In [10]:

```python
import requests as r
```

In [11]:

```python
url = 'https://api.covid19api.com/dayone/country/brazil'
resp = r.get(url)
```

In [12]:

```python
resp.status_code
```

Out[12]:

```
200
```

In [13]:

```python
raw_data = resp.json()
```

In [14]:

```python
raw_data[0]
```

Out[14]:

```
{'ID': '5b679794-2952-4c4c-a873-af6ff457b0fd',
 'Country': 'Brazil',
 'CountryCode': 'BR',
 'Province': '',
 'City': '',
 'CityCode': '',
 'Lat': '-14.24',
 'Lon': '-51.93',
 'Confirmed': 1,
 'Deaths': 0,
 'Recovered': 0,
 'Active': 1,
 'Date': '2020-02-26T00:00:00Z'}
```

filtrando dados

In [18]:

```python
final_data = []  #listas de listas
for obs in raw_data:
    final_data.append([obs['Confirmed'], obs['Deaths'], obs['Recovered'], ['Active'], ob
```

In [19]:

```
final_data
```

Out[19]:

```
[[1, 0, 0, ['Active'], '2020-02-26T00:00:00Z'],
 [1, 0, 0, ['Active'], '2020-02-27T00:00:00Z'],
 [1, 0, 0, ['Active'], '2020-02-28T00:00:00Z'],
 [2, 0, 0, ['Active'], '2020-02-29T00:00:00Z'],
 [2, 0, 0, ['Active'], '2020-03-01T00:00:00Z'],
 [2, 0, 0, ['Active'], '2020-03-02T00:00:00Z'],
 [2, 0, 0, ['Active'], '2020-03-03T00:00:00Z'],
 [4, 0, 0, ['Active'], '2020-03-04T00:00:00Z'],
 [4, 0, 0, ['Active'], '2020-03-05T00:00:00Z'],
 [13, 0, 0, ['Active'], '2020-03-06T00:00:00Z'],
 [13, 0, 0, ['Active'], '2020-03-07T00:00:00Z'],
 [20, 0, 0, ['Active'], '2020-03-08T00:00:00Z'],
 [25, 0, 0, ['Active'], '2020-03-09T00:00:00Z'],
 [31, 0, 0, ['Active'], '2020-03-10T00:00:00Z'],
 [38, 0, 0, ['Active'], '2020-03-11T00:00:00Z'],
 [52, 0, 0, ['Active'], '2020-03-12T00:00:00Z'],
 [151, 0, 0, ['Active'], '2020-03-13T00:00:00Z'],
 [151, 0, 0, ['Active'], '2020-03-14T00:00:00Z'],
```

In [22]:

```
final_data.insert(0, ['confirmados', 'óbitos', 'recuperados', 'ativos', 'data'])
final_data
```

Out[22]:

```
[['confirmados', 'óbitos', 'recuperados', 'ativos', 'data'],
 [1, 0, 0, ['Active'], '2020-02-26T00:00:00Z'],
 [1, 0, 0, ['Active'], '2020-02-27T00:00:00Z'],
 [1, 0, 0, ['Active'], '2020-02-28T00:00:00Z'],
 [2, 0, 0, ['Active'], '2020-02-29T00:00:00Z'],
 [2, 0, 0, ['Active'], '2020-03-01T00:00:00Z'],
 [2, 0, 0, ['Active'], '2020-03-02T00:00:00Z'],
 [2, 0, 0, ['Active'], '2020-03-03T00:00:00Z'],
 [4, 0, 0, ['Active'], '2020-03-04T00:00:00Z'],
 [4, 0, 0, ['Active'], '2020-03-05T00:00:00Z'],
 [13, 0, 0, ['Active'], '2020-03-06T00:00:00Z'],
 [13, 0, 0, ['Active'], '2020-03-07T00:00:00Z'],
 [20, 0, 0, ['Active'], '2020-03-08T00:00:00Z'],
 [25, 0, 0, ['Active'], '2020-03-09T00:00:00Z'],
 [31, 0, 0, ['Active'], '2020-03-10T00:00:00Z'],
 [38, 0, 0, ['Active'], '2020-03-11T00:00:00Z'],
 [52, 0, 0, ['Active'], '2020-03-12T00:00:00Z'],
 [151, 0, 0, ['Active'], '2020-03-13T00:00:00Z'],
```

MUDANDO FORMATO DE DATA

In [25]:

```python
CONFIRMADOS = 0
ÓBITOS = 1
RECUPERADOS = 2
ATIVOS = 3
DATA = 4
```

In [26]:

```python
for i  in range(1, len(final_data)):
    final_data[i][DATA] = final_data[i][DATA][:10]
```

In [27]:

```python
final_data
```

Out[27]:

```
[['confirmados', 'óbitos', 'recuperados', 'ativos', 'data'],
 [1, 0, 0, ['Active'], '2020-02-26'],
 [1, 0, 0, ['Active'], '2020-02-27'],
 [1, 0, 0, ['Active'], '2020-02-28'],
 [2, 0, 0, ['Active'], '2020-02-29'],
 [2, 0, 0, ['Active'], '2020-03-01'],
 [2, 0, 0, ['Active'], '2020-03-02'],
 [2, 0, 0, ['Active'], '2020-03-03'],
 [4, 0, 0, ['Active'], '2020-03-04'],
 [4, 0, 0, ['Active'], '2020-03-05'],
 [13, 0, 0, ['Active'], '2020-03-06'],
 [13, 0, 0, ['Active'], '2020-03-07'],
 [20, 0, 0, ['Active'], '2020-03-08'],
 [25, 0, 0, ['Active'], '2020-03-09'],
 [31, 0, 0, ['Active'], '2020-03-10'],
 [38, 0, 0, ['Active'], '2020-03-11'],
 [52, 0, 0, ['Active'], '2020-03-12'],
 [151, 0, 0, ['Active'], '2020-03-13'],
```

In [28]:

```python
import datetime as dt
```

In [30]:

```python
print(dt.time(11,7,21,3),  'hora:minuto:segundo:microsegundo')
print(dt.date(2021,7,1), 'ano:mês:dia')
print(dt.datetime(2021,7,1,11,7,21,3))
```

```
11:07:21.000003 hora:minuto:segundo:microsegundo
2021-07-01 ano:mês:dia
2021-07-01 11:07:21.000003
```

In [33]:

```python
natal = dt.date(2021,12,25)
reveillon = dt.date(2022,1,1)

print(reveillon - natal)

print((reveillon - natal).days)
print((reveillon - natal).seconds)
print((reveillon - natal).microseconds)
```

```
7 days, 0:00:00
7
0
0
```

In [34]:

```python
import csv
```

In [36]:

```python
with open('brasil-covid.csv', 'w') as file:
    writer = csv.writer(file)
    writer.writerows(final_data)
```

In [37]:

```python
for i in range(1, len(final_data)):
    final_data[i][DATA] = dt.datetime.strptime(final_data[i][DATA], '%Y-%m-%d')
```

In [38]:

```python
final_data
```

Out[38]:

```
[['confirmados', 'óbitos', 'recuperados', 'ativos', 'data'],
 [1, 0, 0, ['Active'], datetime.datetime(2020, 2, 26, 0, 0)],
 [1, 0, 0, ['Active'], datetime.datetime(2020, 2, 27, 0, 0)],
 [1, 0, 0, ['Active'], datetime.datetime(2020, 2, 28, 0, 0)],
 [2, 0, 0, ['Active'], datetime.datetime(2020, 2, 29, 0, 0)],
 [2, 0, 0, ['Active'], datetime.datetime(2020, 3, 1, 0, 0)],
 [2, 0, 0, ['Active'], datetime.datetime(2020, 3, 2, 0, 0)],
 [2, 0, 0, ['Active'], datetime.datetime(2020, 3, 3, 0, 0)],
 [4, 0, 0, ['Active'], datetime.datetime(2020, 3, 4, 0, 0)],
 [4, 0, 0, ['Active'], datetime.datetime(2020, 3, 5, 0, 0)],
 [13, 0, 0, ['Active'], datetime.datetime(2020, 3, 6, 0, 0)],
 [13, 0, 0, ['Active'], datetime.datetime(2020, 3, 7, 0, 0)],
 [20, 0, 0, ['Active'], datetime.datetime(2020, 3, 8, 0, 0)],
 [25, 0, 0, ['Active'], datetime.datetime(2020, 3, 9, 0, 0)],
 [31, 0, 0, ['Active'], datetime.datetime(2020, 3, 10, 0, 0)],
 [38, 0, 0, ['Active'], datetime.datetime(2020, 3, 11, 0, 0)],
 [52, 0, 0, ['Active'], datetime.datetime(2020, 3, 12, 0, 0)],
 [151, 0, 0, ['Active'], datetime.datetime(2020, 3, 13, 0, 0)].
```