sourcedata:https://data.gov.in/catalog/district-rainfall-normal-mm-monthly-seasonal-and-annual-data-period-1951-2000

Indian Rainfall data analysis:

Display first 5 rows of dataset:

```
import numpy as np
import pandas as pd
from matplotlib import pyplot as py
from mpl_toolkits.mplot3d.axes3d import Axes3D
from statistics import mode
import seaborn as sns

b=pd.read_csv('C:/Users/616911/PycharmProjects/test1/venv/Scripts/rest.csv')
print(b.head())
```

```
test1
C:\Users\616911\AppData\Local\Programs\Python\Python37-32\python.exe C:/Users/616911/Pyc
                      STATE/UT        DISTRICT    JAN  ...    MAM    JJAS    OND
0  ANDAMAN And NICOBAR ISLANDS         NICOBAR  107.3  ...  540.7  1207.2  892.1
1  ANDAMAN And NICOBAR ISLANDS   SOUTH ANDAMAN   43.7  ...  483.5  1757.2  705.3
2  ANDAMAN And NICOBAR ISLANDS   N & M ANDAMAN   32.7  ...  405.6  1884.4  574.7
3             ARUNACHAL PRADESH           LOHIT   42.2  ...  841.3  1848.5  231.0
4             ARUNACHAL PRADESH      EAST SIANG   33.3  ...  645.4  3008.4  268.1

[5 rows x 19 columns]

Process finished with exit code 0
```

Fetching the column wise statistical volume of data by means of mean,std,min,max,25%,75%

```
import pandas as pd
from matplotlib import pyplot as py
from mpl_toolkits.mplot3d.axes3d import Axes3D
from statistics import mode
import seaborn as sns

b=pd.read_csv('C:/Users/616911/PycharmProjects/test1/venv/Scripts/rest.csv')
print(b.describe())
```

```
test1
C:\Users\616911\AppData\Local\Programs\Python\Python37-32\python.exe C:/Users/616911/Pych
              JAN         FEB         MAR  ...         MAM         JJAS         OND
count  641.000000  641.000000  641.000000  ...  641.000000   641.00000  641.000000
mean    18.355070   20.984399   30.034789  ...  157.113105  1007.80234  142.714665
std     21.082806   27.729596   45.451082  ...  213.445888   629.33261  148.951752
min      0.000000    0.000000    0.000000  ...    1.500000    39.60000    5.600000
25%      6.900000    7.000000    7.000000  ...   27.800000   625.40000   51.600000
50%     13.300000   12.300000   12.700000  ...   67.200000   896.60000   86.700000
75%     19.200000   24.100000   33.200000  ...  172.400000  1193.80000  175.200000
max    144.500000  229.600000  367.900000  ...  1256.500000  5228.00000  1048.500000
```

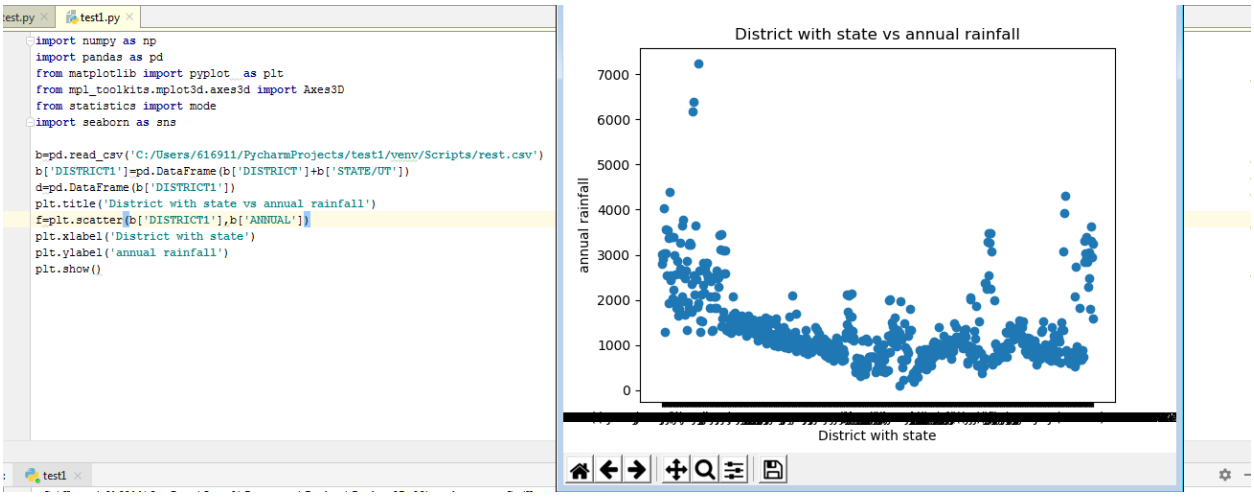
Combining both state and district:

```
from mpl_toolkits.mplot3d.axes3d import Axes3D
from statistics import mode
import seaborn as sns

b=pd.read_csv('C:/Users/616911/PycharmProjects/test1/venv/Sc
b['DISTRICT1']=pd.DataFrame(b['DISTRICT']+b['STATE/UT'])
d=pd.DataFrame(b['DISTRICT1'])
print(d)
```

```
test1
C:\Users\616911\AppData\Local\Programs\Python\Python37-32\p
                                  DISTRICT1
0          NICOBARANDAMAN And NICOBAR ISLANDS
1    SOUTH ANDAMANANDAMAN And NICOBAR ISLANDS
2    N & M ANDAMANANDAMAN And NICOBAR ISLANDS
3                      LOHITARUNACHAL PRADESH
4                 EAST SIANGARUNACHAL PRADESH
5              SUBANSIRI F.DARUNACHAL PRADESH
6                      TIRAPARUNACHAL PRADESH
7              ANJAW (LOHIT)ARUNACHAL PRADESH
8               LOWER DIBANGARUNACHAL PRADESH
9                  CHANGLANGARUNACHAL PRADESH
10                PAPUM PAREARUNACHAL PRADESH
11             LOW SUBANSIRIARUNACHAL PRADESH
12               UPPER SIANGARUNACHAL PRADESH
13               WEST SIANGARUNACHAL PRADESH
```

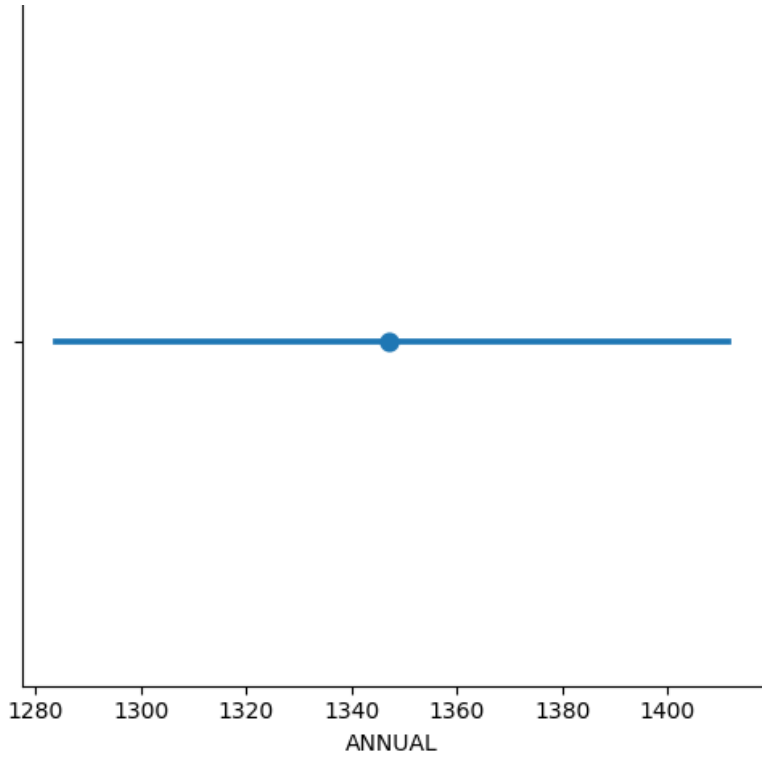
Plotting scatter rainfall of "state+district" vs annual rainfall:



Annual rainfall of state in seaborn:

```
import numpy as np
import pandas as pd
from matplotlib import pyplot as plt
from mpl_toolkits.mplot3d.axes3d impo
from statistics import mode
import seaborn as sns

b=pd.read_csv('C:/Users/616911/Pychar
sns.factorplot('ANNUAL',data=b)
plt.show()
```



Representing the amount of rainfall in jan month for all districts:

```
import numpy as np
import pandas as pd
from matplotlib import pyplot as plt
from mpl_toolkits.mplot3d.axes3d import Axes3D
from statistics import mode
import seaborn as sns

b=pd.read_csv('C:/Users/616911/PycharmProjects/test1/

sns.factorplot('JAN',data=b,kind='count')
plt.show()
```

```
test1
C:\Users\616911\AppData\Local\Programs\Python\Python
```