

Recruiting Backend Engineer: Phone Number Lookup

Requirements

Create an `/v1/phone-numbers` endpoint that takes request parameters and returns information about a phone number.

Request parameters

phoneNumber

- in E.164 format: `[+][country code][area code][local phone number]`
- `+` is optional
- phone number is sequence of digits
- phones can spaces between country, area code and local phone number
 - any other space is invalid
 - any other character is invalid
- For example
 - `+12125690123` (valid)
 - `+52 631 3118150` (valid)
 - `34 915 872200` (valid)
 - `351 21 094 2000` (invalid)
- if `phoneNumber` is missing country code then user must provide `countryCode` parameter in ISO 3166-1 alpha-2 format.

countryCode

- in ISO 3166-1 alpha-2 format
- For example:
 - `US` (valid)
 - `MX` (valid)
 - `ESP` (invalid)

Response

success

`/v1/phone-numbers?phoneNumber=%2B12125690123`

Note: `+` is URL encoded as `%2B`

```
1 {
2   "phoneNumber": "+12125690123",
3   "countryCode": "US",
4   "areaCode": "212",
5   "localPhoneNumber": "5690123"
6 }
```

error

`/v1/phone-numbers?phoneNumber=631%20311%208150`

Note: `[space]` is URL-encoded as `%20`

```
1 {
2   "phoneNumber": "25690123",
3   "error": {
```

```
4   "countryCode": "required value is missing"
5   }
6 }
```

Please refer to write up requirements in FAQ section.

Criteria

We'll be evaluating your submission according to several criteria:

1. Was a reviewer able to run your code on their computer??
2. Does it provide expected response to well-formed inputs?
3. Does it handle errors for invalid inputs?
4. How readable is your submission?
5. How efficient is the code?
6. How well-structured is your submission?
7. How well-documented is your submission?
8. How well-tested is your submission?

FAQ

1. What programming language should I use?

You are free to choose any programming language.

2. Can I use an *ABC* library or a *XYZ* framework?

Yes, you are free to choose any framework or library you want.

3. How long should I take to complete this?

Please don't spend more than two hours to create your submission. You can take as much time as necessary to design and research a solution.

4. What should I include with my submission?

Please include a `README.md` with

- a. Explanation of how we would install and run your submission
- b. Explanation of your choice of programming language, framework, library.
- c. Explanation of how you would deploy to production.
 - i. You are not required to deploy your submission.
- d. Explanation of assumptions you made
- e. Explanation of improvements you wish to make

5. Should I include automated tests?

Yes, please provide automated tests with your submission.