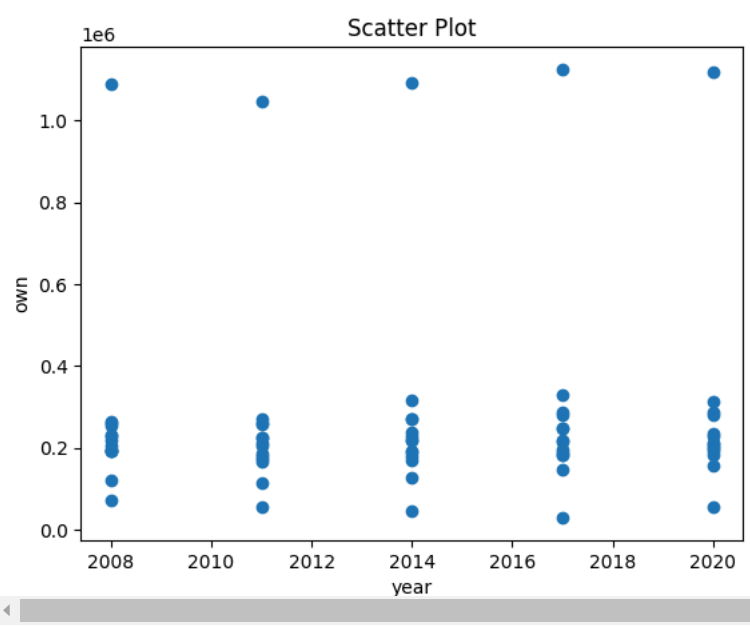
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
from datetime import datetime


data = pd.read_csv('/content/householdtask3.csv')


data.head()
```

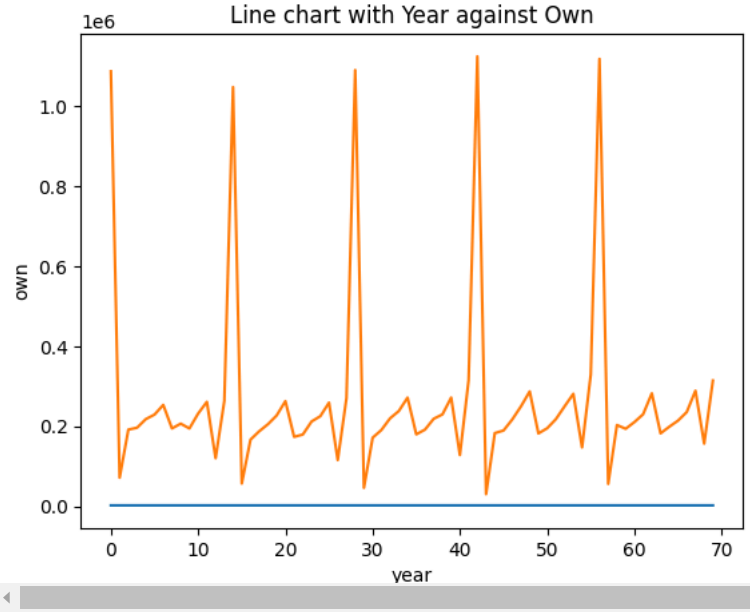
	year	tot_hhs	own	own_wm	own_prop	own_wm_prop	prop_hhs	age	size	income	expenditure	eqv_income	eqv_exp
0	2008	1560859	1087580	574406	69.7	36.8	100.0	35.9	2.7	46704	42394	26869	25132
1	2008	185965	71256	39405	38.3	21.2	11.9	29.9	2.6	23404	25270	14258	15824
2	2008	312376	191470	48424	61.3	15.5	20.0	40.0	2.3	16747	21145	13402	14408
3	2008	312333	196203	84171	62.8	26.9	20.0	34.7	2.8	31308	29855	18917	18266
4	2008	312240	217657	141318	69.7	45.3	20.0	31.5	3.0	49106	46561	26870	24672

Next steps: Generate code with data | View recommended plots | New interactive sheet

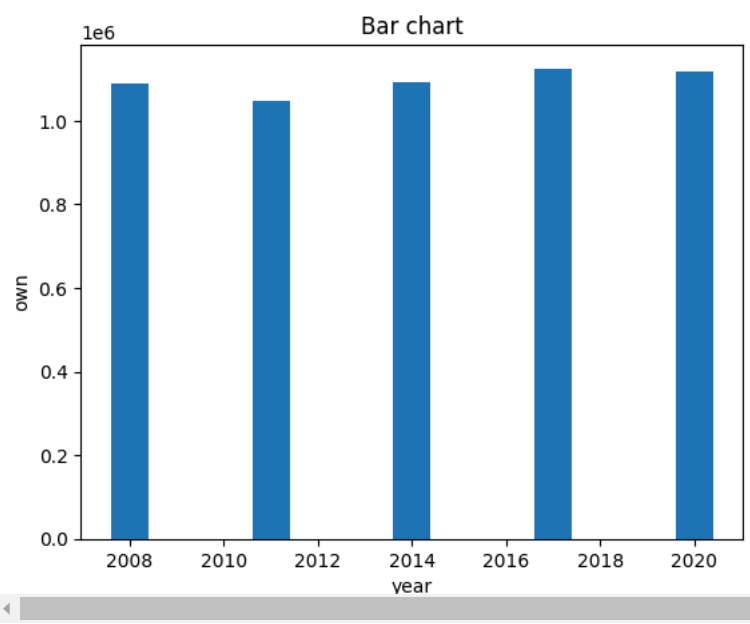
```
#Scatter plot

plt.scatter(data['year'], data['own'])
plt.title("Scatter Plot")

plt.xlabel('year')
plt.ylabel('own')

plt.show()
```



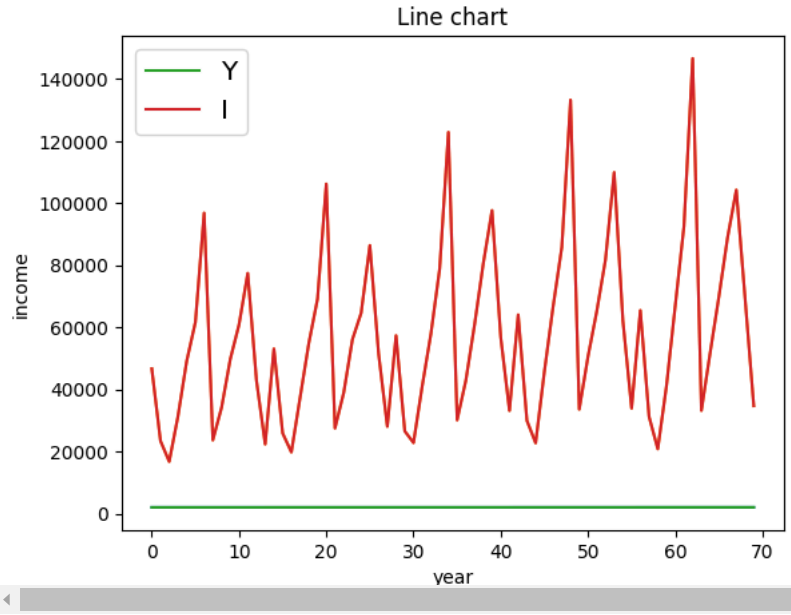

```
#line_chart

plt.plot(data['year'])
plt.plot(data['own'])

plt.title("Line chart with Year against Own")

plt.xlabel('year')
plt.ylabel('own')

plt.show()
```



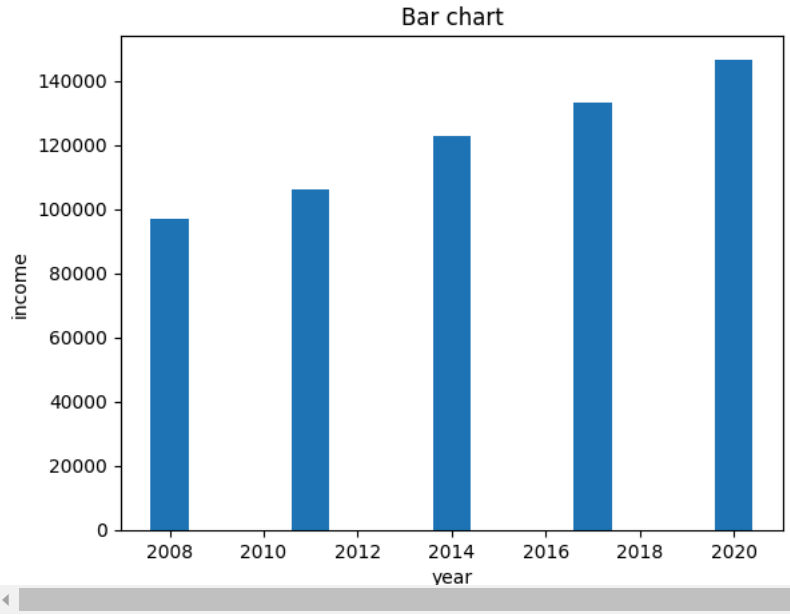

```
plt.bar(data['year'], data['own'])
plt.title("Bar chart")

plt.xlabel('year')
plt.ylabel('own')

plt.show()
```




```
plt.plot(data['year'])
plt.plot(data['income'])

plt.title("Line chart")

plt.xlabel('year')
plt.ylabel('income')

plt.plot(data['year'], label = 'Y')
plt.plot(data['income'], label = 'I')

plt.legend(fontsize = 'x-large', loc = 'upper left')

plt.show()
```

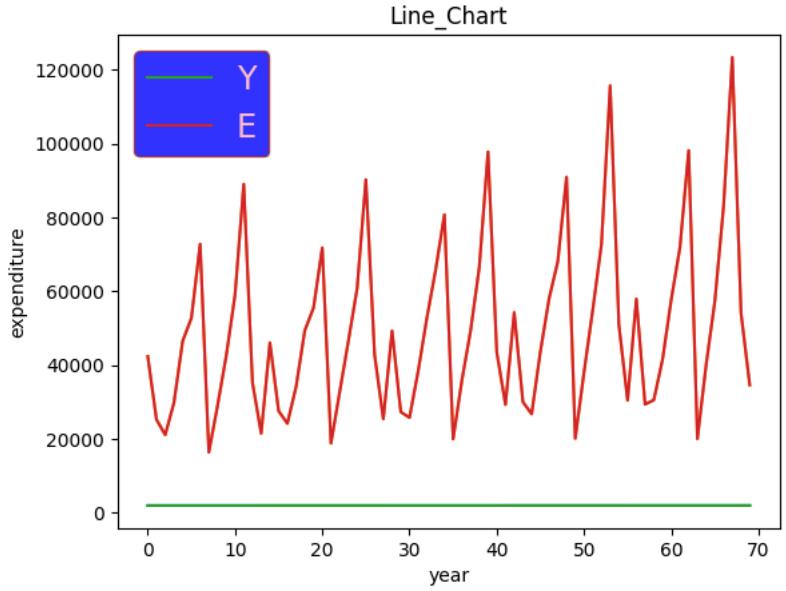



```
plt.bar(data['year'], data['income'])
plt.title("Bar chart")

plt.xlabel('year')
plt.ylabel('income')


plt.show()
```

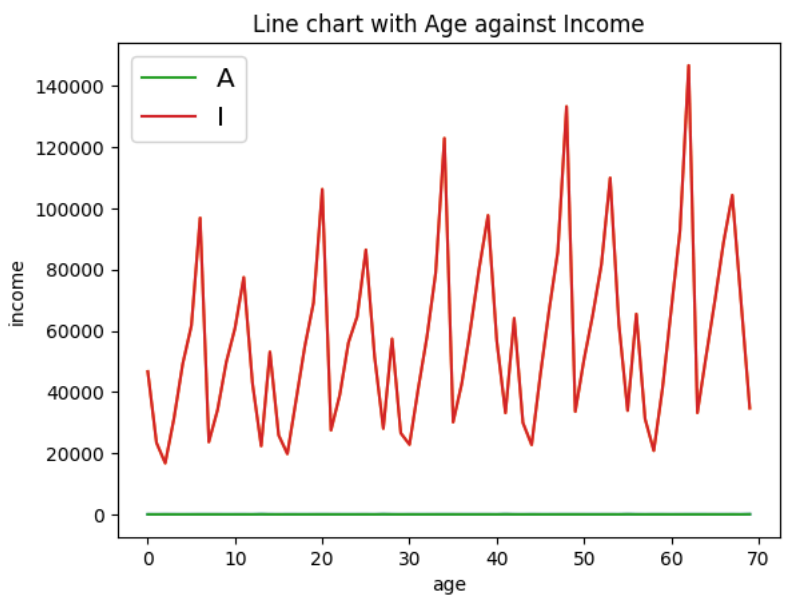



```
plt.plot(data['year'])
plt.plot(data['expenditure'])

plt.title("Line_Chart")

plt.xlabel('year')
plt.ylabel('expenditure')

plt.plot(data['year'], label = "Y")
plt.plot(data['expenditure'], label = "E")

plt.legend(labelcolor = 'Pink', facecolor = 'blue',
           edgecolor = 'Brown', fontsize = 'xx-large')
```

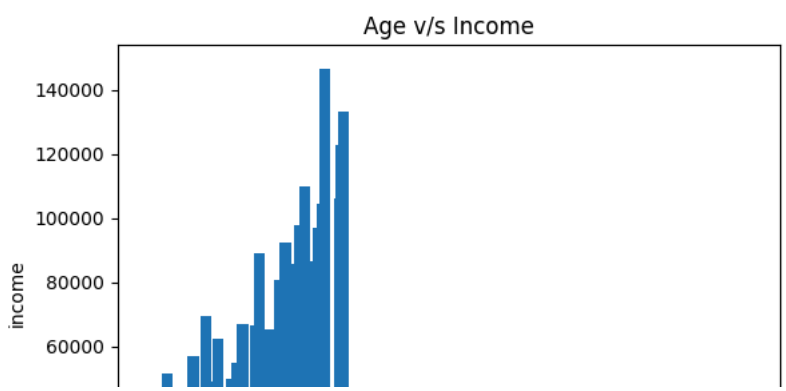
```
<matplotlib.legend.Legend at 0x7ba4874b1180>
```




```
plt.plot(data['age'])
plt.plot(data['income'])

plt.title("Line chart with Age against Income")

plt.xlabel('age')
plt.ylabel('income')

plt.plot(data['age'], label='A')
plt.plot(data['income'], label = 'I')

plt.legend(fontsize = 'x-large', loc = 'upper left')

plt.show()
```




```
plt.bar(data['age'], data['income'])
plt.title("Age v/s Income")

plt.xlabel('age')
plt.ylabel('income')


plt.show()
```


Age v/s Income
income
140000
120000
100000
80000
60000