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Csc/21/55

14. Implement a classification/logistic regression problem.

In [ ]:
```
import pandas as pd
from sklearn.linear_model import LogisticRegression
from sklearn.model_selection import train_test_split
```

In [ ]:
```
df = pd.read_csv(r"C:\Users\HP\Desktop\MACHINE LEARNING\loan.csv")
```

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

Out[ ]:

	age	gender	occupation	education_level	marital_status	income	credit_score	loan_status
0	32	Male	Engineer	Bachelor's	Married	85000	720	Approved
1	45	Female	Teacher	Master's	Single	62000	680	Approved
2	28	Male	Student	High School	Single	25000	590	Denied
3	51	Female	Manager	Bachelor's	Married	105000	780	Approved
4	36	Male	Accountant	Bachelor's	Married	75000	710	Approved

In [ ]:
```
X = df[['age','income','credit_score']]
y = df['loan_status']
```

In [ ]:
```
X_train,X_test,y_train,y_test = train_test_split(X,y,test_size=0.33)
```

In [ ]:
```
logistic_regression = LogisticRegression(penalty=None)
logistic_regression.fit(X_train,y_train)
```

Out[ ]:

LogisticRegression

LogisticRegression(penalty=None)

In [ ]:
```
y_pred = logistic_regression.predict(X_test)
```

In [ ]:
```
y_pred
```

Out[ ]:
```
array(['Approved', 'Denied', 'Approved', 'Approved', 'Approved', 'Denied',
       'Denied', 'Approved', 'Denied', 'Approved', 'Denied', 'Denied',
       'Approved', 'Approved', 'Denied', 'Approved', 'Approved',
       'Approved', 'Denied', 'Denied', 'Approved'], dtype=object)
```

In [ ]: