

```
In [1]: import pandas as pd
import numpy as nm
import matplotlib.pyplot as pt
```

```
In [2]: datafr=pd.read_csv("mydata.csv")
print(datafr.head(10))
```

	date	mean_temperature	max_temperature	min_temperature	\
0	2016-05-04	34	41	27	
1	2016-05-05	31	38	24	
2	2016-05-06	28	34	21	
3	2016-05-07	30	38	23	
4	2016-05-08	34	41	26	
5	2016-05-09	34	42	27	
6	2016-05-10	34	41	27	
7	2016-05-11	32	40	25	
8	2016-05-12	34	42	27	
9	2016-05-13	34	42	26	

	Mean_dew_pt	mean_pressure	max_humidity	min_humidity	max_dew_pt_1	\
0	6	1006.00	27	5	12	
1	7	1005.65	29	6	13	
2	11	1007.94	61	13	16	
3	13	1008.39	69	18	17	
4	10	1007.62	50	8	14	
5	8	1006.73	32	7	12	
6	11	1005.75	45	7	16	
7	16	1007.10	51	12	18	
8	16	1006.78	66	16	22	
9	13	1003.83	58	9	20	

	max_dew_pt_2	min_dew_pt_1	min_dew_pt_2	max_pressure_1	max_pressure_2	\
0	10	-2	-2	1009	1008	
1	12	0	-2	1008	1009	
2	13	6	0	1011	1008	
3	16	9	6	1011	1011	
4	17	6	9	1010	1011	
5	14	6	6	1010	1010	
6	12	7	6	1008	1010	
7	16	13	7	1010	1008	
8	18	10	13	1011	1010	
9	22	10	10	1007	1011	

	min_pressure_1	min_pressure_2	rainfall
0	1000	1001	0.0
1	1001	1000	0.0
2	1003	1001	5.0
3	1004	1003	0.0
4	1002	1004	0.0
5	1002	1002	0.0
6	1000	1002	0.3
7	1002	1000	0.8
8	1001	1002	2.0
9	998	1001	0.3

```
In [3]: datafr.dtypes
```

```
Out[3]: date          object
mean_temperature    int64
max_temperature     int64
min_temperature     int64
Mean_dew_pt         int64
mean_pressure       float64
```

```

max_humidity      int64
min_humidity      int64
max_dew_pt_1      int64
max_dew_pt_2      int64
min_dew_pt_1      int64
min_dew_pt_2      int64
max_pressure_1    int64
max_pressure_2    int64
min_pressure_1    int64
min_pressure_2    int64
rainfall          float64
dtype: object

```

```
In [4]: datafr=datafr.drop(['Mean_dew_pt'],axis=1)
datafr.dtypes
```

```

Out[4]: date          object
mean_temperature  int64
max_temperature   int64
min_temperature   int64
mean_pressure     float64
max_humidity      int64
min_humidity      int64
max_dew_pt_1      int64
max_dew_pt_2      int64
min_dew_pt_1      int64
min_dew_pt_2      int64
max_pressure_1    int64
max_pressure_2    int64
min_pressure_1    int64
min_pressure_2    int64
rainfall          float64
dtype: object

```

```
In [5]: dframe=datafr.sort_values(by="max_temperature",ascending=True)

print(dframe.head(10))
```

	date	mean_temperature	max_temperature	min_temperature	\	
267	2017-01-26	16	18	14		
252	2017-01-11	10	18	3		
268	2017-01-27	14	19	10		
251	2017-01-10	13	19	7		
253	2017-01-12	12	19	4		
580	2017-12-06	16	20	13		
249	2017-01-08	16	20	12		
586	2017-12-12	16	20	12		
258	2017-01-17	12	20	5		
255	2017-01-14	12	20	5		
	mean_pressure	max_humidity	min_humidity	max_dew_pt_1	max_dew_pt_2	\
267	1017.90	77	32	17	15	
252	1017.00	94	17	9	10	
268	1017.47	100	66	16	17	
251	1015.62	100	15	10	15	
253	1017.54	70	13	2	9	
580	1016.00	72	27	11	8	
249	1011.52	94	26	14	15	
586	1014.46	96	20	15	9	
258	1017.35	74	15	7	10	
255	1017.75	70	10	1	2	
	min_dew_pt_1	min_dew_pt_2	max_pressure_1	max_pressure_2	\	
267	12	11	1021	1022		

252	-5	-1	1019	1018
268	14	12	1020	1021
251	-1	1	1018	1017
253	-7	-5	1020	1019
580	5	3	1018	1018
249	3	11	1013	1015
586	4	5	1017	1018
258	-2	0	1019	1021
255	-8	-93	1020	1020

	min_pressure_1	min_pressure_2	rainfall
267	1014	1015	0.2
252	1015	1014	0.0
268	1015	1014	19.0
251	1014	1012	0.0
253	1015	1015	0.0
580	1014	1013	0.0
249	1009	1010	0.0
586	1012	1013	5.0
258	1015	1015	0.0
255	1016	1015	0.0

```
In [6]: dframe1=pd.read_csv("mydata.csv",usecols=['date','max_temperature','min_temperature'])
dframe2=pd.read_csv("mydata.csv",nrows=10)

print(dframe2.head(12))
```

	date	mean_temperature	max_temperature	min_temperature	\
0	2016-05-04		34	41	27
1	2016-05-05		31	38	24
2	2016-05-06		28	34	21
3	2016-05-07		30	38	23
4	2016-05-08		34	41	26
5	2016-05-09		34	42	27
6	2016-05-10		34	41	27
7	2016-05-11		32	40	25
8	2016-05-12		34	42	27
9	2016-05-13		34	42	26

	Mean_dew_pt	mean_pressure	max_humidity	min_humidity	max_dew_pt_1	\
0	6	1006.00	27	5	12	
1	7	1005.65	29	6	13	
2	11	1007.94	61	13	16	
3	13	1008.39	69	18	17	
4	10	1007.62	50	8	14	
5	8	1006.73	32	7	12	
6	11	1005.75	45	7	16	
7	16	1007.10	51	12	18	
8	16	1006.78	66	16	22	
9	13	1003.83	58	9	20	

	max_dew_pt_2	min_dew_pt_1	min_dew_pt_2	max_pressure_1	max_pressure_2	\
0	10	-2	-2	1009	1008	
1	12	0	-2	1008	1009	
2	13	6	0	1011	1008	
3	16	9	6	1011	1011	
4	17	6	9	1010	1011	
5	14	6	6	1010	1010	
6	12	7	6	1008	1010	
7	16	13	7	1010	1008	
8	18	10	13	1011	1010	
9	22	10	10	1007	1011	

	min_pressure_1	min_pressure_2	rainfall
0	1000	1001	0.0

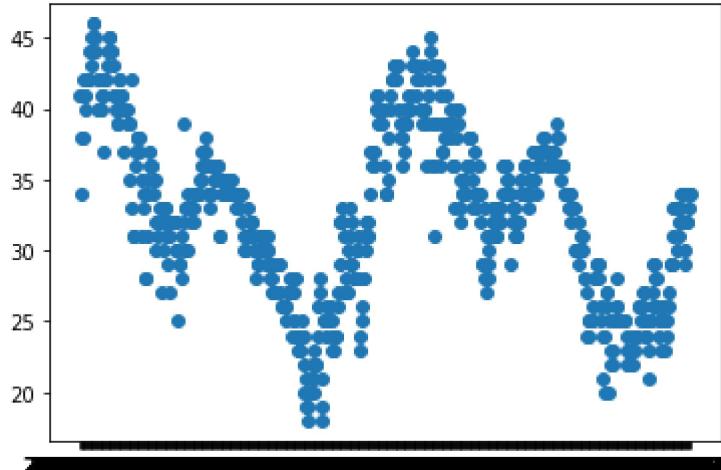
```
1      1001      1000      0.0
2      1003      1001      5.0
3      1004      1003      0.0
4      1002      1004      0.0
5      1002      1002      0.0
6      1000      1002      0.3
7      1002      1000      0.8
8      1001      1002      2.0
9      998       1001      0.3
```

```
In [7]: dframe1.dtypes
```

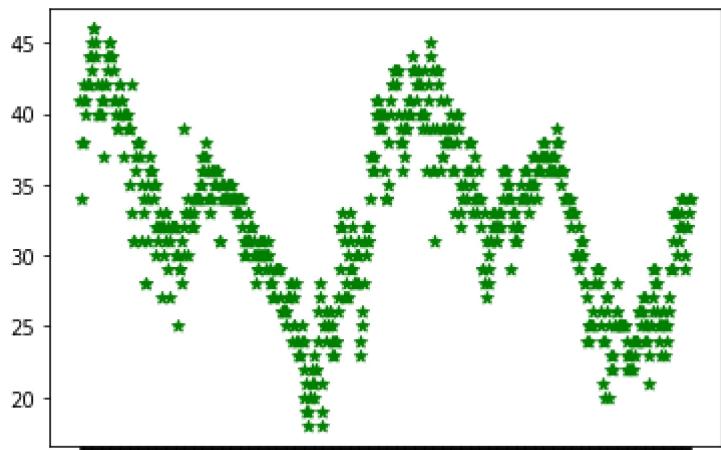
```
Out[7]: date          object
max_temperature    int64
min_temperature    int64
dtype: object
```

```
In [8]: x=datafr.date
y=datafr.max_temperature

pt.scatter(x,y)
pt.show()
```



```
In [9]: pt.scatter(x,y,c='green',marker='*')
pt.show()
```



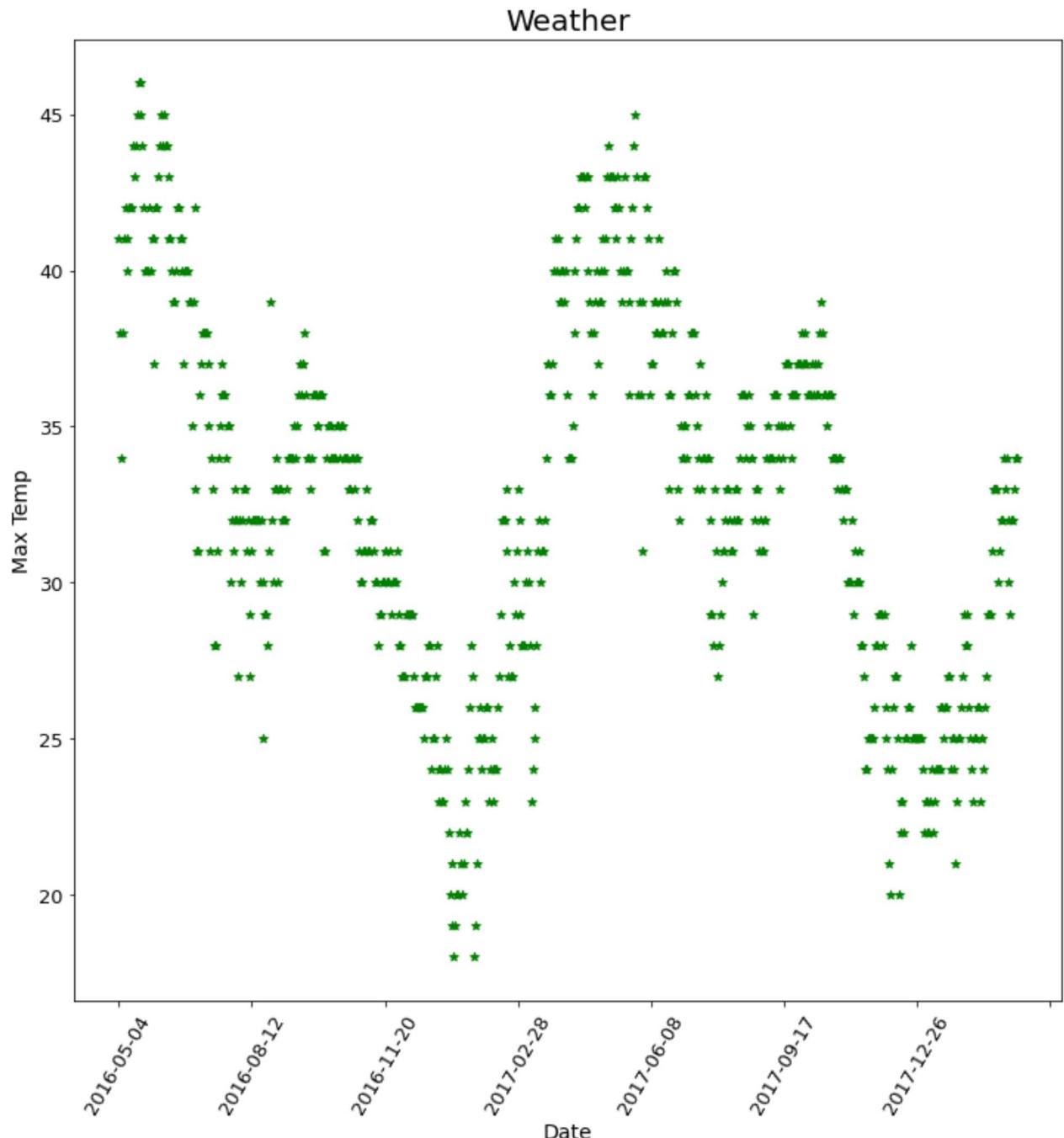
```
In [10]: pt.figure(figsize=(12,12))
pt.scatter(x,y,c='green',marker='*')
```

```

pt.xticks(nm.arange(0,800,100))
pt.xticks(rotation=60)
pt.xlabel("Date", fontsize=14)
pt.ylabel("Max Temp", fontsize=14)
pt.title("Weather", fontsize=20)

pt.xticks(fontsize=13)
pt.yticks(fontsize=13)
pt.show()

```



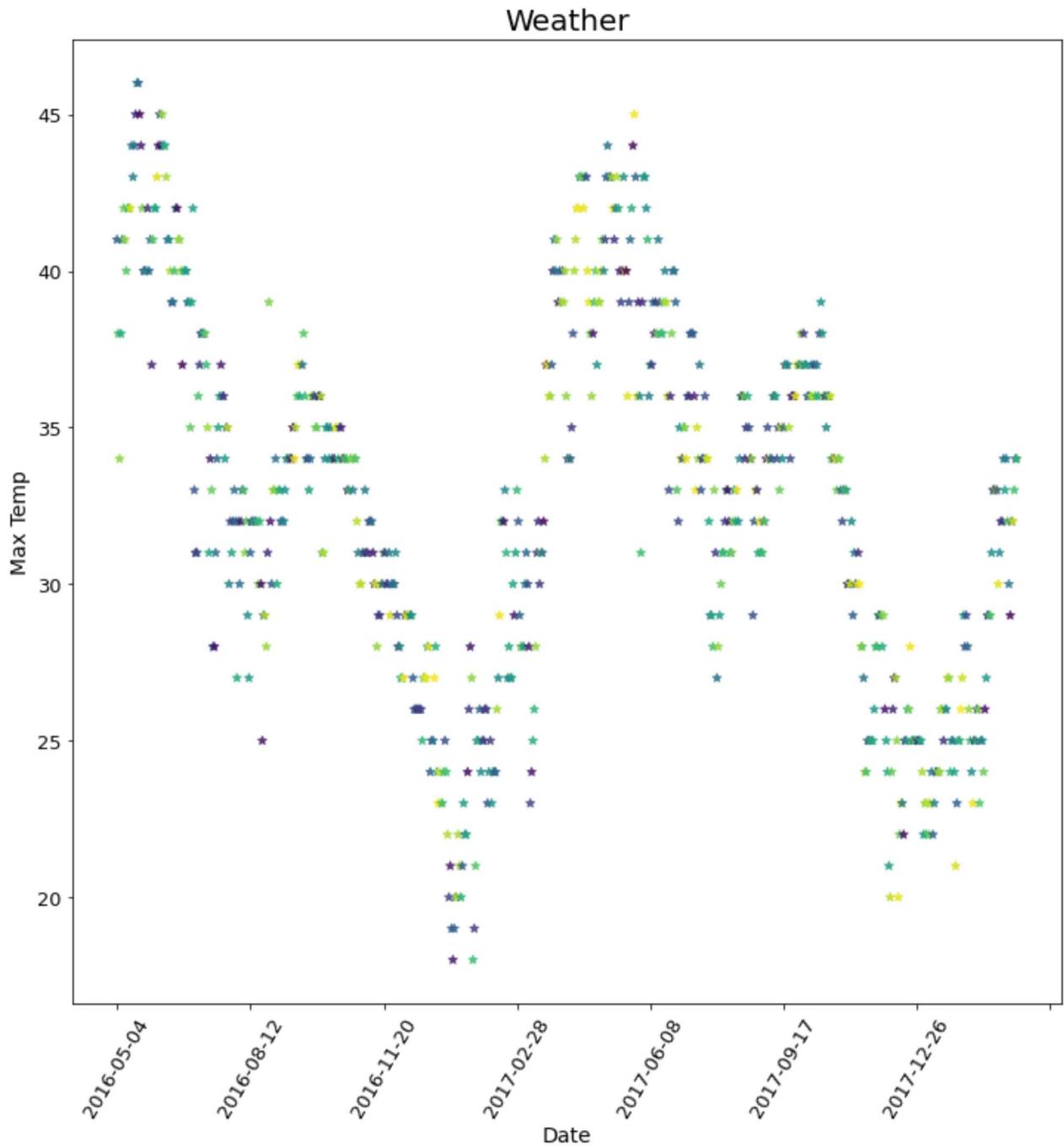
In [11]: `pt.figure(figsize=(12,12))`

```

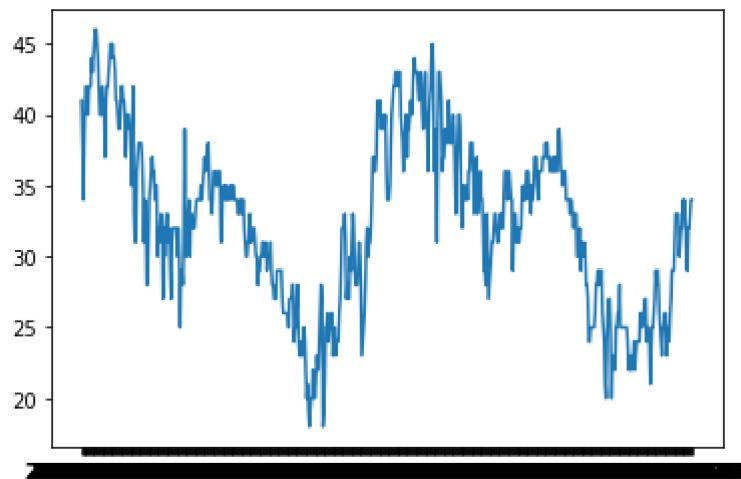
colors=nm.random.rand(len(y))
pt.scatter(x,y,c=colors,marker='*',alpha=0.8)
pt.xticks(nm.arange(0,800,100))
pt.xticks(rotation=60)
pt.xlabel("Date", fontsize=14)
pt.ylabel("Max Temp", fontsize=14)

```

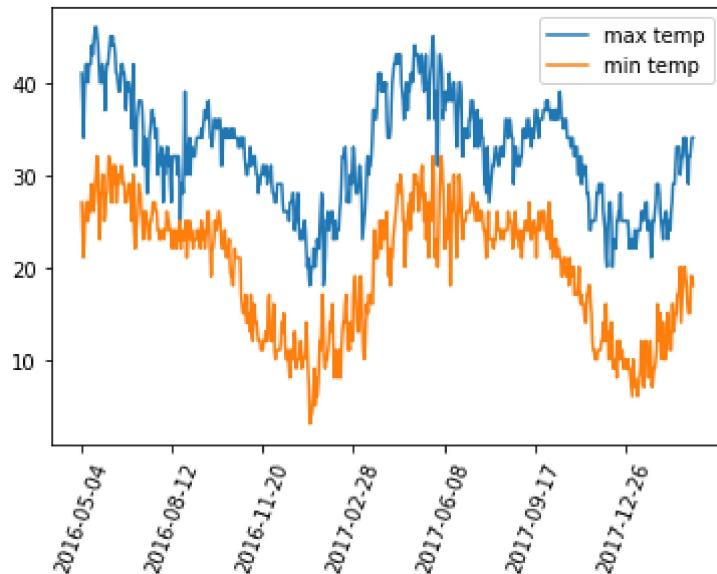
```
pt.title("Weather", fontsize=20)  
  
pt.xticks(fontsize=13)  
pt.yticks(fontsize=13)  
  
pt.savefig("graph2.png")  
pt.show()
```



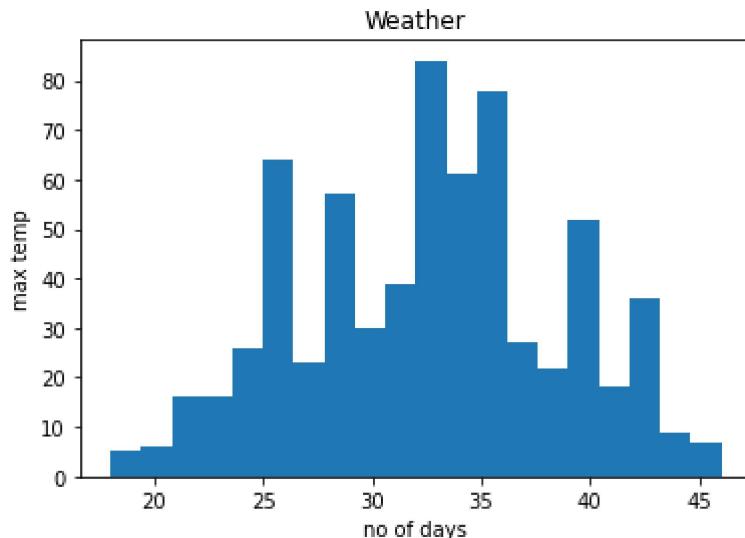
```
In [12]: pt.plot(x,y)  
pt.show()
```



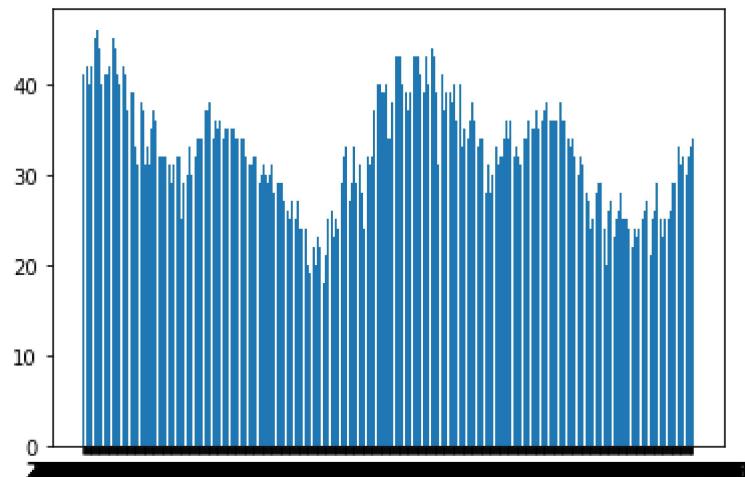
```
In [18]: y1=datafr.max_temperature  
y2=datafr.min_temperature  
  
pt.plot(x,y1,label="max temp")  
pt.plot(x,y2,label="min temp")  
  
pt.xticks(nm.arange(0,700,100))  
pt.xticks(rotation=70)  
pt.legend()  
pt.show()
```



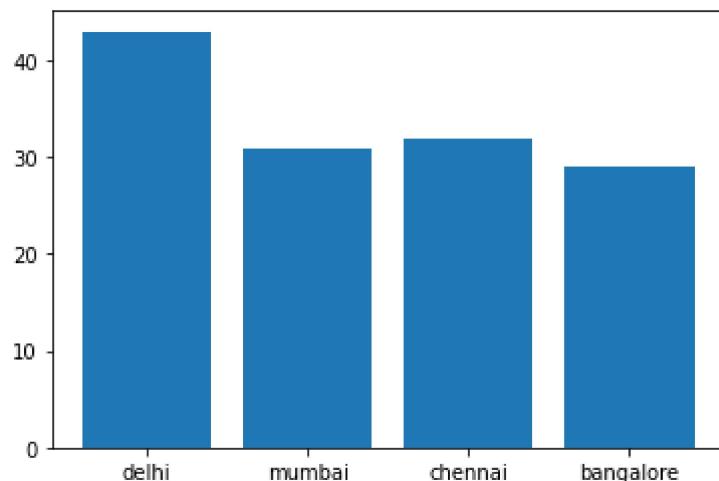
```
In [21]: pt.hist(y1,bins=20)  
pt.ylabel("max temp")  
pt.xlabel("no of days")  
pt.title("Weather")  
pt.show()
```



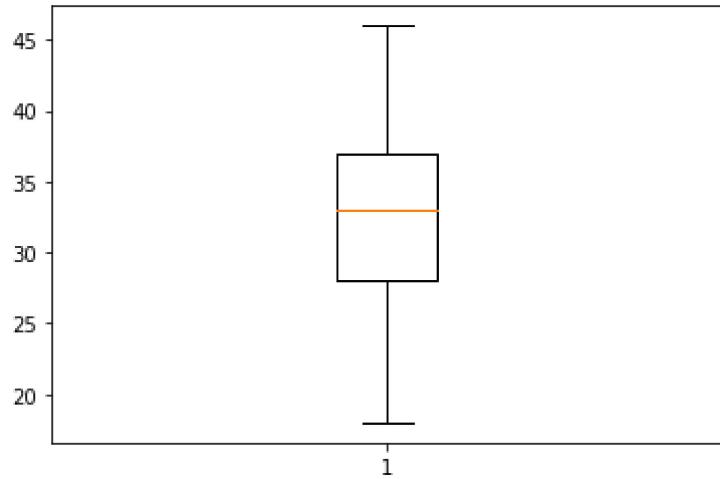
```
In [23]: pt.bar(x,y1)  
pt.show()
```



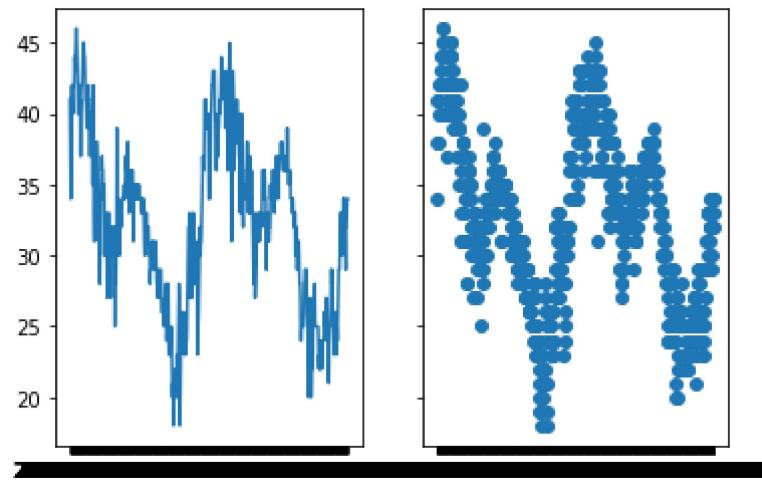
```
In [24]: a=['delhi','mumbai','chennai','bangalore']  
b=[43,31,32,29]  
pt.bar(a,b)  
pt.show()
```



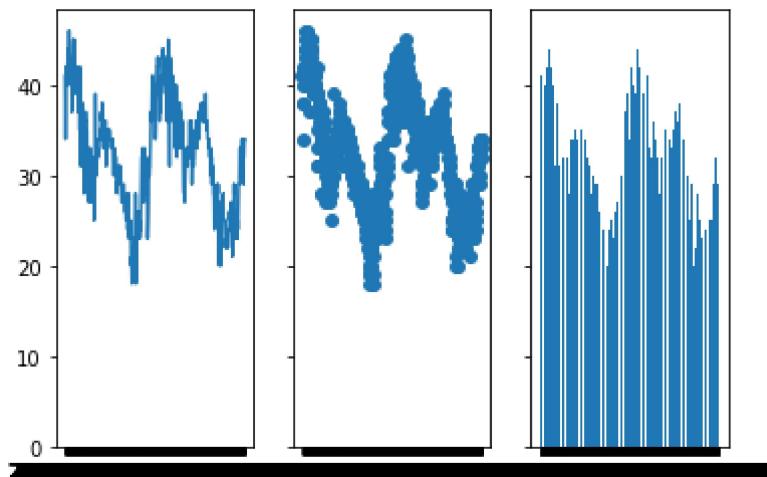
```
In [25]: pt.boxplot(y)  
pt.show()
```



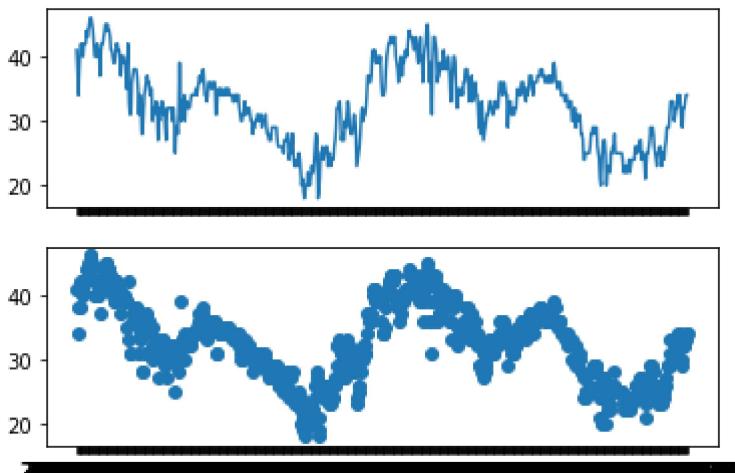
```
In [28]: fig,(ax1,ax2)=pt.subplots(1,2,sharey=True)  
ax1.plot(x,y)  
ax2.scatter(x,y)  
pt.show()
```



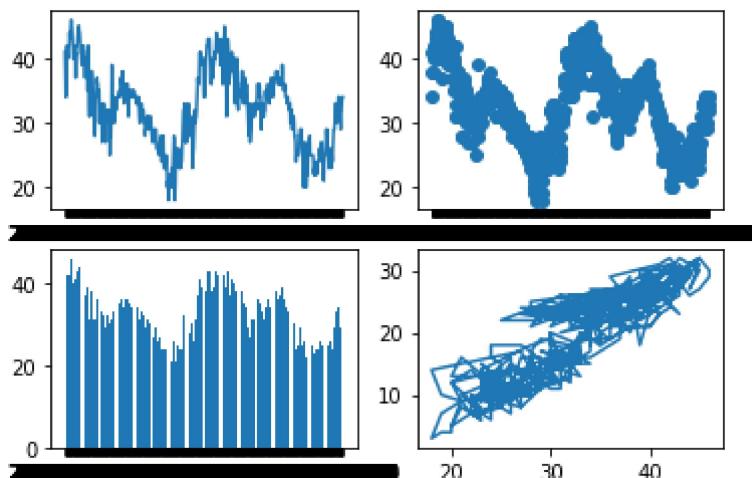
```
In [32]: #pt.figure(figsize=(8,8))  
fig,(ax1,ax2,ax3)=pt.subplots(1,3,sharey=True)  
ax1.plot(x,y)  
ax2.scatter(x,y)  
ax3.bar(x,y)  
pt.show()
```



```
In [33]: fig,(ax1,ax2)=pt.subplots(2,1,sharex=True)
ax1.plot(x,y)
ax2.scatter(x,y)
pt.show()
```



```
In [39]: fig,((ax1,ax2),(ax3,ax4))=pt.subplots(2,2)
ax1.plot(x,y)
ax2.scatter(x,y)
ax3.bar(x,y)
ax4.plot(y1,y2)
pt.show()
```



In [ ]: