MSE598DM_S2022

January 20, 2022

```python
[ ]: #!pip install [packagename]
```

```python
[ ]: import pandas as pd
     df = pd.read_csv("https://covidtracking.com/api/v1/states/daily.csv")
```

```python
[ ]: df
```

```python
[ ]: def convert_to_datetime(x):
         return str(x)[0:4]+'-'+str(x)[4:6] + '-'+str(x)[6:]
     df['date_conv'] = pd.to_datetime([convert_to_datetime(x) for x in df['date']])
```
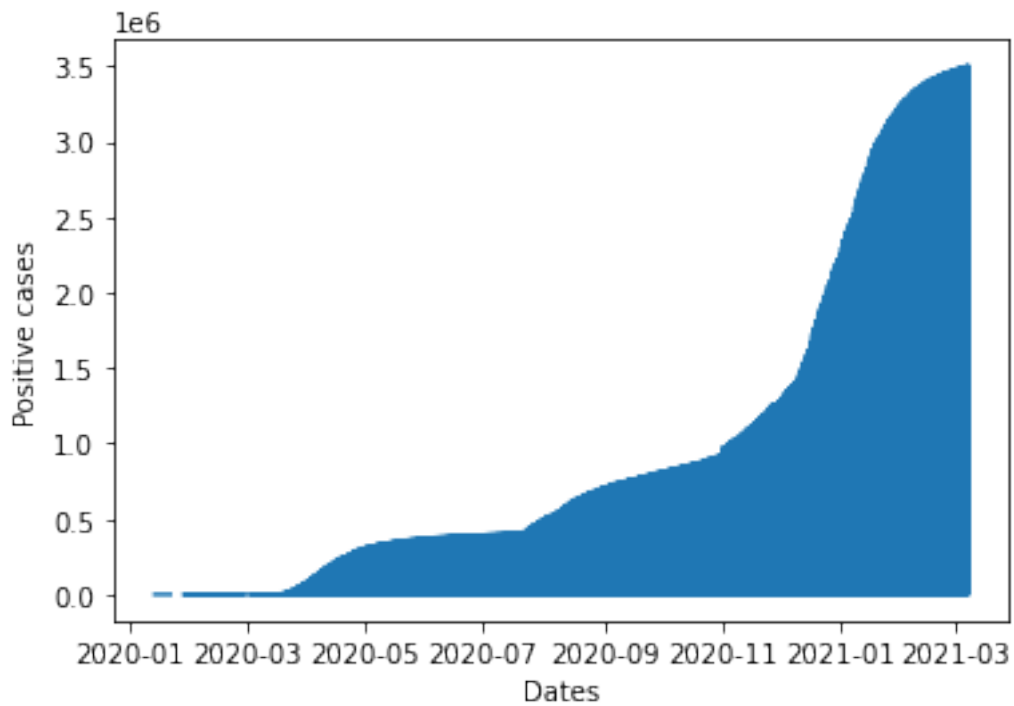
```python
[ ]: df
```

```python
[ ]: df_il = df[df['state']=='IL']
```

```python
[ ]: df_il
```

```python
[ ]: import matplotlib.pyplot as plt
     plt.plot('date_conv','positive',data=df)
     plt.xlabel('Dates')
     plt.ylabel('Positive cases')
```

```
[ ]: Text(0, 0.5, 'Positive cases')
```

```
[ ]: df['positivity'] = df['positive']/(df['positive']+df['negative'])
```
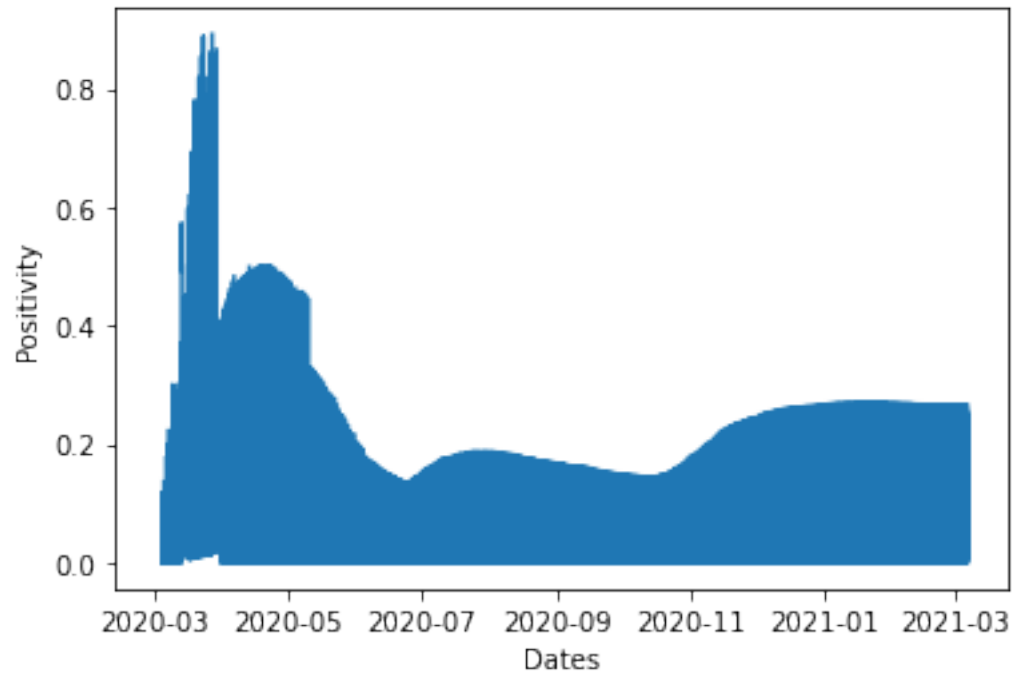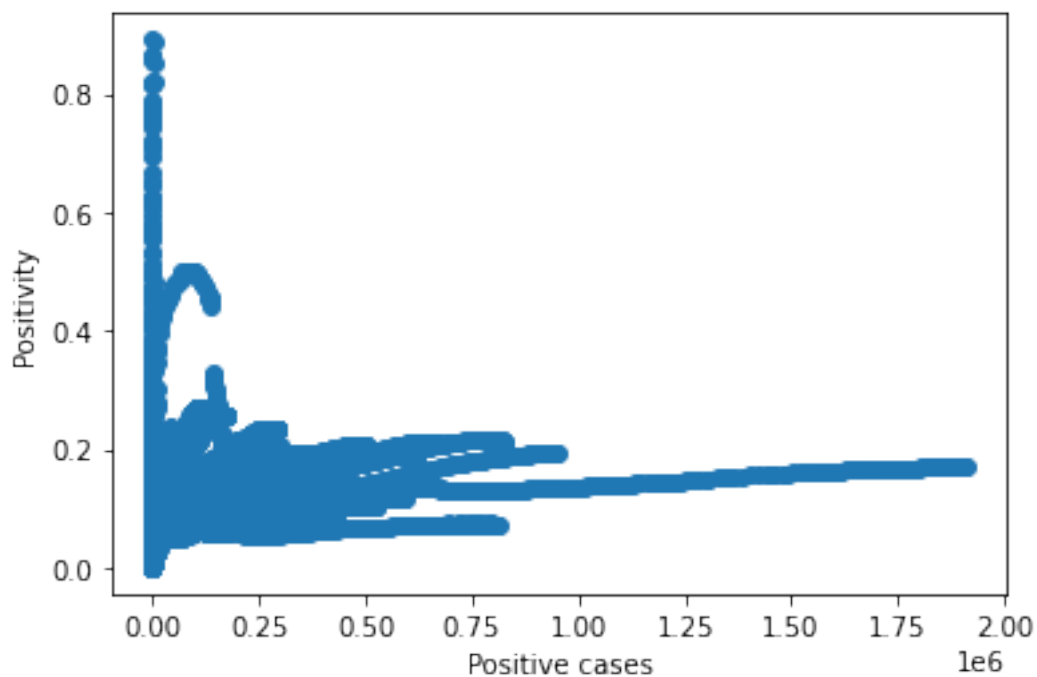
```
[ ]: df
```

```
[ ]: plt.plot('date_conv','positivity',data=df)
     plt.xlabel('Dates')
     plt.ylabel('Positivity')
```

```
[ ]: Text(0, 0.5, 'Positivity')
```

```
plt.plot('positive','positivity','o',data=df)
plt.xlabel('Positive cases')
plt.ylabel('Positivity')
```

Text(0, 0.5, 'Positivity')

[ ]:

If positive case is correlated with positivity, we should see the data points align on a curve. But this is not the case, so there is no correlation between positive cases and positivity.

[ ]:

[ ]: