In [9]:
```python
import matplotlib.pyplot as plt
import numpy as np
from sklearn.linear_model import LogisticRegression
from sklearn.metrics import confusion_matrix
import pandas as pd
df=pd.read_csv('/home/student/Downloads/Social_Network_Ads.csv')
df.head()
```

Out[9]:

	Age	EstimatedSalary	Purchased
0	19	19000	0
1	35	20000	0
2	26	43000	0
3	27	57000	0
4	19	76000	0

In [15]:
```python
from sklearn.model_selection import train_test_split

x_train, x_test, y_train, y_test = train_test_split(df['Age'], df['
```

In [16]:
```python
from sklearn.linear_model import LogisticRegression
x_train = x_train.values.reshape(-1, 1)
model=LogisticRegression()
model.fit(x_train,y_train)
```

Out[16]:

   ▼   LogisticRegression ⓘ ❓
(https://scikit-learn.org/1.4/modules/generated/sklearn.linear_mod
LogisticRegression()

In [17]:
```python
from sklearn.metrics import accuracy_score,precision_score,recall_s
Y_predicted=model.predict(x_test.values.reshape(-1,1))
Y_predicted
```

Out[17]:
```
array([1, 1, 1, 0, 0, 0, 1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 1, 0, 1, 0, 1, 0,
       0, 0, 0, 0, 0, 0, 1, 0, 1, 0, 1, 0, 1, 1, 0, 0, 1, 0, 0, 0, 1, 0,
       0, 0, 0, 0, 0, 0, 1, 0, 1, 1, 0, 1, 1, 0, 0, 1, 1, 0, 0, 0, 0, 1,
       0, 0, 0, 1, 0, 1, 0, 0, 0, 1, 1, 1, 1, 0])
```

In [18]:
```python
confusion_matrix(y_test,Y_predicted)
accuracy=accuracy_score(y_test,Y_predicted)
print("accuracy",accuracy)
recall = recall_score(y_test, Y_predicted)
print(f"Recall Score: {recall}")
precision = precision_score(y_test, Y_predicted)
print(f"precision score: {precision}")
f1 = f1_score(y_test, Y_predicted)
print(f"F1: {f1}")
```

```
accuracy 0.7875
Recall Score: 0.6756756756756757
precision score: 0.8333333333333334
F1: 0.746268656716418
```

In [ ]:

In [ ]: