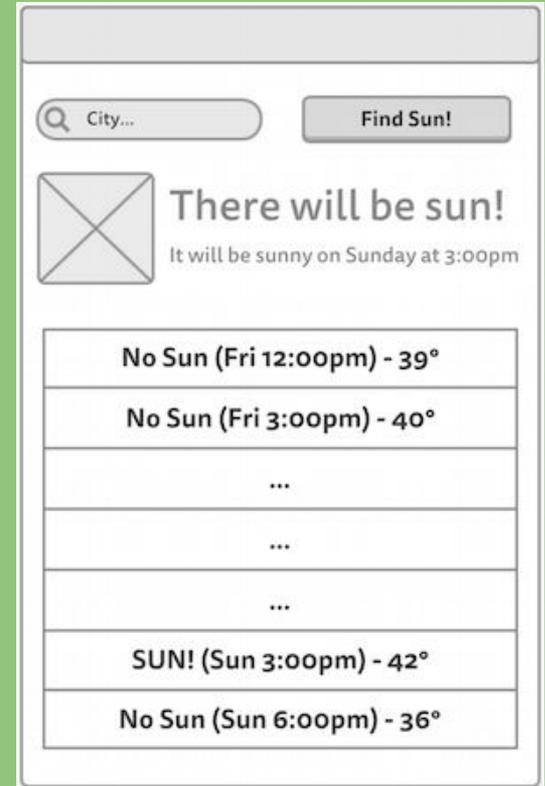
Public API

➔ The app uses OpenWeatherMap API for retrieving data

Here's how it works:
1. User enters ZIP code
2. SunSpotter sends an API call (by ZIP code) to OpenWeatherMap
3. OpenWeatherMap returns the forecast data in JSON format
4. SunSpotter accesses and parses the data

API Documentation: http://openweathermap.org/forecast5

Default View

➜ A simple input/text field for entering the ZIP code and a "Find Sun" button.

➜ The app also works with city name, though using ZIP code makes the API call more accurate (due to duplicity in city names).
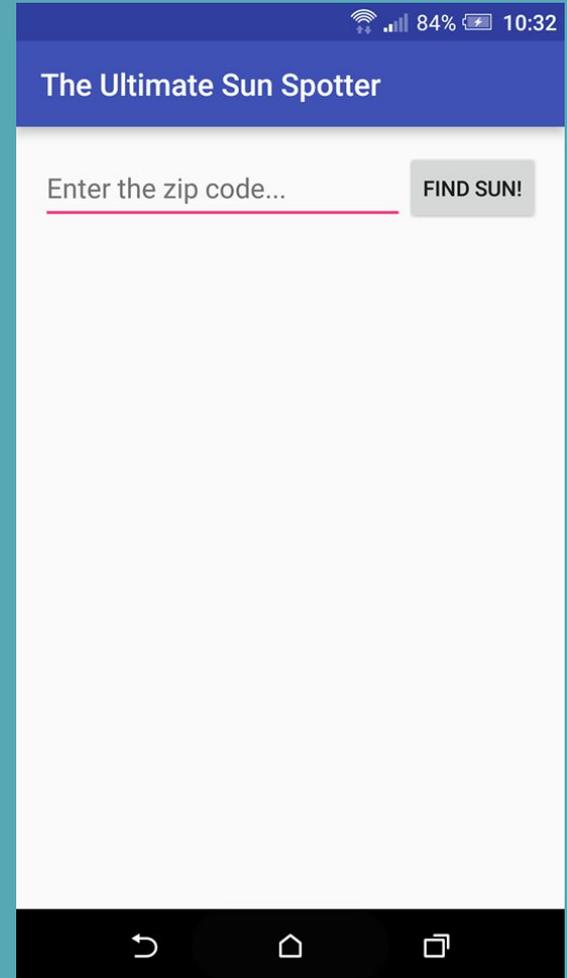
Displayed Result

➜ The app accesses the data and finds the nearest sunny time, followed by a parsed scrollable list of tri-hourly weather forecast.

What Skills have I demonstrated?

Through completing this project, I've demonstrated the following skills:

➔ Creating new **Android activities**

➔ Defining complex layout using **XML resources**

➔ Using Android View elements, including composites

➔ Downloading data from the Internet

➔ Accessing and parsing data from **public APIs** using Java

How might the app move forward in the future?

Next-step features to improve usability for the SunSpotter may include:

➔ Allowing the users to select forecast data from various sources (implementing with different public APIs)

➔ Providing recommendations of items/outfit of the day based on returned data

➔ Giving out daily notification on nearest sun found

THANKS!

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SunSpotter