In [9]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
```

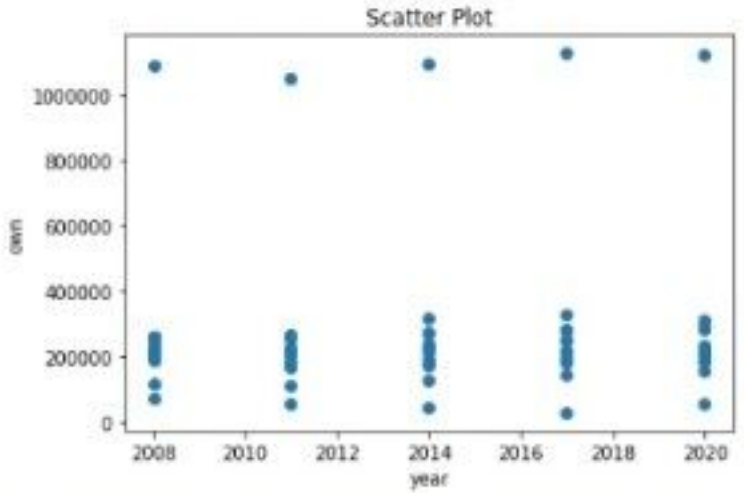
In [10]:
```
data=pd.read_csv("H:\\ml lab\\householdtask3.csv")
```

In [11]:
```
data.head(10)
```

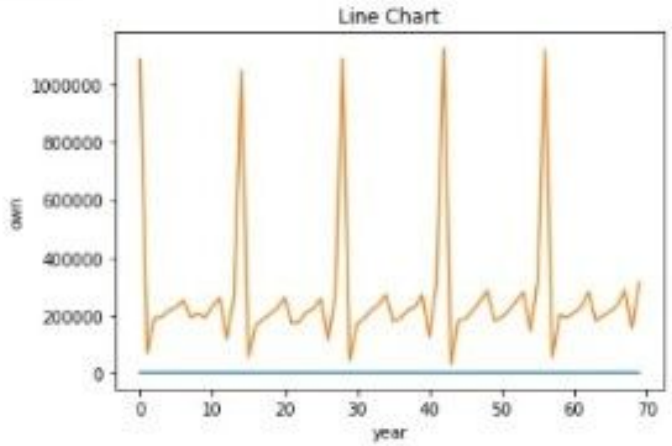
Out[11]:

	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
5	2008	312336	229014	147658	73.3	47.3	20.0	35.3	2.6	61674	52776	36691	31958
6	2008	311574	253235	152835	81.3	49.1	20.0	39.3	2.5	96861	72822	55637	42932
7	2008	312761	194358	49448	62.1	15.8	20.0	38.7	2.5	23680	16413	15190	11015
8	2008	311973	206342	86390	66.1	27.7	20.0	36.1	2.7	34155	29085	20357	18121

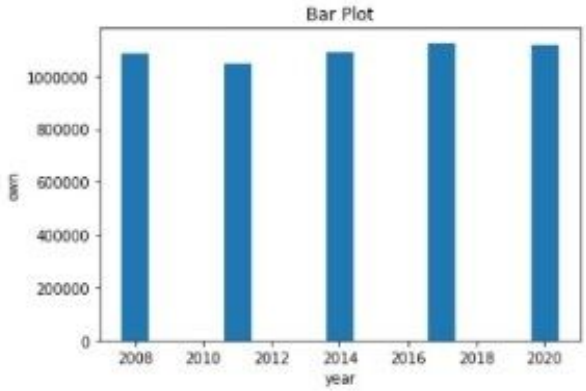
In [12]:
```
plt.scatter(data['year'],data['own'])
plt.title("Scatter Plot")
plt.xlabel('year')
plt.ylabel('own')
plt.show()
```



In [13]:
```
plt.plot(data['year'])
plt.plot(data['own'])
plt.title("Line Chart")
plt.xlabel('year')
plt.ylabel('own')
plt.show()
```



In [14]:
```
plt.bar(data['year'],data['own'])
plt.title("Bar Plot")
plt.xlabel('year')
plt.ylabel('own')
plt.show()
```



In [15]:
```
plt.hist(data['income'])
plt.title("Histogram")
plt.show()
```