

```
In [10]: import numpy as np  
import pandas as pd  
import matplotlib.pyplot as plt
```

```
In [11]: df=pd.read_csv("D:\\Downloads\\insurance_data.csv")
```

```
In [12]: df.head()
```

```
Out[12]:
```

	age	bought_insurance
0	22	0
1	25	0
2	47	1
3	52	0
4	46	1

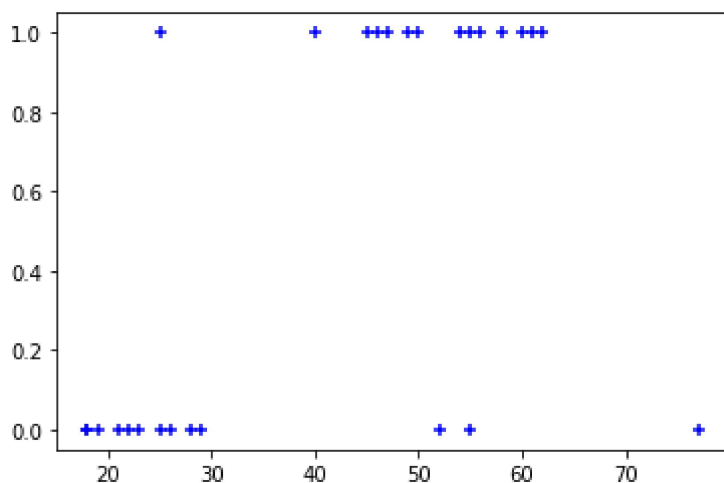
```
In [13]: df.rename(columns={"bought_insurance": "ins"})
```

```
Out[13]:
```

	age	ins
0	22	0
1	25	0
2	47	1
3	52	0
4	46	1
5	56	1
6	55	0
7	60	1
8	62	1
9	61	1
10	18	0
11	28	0
12	77	0
13	29	0
14	49	1
15	55	1
16	25	1
17	58	1
18	19	0
19	18	0
20	21	0
21	26	0
22	40	1
23	45	1
24	50	1
25	54	1
26	23	0

```
In [15]: plt.scatter(df.age,df.bought_insurance,marker='+',color='blue')
```

```
Out[15]: <matplotlib.collections.PathCollection at 0x172382f8f70>
```



```
In [16]: from sklearn.model_selection import train_test_split
x_train,x_test,y_train,y_test=train_test_split(df[['age']],df.bought_insurance
```

```
In [17]: x_test
```

```
Out[17]:
```

	age
24	50
11	28
21	26
26	23
5	56
0	22

```
In [24]: from sklearn.linear_model import LogisticRegression
model = LogisticRegression()
```

```
In [25]: model.fit(x_train,y_train)
```

```
Out[25]: LogisticRegression()
```

```
In [26]: model.predict(x_test)
```

```
Out[26]: array([1, 0, 0, 0, 1, 0], dtype=int64)
```

```
In [27]: model.score(x_test,y_test)
```

```
Out[27]: 1.0
```

In [ ]: