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In [1]: import pandas as pd
from sklearn.preprocessing import LabelEncoder
from sklearn.tree import DecisionTreeClassifier, export_text
from sklearn import tree
import matplotlib.pyplot as plt
```

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In [2]: data = pd.DataFrame([
    ['Sunny', 'Hot', 'High', 'Weak', 'No'],
    ['Sunny', 'Hot', 'High', 'Strong', 'No'],
    ['Overcast', 'Hot', 'High', 'Weak', 'Yes'],
    ['Rain', 'Mild', 'High', 'Weak', 'Yes'],
    ['Rain', 'Cool', 'Normal', 'Weak', 'Yes'],
    ['Rain', 'Cool', 'Normal', 'Strong', 'No'],
    ['Overcast', 'Cool', 'Normal', 'Strong', 'Yes'],
    ['Sunny', 'Mild', 'High', 'Weak', 'No'],
    ['Sunny', 'Cool', 'Normal', 'Weak', 'Yes'],
    ['Rain', 'Mild', 'Normal', 'Weak', 'Yes'],
    ['Sunny', 'Mild', 'Normal', 'Strong', 'Yes'],
    ['Overcast', 'Mild', 'High', 'Strong', 'Yes'],
    ['Overcast', 'Hot', 'Normal', 'Weak', 'Yes'],
    ['Rain', 'Mild', 'High', 'Strong', 'No']
], columns=['Outlook', 'Temperature', 'Humidity', 'Wind', 'PlayTennis'])
```

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In [3]: le = LabelEncoder()
for column in data.columns:
    data[column] = le.fit_transform(data[column])
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In [4]: X = data.drop('PlayTennis', axis=1)
y = data['PlayTennis']
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In [5]: model = DecisionTreeClassifier(criterion='gini', max_depth=3)
model.fit(X, y)
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Out[5]: ▾ DecisionTreeClassifier  
DecisionTreeClassifier(max\_depth=3)

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In [6]: plt.figure(figsize=(12, 8))
tree.plot_tree(model, feature_names=X.columns.tolist(), class_names=['No', 'Yes'], filled=True)
plt.title("CART Decision Tree (Gini Index)")
plt.show()
```

