

```

1  import urllib.request
2  from json import *
3
4  #variable for the 'city, state' chosen
5  cityName = 'portland, me'
6
7  #variable for the api key, not all websites require this to access the data
8  apiKey = '3ce5c8acff59e020b74f1fc8781421a3'
9
10 #each url begins the same way
11 url_start = 'http://api.openweathermap.org/data/2.5/'
12
13 #creating the url(s) that will be used to request the needed data (should use string formatting)
14 url3= ***insert correct url ending for what you are looking for ***
15
16 #requests the data contained on the page for the particular url, in json format
17 newFile = requests.get(url3)
18
19 #unpacks the json data into a more user friendly format, nested dictionaries
20 sortedData = newFile.json()
21
22 #close the file
23 newFile.close()
24
25 #create a variable that contains the dictionary associated with the keyword 'main'
26 item = sortedData['main']
27
28 '''
29 'main' contains temperatures, this will print the min temp for portland, me;
30 note the string formatting and the call for the value for keyword 'temp-min';
31 in the dictionary item; .upper() is a string method to capitalize the variable
32 cityName.
33 '''
34
35 print 'The minimum temperature for {}s is: {:.1f} degrees Fahrenheit'.format (cityName.upper(),
36                                                                                   item['temp_min'])
37

```

Code Explanation:

- URLLIB.REQUEST is a module that contains the functions to communicate with sites via their url
- JSON is a common format for data being sent from a website, the JSON module contains functions to handle this format, you'll have to determine the format of the data that will be sent to you and adjust to that format, it won't always be JSON
- lines 4 - 16 is where I create the format for the urls that I will send request to for different information

- line 5 handles the variable for the city name (`cityName`), I have it hardwired, but you could have it connected to an Entry Widget in your GUI
- line 8 is for the API key (`apiKey`), this is required for this particular site, it's given when you create the account, not all sites have this
- line 11 - for this site all URL's begin with this string, stored as `url_start`
- lines 14-16 - I create the url's to access 3 different JSON files containing different weather information, each url begins with `url_start`, this is followed by a call for weather or forecast for `cityName`, then for the format type (`json`), then the APPID (`apiKey`), then units format for which I hardwired imperial (metric would be another option if preferred)
- lines 19-28 is where I request the data with the urllib methods, and unpack it with the json methods
- Finally is a simple output string for the minimum temperature for Portland, ME