



Weather Automation Report

Vicky Xueqing, Joshua Ellingson & Innocent Musyoka



Project Overview

We aspired to create a code that would prompt the user to provide a zip code, that in turn would return certain weather criteria.

A more ambitious idea, was to then generate an automated "notification" to certain specific individuals via either Gmail, WeChat, Facebook or other social media platforms.





API Application Programming Interfaces

- API – is used for software applications to send and receive data. API can also connect one program to another, to share functionality (Like the bridge between ATM and bank account).....
- An API key – is a unique identifier used to connect to, or perform, an API call.
- RapidAPI: <https://rapidapi.com/interzoid/api/us-weather-by-zip-code>

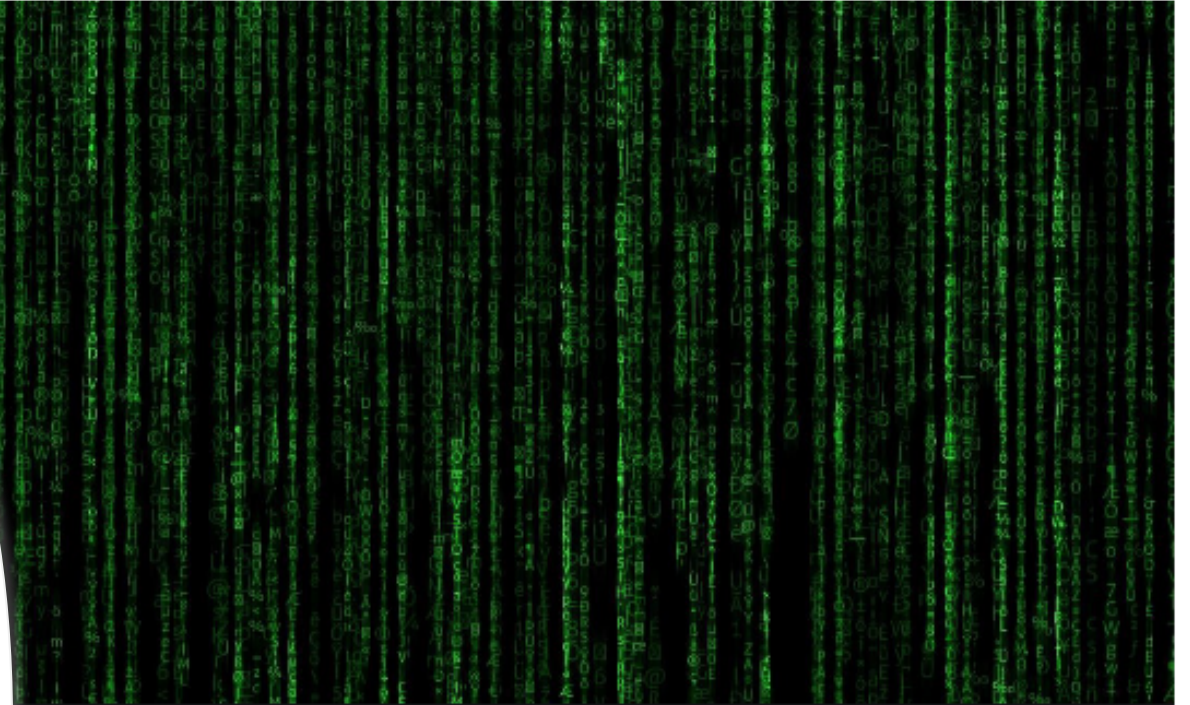
Libraries

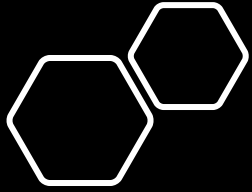
- Requests – A module used to, well..."request" certain information from a respective URL.
- Once the request is made to the URL (website) of our choosing, it will return the data in a 'JSON' format



Libraries

- Json (JavaScript Object Notation) is a data-type (format) that works well with many API's
- Json is similar to a "savable" version of a dictionary





Pseudocode

- ❖ Import required modules (requests, json)
- ❖ Define the function weather
- ❖ Acquire an API key [Instructions here.](#)
- ❖ Use the “try and except” to for error handling.
- ❖ Use “while True” statement to create a loop so that for as long as the conditions above are met, the program will continue to run indefinitely

```
1 import requests
2 import json
3 def weather():
4     try:
5         url2 = "https://us-weather-by-zip-code.p.rapidapi.com/getweatherzipcode"
6         headers2 = {
7             'x-rapidapi-host': "us-weather-by-zip-code.p.rapidapi.com",
8             'x-rapidapi-key': "cf4818eb5amshc6c673cb0b5a4e5p1a5d78jsn73a0d20bd5cf"
9         }
10        response2 = requests.request("GET", url2, headers=headers2, params=querystring)
11        body2 = response2.json()
12        ###print(body:{"City":{...}, "State":{...}, "TempF":{...}, "TempC":{...}, "Weather":{...}, "WindMPH":{...},
13        # "WindDir":{...}, "RelativeHumidity":{...}, "VisibilityMiles":{...}, "Code":{...}, "Credits":{...}}])
14        return body2
15    except:
16        pass
17 while True:
```

```
17 while True:
18     zip_str = input("input zip: ")
19     if zip_str:
20         zip_number = int(zip_str)
21         querystring = {"zip": zip_number}
22         wea = weather()
23         for w in wea:
24             print(w, '---', wea[w])
25     else:
26         break
```


Thank You!