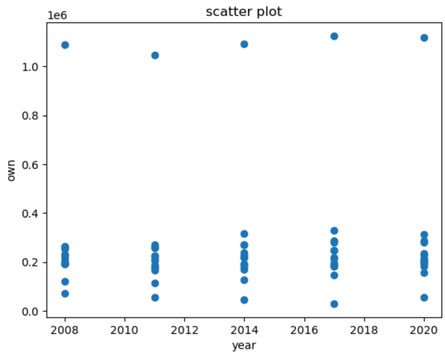
In [12]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
from datetime import datetime
```

In [13]:
```
data = pd.read_csv('C:\\Users\\pujit\\Downloads\\householdtask3.csv')
```

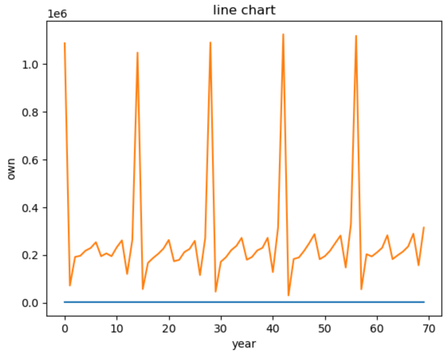
In [14]:
```
display(data.head(10))
```

	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
9	2008	311840	194361	108065	62.3	34.7	20.0	33.0	2.8	49771	42662	27203	25132

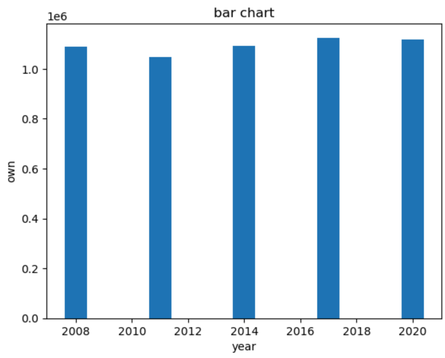
In [15]:
```
#visualization
#scatter plot with year against own
plt.scatter(data['year'], data['own'])

#adding title to plot
plt.title("scatter plot")

#setting the x and y labels
plt.xlabel('year')
plt.ylabel('own')

#adding the legends
plt.show()
```



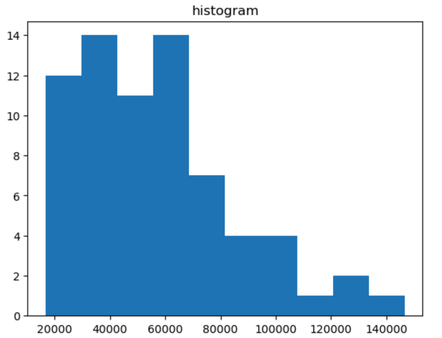
In [16]:
```
#second visualization
#line chart with year against own
plt.plot(data['year'])
plt.plot(data['own'])

#adding title to plot
plt.title("line chart")

#setting the x and y labels
plt.xlabel('year')
plt.ylabel('own')

#adding the legends
plt.show()
```



In [17]:
```
#third visualisation
#bar chart or bar plot
plt.bar(data['year'],data['own'])

#adding title to plot
plt.title("bar chart")

#setting the x and y labels
plt.xlabel('year')
plt.ylabel('own')

#adding the legends
plt.show()
```



In [19]:
```
#histogram
plt.hist(data['income'])

plt.title("histogram")

plt.show()
```



In [ ]:
```
```