Retrieving Data

In [1]:
```
# Retrieving data from API
import json
import requests

url = "https://api.covid19api.com/total/country/singapore/status/confirmed"

payload={}
headers = {}

# parsing the data from the api
response = requests.request("GET", url, headers=headers, data=payload)
data = json.loads(response.text)
```

Preprocessing Data

In [2]:
```
import pandas as pd

# storing data in pandas dataframe
df = pd.DataFrame(data)
```

In [3]:
```
df.tail()
```

Out[3]:

	Country	CountryCode	Province	City	CityCode	Lat	Lon	Cases	Status	Date
645	Singapore		0		0			187851	confirmed	2021-10-28T00:00:00Z
646	Singapore		0		0			192099	confirmed	2021-10-29T00:00:00Z
647	Singapore		0		0			195211	confirmed	2021-10-30T00:00:00Z
648	Singapore		0		0			198374	confirmed	2021-10-31T00:00:00Z
649	Singapore		0		0			200844	confirmed	2021-11-01T00:00:00Z

In [4]:
```
# obtaining the number of rows and column from this dataset
df.shape
```

Out[4]:
```
(650, 10)
```

In [5]:
```
# subsetting the dataset into the columns needed for visualisation
df = df[['Date', 'Cases']]
df.head()
```

Out[5]:

	Date	Cases
0	2020-01-22T00:00:00Z	0
1	2020-01-23T00:00:00Z	1
2	2020-01-24T00:00:00Z	3
3	2020-01-25T00:00:00Z	3
4	2020-01-26T00:00:00Z	4

In [6]:
```
from datetime import datetime, date

# removing time from the dateime string
df['Date'] = df['Date'].apply(lambda x: x.split('T')[0])
df.tail()
```

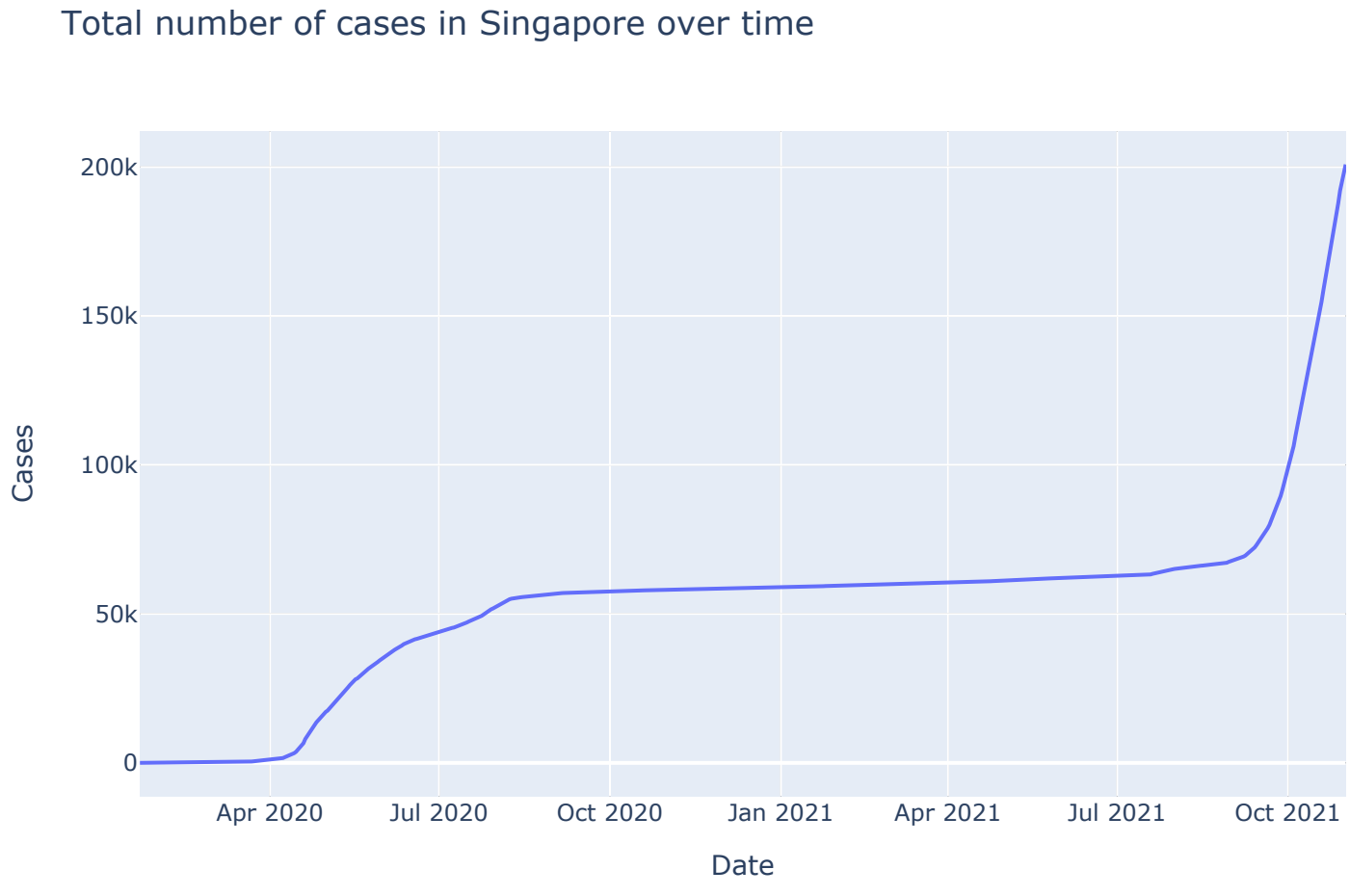
Out[6]:

	Date	Cases
645	2021-10-28	187851
646	2021-10-29	192099
647	2021-10-30	195211
648	2021-10-31	198374
649	2021-11-01	200844

Generating Visualisation

In [7]:
```
import plotly.express as px

# plotting the total number of cases over time in an interactive chart
fig = px.line(df, x="Date", y="Cases", title="Total number of cases in Singapore over time")
fig.show()
```



In [8]:
```
# Saving the interactive chart as a static image
fig.write_image("CovidTotal.png")
```

In [ ]:
```
```