In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

In [2]:
```
df = pd.read_csv("PRSA.csv", nrows = 100)
```

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

Out[3]:

	No	year	month	day	hour	PM2.5	PM10	SO2	NO2	CO	O3	TEMP	PRES	DEWP	RAIN	wd	WSPM	statio
0	1	2013	3	1	0	4	4	4.0	7.0	300.0	77	-0.7	1023.0	-18.8	0	NNW	4.4	Aotizhongxi
1	2	2013	3	1	1	8	8	4.0	7.0	300.0	77	-1.1	1023.2	-18.2	0	N	4.7	Aotizhongxi
2	3	2013	3	1	2	7	7	5.0	10.0	300.0	73	-1.1	1023.5	-18.2	0	NNW	5.6	Aotizhongxi
3	4	2013	3	1	3	6	6	11.0	11.0	300.0	72	-1.4	1024.5	-19.4	0	NW	3.1	Aotizhongxi
4	5	2013	3	1	4	3	3	12.0	12.0	300.0	72	-2.0	1025.2	-19.5	0	N	2.0	Aotizhongxi

In [4]:
```
df.tail()
```

Out[4]:

	No	year	month	day	hour	PM2.5	PM10	SO2	NO2	CO	O3	TEMP	PRES	DEWP	RAIN	wd	WSPM	stati
95	96	2013	3	4	23	58	94	46.0	86.0	1100.0	84	7.7	1015.7	-9.3	0	SW	2.1	Aotizhongx
96	97	2013	3	5	0	71	108	66.0	78.0	1100.0	84	4.7	1015.2	-9.1	0	SW	1.6	Aotizhongx
97	98	2013	3	5	1	91	127	75.0	75.0	1200.0	84	1.1	1014.7	-7.9	0	SW	0.0	Aotizhongx
98	99	2013	3	5	2	100	129	58.0	79.0	1200.0	84	-0.6	1014.4	-8.1	0	S	0.0	Aotizhongx
99	100	2013	3	5	3	103	130	66.0	83.0	1399.0	84	0.2	1014.0	-8.8	0	NE	1.2	Aotizhongx

In [5]:
```
df.shape
```

Out[5]: (100, 18)

In [6]:
```
df_new = df.drop(['wd','station'] , axis = 1)
```

In [7]:
```
df_new.shape
```

Out[7]: (100, 16)

In [8]:
```
df_new.columns
```

Out[8]:
```
Index(['No', 'year', 'month', 'day', 'hour', 'PM2.5', 'PM10', 'SO2', 'NO2',
       'CO', 'O3', 'TEMP', 'PRES', 'DEWP', 'RAIN', 'WSPM'],
      dtype='object')
```

In [9]:
```
df2 = df_new.dropna(how='all').dropna(how='all', axis=1)
#df2 = df_new[np.isfinite(df_new).all(1)]
```

In [10]:
```
1 df2
```

Out[10]:

	No	year	month	day	hour	PM2.5	PM10	SO2	NO2	CO	O3	TEMP	PRES	DEWP	RAIN	WSPM
0	1	2013	3	1	0	4	4	4.0	7.0	300.0	77	-0.7	1023.0	-18.8	0	4.4
1	2	2013	3	1	1	8	8	4.0	7.0	300.0	77	-1.1	1023.2	-18.2	0	4.7
2	3	2013	3	1	2	7	7	5.0	10.0	300.0	73	-1.1	1023.5	-18.2	0	5.6
3	4	2013	3	1	3	6	6	11.0	11.0	300.0	72	-1.4	1024.5	-19.4	0	3.1
4	5	2013	3	1	4	3	3	12.0	12.0	300.0	72	-2.0	1025.2	-19.5	0	2.0
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
95	96	2013	3	4	23	58	94	46.0	86.0	1100.0	84	7.7	1015.7	-9.3	0	2.1
96	97	2013	3	5	0	71	108	66.0	78.0	1100.0	84	4.7	1015.2	-9.1	0	1.6
97	98	2013	3	5	1	91	127	75.0	75.0	1200.0	84	1.1	1014.7	-7.9	0	0.0
98	99	2013	3	5	2	100	129	58.0	79.0	1200.0	84	-0.6	1014.4	-8.1	0	0.0
99	100	2013	3	5	3	103	130	66.0	83.0	1399.0	84	0.2	1014.0	-8.8	0	1.2

100 rows × 16 columns

In [11]:
```
1 df2.isnull()
```

Out[11]:

	No	year	month	day	hour	PM2.5	PM10	SO2	NO2	CO	O3	TEMP	PRES	DEWP	RAIN	WSPM
0	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
1	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
3	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
4	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
95	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
96	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
97	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
98	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False
99	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False	False

100 rows × 16 columns

In [12]:
```
1 df2.isnull().any(axis=1)
```

Out[12]:
```
0    False
1    False
2    False
3    False
4    False
     ...
95   False
96   False
97   False
98   False
99   False
Length: 100, dtype: bool
```

In [13]:
```
df2[df2.isnull().any(axis=1)]
```

Out[13]:

	No	year	month	day	hour	PM2.5	PM10	SO2	NO2	CO	O3	TEMP	PRES	DEWP	RAIN	WSPM
74	75	2013	3	4	2	34	62	NaN	14.0	300.0	68	8.1	1016.7	-11.8	0	4.3
75	76	2013	3	4	3	12	34	6.0	12.0	NaN	77	7.2	1016.9	-11.6	0	2.8
76	77	2013	3	4	4	7	18	14.0	NaN	400.0	42	6.0	1018.0	-11.6	0	1.0

In [14]:
```
# print diye kono value print korabi na... Otay stucture e ase na
```

In [ ]:
```

```