

## task-3-1

May 27, 2024

```
[4]: #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."""
```

```
[4]: 'Create a bar chart and a line chart using Matplotlib\nto visualize data from a
      Pandas DataFrame.\nCustomize the charts with labels, titles, and legends.'
```

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

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[3]: data = pd.read_csv('householdtask3.csv')
```

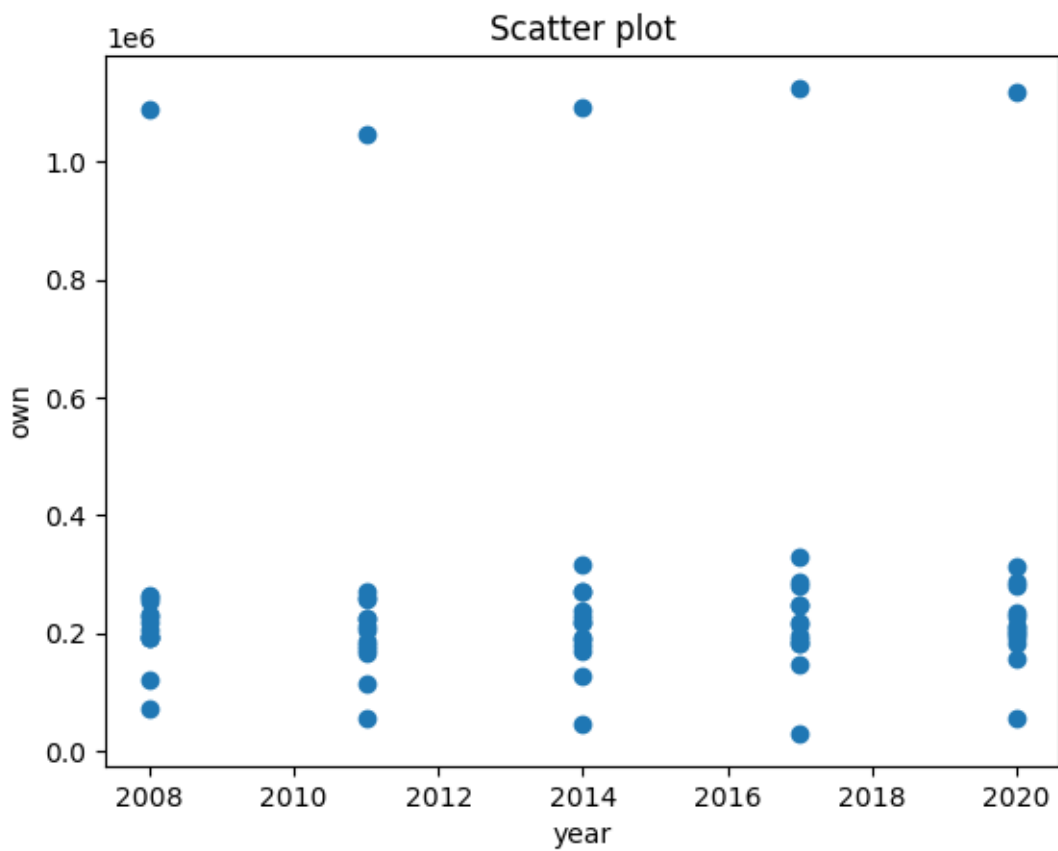
```
[4]: display(data.head(10))
```

	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

```
[5]: #Satter plot with year against own
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()
```

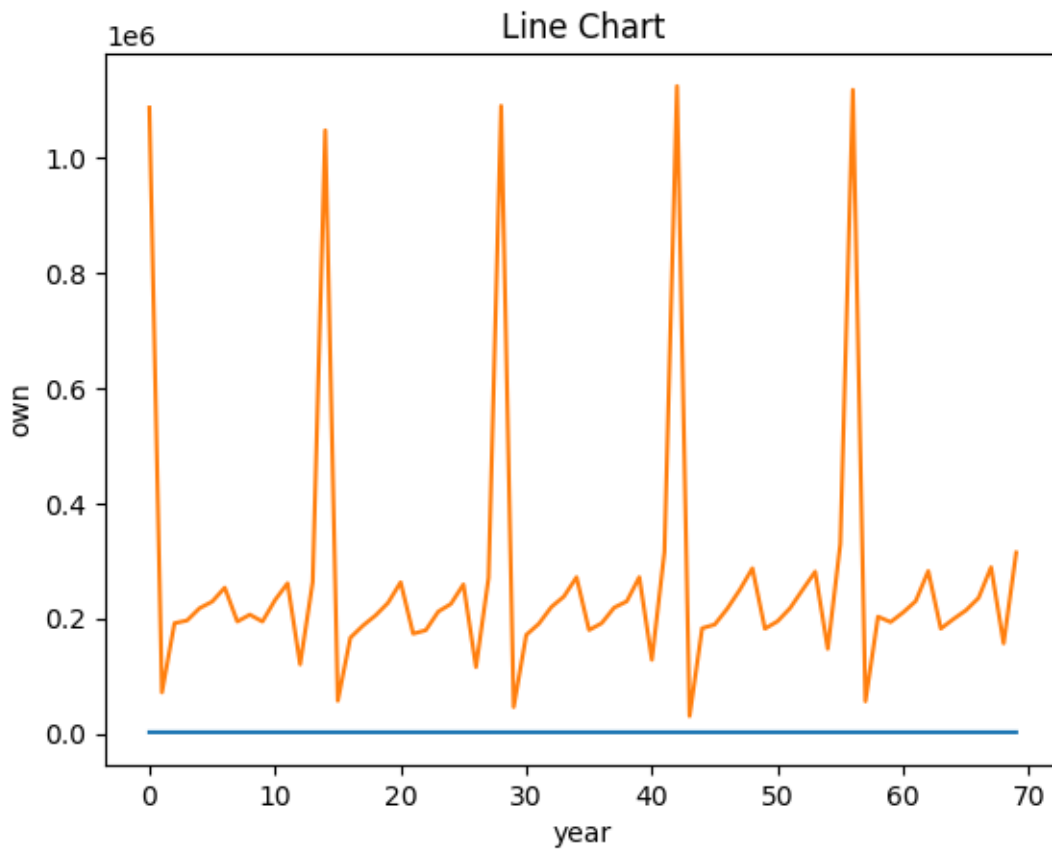


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[6]: #Line Chart with year against own
plt.plot(data['year'])
plt.plot(data['own'])
2
#Adding title to the Plot
plt.title('Line Chart')
```

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#Setting the x and y Labels
plt.xlabel('year')
plt.ylabel('own')
#Adding the Legends
plt.show()

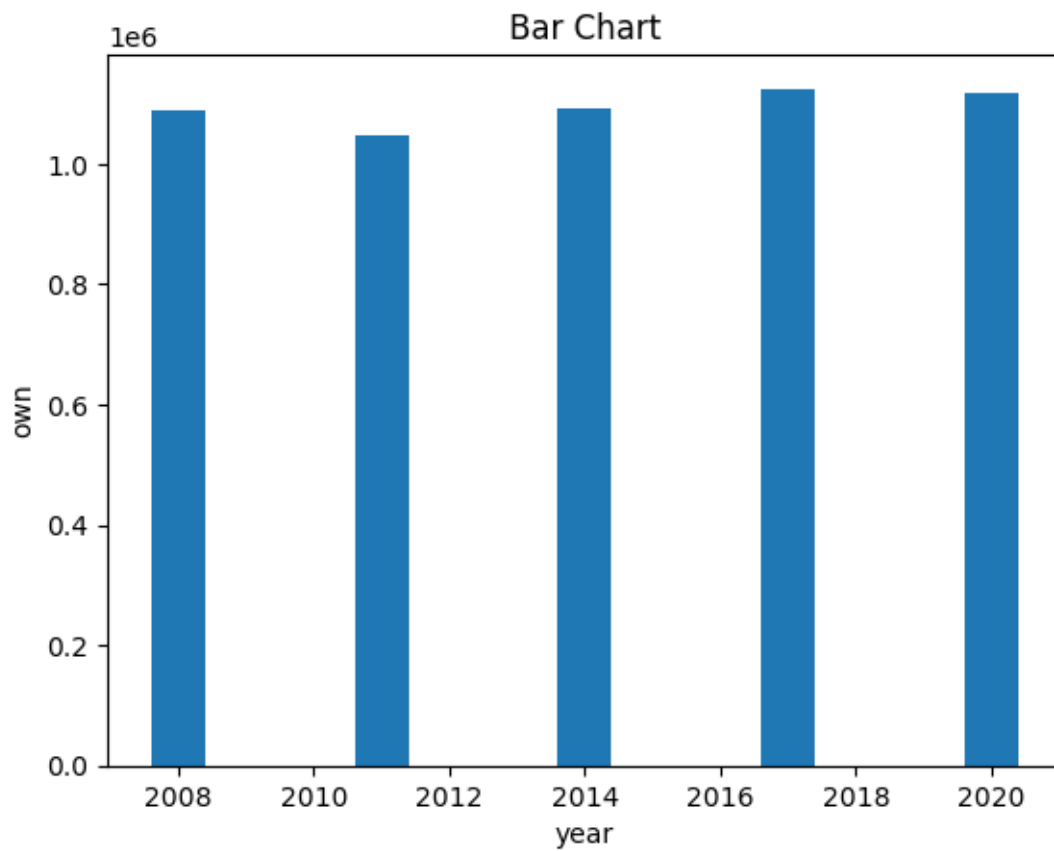
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[7]: #Bar Chart or Bar Plot
plt.bar(data['year'],data['own'])
#Adding title to the Plot
plt.title('Bar Chart')
#Setting the x and y Labels
plt.xlabel('year')
plt.ylabel('own')
3
#Ading the Legends
plt.show()

```



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

