TASK-3

June 5, 2024

[ ]:
```
#Task-3
"""Create a bar chart and a line chart using Matplotlib
to visualize data from a Pandas DataFrame.
Customize the charts with labels, titles, and legends."""
```

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

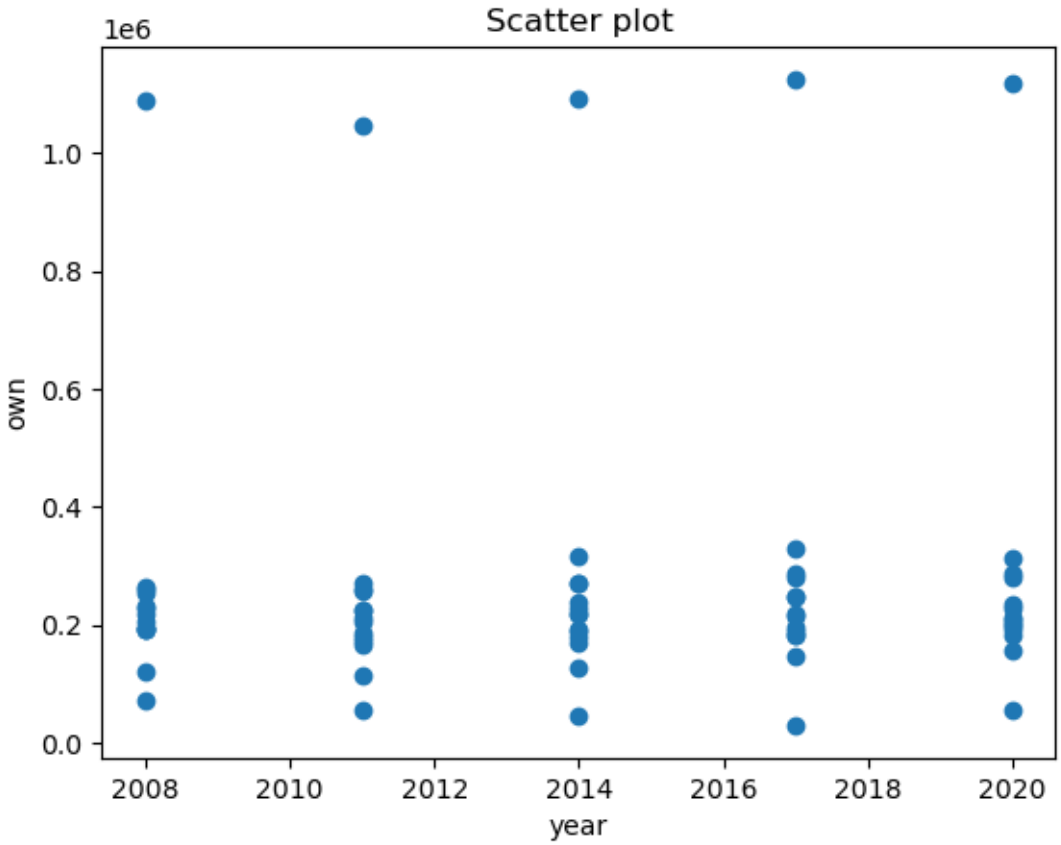
[4]:
```
data= pd.read_csv("C:\\Users\\91880\\Downloads\\householdtask3.csv")
```

[5]:
```
display(data.head(10))
```

	year	tot_hhs	own	own_wm	own_prop	own_wm_prop	prop_hhs	age	\
0	2008	1560859	1087580	574406	69.7	36.8	100.0	35.9	
1	2008	185965	71256	39405	38.3	21.2	11.9	29.9	
2	2008	312376	191470	48424	61.3	15.5	20.0	40.0	
3	2008	312333	196203	84171	62.8	26.9	20.0	34.7	
4	2008	312240	217657	141318	69.7	45.3	20.0	31.5	
5	2008	312336	229014	147658	73.3	47.3	20.0	35.3	
6	2008	311574	253235	152835	81.3	49.1	20.0	39.3	
7	2008	312761	194358	49448	62.1	15.8	20.0	38.7	
8	2008	311973	206342	86390	66.1	27.7	20.0	36.1	
9	2008	311840	194361	108065	62.3	34.7	20.0	33.0	

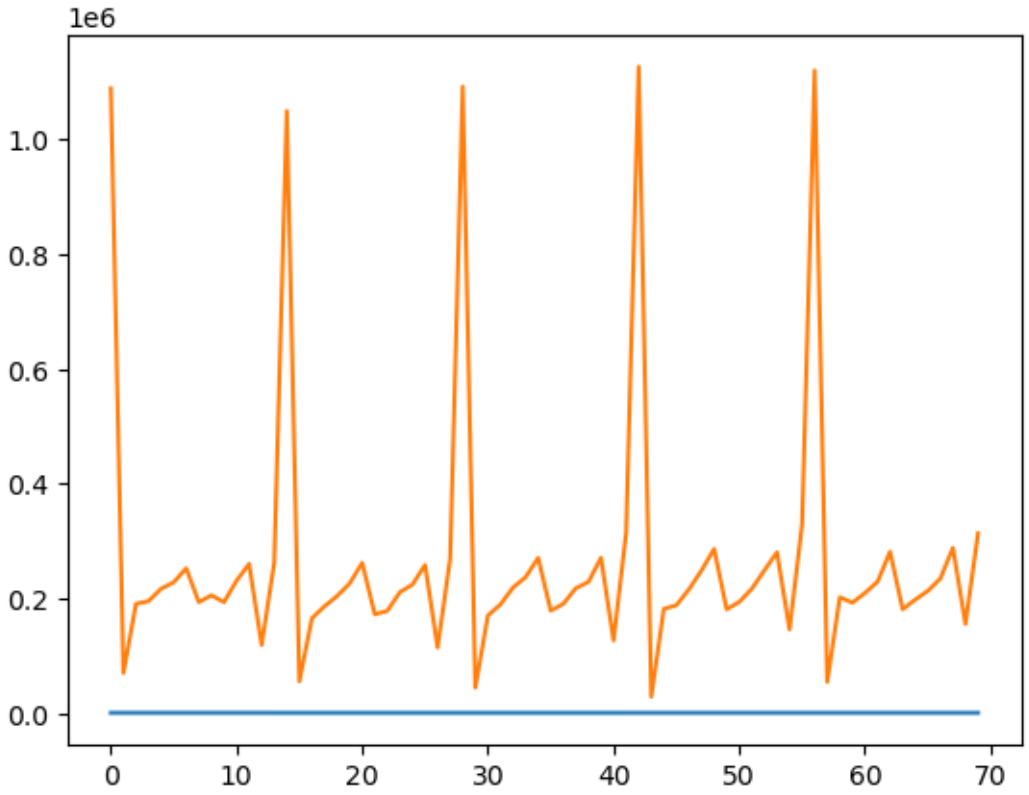
	size	income	expenditure	eqv_income	eqv_exp
0	2.7	46704	42394	26869	25132
1	2.6	23404	25270	14258	15824
2	2.3	16747	21145	13402	14408
3	2.8	31308	29855	18917	18266
4	3.0	49106	46561	26870	24672
5	2.6	61674	52776	36691	31958
6	2.5	96861	72822	55637	42932
7	2.5	23680	16413	15190	11015
8	2.7	34155	29085	20357	18121
9	2.8	49771	42662	27203	25132

[6]:
```
plt.scatter(data['year'],data['own'])
#Adding title to the Plot
plt.title('Scatter plot')
#Setting the x and y Labels
plt.xlabel('year')
plt.ylabel('own')
#Adding the legends
plt.show()
```



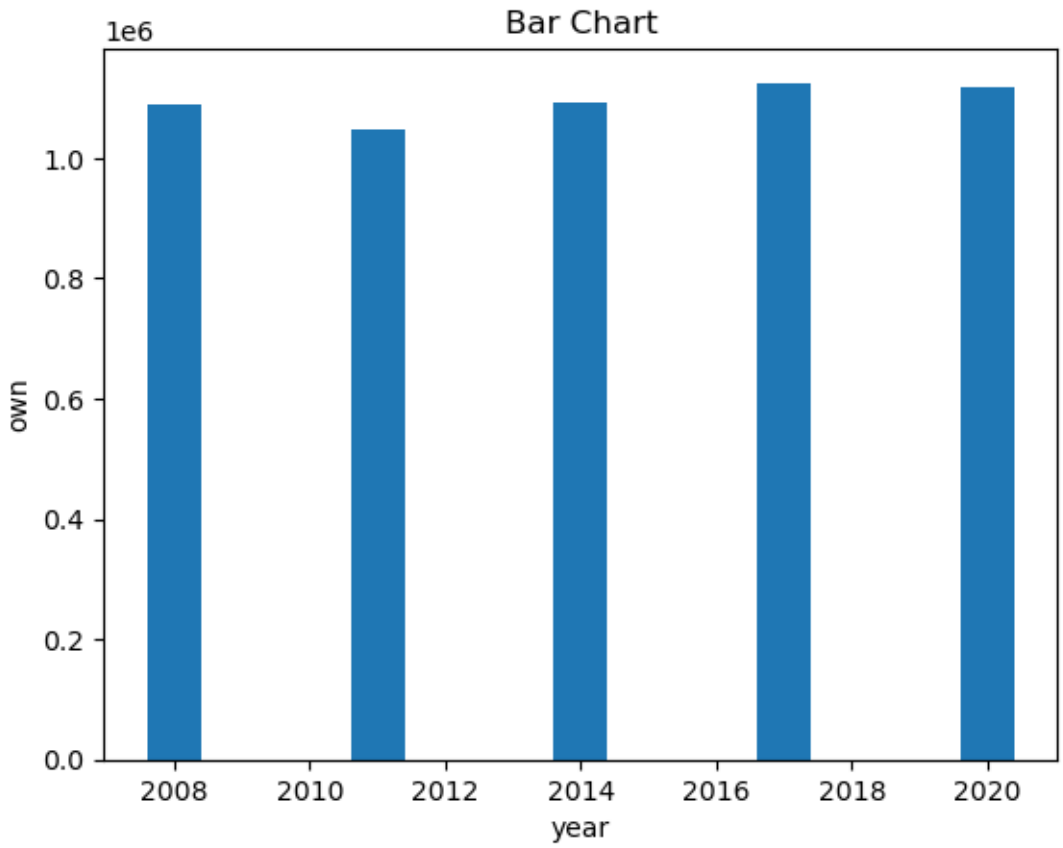
[7]:
```
 #Line Chart with year against own
plt.plot(data['year'])
plt.plot(data['own'])
```

[7]: [<matplotlib.lines.Line2D at 0x16ac5734c40>]

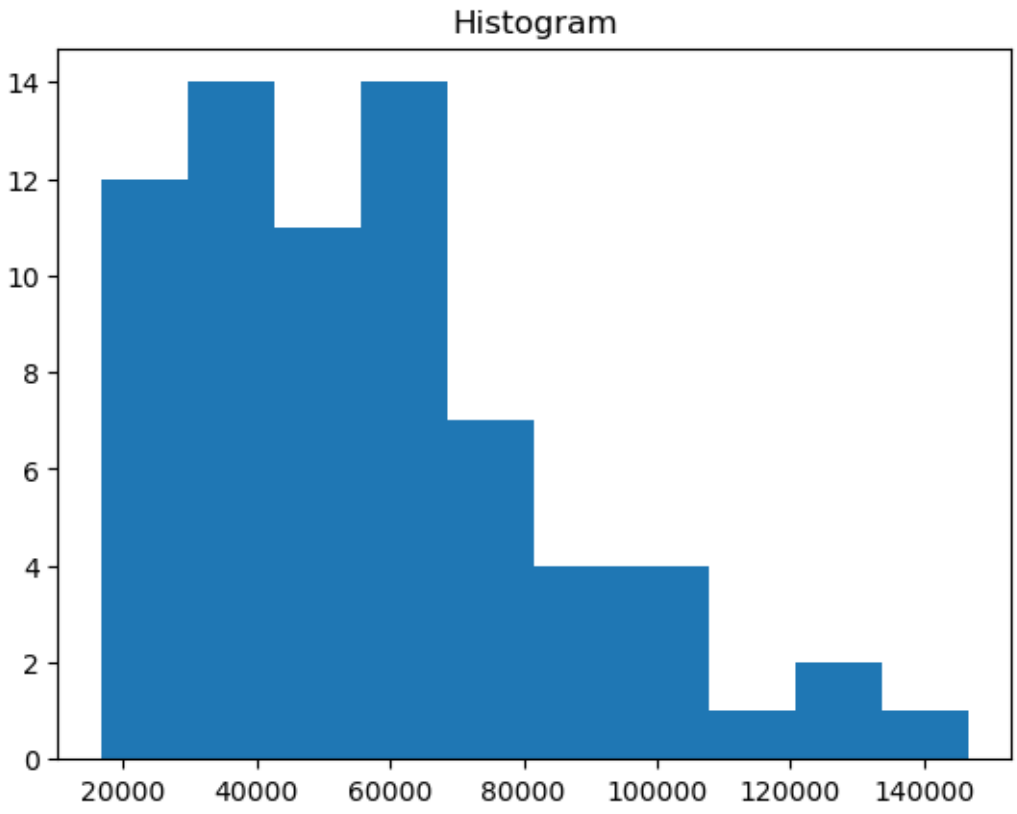


[8]:
```
#Bar Chart or Bar Plot
plt.bar(data['year'],data['own'])
#Adding title to the Plot
plt.title('Bar Chart')
#Setting the x and y Labels
plt.xlabel('year')
plt.ylabel('own')

#Ading the Legends
plt.show()
```



[9]:
```
#Histogram
plt.hist(data['income'])
#Adding title to the Plot
plt.title('Histogram')
#Adding the Legends
plt.show()
```


Histogram
14
12
10
8
6
4
2
0
20000
40000
60000
80000
100000
120000
140000

[ ]: