In [1]:
```
import pandas as pd
from matplotlib import pyplot as plt
%matplotlib inline
```

In [2]:
```
df = pd.read_csv("C:/Users/aziz/Desktop/Downloads/Machine Learning  Python/7_Logi
```

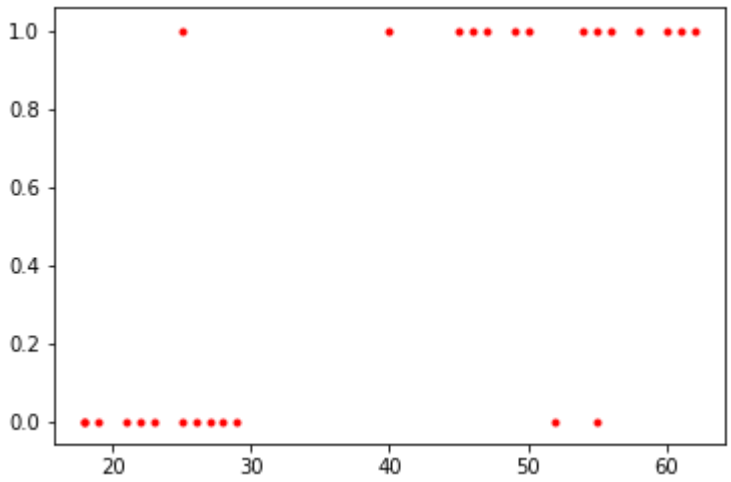
In [7]:
```
df.head()
```

Out[7]:

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

In [8]:
```
plt.scatter(df.age,df.bought_insurance,marker='.',color='red')
```

Out[8]:
```
<matplotlib.collections.PathCollection at 0x22cb0185a20>
```



In [9]:
```
from sklearn.model_selection import train_test_split
```

In [18]:
```
X_train, X_test, y_train, y_test = train_test_split(df[['age']],df.bought_insurar
```

In [19]:
```
X_test
```

Out[19]:

	age
19	18
7	60
13	29

In [13]:
```
from sklearn.linear_model import LogisticRegression
model = LogisticRegression()
```

In [21]:
```
model.fit(X_train,y_train)
```

```
C:\Users\aziz\Anaconda3\lib\site-packages\sklearn\linear_model\logistic.py:433:
FutureWarning: Default solver will be changed to 'lbfgs' in 0.22. Specify a sol
ver to silence this warning.
  FutureWarning)
```

Out[21]:
```
LogisticRegression(C=1.0, class_weight=None, dual=False, fit_intercept=True,
          intercept_scaling=1, max_iter=100, multi_class='warn',
          n_jobs=None, penalty='l2', random_state=None, solver='warn',
          tol=0.0001, verbose=0, warm_start=False)
```

In [22]:
```
X_test
```

Out[22]:

	age
19	18
7	60
13	29

In [23]:
```
y_predicted = model.predict(X_test)
```

In [24]:
```
model.predict_proba(X_test)
```

Out[24]:
```
array([[0.65522133, 0.34477867],
       [0.18066436, 0.81933564],
       [0.51947705, 0.48052295]])
```

In [25]:
```
model.score(X_test,y_test)
```

Out[25]:
```
1.0
```

In [26]:
```
X_test
```

Out[26]:

	age
19	18
7	60
13	29

In [ ]:
```

```