

```
import pandas as pd
data = pd.read_csv("Housing.csv")
print("Type of data is",type(data))
data
```

☞ Type of data is <class 'pandas.core.frame.DataFrame'>

	price	lotsize	bedrooms	bathrms	stories	driveway	recroom	fullbase	gash
<b>0</b>	42000.0	5850	3	1	two	yes	no	yes	n
<b>1</b>	38500.0	4000	2	1	one	yes	no	no	n
<b>2</b>	49500.0	3060	3	1	one	yes	no	no	n
<b>3</b>	60500.0	6650	3	1	two	yes	yes	no	n
<b>4</b>	61000.0	6360	2	1	one	yes	no	no	n
...	...	...	...	...	...	...	...	...	.
<b>541</b>	91500.0	4800	3	2	four	yes	yes	no	n
<b>542</b>	94000.0	6000	3	2	four	yes	no	no	n
<b>543</b>	103000.0	6000	3	2	four	yes	yes	no	n
<b>544</b>	105000.0	6000	3	2	two	yes	yes	no	n
<b>545</b>	105000.0	6000	3	1	two	yes	no	no	n

546 rows × 12 columns

```
print(data.shape)

(546, 12)
```

```
data.head(5)
```

	price	lotsize	bedrooms	bathrms	stories	driveway	recroom	fullbase	gashw
<b>0</b>	42000.0	5850	3	1	two	yes	no	yes	no
<b>1</b>	38500.0	4000	2	1	one	yes	no	no	no
<b>2</b>	49500.0	3060	3	1	one	yes	no	no	no
<b>3</b>	60500.0	6650	3	1	two	yes	yes	no	no
<b>4</b>	61000.0	6360	2	1	one	yes	no	no	no

```
data.tail(5)
```

	price	lotsize	bedrooms	bathrms	stories	driveway	recroom	fullbase	gash
<b>541</b>	91500.0	4800	3	2	four	yes	yes	no	n

```
data['price'][3]  
  
60500.0
```

```
data.columns  
  
Index(['price', 'lotsize', 'bedrooms', 'bathrms', 'stories', 'driveway',  
      'recroom', 'fullbase', 'gashw', 'airco', 'garagepl', 'prefarea'],  
      dtype='object')
```

```
data[data.columns]
```

	price	lotsize	bedrooms	bathrms	stories	driveway	recroom	fullbase	gash
<b>0</b>	42000.0	5850	3	1	two	yes	no	yes	n
<b>1</b>	38500.0	4000	2	1	one	yes	no	no	n
<b>2</b>	49500.0	3060	3	1	one	yes	no	no	n
<b>3</b>	60500.0	6650	3	1	two	yes	yes	no	n
<b>4</b>	61000.0	6360	2	1	one	yes	no	no	n
...	...	...	...	...	...	...	...	...	.
<b>541</b>	91500.0	4800	3	2	four	yes	yes	no	n
<b>542</b>	94000.0	6000	3	2	four	yes	no	no	n
<b>543</b>	103000.0	6000	3	2	four	yes	yes	no	n
<b>544</b>	105000.0	6000	3	2	two	yes	yes	no	n
<b>545</b>	105000.0	6000	3	1	two	yes	no	no	n

546 rows × 12 columns

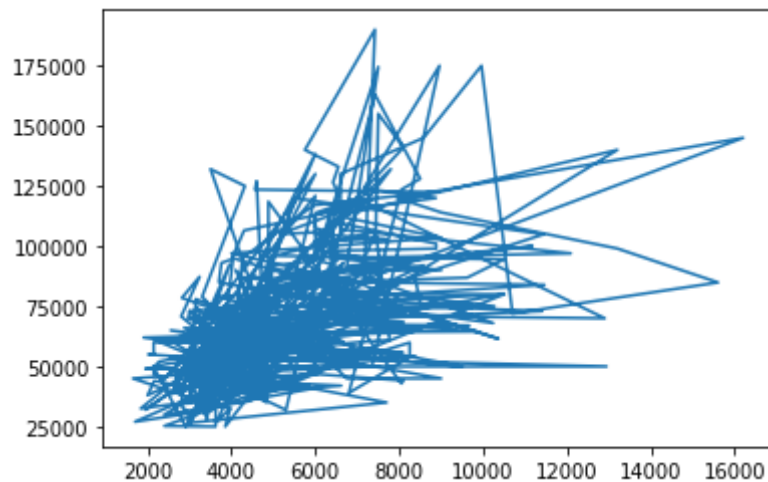
```
data[['price','lotsize']]
```

	price	lotsize
0	42000.0	5850
1	38500.0	4000
2	49500.0	3060
3	60500.0	6650

#what happn in data?

```
import matplotlib.pyplot as plt
plt.plot(data['lotsize'],data['price'])
```

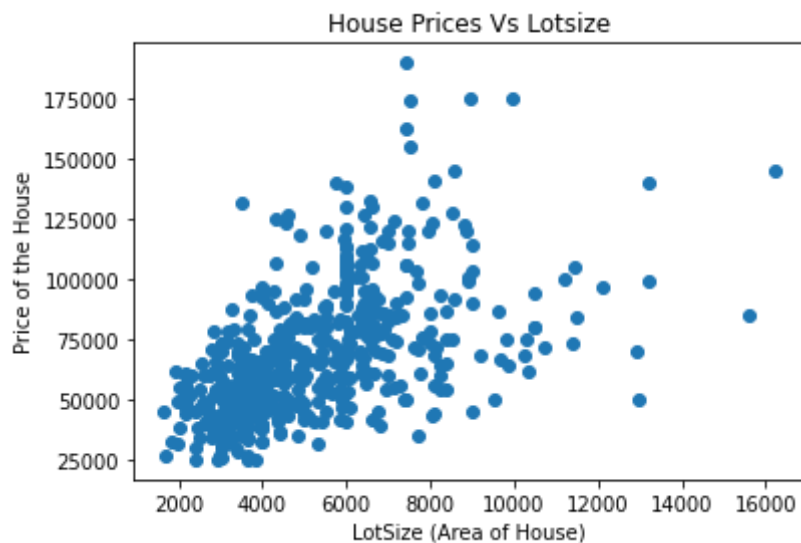
[<matplotlib.lines.Line2D at 0x7fca0a358b38>]



#what happn in data?

```
import matplotlib.pyplot as plt
plt.scatter(data['lotsize'],data['price'])
plt.xlabel("LotSize (Area of House)")
plt.ylabel("Price of the House")
plt.title("House Prices Vs Lotsize")
```

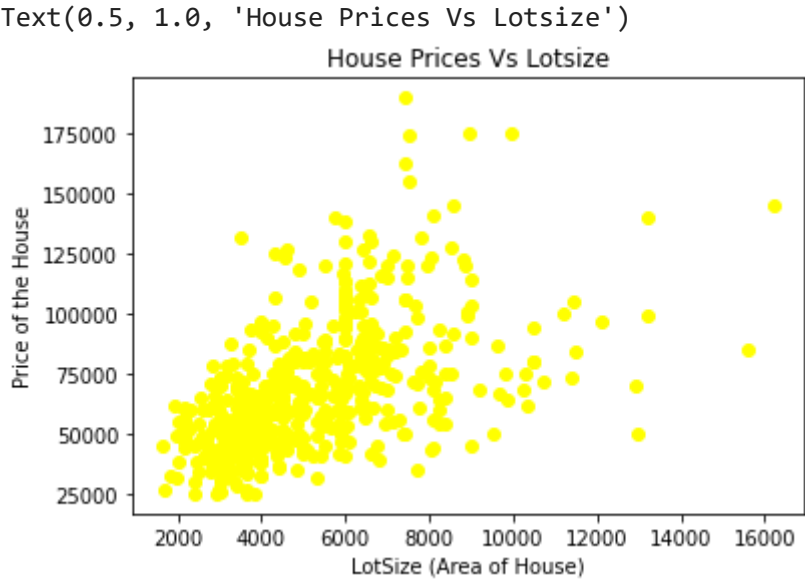
Text(0.5, 1.0, 'House Prices Vs Lotsize')



#what happn in data?

```
import matplotlib.pyplot as plt
plt.scatter(data['lotsize'],data['price'],color="yellow")
```

```
plt.xlabel("LotSize (Area of House)")
plt.ylabel("Price of the House")
plt.title("House Prices Vs Lotsize")
```



```
#Why did it happen?
data.corr()
```

	price	lotsize	bedrooms	bathrms	garagepl
<b>price</b>	1.000000	0.535796	0.366447	0.516719	0.383302
<b>lotsize</b>	0.535796	1.000000	0.151851	0.193833	0.352872
<b>bedrooms</b>	0.366447	0.151851	1.000000	0.373769	0.139117
<b>bathrms</b>	0.516719	0.193833	0.373769	1.000000	0.178178
<b>garagepl</b>	0.383302	0.352872	0.139117	0.178178	1.000000

