

```
In [1]: import pandas as pd
pd.plotting.register_matplotlib_converters()
import numpy as np
import seaborn as sns
import matplotlib.pyplot as plt
%matplotlib inline
```

```
In [5]: df1 = pd.read_csv('AirQualityodisha.csv')
df2 = pd.read_csv('Heart2.csv')
df3 = pd.read_csv('forestfires.csv')
```

```
In [6]: df1
```

Out[6]:

	Stn Code	Sampling Date	State	City	Location of Monitoring Station	Agency	Type of Location	SO2	NO2	RSPM/PM10	
<b>0</b>	68	02-01-15	Odisha	Talcher	T.T.P.S.Colony, Talcher	Odisha State Pollution Control Board	Industrial Area	11	24	143	1
<b>1</b>	68	06-01-15	Odisha	Talcher	T.T.P.S.Colony, Talcher	Odisha State Pollution Control Board	Industrial Area	10	23	133	
<b>2</b>	68	09-01-15	Odisha	Talcher	T.T.P.S.Colony, Talcher	Odisha State Pollution Control Board	Industrial Area	8	25	125	1
<b>3</b>	68	13-01-15	Odisha	Talcher	T.T.P.S.Colony, Talcher	Odisha State Pollution Control Board	Industrial Area	10	25	137	1
<b>4</b>	68	16-01-15	Odisha	Talcher	T.T.P.S.Colony, Talcher	Odisha State Pollution Control Board	Industrial Area	9	26	186	1
...	...	...	...	...	...	...	...	...	...	...	
<b>2387</b>	819	15-12-15	Odisha	Kalinga Nagar	Roof of RO OFFICE BUILDING	Odisha State Pollution Control Board	Industrial Area	2	10	92	
<b>2388</b>	819	17-12-15	Odisha	Kalinga Nagar	Roof of RO OFFICE BUILDING	Odisha State Pollution Control Board	Industrial Area	2	10	99	
<b>2389</b>	819	22-12-15	Odisha	Kalinga Nagar	Roof of RO OFFICE BUILDING	Odisha State Pollution Control Board	Industrial Area	2	10	90	
<b>2390</b>	819	26-12-15	Odisha	Kalinga Nagar	Roof of RO OFFICE BUILDING	Odisha State Pollution Control Board	Industrial Area	2	10	97	
<b>2391</b>	819	29-12-15	Odisha	Kalinga Nagar	Roof of RO OFFICE BUILDING	Odisha State Pollution	Industrial Area	2	10	98	

Stn Code	Sampling Date	State	City	Location of Monitoring Station	Agency	Type of Location	SO2	NO2	RSPM/PM10
					Control Board				

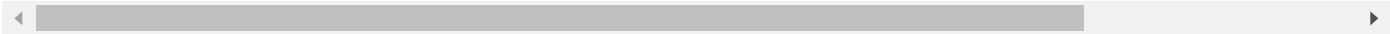
2292 rows x 11 columns

```
In [7]: df2
```

Out[7]:

Unnamed: 0	Age	Sex	ChestPain	RestBP	Chol	Fbs	RestECG	MaxHR	ExAng	Oldpeak	Slope
0	1	63	1	typical	145	233	1	2	150	0	2.3
1	2	67	1	asymptomatic	160	286	0	2	108	1	1.5
2	3	67	1	asymptomatic	120	229	0	2	129	1	2.6
3	4	37	1	nonanginal	130	250	0	0	187	0	3.5
4	5	41	0	nontypical	130	204	0	2	172	0	1.4
...	...	...	...	...	...	...	...	...	...	...	...
298	299	45	1	typical	110	264	0	0	132	0	1.2
299	300	68	1	asymptomatic	144	193	1	0	141	0	3.4
300	301	57	1	asymptomatic	130	131	0	0	115	1	1.2
301	302	57	0	nontypical	130	236	0	2	174	0	0.0
302	303	38	1	nonanginal	138	175	0	0	173	0	0.0

303 rows x 15 columns



```
In [8]: df3
```

Out[8]:

	X	Y	month	day	FFMC	DMC	DC	ISI	temp	RH	wind	rain	area
0	7	5	mar	fri	86.2	26.2	94.3	5.1	8.2	51	6.7	0.0	0.00
1	7	4	oct	tue	90.6	35.4	669.1	6.7	18.0	33	0.9	0.0	0.00
2	7	4	oct	sat	90.6	43.7	686.9	6.7	14.6	33	1.3	0.0	0.00
3	8	6	mar	fri	91.7	33.3	77.5	9.0	8.3	97	4.0	0.2	0.00
4	8	6	mar	sun	89.3	51.3	102.2	9.6	11.4	99	1.8	0.0	0.00
...	...	...	...	...	...	...	...	...	...	...	...	...	...
512	4	3	aug	sun	81.6	56.7	665.6	1.9	27.8	32	2.7	0.0	6.44
513	2	4	aug	sun	81.6	56.7	665.6	1.9	21.9	71	5.8	0.0	54.29
514	7	4	aug	sun	81.6	56.7	665.6	1.9	21.2	70	6.7	0.0	11.16
515	1	4	aug	sat	94.4	146.0	614.7	11.3	25.6	42	4.0	0.0	0.00
516	6	3	nov	tue	79.5	3.0	106.7	1.1	11.8	31	4.5	0.0	0.00

517 rows × 13 columns

In [10]: df1.shape

Out[10]: (2392, 11)

In [11]: df2.shape

Out[11]: (303, 15)

In [12]: df3.shape

Out[12]: (517, 13)

---LINEPLOT-----

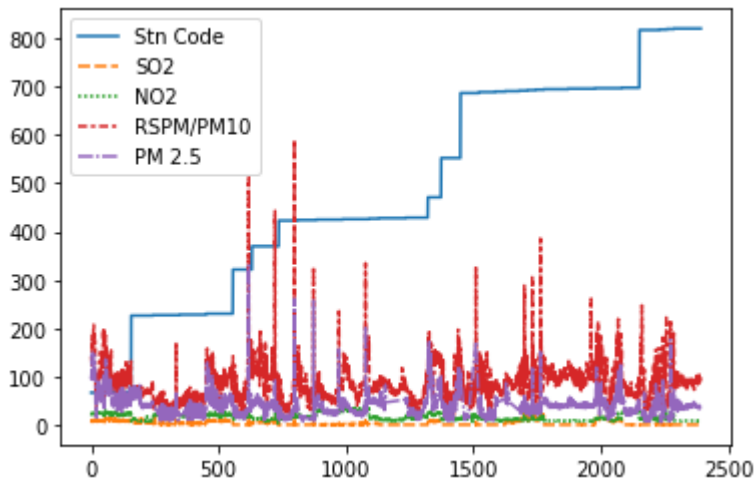
In [13]: df1.head()

Out[13]:

	Stn Code	Sampling Date	State	City	Location of Monitoring Station	Agency	Type of Location	SO2	NO2	RSPM/PM10	PM 2.5
0	68	02-01-15	Odisha	Talcher	T.T.P.S.Colony, Talcher	Odisha State Pollution Control Board	Industrial Area	11	24	143	102.0
1	68	06-01-15	Odisha	Talcher	T.T.P.S.Colony, Talcher	Odisha State Pollution Control Board	Industrial Area	10	23	133	96.0
2	68	09-01-15	Odisha	Talcher	T.T.P.S.Colony, Talcher	Odisha State Pollution Control Board	Industrial Area	8	25	125	116.0
3	68	13-01-15	Odisha	Talcher	T.T.P.S.Colony, Talcher	Odisha State Pollution Control Board	Industrial Area	10	25	137	107.0
4	68	16-01-15	Odisha	Talcher	T.T.P.S.Colony, Talcher	Odisha State Pollution Control Board	Industrial Area	9	26	186	118.0

In [14]: sns.lineplot(data=df1)

Out[14]: <AxesSubplot:>



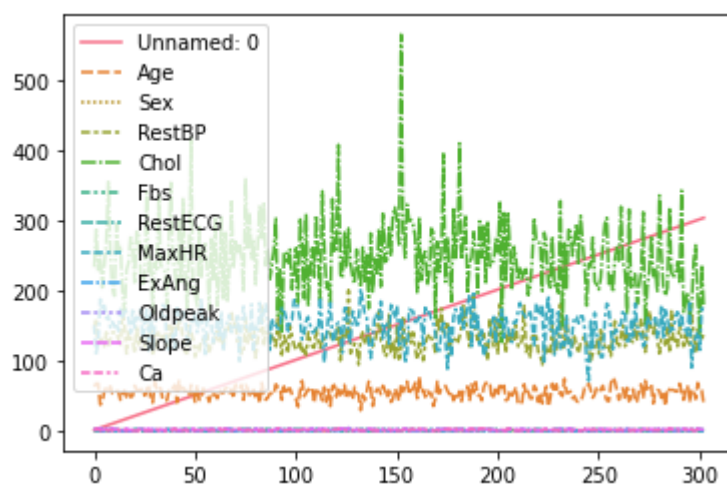
In [15]: df2.head()

Out[15]:

	Unnamed: 0	Age	Sex	ChestPain	RestBP	Chol	Fbs	RestECG	MaxHR	ExAng	Oldpeak	Slope
0	1	63	1	typical	145	233	1	2	150	0	2.3	3
1	2	67	1	asymptomatic	160	286	0	2	108	1	1.5	2
2	3	67	1	asymptomatic	120	229	0	2	129	1	2.6	2
3	4	37	1	nonanginal	130	250	0	0	187	0	3.5	3
4	5	41	0	nontypical	130	204	0	2	172	0	1.4	1

In [16]: `sns.lineplot(data=df2)`

Out[16]: <AxesSubplot:>



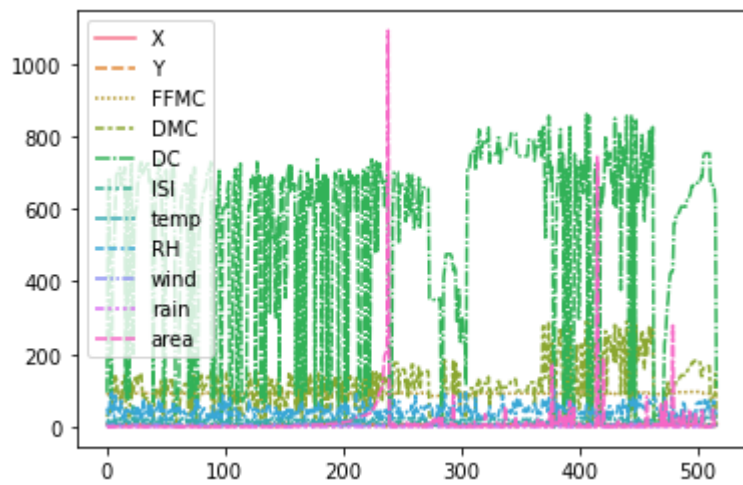
In [19]: `df3.head()`

Out[19]:

	X	Y	month	day	FFMC	DMC	DC	ISI	temp	RH	wind	rain	area
0	7	5	mar	fri	86.2	26.2	94.3	5.1	8.2	51	6.7	0.0	0.0
1	7	4	oct	tue	90.6	35.4	669.1	6.7	18.0	33	0.9	0.0	0.0
2	7	4	oct	sat	90.6	43.7	686.9	6.7	14.6	33	1.3	0.0	0.0
3	8	6	mar	fri	91.7	33.3	77.5	9.0	8.3	97	4.0	0.2	0.0
4	8	6	mar	sun	89.3	51.3	102.2	9.6	11.4	99	1.8	0.0	0.0

In [20]: `sns.lineplot(data=df3)`

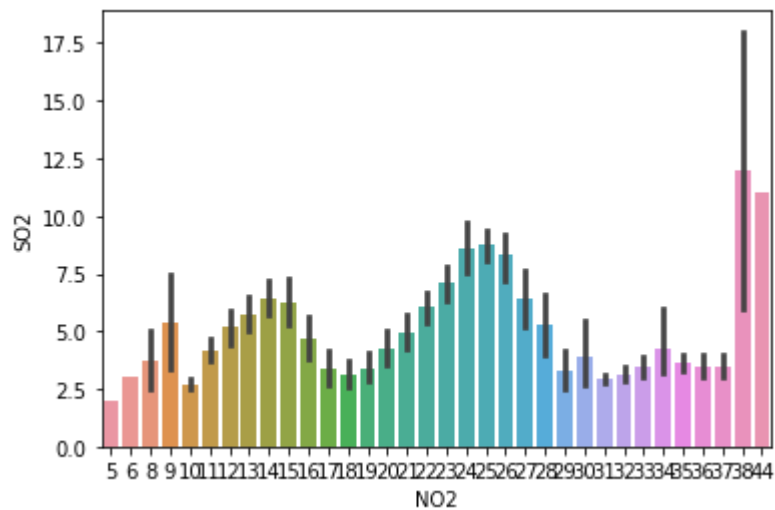
Out[20]: <AxesSubplot:>



## --- BARPLOT-----

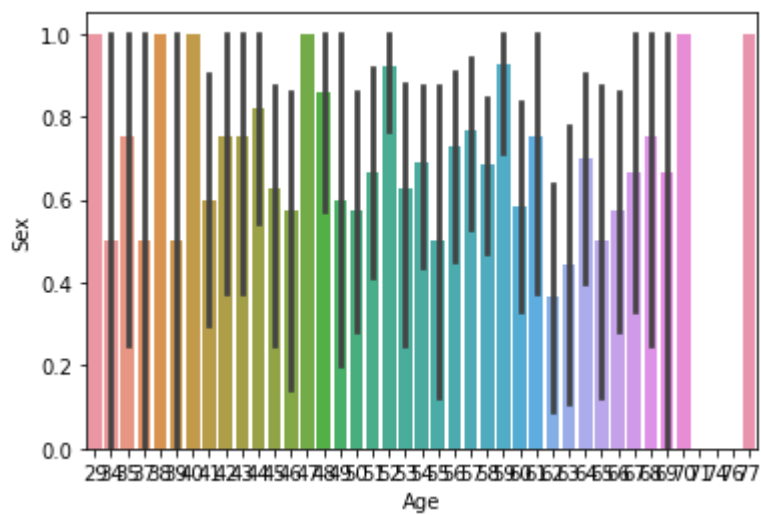
```
In [23]: x = df1['NO2']
y = df1['SO2']
sns.barplot(x=df1['NO2'], y=df1['SO2'])
```

Out[23]: <AxesSubplot:xlabel='NO2', ylabel='SO2'>



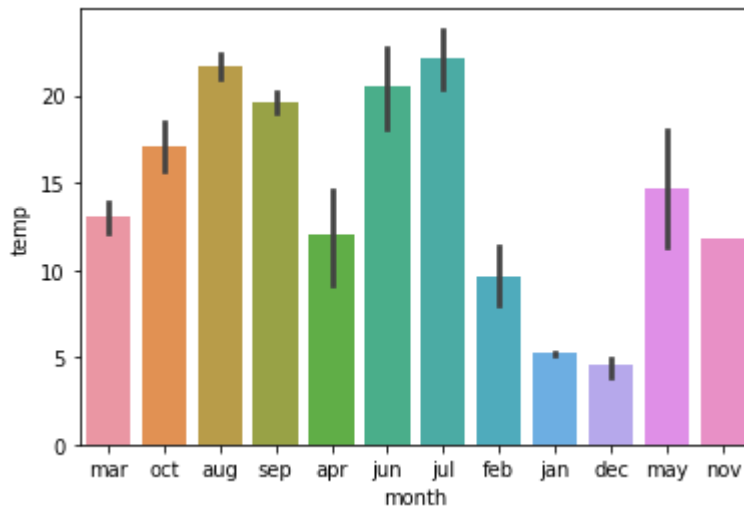
```
In [25]: x = df2['Age']
y = df2['Sex']
sns.barplot(x=df2['Age'], y=df2['Sex'])
```

Out[25]: <AxesSubplot:xlabel='Age', ylabel='Sex'>



```
In [26]: x = df3['month']
y = df3['temp']
sns.barplot(x=df3['month'], y=df3['temp'])
```

```
Out[26]: <AxesSubplot:xlabel='month', ylabel='temp'>
```

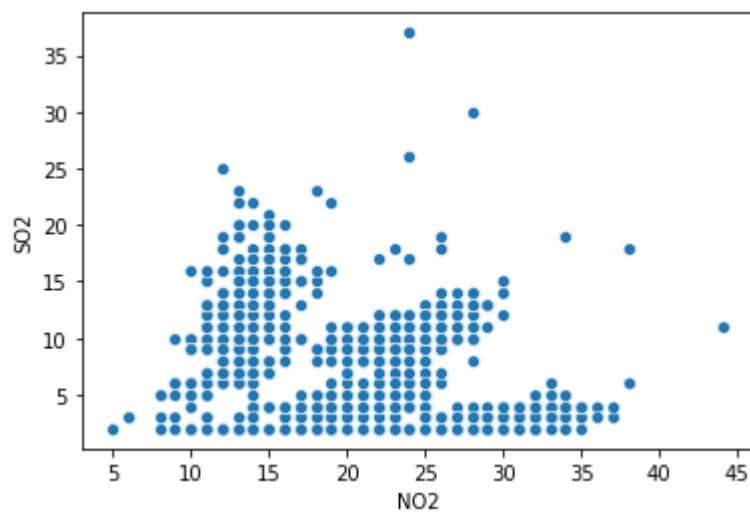


## --- SCATTERPLOT-----

```
In [28]: sns.scatterplot(x=df1['N02'],y=df1['S02'])
```

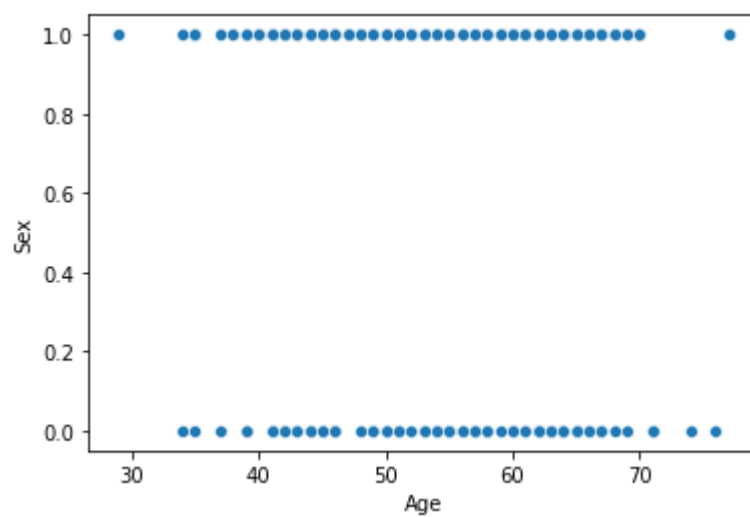
```
Out[28]: <AxesSubplot:xlabel='N02', ylabel='S02'>
```





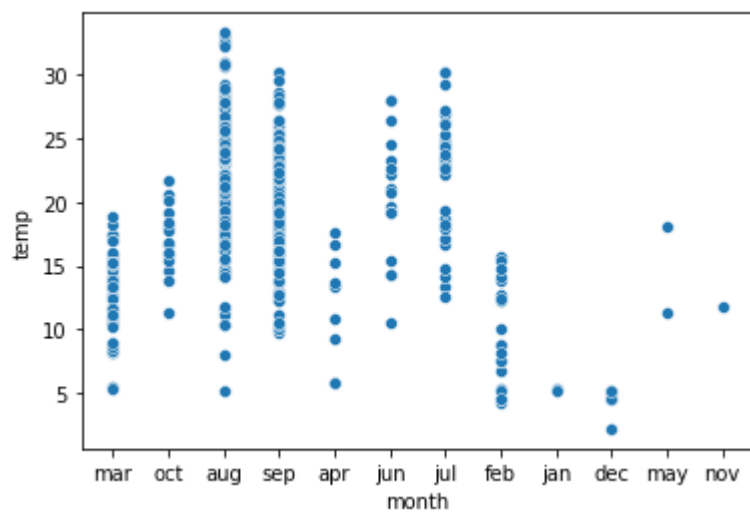
```
In [30]: sns.scatterplot(x=df2['Age'],y=df2['Sex'])
```

```
Out[30]: <AxesSubplot:xlabel='Age', ylabel='Sex'>
```



```
In [34]: sns.scatterplot(x=df3['month'],y=df3['temp'])
```

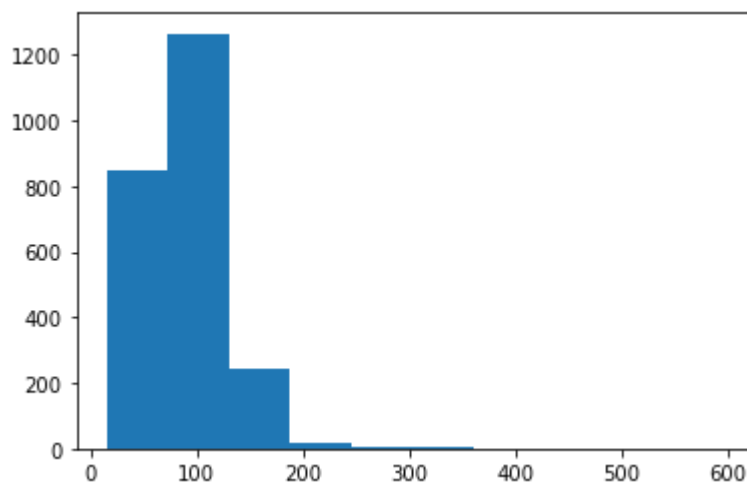
```
Out[34]: <AxesSubplot:xlabel='month', ylabel='temp'>
```



# -----BARPLOT-----

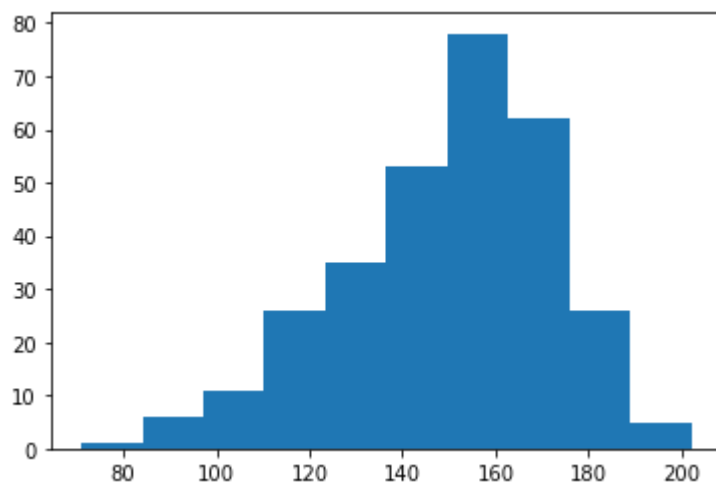
In [35]: `plt.hist(df1['RSPM/PM10'])`

Out[35]: (array([8.500e+02, 1.265e+03, 2.460e+02, 2.000e+01, 3.000e+00, 4.000e+00,  
1.000e+00, 1.000e+00, 1.000e+00, 1.000e+00]),  
array([ 15. , 72.5, 130. , 187.5, 245. , 302.5, 360. , 417.5, 475. ,  
532.5, 590. ]),  
<BarContainer object of 10 artists>)



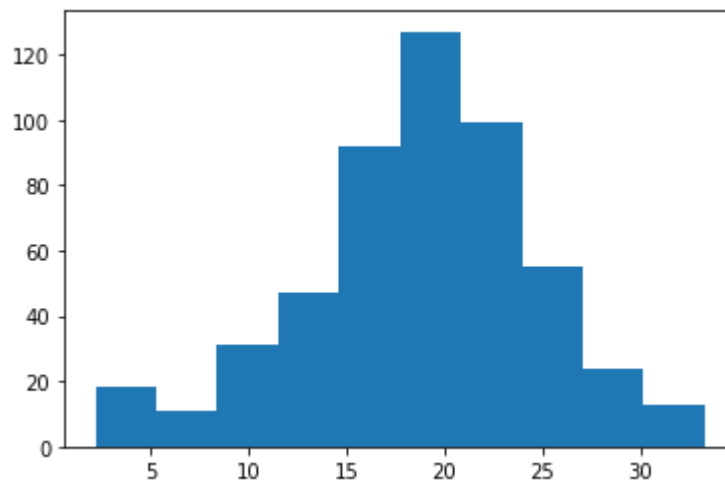
In [36]: `plt.hist(df2['MaxHR'])`

Out[36]: (array([ 1., 6., 11., 26., 35., 53., 78., 62., 26., 5.]),  
array([ 71. , 84.1, 97.2, 110.3, 123.4, 136.5, 149.6, 162.7, 175.8,  
188.9, 202. ]),  
<BarContainer object of 10 artists>)



In [38]: `plt.hist(df3['temp'])`

Out[38]: (array([ 18., 11., 31., 47., 92., 127., 99., 55., 24., 13.]),  
array([ 2.2 , 5.31, 8.42, 11.53, 14.64, 17.75, 20.86, 23.97, 27.08,  
30.19, 33.3 ]),  
<BarContainer object of 10 artists>)



In [ ]: