```
import numpy as np
import pandas as pd
from sklearn.model selection import train test split
from sklearn.preprocessing import StandardScaler
from sklearn.svm import SVC
from sklearn.metrics import accuracy_score, classification_report
# Load the wine quality dataset from your CSV file with the appropriate encoding
# Divide the data into input (features) and output (target)
X = df.iloc[:, 1:] # All columns except the first one (features)
y = df.iloc[:, 0] # First column (target)
print(x)
print()
print(y)
print()
# Split the dataset into training and testing sets (80% train, 20% test)
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)
# Standardize the features by removing the mean and scaling to unit variance
scaler = StandardScaler()
X train = scaler.fit transform(X train)
X test = scaler.transform(X test)
# Create an SVM classifier
svm_classifier = SVC(kernel='linear', C=1.0, random_state=42)
# Train the classifier on the training data
svm_classifier.fit(X_train, y_train)
# Make predictions on the test data
y_pred = svm_classifier.predict(X_test)
# Evaluate the classifier's performance
accuracy = accuracy_score(y_test, y_pred)
report = classification_report(y_test, y_pred)
print(f"Accuracy: {accuracy:.2f}")
print("\nClassification Report:")
print(report)
    [14.23 13.2 13.16 14.37 13.24 14.2 14.39 14.06 14.83 13.86 14.1 14.12
     13.75 14.75 14.38 13.63 14.3 13.83 14.19 13.64 14.06 12.93 13.71 12.85
     13.5 13.05 13.39 13.3 13.87 14.02 13.73 13.58 13.68 13.76 13.51 13.48
     13.28 13.05 13.07 14.22 13.56 13.41 13.88 13.24 13.05 14.21 14.38 13.9
     14.1 13.94 13.05 13.83 13.82 13.77 13.74 13.56 14.22 13.29 13.72 12.37
     12.33 12.64 13.67 12.37 12.17 12.37 13.11 12.37 13.34 12.21 12.29 13.86
     13.49 12.99 11.96 11.66 13.03 11.84 12.33 12.7 12. 12.72 12.08 13.05
     11.84 12.67 12.16 11.65 11.64 12.08 12.08 12. 12.69 12.29 11.62 12.47
     11.81 12.29 12.37 12.29 12.08 12.6 12.34 11.82 12.51 12.42 12.25 12.72
     12.22 11.61 11.46 12.52 11.76 11.41 12.08 11.03 11.82 12.42 12.77 12.
     11.45 11.56 12.42 13.05 11.87 12.07 12.43 11.79 12.37 12.04 12.86 12.88
     12.81 12.7 12.51 12.6 12.25 12.53 13.49 12.84 12.93 13.36 13.52 13.62
     12.25 13.16 13.88 12.87 13.32 13.08 13.5 12.79 13.11 13.23 12.58 13.17
     13.84 12.45 14.34 13.48 12.36 13.69 12.85 12.96 13.78 13.73 13.45 12.82
     13.58 13.4 12.2 12.77 14.16 13.71 13.4 13.27 13.17 14.13]
           1
    1
           1
    2
           1
    3
           1
```

Name: Wine, Length: 178, dtype: int64

Accuracy: 0.97

## Classification Report:

CIASSITICACIO	п кероге.			
	precision	recall	f1-score	support
1	1.00	1.00	1.00	14
2	1.00	0.93	0.96	14
3	0.89	1.00	0.94	8
accuracy			0.97	36
macro avg	0.96	0.98	0.97	36
weighted avg	0.98	0.97	0.97	36

Colah naid products - Cancel contracts here

✓ 0s completed at 5:54 PM

• ×