Q8

In [ ]:
```
import numpy as np
import pandas as pd
from sklearn.datasets import load_breast_cancer
from sklearn.linear_model import LogisticRegression
from sklearn.model_selection import train_test_split
from sklearn.metrics import confusion_matrix,classification_report
```

Load Data

In [ ]:
```
data = load_breast_cancer()
X = data["data"]
y = data["target"]
```

Split data

In [ ]:
```
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.3, random_sta
```

Train model

In [ ]:
```
logReg = LogisticRegression(solver="liblinear")
logReg.fit(X_train, y_train)
```

Out[ ]:
```
LogisticRegression
LogisticRegression(solver='liblinear')
```

In [ ]:
```
preds = logReg.predict(X_test)

print(classification_report(y_test, preds))
print(confusion_matrix(y_test, preds))
```

```
              precision    recall  f1-score   support

           0       0.94      0.93      0.93        69
           1       0.95      0.96      0.96       102

    accuracy                           0.95       171
   macro avg       0.95      0.94      0.95       171
weighted avg       0.95      0.95      0.95       171

[[64  5]
 [ 4 98]]
```