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Subject-BDA Lab Roll No.- 2193227

Class- IS-2 Batch 2

In [1]:

```
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

In [2]:

```
data=pd.read_csv(r"D:/MIT/BDA/lab/archive/full_grouped.csv")
```

In [3]:

```
data.head()
```

Out[3]:

	Date	Country/Region	Confirmed	Deaths	Recovered	Active	New cases	New deaths	New recovered
0	January	Afghanistan	0	0	0	0	0	0	0
1	January	Albania	0	0	0	0	0	0	0
2	January	Algeria	0	0	0	0	0	0	0
3	January	Andorra	0	0	0	0	0	0	0
4	January	Angola	0	0	0	0	0	0	0

In [4]:

```
df=data[(data['Country/Region'] == 'India')]
```

In [5]:

```
df.head()
```

Out[5]:

	Date	Country/Region	Confirmed	Deaths	Recovered	Active	New cases	New deaths	New recovered
79	January	India	0	0	0	0	0	0	0
266	January	India	0	0	0	0	0	0	0
453	January	India	0	0	0	0	0	0	0
640	January	India	0	0	0	0	0	0	0
827	January	India	0	0	0	0	0	0	0

In [6]:

```
df=df.drop('Country/Region',axis=1)
df=df.drop('WHO Region',axis=1)
```

In [7]:

```
df.head()
```

Out[7]:

	Date	Confirmed	Deaths	Recovered	Active	New cases	New deaths	New recovered
79	January	0	0	0	0	0	0	0
266	January	0	0	0	0	0	0	0
453	January	0	0	0	0	0	0	0
640	January	0	0	0	0	0	0	0
827	January	0	0	0	0	0	0	0

In [8]:

```
df.count()
```

Out[8]:

```
Date             188
Confirmed        188
Deaths           188
Recovered        188
Active           188
New cases        188
New deaths       188
New recovered    188
dtype: int64
```

In [9]:

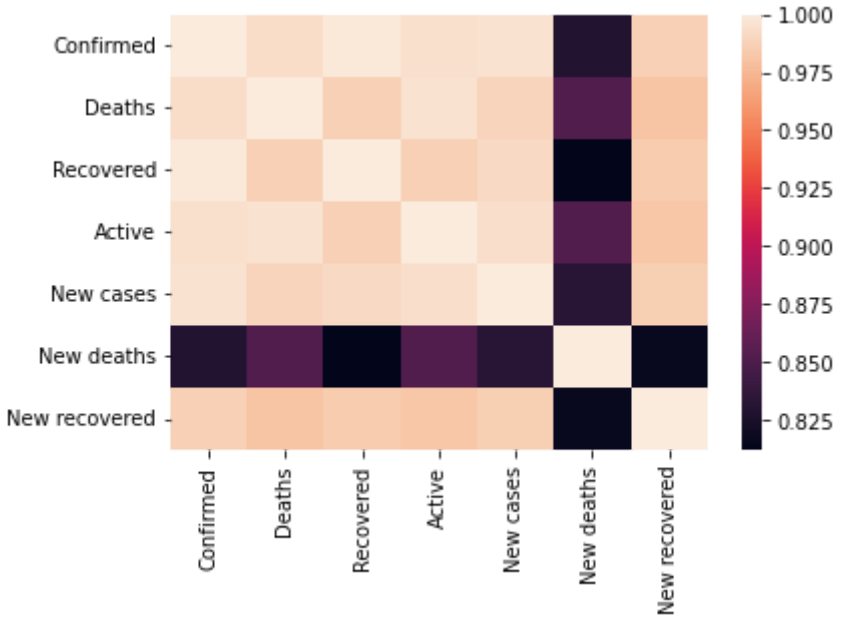
```
import seaborn as sns
```

In [10]:

```
sns.heatmap(df.corr())
```

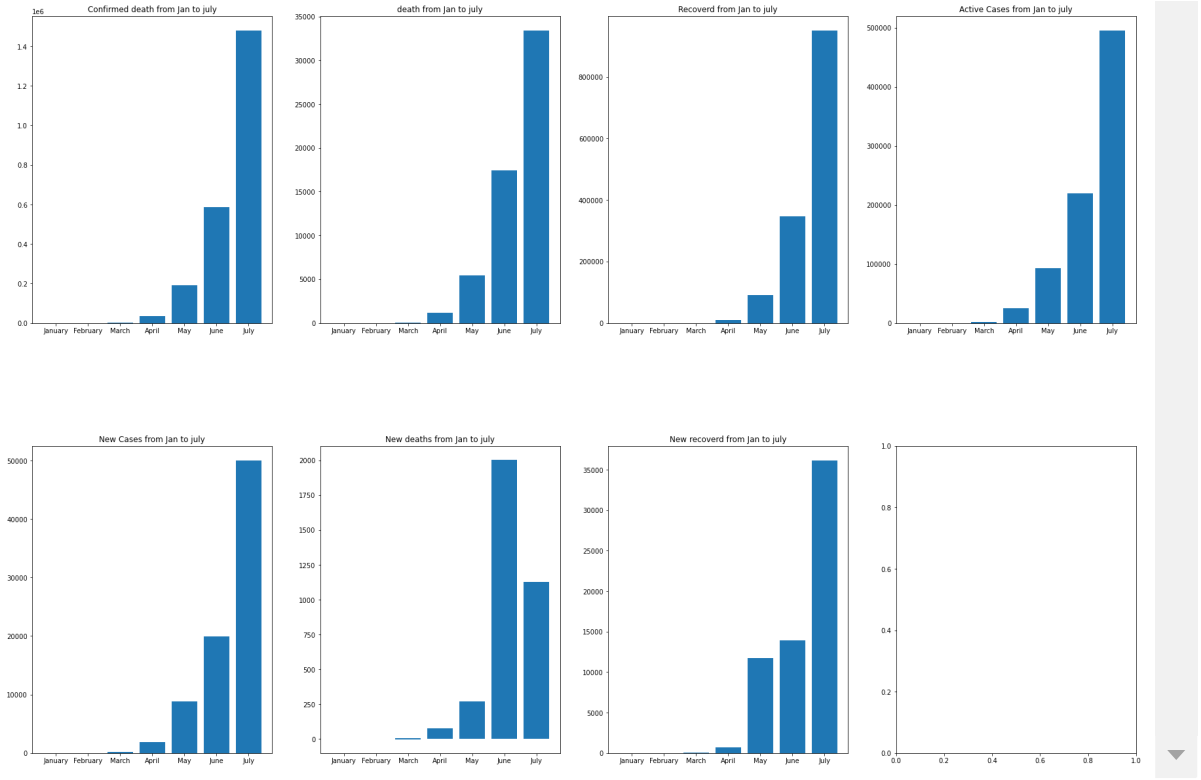
Out[10]:

```
<AxesSubplot:>
```



In [11]:

```
# y1=plt.bar(df['Date'],df["Confirmed"])
# y2=plt.bar(df['Date'],df["Deaths"])
# y3=plt.bar(df['Date'],df["Recovered"])
# y4=plt.
# y5=plt.
# y6=plt.
# y7=plt.

figure, axis = plt.subplots(2, 4)

axis[0, 0].bar(df['Date'],df["Confirmed"])
axis[0, 0].set_title("Confirmed death from Jan to july")

# For Cosine Function
axis[0, 1].bar(df['Date'],df["Deaths"])
axis[0, 1].set_title("death from Jan to july")

# For Tangent Function
axis[0, 2].bar(df['Date'],df["Recovered"])
axis[0, 2].set_title("Recoverd from Jan to july")

# For Tanh Function
axis[0, 3].bar(df['Date'],df["Active"])
axis[0, 3].set_title("Active Cases from Jan to july")

axis[1, 0].bar(df['Date'],df["New cases"])
axis[1, 0].set_title("New Cases from Jan to july")

# For Cosine Function
axis[1, 1].bar(df['Date'],df["New deaths"])
axis[1, 1].set_title("New deaths from Jan to july")

# For Tangent Function
axis[1, 2].bar(df['Date'],df["New recovered"])
axis[1, 2].set_title("New recoverd from Jan to july")

plt.subplots_adjust(left=0.1,
                    bottom=0.1,
                    right=4,
                    top=4,
                    wspace=0.2,
                    hspace=0.4)
plt.show()
```



In [12]:

```
df=data[(data['Country/Region'] == 'US')]
```

In [13]:

```
df=df.drop('Country/Region',axis=1)
df=df.drop('WHO Region',axis=1)
```

In [14]:

```
df.head()
```

Out[14]:

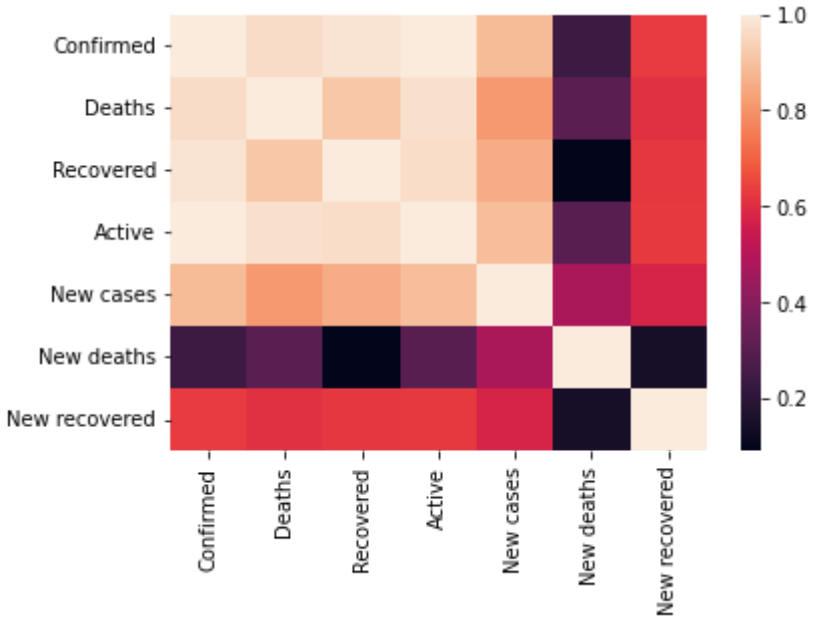
	Date	Confirmed	Deaths	Recovered	Active	New cases	New deaths	New recovered
173	January	1	0	0	1	0	0	0
360	January	1	0	0	1	0	0	0
547	January	2	0	0	2	1	0	0
734	January	2	0	0	2	0	0	0
921	January	5	0	0	5	3	0	0

In [15]:

```
sns.heatmap(df.corr())
```

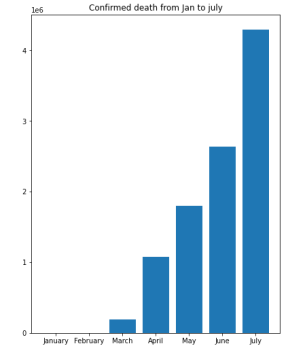
Out[15]:

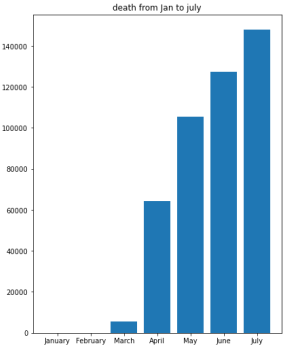
```
<AxesSubplot:>
```

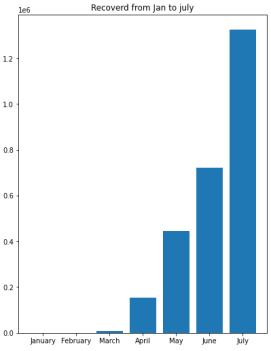


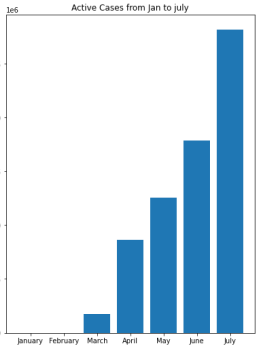
In [16]:

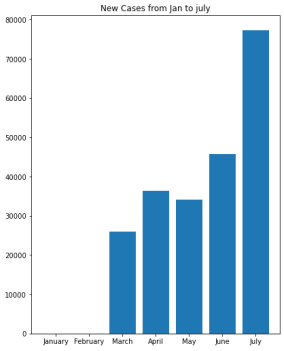
```
# y1=plt.bar(df['Date'],df["Confirmed"])
# y2=plt.bar(df['Date'],df["Deaths"])
# y3=plt.bar(df['Date'],df["Recovered"])
# y4=plt.
# y5=plt.
# y6=plt.
# y7=plt.

figure, axis = plt.subplots(2, 4)

axis[0, 0].bar(df['Date'],df["Confirmed"])
axis[0, 0].set_title("Confirmed death from Jan to july")

# For Cosine Function
axis[0, 1].bar(df['Date'],df["Deaths"])
axis[0, 1].set_title("death from Jan to july")

# For Tangent Function
axis[0, 2].bar(df['Date'],df["Recovered"])
axis[0, 2].set_title("Recoverd from Jan to july")

# For Tanh Function
axis[0, 3].bar(df['Date'],df["Active"])
axis[0, 3].set_title("Active Cases from Jan to july")

axis[1, 0].bar(df['Date'],df["New cases"])
axis[1, 0].set_title("New Cases from Jan to july")

# For Cosine Function
axis[1, 1].bar(df['Date'],df["New deaths"])
axis[1, 1].set_title("New deaths from Jan to july")

# For Tangent Function
axis[1, 2].bar(df['Date'],df["New recovered"])
axis[1, 2].set_title("New recoverd from Jan to july")

plt.subplots_adjust(left=0.1,
                    bottom=0.1,
                    right=4,
                    top=4,
                    wspace=0.2,
                    hspace=0.4)
plt.show()
```

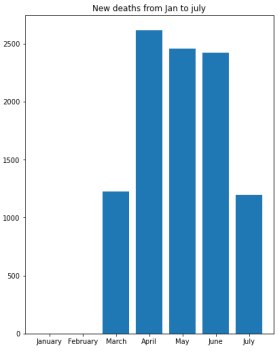

Confirmed death from Jan to july
1e6
January February March April May June July

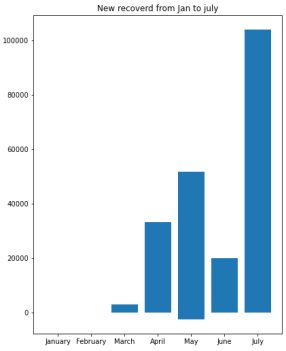

death from Jan to july
January February March April May June July

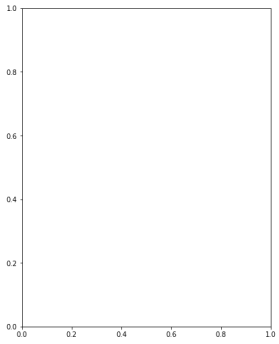

Recoverd from Jan to july
1e6
January February March April May June July


Active Cases from Jan to july
1e6
January February March April May June July


New Cases from Jan to july
January February March April May June July


New deaths from Jan to july
January February March April May June July


New recoverd from Jan to july
January February March April May June July



In [ ]:

In [ ]: