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In [ ]: import pandas as pd
        from sklearn.tree import DecisionTreeClassifier, plot_tree
        from sklearn.model_selection import train_test_split
        from sklearn.metrics import accuracy_score

In [ ]: data = pd.read_csv("drug200.csv")

In [ ]: df = pd.DataFrame(data)

In [ ]: df['Sex'] = df['Sex'].map({'F': 0, 'M': 1})
        df['BP'] = df['BP'].map({'LOW': 0, 'NORMAL': 1, 'HIGH': 2})
        df['Cholesterol'] = df['Cholesterol'].map({'NORMAL': 0, 'HIGH': 1})

In [ ]: X = df.drop(columns=['Drug'])
        y = df['Drug']

In [ ]: X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

In [ ]: clf = DecisionTreeClassifier()

In [ ]: clf.fit(X_train, y_train)

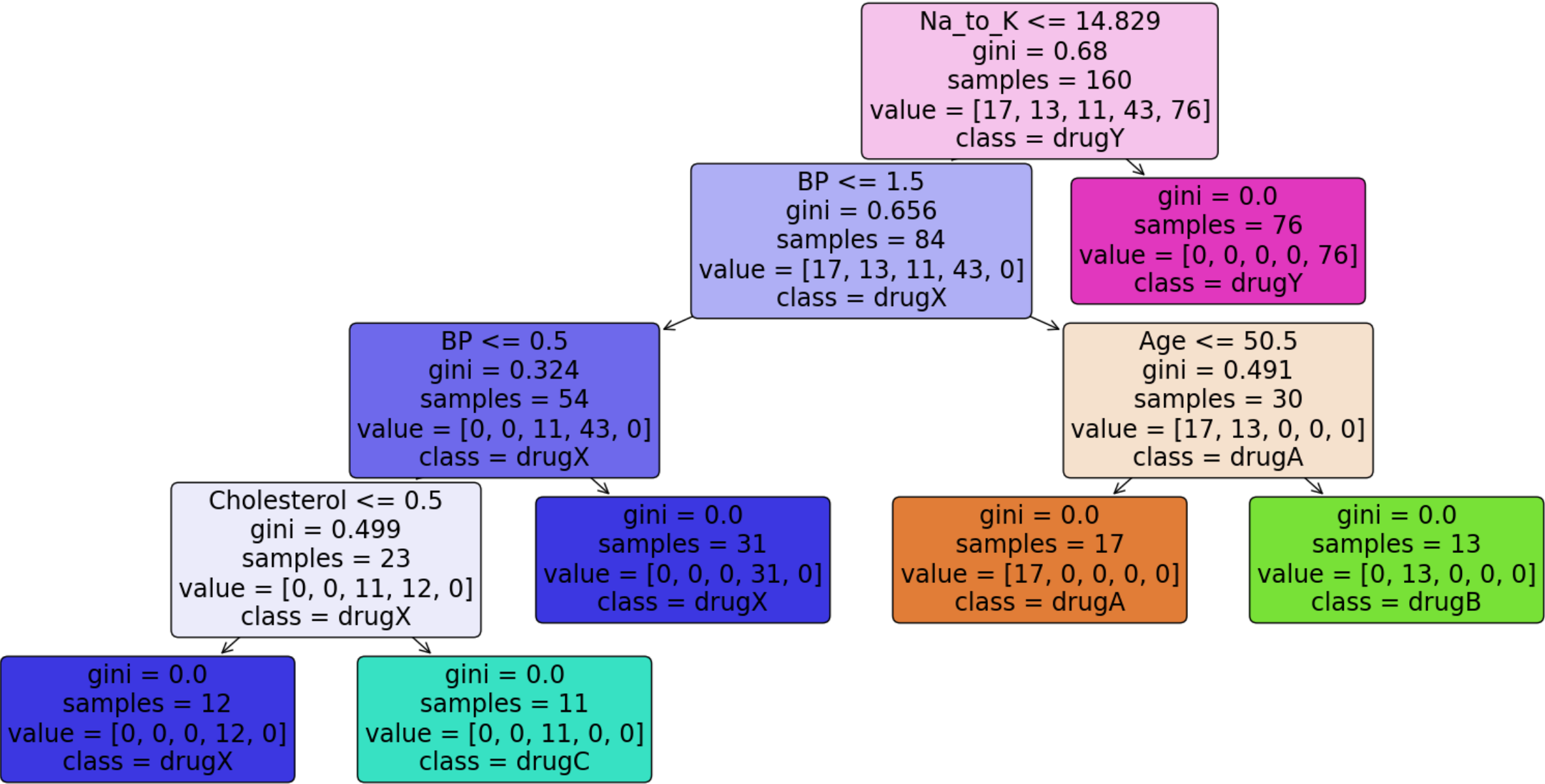
Out[ ]: ▾ DecisionTreeClassifier
        DecisionTreeClassifier()

In [ ]: y_pred = clf.predict(X_test)

In [ ]: accuracy = accuracy_score(y_test, y_pred)
        print("Accuracy:", accuracy)

Accuracy: 1.0

In [ ]: import matplotlib.pyplot as plt
        plt.figure(figsize=(20,10))
        plot_tree(clf, feature_names=X.columns, class_names=clf.classes_, filled=True, rounded=True)
        plt.show()
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In [ ]:
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