

Fetch SDET Take-Home Test

What do I need to submit?

Please write a command line utility or another style of utility for the problem below. You can use any framework or language you choose. You may also use any third party libraries you wish. We must be able to run the program and your test code for the program. Please provide any documentation necessary for running the utility and test code in the README.md file in the repository you submit.

Utility

Given this Open Weather Geocoding API (<https://openweathermap.org/api/geocoding-api>), please write a utility that takes a city, state, or zip code and returns the latitude, longitude, place name, and any other necessary information from the API. Your utility should make use of the [Coordinates by location name](#) and the [Coordinates by zip/post code](#) endpoints. Your program should also be able to handle multiple location inputs.

For the purposes of this exercise, you can limit the location scope to be within the United States.

In the event that multiple locations are returned by the API, you can use the first result in the list of returned locations.

Example Inputs

Inputs will be given in the following formats:

- City and place combination: "Madison, WI"
- Zip Codes: "12345"

Inputs should be given to the utility as a list of strings and should be able to handle multiple locations of either city/state or zip location type at once.

Possible examples:

- `geoloc-util --locations "Madison, WI" "12345"`
- `geoloc-util "Madison, WI" "12345" "Chicago, IL" "10001"`

GeoLocation API

Authorization

The API requires you to pass an appid url parameter with an API Key for authenticating the request. For the purposes of this exercise, you can use the following API key:

`f897a99d971b5eef57be6fafa0d83239`

Coordinates by location name

https://openweathermap.org/api/geocoding-api#direct_name

This API endpoint takes a single location city and state query and returns the possible results for the location search. The results should include the place information needed to display to the user.

Coordinates by zip/post code

https://openweathermap.org/api/geocoding-api#direct_zip

This API endpoint takes a single zipcode query and returns the possible results for the location search. The results should include the place information needed to display to the user.

Test Code

Please write some test code that tests your utility. For the purpose of this exercise, we would like you to write full integration tests and not unit tests. You should include whatever tests you think would be necessary to properly test the utility as you have written it.

If you wish, you can submit two separate repositories, one for the utility and one for testing the utility. If you do so, please provide detailed instructions on how the two repos should be configured such that the test repo can run on the utility.

How do I submit my solution?

Provide a link to a public repository, such as GitHub, GitLab, or BitBucket, that contains your code to your recruiter.

FAQ

What do I do if I am getting rate limited?

The API does have limits on our API key. If you are hitting rate limiting issues, please reach out to us for an updated API key OR you are always welcome to create your own free account and use your own dedicated API key.

https://home.openweathermap.org/users/sign_up

How will this exercise be evaluated?

An engineer will review the code you submit. At a minimum, they must be able to run the utility and the test code. You should include any necessary documentation within the repository. While your solution does not need to be fully production-ready, you are being evaluated so put your best foot forward.

I have questions about the problem statement

Use your best judgment to determine the expected result for any requirements not specified via an example.

May I provide a private repository?

We prefer a public repository because we do not know which engineer will be evaluating your submission. Providing a public repository ensures a speedy review of your submission. If you are still uncomfortable providing a public repository, you can work with your recruiter to provide access to the reviewing engineer.

How long do I have to complete the exercise?

There is no specific time limit for completing the exercise. To respect your time, we designed this exercise with the intention that it should take you a few hours. But, please take as much time as you need to complete the work.