

```
In [1]: %matplotlib inline
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```
In [2]: import matplotlib as mpl
import matplotlib.pyplot as plt
import numpy as np
import pandas as pd
```

```
In [3]: data = pd.read_csv('district.csv')
```

```
In [4]: data.head()
```

```
Out[4]:
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	districtData/0/district	districtData/0/active	districtData/0/confirmed	districtData/0/deceased	districtData/0/recovered
0	Ahmadnagar	17	42	2	23
1	Yavatmal	69	79	0	10
2	Washim	1	2	0	1
3	Solapur	93	99	6	0
4	Sindhudurg	1	2	0	1

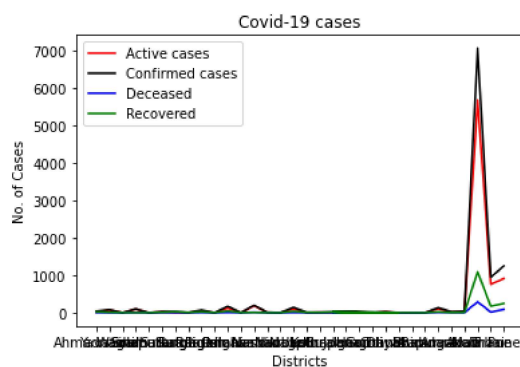
```
In [5]: data.describe()
```

```
Out[5]:
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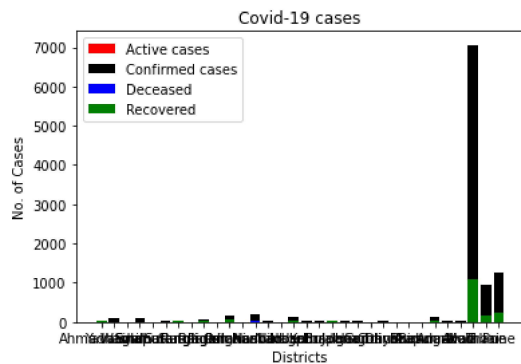
	districtData/0/active	districtData/0/confirmed	districtData/0/deceased	districtData/0/recovered
count	33.000000	33.000000	33.000000	33.000000
mean	249.818182	317.909091	13.878788	54.212121
std	994.971936	1238.750034	51.887955	193.105016
min	0.000000	1.000000	0.000000	0.000000
25%	2.000000	3.000000	0.000000	1.000000
50%	14.000000	25.000000	1.000000	5.000000
75%	69.000000	79.000000	4.000000	22.000000
max	5679.000000	7061.000000	290.000000	1092.000000

```
In [15]: A = data.iloc[0:,1].values
B = data.iloc[0:,2].values
C = data.iloc[0:,3].values
D = data.iloc[0:,4].values
X = data.iloc[0:,0]

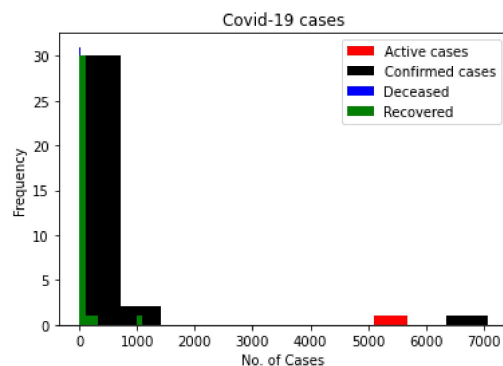
plt.plot(X, A, label= "Active cases", color="red")
plt.plot(X, B, label= "Confirmed cases", color="black")
plt.plot(X, C, label= "Deceased", color="blue")
plt.plot(X, D, label= "Recovered", color="green")
plt.xlabel('Districts')
plt.ylabel('No. of Cases')
plt.title('Covid-19 cases')
plt.legend()
plt.show()
```



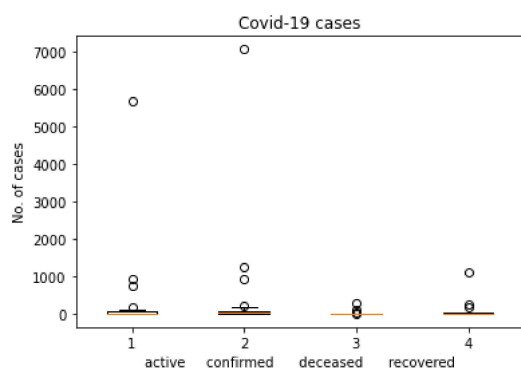
```
In [14]: plt.bar(X, A, label= "Active cases", color="red")
plt.bar(X, B, label= "Confirmed cases", color="black")
plt.bar(X, C, label= "Deceased", color="blue")
plt.bar(X, D, label= "Recovered", color="green")
plt.xlabel('Districts')
plt.ylabel('No. of Cases')
plt.title('Covid-19 cases')
plt.legend()
plt.show()
```



```
In [13]: plt.hist(A, label= "Active cases", color="red")
plt.hist(B, label= "Confirmed cases", color="black")
plt.hist(C, label= "Deceased", color="blue")
plt.hist(D, label= "Recovered", color="green")
plt.xlabel('No. of Cases')
plt.ylabel('Frequency')
plt.title('Covid-19 cases')
plt.legend()
plt.show()
```



```
In [18]: Covidcases= [A, B, C, D]
plt.boxplot(Covidcases)
plt.title("Covid-19 cases")
plt.xlabel("active confirmed deceased recovered")
plt.ylabel("No. of cases")
plt.show()
```



```
In [19]: data.sort_values(['districtData/0/active', 'districtData/0/district'], ascending = False)
```

```
Out[19]:
```

	districtData/0/district	districtData/0/active	districtData/0/confirmed	districtData/0/deceased	districtData/0/recovered
30	Mumbai	5679	7061	290	1092
32	Pune	912	1248	88	248
31	Thane	755	943	16	172
12	Nashik	179	197	12	6
10	Palghar	119	169	4	46
27	Aurangabad	102	131	7	22
15	Nagpur	100	139	2	37
3	Solapur	93	99	6	0
1	Yavatmal	69	79	0	10
8	Raigarh	44	71	3	24
19	Jalgaon	30	40	9	1
29	Akola	30	39	1	8
22	Dhule	22	25	3	0
5	Satara	21	32	2	9
28	Amravati	17	28	7	4
0	Ahmadnagar	17	42	2	23
20	Hingoli	14	15	0	1
13	Nandurbar	10	11	1	0
17	Kolhapur	10	14	0	4
6	Sangli	3	29	1	25
14	Nanded	3	3	0	0
16	Latur	3	12	1	8
18	Buldana	3	21	1	17
24	Buldana	3	21	1	17
7	Ratnagiri	2	8	1	5
2	Washim	1	2	0	1
4	Sindhudurg	1	2	0	1
9	Parbhani	1	2	0	1
26	Bhandara	1	1	0	0
11	Osmanabad	0	3	0	3
21	Gondiya	0	1	0	1
23	Chandrapur	0	2	0	2
25	Bid	0	1	0	1

```
In [20]: Sortedcases= data.sort_values(['districtData/0/active', 'districtData/0/district'], ascending = False)
```

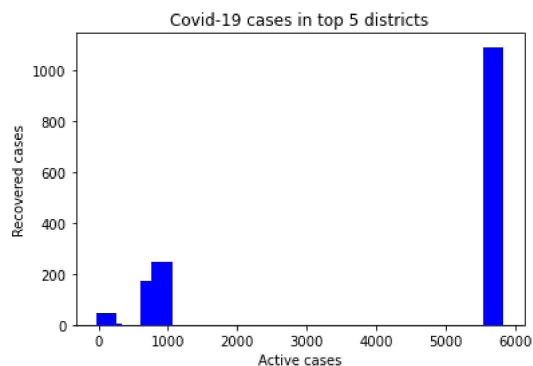
```
In [21]: Sortedcases.head(5)
```

```
Out[21]:
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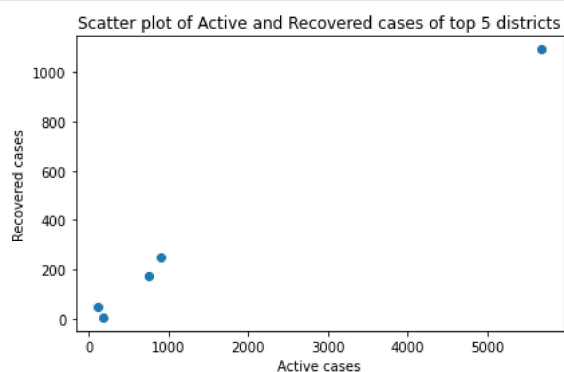
	districtData/0/district	districtData/0/active	districtData/0/confirmed	districtData/0/deceased	districtData/0/recovered
30	Mumbai	5679	7061	290	1092
32	Pune	912	1248	88	248
31	Thane	755	943	16	172
12	Nashik	179	197	12	6
10	Palghar	119	169	4	46

```
In [22]: Highestcases= Sortedcases.head(5)
```

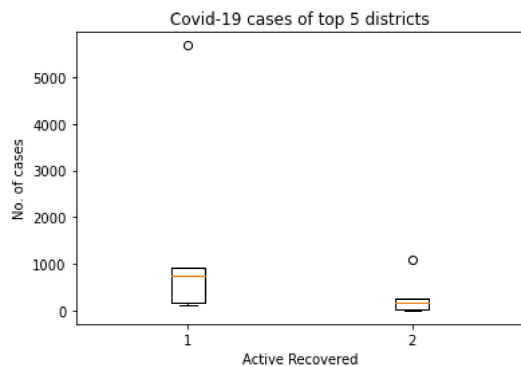
```
In [23]: A = Highestcases.loc[:, "districtData/0/active"]
R = Highestcases.loc[:, "districtData/0/recovered"]
plt.bar(A,R, width=300, color="blue")
plt.xlabel("Active cases")
plt.ylabel("Recovered cases")
plt.title("Covid-19 cases in top 5 districts")
plt.show()
```



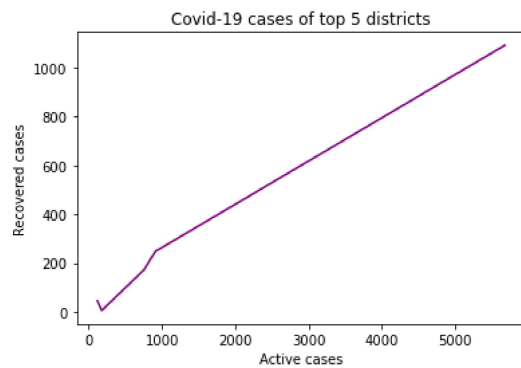
```
In [24]: plt.scatter(A,R)
plt.xlabel("Active cases")
plt.ylabel("Recovered cases")
plt.title("Scatter plot of Active and Recovered cases of top 5 districts")
plt.tight_layout()
plt.show()
```



```
In [29]: Covidcases = [A,R]
plt.boxplot(Covidcases)
plt.xlabel("Active Recovered")
plt.ylabel("No. of cases")
plt.title("Covid-19 cases of top 5 districts")
plt.show()
```



```
In [30]: plt.plot (A,R, color="purple")
plt.xlabel("Active cases")
plt.ylabel("Recovered cases")
plt.title("Covid-19 cases of top 5 districts")
plt.show()
```



```
In [31]: plt.hist(A, label="Active Cases", color= "red")
plt.hist(R, label="Recovered Cases", color="green")
plt.xlabel("No. of COVID cases")
plt.ylabel("Frequency")
plt.title("Covid-19 cases in top 5 districts")
plt.legend()
plt.show()
```

