In [9]:
```
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LogisticRegression
from sklearn.metrics import accuracy_score, classification_report
from sklearn.preprocessing import MultiLabelBinarizer
```

In [10]:
```
data = pd.read_excel("BreadBasket.xlsx", names=['', 'Tx', 'products'])
```

In [11]:
```
data['target'] = data['products'].apply(lambda x: 1 if 'MILK' in x else 0)
```

In [12]:
```
mlb = MultiLabelBinarizer()
product_features = mlb.fit_transform(data['products'].str.split(','))
```

In [13]:
```
product_features_df = pd.DataFrame(product_features, columns=mlb.classes_)
```

In [14]:
```
data = pd.concat([data, product_features_df], axis=1)
```

In [15]:
```
X = product_features_df
y = data['target']
```

In [16]:
```
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, rando
```

In [17]:
```
model = LogisticRegression()
```

In [18]:
```
model.fit(X_train, y_train)
```

Out[18]:
```
LogisticRegression
LogisticRegression()
```

In [19]:
```
y_pred = model.predict(X_test)
```

In [20]:
```
accuracy = accuracy_score(y_test, y_pred)
classification_rep = classification_report(y_test, y_pred)
```

In [21]:
```
print(f"Accuracy: {accuracy:.2f}")
print("Classification Report:\n", classification_rep)
```

```
Accuracy: 1.00
Classification Report:
               precision    recall  f1-score   support

           0       1.00      1.00      1.00         4
           1       1.00      1.00      1.00         1

    accuracy                           1.00         5
   macro avg       1.00      1.00      1.00         5
weighted avg       1.00      1.00      1.00         5
```

In [ ]:
```

```