Introduction to Homework

Total Marks 100 points

Extra Credit 30 points

In this homework, you will create machine learning models using K Nearest Neighbor, Decision Tree and Random Forests for Fashion MNIST dataset. Specific instruction for that part of the problem can be found in the corresponding cells above the code.

Note, you only know the labels of the training dataset. The labels of the test dataset are hidden from you. You will perfrom model selection with cross-validation on the training set.

After obtaining parameters, use the code given to generate submissions, and upload you submissions to Kaggle. Kaggle score tells you, the performance of your model with respect to the test dataset. You can try and fine tune your parameters to be in the top 20 percent of the submissions for extra credit of 20 points.

How to participate in the kaggle Competition:

1. Create an account on Kaggle.com
2. Use the link https://www.kaggle.com/c/ece597-697/ to join the competition. Please ensure that you only join using one account. At the top of the jupyter notebook, pdf(s) mention the name you have used for submission.
3. Replace the classifier "xgb_clf" with the corresponding classifier for your submission(KNN or Decision Tree or Random Forest) and generate submission.csv
4. Upload the submission.csv to see your score on the leaderboard
5. To gain extra credit points, try to score higher on the leaderboard

Bonous Tips:

1. You can directly run this notebook on Google colab if your machine is slower. Upload the data and get started!
2. Go through the documentation of sklearn carefully.
3. Don't try to run the code for all 60,000 data points. Rather first try to verify implementation using 10,000 data points, scale it up to 60,000. If you don't do this, you'll spend lot more time debugging between each iteration. Make the code work first.
4. Complete all the classifiers before trying to optimize based on the leaderboard.
5. For cross-validation, you can use gridsearchcv
6. Start early! It will give you more time to improve your kaggle leaderboard

Good Luck!

```
## Code to load data from train and test csv(s)

import numpy as np
import pandas as pd
import matplotlib
import matplotlib.pyplot as plt



train=pd.read_csv("train.csv")
test=pd.read_csv("test.csv")

X_train = train.iloc[:,2:].to_numpy()
y_train = train.iloc[:,:1].to_numpy()

m,n = y_train.shape

y_train = y_train.reshape(m)

X_test = test.iloc[:,1:].to_numpy()


def showImage(data):
    some_article = data
    some_article_image = some_article.reshape(28, 28) # Reshaping it
to get the 28x28 pixels
    plt.imshow(some_article_image, cmap = matplotlib.cm.binary,
interpolation="nearest")
    plt.axis("off")
    plt.show()



print('x_train shape: ', X_train.shape)
print('y_train shape :', y_train.shape)

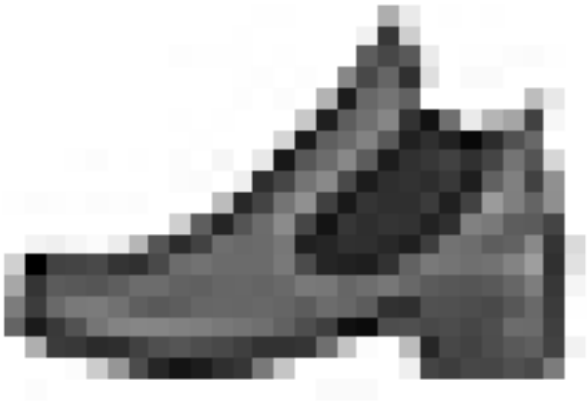
print('x_test shape: ', X_test.shape)
# print('y_test shape :', y_test.shape)

showImage(X_train[1])
print(y_train[1])

from sklearn.preprocessing import StandardScaler

scaler = StandardScaler()
X_train_scaled = scaler.fit_transform(X_train.astype(np.float64))
```

```
x_train shape:  (60000, 784)
y_train shape : (60000,)
x_test shape:  (10000, 784)
```



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##KNN Classifier

(20 points)Implement a KNN classifier with 5-fold cross validation. What is the best value of n that you obtained? What happens if you increase value of n more than your best value? Use {3, 5, 7, 9, 11} values for n.

No need to submit KNN predictions on Kaggle.

(5 points) What is the time complexity of the k-NN algorithm with naive search approach? How can you improve upon the naive search to reduce the time complexity?

```
from sklearn.neighbors import KNeighborsClassifier
from sklearn.model_selection import cross_val_score

knn = []
scores = []
n_vals = [3,5,7,9,11]
for i in range(len(n_vals)):
    knn.append(KNeighborsClassifier(n_neighbors=n_vals[i]))
    knn[i].fit(X_train, y_train)
    scores.append(cross_val_score(knn[i], X_train, y_train, cv=5,
scoring='accuracy'))

for x in scores:
    print(sum(x)/len(x))
```

```
0.8535333333333334
0.8539999999999999
0.8528833333333333
0.8515166666666666
0.84975
```

Decision Tree Classifier 1

(10 points) Train five different decision trees. Use the following max depths (10, 11, 12, 13, 14) How does the maximum depth of the tree affect the estimated accuracy? Explain in at most 4 sentences. Choose the model with lowest estimated out of sample error, train it with the full training set, and predict the labels for the images in the test set using Kagglization code given at the end of the notebook. Upload your predictions to Kaggle and report the accuracy on the public leaderboard by pasting a screenshot in your code.pdf. Is the predicted accuracy close to that of the test set? Make sure that your report clearly states which model was chosen and why.

(5 points) What does default value ccp_alpha=0.0 signify for the decision tree classifier?

```
from sklearn.tree import DecisionTreeClassifier
from sklearn.metrics import accuracy_score

depth = [10,11,12,13,14]
d_trees = []
total=0
score_d1 = []

for i in range(len(depth)):
    d_trees.append(DecisionTreeClassifier(max_depth=depth[i]))
    d_trees[i].fit(X_train, y_train)
    new_Y = d_trees[i].predict(X_train)
    score_d1.append(accuracy_score(y_train, new_Y))

print(score_d1)
```

```
[0.8479666666666666, 0.8679666666666667, 0.8866833333333334, 0.90565,
0.9265833333333333]
```

Decision Tree Classifier 2

(10 points) Train five different decision trees using five-fold cross validation. Use the following values for max depth (10, 13, 16, 19). Keep all the other parameters to default value. How does the maximum depth of the tree affect the estimated accuracy? Explain in at most 4 sentences. Choose the model with lowest estimated out of sample error, train it with the full training set, and predict the labels for the images in the test set. Finally using Kagglization code given at the end of the notebook generate predictions. Upload your predictions to Kaggle as well as report the position on the public leaderboard by pasting a screenshot in your code.pdf. Is the accuracy obtained on training set, close to that of the

test set(kaggle leaderboard)? Make sure that your report clearly states which max depth was chosen and why.

(10 points) Compare the best tree obtained for max-depth, with the best tree classifier obtained for ccp_alpha. Is there a difference in their errors? Why?

```
from sklearn.tree import DecisionTreeClassifier

depth2 = [10,13,16,19]
d_trees2 = []
scores2 = []

for i in range(len(depth2)):
    d_trees2.append(DecisionTreeClassifier(max_depth=depth2[i]))
    d_trees2[i].fit(X_train, y_train)
    scores2.append(cross_val_score(d_trees2[i], X_train, y_train,
cv=5, scoring='accuracy'))


for x in scores2:
    print(sum(x)/len(x))
```

```
0.8079833333333335
0.8151666666666667
0.8096166666666667
0.8030999999999999
```

Random Forest Classifier

(20 points) Create a random forest with 150 estimators and using out of bag classification score set to True.

Create another random forest with 150 estimators without using out of bag score and bootstrap. Cross validate over 'max_features' with values [10,28,50].

Use the best random forest out of all the forests you created to predict labels in test.csv. Generate predictions using the kagglization code given at the end of the notebook. Upload your predictions obtained to Kaggle and report the accuracy on the public leaderboard by pasting a screenshot in the code.pdf. Is the predicted accuracy close to that of the test set? Make sure that your report clearly states which model was chosen and why?

(5 points) Compare the output of both the forests.

```
from sklearn.ensemble import RandomForestClassifier

features = [20,28,50]
scoresB =[]

forestA = RandomForestClassifier(n_estimators = 150, oob_score = True)
forestA.fit(X_train, y_train)
```

```
forestB=RandomForestClassifier(n_estimators = 150, oob_score = False,
bootstrap = False)
forestB.fit(X_train, y_train)
scoresB=cross_val_score(forestB, X_train, y_train, cv=5,
scoring='accuracy')


print(np.mean(scoresB))
```

```
[0.77608333 0.77916667 0.77233333 0.7815     0.77408333]
```

```
y_pred = forestA.predict(X_train)

print(accuracy_score(y_train, y_pred))
print(cross_val_score(forestA, X_train, y_train, cv=5,
scoring='accuracy'))
```

```
1.0
[0.8825     0.88016667 0.88458333 0.87916667 0.88433333]
```

(15 points) Can you visualize the most important Random Forest Classifier features? (Hint: Obtain feature importances and visualize them by reshaping the data)

```
from sklearn.tree import plot_tree

fig = plt.figure(figsize=(15, 10))
plot_tree(forestA.estimators_[0])
```

```
[Text(0.41522024503549093, 0.9852941176470589, 'X[148] <= 7.5\ngini =
0.9\nsamples = 37851\nvalue = [6068, 5983, 5957, 6102, 6052, 6045,
5804, 5988, 5981\n6020]'),
 Text(0.16897665983584675, 0.9558823529411765, 'X[42] <= 121.5\ngini =
0.829\nsamples = 18747\nvalue = [247, 4335, 66, 2700, 223, 6028, 123,
5988, 3922\n6004]'),
 Text(0.08021601739980747, 0.9264705882352942, 'X[408] <= 10.5\ngini =
0.775\nsamples = 14420\nvalue = [128, 232, 23, 1291, 40, 5978, 69,
5988, 3394, 5646]'),
 Text(0.017347732434992883, 0.8970588235294118, 'X[766] <= 98.5\ngini
= 0.199\nsamples = 2206\nvalue = [5, 0, 3, 14, 0, 3181, 1, 161, 184,
15]'),
 Text(0.014078421077519367, 0.8676470588235294, 'X[349] <= 114.5\ngini
= 0.154\nsamples = 2074\nvalue = [4, 0, 3, 11, 0, 3067, 1, 161, 78,
15]'),
 Text(0.011352092603855668, 0.8382352941176471, 'X[745] <= 84.5\ngini
= 0.084\nsamples = 1790\nvalue = [4, 0, 2, 11, 0, 2757, 1, 51, 53,
3]'),
 Text(0.009763908433192723, 0.8088235294117647, 'X[283] <= 12.5\ngini
= 0.059\nsamples = 1764\nvalue = [4, 0, 2, 6, 0, 2751, 1, 51, 19,
3]'),
 Text(0.007631110799489303, 0.7794117647058824, 'X[774] <= 2.5\ngini =
```

0.051\nsamples = 1755\nvalue = [3, 0, 2, 6, 0, 2748, 1, 51, 7, 3]'),
 Text(0.004409086239704931, 0.75, 'X[348] <= 8.5\ngini = 0.042\
nsamples = 1742\nvalue = [0, 0, 2, 1, 0, 2738, 0, 50, 4, 3]'),
 Text(0.0025567482336750482, 0.7205882352941176, 'X[394] <= 132.5\
ngini = 0.006\nsamples = 1325\nvalue = [0, 0, 0, 0, 0, 2120, 0, 3, 3,
0]'),
 Text(0.001774070202958197, 0.6911764705882353, 'X[316] <= 2.5\ngini =
0.005\nsamples = 1320\nvalue = [0, 0, 0, 0, 0, 2114, 0, 2, 3, 0]'),
 Text(0.000834856566097975, 0.6617647058823529, 'X[380] <= 205.5\ngini
= 0.002\nsamples = 1199\nvalue = [0, 0, 0, 0, 0, 1931, 0, 2, 0, 0]'),
 Text(0.0004174282830489875, 0.6323529411764706, 'X[380] <= 114.0\
ngini = 0.001\nsamples = 1193\nvalue = [0, 0, 0, 0, 0, 1922, 0, 1, 0,
0]'),
 Text(0.00020871414152449374, 0.6029411764705882, 'gini = 0.0\nsamples
= 1159\nvalue = [0, 0, 0, 0, 0, 1867, 0, 0, 0, 0]'),
 Text(0.0006261424245734812, 0.6029411764705882, 'X[405] <= 121.5\
ngini = 0.035\nsamples = 34\nvalue = [0, 0, 0, 0, 0, 55, 0, 1, 0,
0]'),
 Text(0.0004174282830489875, 0.5735294117647058, 'gini = 0.0\nsamples
= 29\nvalue = [0, 0, 0, 0, 0, 51, 0, 0, 0, 0]'),
 Text(0.000834856566097975, 0.5735294117647058, 'X[541] <= 50.5\ngini
= 0.32\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 4, 0, 1, 0, 0]'),
 Text(0.0006261424245734812, 0.5441176470588235, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.0010435707076224688, 0.5441176470588235, 'gini = 0.0\nsamples
= 4\nvalue = [0, 0, 0, 0, 0, 4, 0, 0, 0, 0]'),
 Text(0.0012522848491469624, 0.6323529411764706, 'X[419] <= 11.0\ngini
= 0.18\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 9, 0, 1, 0, 0]'),
 Text(0.0010435707076224688, 0.6029411764705882, 'gini = 0.0\nsamples
= 4\nvalue = [0, 0, 0, 0, 0, 8, 0, 0, 0, 0]'),
 Text(0.0014609989906714561, 0.6029411764705882, 'X[542] <= 34.0\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 0, 0]'),
 Text(0.0012522848491469624, 0.5735294117647058, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.00166971313219595, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.0027132838398184187, 0.6617647058823529, 'X[40] <= 92.0\ngini
= 0.032\nsamples = 121\nvalue = [0, 0, 0, 0, 0, 183, 0, 0, 3, 0]'),
 Text(0.0025045696982939247, 0.6323529411764706, 'X[633] <= 216.5\
ngini = 0.021\nsamples = 120\nvalue = [0, 0, 0, 0, 0, 183, 0, 0, 2,
0]'),
 Text(0.002295855556769431, 0.6029411764705882, 'X[614] <= 205.5\ngini
= 0.011\nsamples = 119\nvalue = [0, 0, 0, 0, 0, 183, 0, 0, 1, 0]'),
 Text(0.0020871414152449376, 0.5735294117647058, 'gini = 0.0\nsamples
= 118\nvalue = [0, 0, 0, 0, 0, 183, 0, 0, 0, 0]'),
 Text(0.0025045696982939247, 0.5735294117647058, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.0027132838398184187, 0.6029411764705882, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.0029219979813429123, 0.6323529411764706, 'gini = 0.0\nsamples

= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.0033394262643919, 0.6911764705882353, 'X[483] <= 37.5\ngini =
0.245\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 6, 0, 1, 0, 0]'),
 Text(0.0031307121228674063, 0.6617647058823529, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.003548140405916394, 0.6617647058823529, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 6, 0, 0, 0, 0]'),
 Text(0.0062614242457348125, 0.7205882352941176, 'X[378] <= 19.5\ngini
= 0.149\nsamples = 417\nvalue = [0, 0, 2, 1, 0, 618, 0, 47, 1, 3]'),
 Text(0.004956960861206726, 0.6911764705882353, 'X[542] <= 239.5\ngini
= 0.038\nsamples = 321\nvalue = [0, 0, 0, 0, 0, 507, 0, 7, 0, 3]'),
 Text(0.004278639901252121, 0.6617647058823529, 'X[394] <= 88.0\ngini
= 0.031\nsamples = 317\nvalue = [0, 0, 0, 0, 0, 503, 0, 7, 0, 1]'),
 Text(0.003548140405916394, 0.6323529411764706, 'X[373] <= 171.5\ngini
= 0.008\nsamples = 309\nvalue = [0, 0, 0, 0, 0, 497, 0, 1, 0, 1]'),
 Text(0.0031307121228674063, 0.6029411764705882, 'X[614] <= 48.0\ngini
= 0.004\nsamples = 278\nvalue = [0, 0, 0, 0, 0, 449, 0, 0, 0, 1]'),
 Text(0.0029219979813429123, 0.5735294117647058, 'gini = 0.0\nsamples
= 239\nvalue = [0, 0, 0, 0, 0, 385, 0, 0, 0, 0]'),
 Text(0.0033394262643919, 0.5735294117647058, 'X[581] <= 244.5\ngini =
0.03\nsamples = 39\nvalue = [0, 0, 0, 0, 0, 64, 0, 0, 0, 1]'),
 Text(0.0031307121228674063, 0.5441176470588235, 'gini = 0.0\nsamples
= 38\nvalue = [0, 0, 0, 0, 0, 64, 0, 0, 0, 0]'),
 Text(0.003548140405916394, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.003965568688965381, 0.6029411764705882, 'X[461] <= 158.5\ngini
= 0.04\nsamples = 31\nvalue = [0, 0, 0, 0, 0, 48, 0, 1, 0, 0]'),
 Text(0.0037568545474408873, 0.5735294117647058, 'gini = 0.0\nsamples
= 26\nvalue = [0, 0, 0, 0, 0, 43, 0, 0, 0, 0]'),
 Text(0.004174282830489875, 0.5735294117647058, 'X[406] <= 170.0\ngini
= 0.278\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 5, 0, 1, 0, 0]'),
 Text(0.003965568688965381, 0.5441176470588235, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.004382996972014368, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.0050091393965878495, 0.6323529411764706, 'X[382] <= 199.0\
ngini = 0.5\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 6, 0, 6, 0, 0]'),
 Text(0.004800425255063356, 0.6029411764705882, 'X[522] <= 95.5\ngini
= 0.245\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 1, 0, 6, 0, 0]'),
 Text(0.004591711113538862, 0.5735294117647058, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 6, 0, 0]'),
 Text(0.0050091393965878495, 0.5735294117647058, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.0052178535381123435, 0.6029411764705882, 'gini = 0.0\nsamples
= 3\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.0056352818211613314, 0.6617647058823529, 'X[574] <= 42.0\ngini
= 0.444\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 4, 0, 0, 0, 2]'),
 Text(0.0054265676796368375, 0.6323529411764706, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.0058439959626858246, 0.6323529411764706, 'gini = 0.0\nsamples

```
= 3\nvalue = [0, 0, 0, 0, 0, 4, 0, 0, 0, 0]'),
 Text(0.007565887630262899, 0.6911764705882353, 'X[450] <= 8.5\ngini =
0.42\nsamples = 96\nvalue = [0, 0, 2, 1, 0, 111, 0, 40, 1, 0]'),
 Text(0.0066788525287838, 0.6617647058823529, 'X[44] <= 52.0\ngini =
0.145\nsamples = 60\nvalue = [0, 0, 2, 1, 0, 84, 0, 4, 0, 0]'),
 Text(0.0062614242457348125, 0.6323529411764706, 'X[162] <= 210.5\
ngini = 0.087\nsamples = 58\nvalue = [0, 0, 0, 0, 0, 84, 0, 4, 0,
0]'),
 Text(0.0060527101042103185, 0.6029411764705882, 'X[511] <= 88.5\ngini
= 0.067\nsamples = 57\nvalue = [0, 0, 0, 0, 0, 84, 0, 3, 0, 0]'),
 Text(0.0058439959626858246, 0.5735294117647058, 'X[578] <= 80.5\ngini
= 0.198\nsamples = 22\nvalue = [0, 0, 0, 0, 0, 24, 0, 3, 0, 0]'),
 Text(0.0056352818211613314, 0.5441176470588235, 'X[387] <= 199.5\
ngini = 0.077\nsamples = 20\nvalue = [0, 0, 0, 0, 0, 24, 0, 1, 0,
0]'),
 Text(0.0054265676796368375, 0.5147058823529411, 'gini = 0.0\nsamples
= 19\nvalue = [0, 0, 0, 0, 0, 24, 0, 0, 0, 0]'),
 Text(0.0058439959626858246, 0.5147058823529411, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.0060527101042103185, 0.5441176470588235, 'gini = 0.0\nsamples
= 2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.0062614242457348125, 0.5735294117647058, 'gini = 0.0\nsamples
= 35\nvalue = [0, 0, 0, 0, 0, 60, 0, 0, 0, 0]'),
 Text(0.0064701383872593065, 0.6029411764705882, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.007096280811832788, 0.6323529411764706, 'X[599] <= 80.5\ngini
= 0.444\nsamples = 2\nvalue = [0, 0, 2, 1, 0, 0, 0, 0, 0, 0]'),
 Text(0.006887566670308294, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 1, 0, 0, 0, 0, 0, 0]'),
 Text(0.007304994953357281, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 2, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.008452922731741997, 0.6617647058823529, 'X[321] <= 0.5\ngini =
0.505\nsamples = 36\nvalue = [0, 0, 0, 0, 0, 27, 0, 36, 1, 0]'),
 Text(0.007931137377930763, 0.6323529411764706, 'X[642] <= 40.0\ngini
= 0.124\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 14, 0, 0, 1, 0]'),
 Text(0.007722423236406269, 0.6029411764705882, 'gini = 0.0\nsamples =
7\nvalue = [0, 0, 0, 0, 0, 14, 0, 0, 0, 0]'),
 Text(0.008139851519455257, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.00897470808555323, 0.6323529411764706, 'X[329] <= 59.0\ngini =
0.39\nsamples = 28\nvalue = [0, 0, 0, 0, 0, 13, 0, 36, 0, 0]'),
 Text(0.008557279802504243, 0.6029411764705882, 'X[261] <= 4.5\ngini =
0.157\nsamples = 17\nvalue = [0, 0, 0, 0, 0, 3, 0, 32, 0, 0]'),
 Text(0.00834856566097975, 0.5735294117647058, 'X[378] <= 206.5\ngini
= 0.059\nsamples = 16\nvalue = [0, 0, 0, 0, 0, 1, 0, 32, 0, 0]'),
 Text(0.008139851519455257, 0.5441176470588235, 'gini = 0.0\nsamples =
15\nvalue = [0, 0, 0, 0, 0, 0, 0, 32, 0, 0]'),
 Text(0.008557279802504243, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.008765993944028737, 0.5735294117647058, 'gini = 0.0\nsamples =
```

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1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.009392136368602219, 0.6029411764705882, 'X[439] <= 162.0\ngini
= 0.408\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 10, 0, 4, 0, 0]'),
 Text(0.009183422227077725, 0.5735294117647058, 'X[450] <= 56.5\ngini
= 0.165\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 10, 0, 1, 0, 0]'),
 Text(0.00897470808555323, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.009392136368602219, 0.5441176470588235, 'gini = 0.0\nsamples =
8\nvalue = [0, 0, 0, 0, 0, 10, 0, 0, 0, 0]'),
 Text(0.009600850510126713, 0.5735294117647058, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.010853135359273675, 0.75, 'X[161] <= 29.0\ngini = 0.726\
nsamples = 13\nvalue = [3, 0, 0, 5, 0, 10, 1, 1, 3, 0]'),
 Text(0.010644421217749181, 0.7205882352941176, 'X[375] <= 113.0\ngini
= 0.765\nsamples = 8\nvalue = [3, 0, 0, 5, 0, 1, 1, 1, 3, 0]'),
 Text(0.010435707076224687, 0.6911764705882353, 'X[546] <= 100.0\ngini
= 0.741\nsamples = 6\nvalue = [3, 0, 0, 0, 0, 1, 1, 1, 3, 0]'),
 Text(0.010226992934700193, 0.6617647058823529, 'X[767] <= 66.5\ngini
= 0.667\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 1, 1, 1, 3, 0]'),
 Text(0.010018278793175699, 0.6323529411764706, 'X[408] <= 1.5\ngini =
0.667\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 1, 1, 1, 0, 0]'),
 Text(0.009809564651651207, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.010226992934700193, 0.6029411764705882, 'X[471] <= 15.0\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 0, 1, 1, 0, 0]'),
 Text(0.010018278793175699, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.010435707076224687, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 1, 0, 0, 0]'),
 Text(0.010435707076224687, 0.6323529411764706, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 3, 0]'),
 Text(0.010644421217749181, 0.6617647058823529, 'gini = 0.0\nsamples =
1\nvalue = [3, 0, 0, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.010853135359273675, 0.6911764705882353, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 5, 0, 0, 0, 0, 0, 0]'),
 Text(0.011061849500798169, 0.7205882352941176, 'gini = 0.0\nsamples =
5\nvalue = [0, 0, 0, 0, 0, 9, 0, 0, 0, 0]'),
 Text(0.011896706066896143, 0.7794117647058824, 'X[314] <= 95.5\ngini
= 0.398\nsamples = 9\nvalue = [1, 0, 0, 0, 0, 3, 0, 0, 12, 0]'),
 Text(0.011687991925371649, 0.75, 'X[407] <= 1.5\ngini = 0.375\
nsamples = 3\nvalue = [1, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.011479277783847157, 0.7205882352941176, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.011896706066896143, 0.7205882352941176, 'gini = 0.0\nsamples =
1\nvalue = [1, 0, 0, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.012105420208420637, 0.75, 'gini = 0.0\nsamples = 6\nvalue =
[0, 0, 0, 0, 0, 0, 0, 0, 12, 0]'),
 Text(0.012940276774518613, 0.8088235294117647, 'X[104] <= 52.0\ngini
= 0.399\nsamples = 26\nvalue = [0, 0, 0, 5, 0, 6, 0, 0, 34, 0]'),
 Text(0.012731562632994119, 0.7794117647058824, 'X[376] <= 29.5\ngini
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= 0.224\nsamples = 23\nvalue = [0, 0, 0, 5, 0, 0, 0, 0, 34, 0]'),
 Text(0.012522848491469625, 0.75, 'gini = 0.0\nsamples = 20\nvalue =
[0, 0, 0, 0, 0, 0, 0, 0, 33, 0]'),
 Text(0.012940276774518613, 0.75, 'X[751] <= 10.0\ngini = 0.278\
nsamples = 3\nvalue = [0, 0, 0, 5, 0, 0, 0, 0, 1, 0]'),
 Text(0.012731562632994119, 0.7205882352941176, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 5, 0, 0, 0, 0, 0, 0]'),
 Text(0.013148990916043105, 0.7205882352941176, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.013148990916043105, 0.7794117647058824, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 6, 0, 0, 0, 0]'),
 Text(0.016804749551183065, 0.8382352941176471, 'X[424] <= 17.5\ngini
= 0.481\nsamples = 284\nvalue = [0, 0, 1, 0, 0, 310, 0, 110, 25,
12]'),
 Text(0.015079596725144672, 0.8088235294117647, 'X[657] <= 207.5\ngini
= 0.163\nsamples = 141\nvalue = [0, 0, 1, 0, 0, 211, 0, 7, 4, 8]'),
 Text(0.014505632835952315, 0.7794117647058824, 'X[256] <= 0.5\ngini =
0.108\nsamples = 130\nvalue = [0, 0, 1, 0, 0, 201, 0, 7, 4, 0]'),
 Text(0.013983847482141081, 0.75, 'X[379] <= 221.5\ngini = 0.074\
nsamples = 126\nvalue = [0, 0, 1, 0, 0, 200, 0, 7, 0, 0]'),
 Text(0.013566419199092093, 0.7205882352941176, 'X[68] <= 119.0\ngini
= 0.03\nsamples = 120\nvalue = [0, 0, 1, 0, 0, 194, 0, 2, 0, 0]'),
 Text(0.0133577050575676, 0.6911764705882353, 'X[356] <= 253.5\ngini =
0.02\nsamples = 119\nvalue = [0, 0, 0, 0, 0, 194, 0, 2, 0, 0]'),
 Text(0.013148990916043105, 0.6617647058823529, 'X[436] <= 85.0\ngini
= 0.01\nsamples = 118\nvalue = [0, 0, 0, 0, 0, 194, 0, 1, 0, 0]'),
 Text(0.012940276774518613, 0.6323529411764706, 'gini = 0.0\nsamples =
109\nvalue = [0, 0, 0, 0, 0, 183, 0, 0, 0, 0]'),
 Text(0.0133577050575676, 0.6323529411764706, 'X[268] <= 187.0\ngini =
0.153\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 11, 0, 1, 0, 0]'),
 Text(0.013148990916043105, 0.6029411764705882, 'gini = 0.0\nsamples =
8\nvalue = [0, 0, 0, 0, 0, 11, 0, 0, 0, 0]'),
 Text(0.013566419199092093, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.013566419199092093, 0.6617647058823529, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.013775133340616587, 0.6911764705882353, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 1, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.01440127576519007, 0.7205882352941176, 'X[608] <= 14.0\ngini =
0.496\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 6, 0, 5, 0, 0]'),
 Text(0.014192561623665575, 0.6911764705882353, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 6, 0, 0, 0, 0]'),
 Text(0.014609989906714561, 0.6911764705882353, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 0]'),
 Text(0.01502741818976355, 0.75, 'X[190] <= 19.0\ngini = 0.32\nsamples
= 4\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 4, 0]'),
 Text(0.014818704048239055, 0.7205882352941176, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.015236132331288043, 0.7205882352941176, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 4, 0]'),

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 Text(0.01565356061433703, 0.7794117647058824, 'X[377] <= 164.0\ngini
= 0.494\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 10, 0, 0, 0, 8]'),
 Text(0.015444846472812537, 0.75, 'gini = 0.0\nsamples = 5\nvalue =
[0, 0, 0, 0, 0, 8, 0, 0, 0, 0]'),
 Text(0.015862274755861525, 0.75, 'X[545] <= 99.0\ngini = 0.32\
nsamples = 6\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 8]'),
 Text(0.01565356061433703, 0.7205882352941176, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.016070988897386018, 0.7205882352941176, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 8]'),
 Text(0.01852990237722146, 0.8088235294117647, 'X[417] <= 10.0\ngini =
0.595\nsamples = 143\nvalue = [0, 0, 0, 0, 0, 99, 0, 103, 21, 4]'),
 Text(0.018321188235696968, 0.7794117647058824, 'gini = 0.0\nsamples =
35\nvalue = [0, 0, 0, 0, 0, 48, 0, 0, 0, 0]'),
 Text(0.018738616518745956, 0.7794117647058824, 'X[208] <= 8.0\ngini =
0.573\nsamples = 108\nvalue = [0, 0, 0, 0, 0, 51, 0, 103, 21, 4]'),
 Text(0.01749285398652163, 0.75, 'X[418] <= 92.5\ngini = 0.471\
nsamples = 97\nvalue = [0, 0, 0, 0, 0, 49, 0, 103, 1, 4]'),
 Text(0.016488417180435005, 0.7205882352941176, 'X[528] <= 70.0\ngini
= 0.486\nsamples = 27\nvalue = [0, 0, 0, 0, 0, 29, 0, 14, 0, 2]'),
 Text(0.01596663182662377, 0.6911764705882353, 'X[325] <= 99.5\ngini =
0.463\nsamples = 13\nvalue = [0, 0, 0, 0, 0, 8, 0, 14, 0, 0]'),
 Text(0.015549203543574783, 0.6617647058823529, 'X[354] <= 202.5\ngini
= 0.219\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 7, 0, 1, 0, 0]'),
 Text(0.015340489402050291, 0.6323529411764706, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 7, 0, 0, 0, 0]'),
 Text(0.01575791768509928, 0.6323529411764706, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.01638406010967276, 0.6617647058823529, 'X[530] <= 184.5\ngini
= 0.133\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 1, 0, 13, 0, 0]'),
 Text(0.016175345968148264, 0.6323529411764706, 'gini = 0.0\nsamples =
7\nvalue = [0, 0, 0, 0, 0, 0, 0, 13, 0, 0]'),
 Text(0.01659277425119725, 0.6323529411764706, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.01701020253424624, 0.6911764705882353, 'X[128] <= 82.0\ngini =
0.159\nsamples = 14\nvalue = [0, 0, 0, 0, 0, 21, 0, 0, 0, 2]'),
 Text(0.016801488392721747, 0.6617647058823529, 'gini = 0.0\nsamples =
13\nvalue = [0, 0, 0, 0, 0, 21, 0, 0, 0, 0]'),
 Text(0.017218916675770735, 0.6617647058823529, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.01849729079260826, 0.7205882352941176, 'X[371] <= 0.5\ngini =
0.336\nsamples = 70\nvalue = [0, 0, 0, 0, 0, 20, 0, 89, 1, 2]'),
 Text(0.017845059100344215, 0.6911764705882353, 'X[433] <= 80.0\ngini
= 0.499\nsamples = 15\nvalue = [0, 0, 0, 0, 0, 13, 0, 12, 0, 0]'),
 Text(0.017636344958819723, 0.6617647058823529, 'gini = 0.0\nsamples =
7\nvalue = [0, 0, 0, 0, 0, 0, 0, 12, 0, 0]'),
 Text(0.018053773241868708, 0.6617647058823529, 'gini = 0.0\nsamples =
8\nvalue = [0, 0, 0, 0, 0, 13, 0, 0, 0, 0]'),
 Text(0.0191495224848723, 0.6911764705882353, 'X[480] <= 226.5\ngini =
0.21\nsamples = 55\nvalue = [0, 0, 0, 0, 0, 7, 0, 77, 1, 2]'),
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 Text(0.018471201524917696, 0.6617647058823529, 'X[274] <= 124.0\ngini
= 0.136\nsamples = 52\nvalue = [0, 0, 0, 0, 0, 4, 0, 77, 0, 2]'),
 Text(0.01774070202958197, 0.6323529411764706, 'X[453] <= 233.0\ngini
= 0.051\nsamples = 47\nvalue = [0, 0, 0, 0, 0, 2, 0, 74, 0, 0]'),
 Text(0.01732327374653298, 0.6029411764705882, 'X[541] <= 201.5\ngini
= 0.027\nsamples = 45\nvalue = [0, 0, 0, 0, 0, 1, 0, 73, 0, 0]'),
 Text(0.017114559605008486, 0.5735294117647058, 'gini = 0.0\nsamples =
41\nvalue = [0, 0, 0, 0, 0, 0, 0, 67, 0, 0]'),
 Text(0.017531987888057474, 0.5735294117647058, 'X[487] <= 231.0\ngini
= 0.245\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 1, 0, 6, 0, 0]'),
 Text(0.01732327374653298, 0.5441176470588235, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 6, 0, 0]'),
 Text(0.01774070202958197, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.018158130312630957, 0.6029411764705882, 'X[434] <= 219.5\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 0, 0]'),
 Text(0.01794941617110646, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.01836684445415545, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.019201701020253426, 0.6323529411764706, 'X[442] <= 164.0\ngini
= 0.653\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 2, 0, 3, 0, 2]'),
 Text(0.01899298687872893, 0.6029411764705882, 'X[491] <= 110.5\ngini
= 0.5\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 2]'),
 Text(0.018784272737204438, 0.5735294117647058, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.019201701020253426, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.019410415161777918, 0.6029411764705882, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.019827843444826906, 0.6617647058823529, 'X[410] <= 243.5\ngini
= 0.375\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 1, 0]'),
 Text(0.019619129303302413, 0.6323529411764706, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.020036557586351398, 0.6323529411764706, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.019984379050970277, 0.75, 'X[321] <= 236.0\ngini = 0.165\
nsamples = 11\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 20, 0]'),
 Text(0.01977566490944578, 0.7205882352941176, 'X[409] <= 205.5\ngini
= 0.091\nsamples = 10\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 20, 0]'),
 Text(0.01956695076792129, 0.6911764705882353, 'gini = 0.0\nsamples =
9\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 20, 0]'),
 Text(0.019984379050970277, 0.6911764705882353, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.02019309319249477, 0.7205882352941176, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.020617043792466396, 0.8676470588235294, 'X[771] <= 97.5\ngini
= 0.517\nsamples = 132\nvalue = [1, 0, 0, 3, 0, 114, 0, 0, 106, 0]'),
 Text(0.019782187226368424, 0.8382352941176471, 'X[14] <= 5.5\ngini =
0.082\nsamples = 70\nvalue = [0, 0, 0, 0, 0, 111, 0, 0, 5, 0]'),
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 Text(0.019364758943319436, 0.8088235294117647, 'X[260] <= 74.5\ngini
= 0.018\nsamples = 65\nvalue = [0, 0, 0, 0, 0, 108, 0, 0, 1, 0]'),
 Text(0.01915604480179494, 0.7794117647058824, 'gini = 0.0\nsamples =
64\nvalue = [0, 0, 0, 0, 0, 108, 0, 0, 0, 0]'),
 Text(0.019573473084843928, 0.7794117647058824, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.02019961550941741, 0.8088235294117647, 'X[464] <= 79.5\ngini =
0.49\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 4, 0]'),
 Text(0.019990901367892916, 0.7794117647058824, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.020408329650941904, 0.7794117647058824, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 4, 0]'),
 Text(0.021451900358564372, 0.8382352941176471, 'X[164] <= 19.5\ngini
= 0.124\nsamples = 62\nvalue = [1, 0, 0, 3, 0, 3, 0, 0, 101, 0]'),
 Text(0.021034472075515384, 0.8088235294117647, 'X[269] <= 204.0\ngini
= 0.056\nsamples = 60\nvalue = [0, 0, 0, 3, 0, 0, 0, 0, 101, 0]'),
 Text(0.020825757933990892, 0.7794117647058824, 'X[714] <= 16.0\ngini
= 0.019\nsamples = 59\nvalue = [0, 0, 0, 1, 0, 0, 0, 0, 101, 0]'),
 Text(0.020617043792466396, 0.75, 'gini = 0.0\nsamples = 1\nvalue =
[0, 0, 0, 1, 0, 0, 0, 0, 0, 0]'),
 Text(0.021034472075515384, 0.75, 'gini = 0.0\nsamples = 58\nvalue =
[0, 0, 0, 0, 0, 0, 0, 0, 101, 0]'),
 Text(0.02124318621703988, 0.7794117647058824, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 2, 0, 0, 0, 0, 0, 0]'),
 Text(0.02186932864161336, 0.8088235294117647, 'X[738] <= 45.0\ngini =
0.375\nsamples = 2\nvalue = [1, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.021660614500088868, 0.7794117647058824, 'gini = 0.0\nsamples =
1\nvalue = [1, 0, 0, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.022078042783137856, 0.7794117647058824, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.14308430236462205, 0.8970588235294118, 'X[246] <= 88.5\ngini =
0.769\nsamples = 12214\nvalue = [123, 232, 20, 1277, 40, 2797, 68,
5827, 3210, 5631]'),
 Text(0.09072402144211052, 0.8676470588235294, 'X[658] <= 0.5\ngini =
0.725\nsamples = 7311\nvalue = [103, 230, 19, 1277, 31, 2171, 41,
5090, 1991, 581]'),
 Text(0.046386751194386545, 0.8382352941176471, 'X[389] <= 31.5\ngini
= 0.528\nsamples = 4952\nvalue = [1, 139, 7, 7, 2, 1943, 5, 5000, 308,
433]'),
 Text(0.03351859431025683, 0.8088235294117647, 'X[684] <= 0.5\ngini =
0.358\nsamples = 1022\nvalue = [0, 139, 5, 7, 2, 1281, 2, 116, 59,
6]'),
 Text(0.03098182067215737, 0.7794117647058824, 'X[261] <= 21.5\ngini =
0.231\nsamples = 918\nvalue = [0, 4, 2, 0, 0, 1271, 2, 116, 56, 6]'),
 Text(0.028778092841920237, 0.75, 'X[363] <= 5.5\ngini = 0.164\
nsamples = 878\nvalue = [0, 0, 0, 0, 0, 1267, 0, 114, 4, 6]'),
 Text(0.02718827809202663, 0.7205882352941176, 'X[211] <= 88.5\ngini =
0.105\nsamples = 818\nvalue = [0, 0, 0, 0, 0, 1228, 0, 67, 2, 3]'),
 Text(0.02536529051214863, 0.6911764705882353, 'X[212] <= 0.5\ngini =
0.092\nsamples = 806\nvalue = [0, 0, 0, 0, 0, 1218, 0, 58, 1, 3]'),
```

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 Text(0.022554171918490604, 0.6617647058823529, 'X[417] <= 14.5\ngini
= 0.075\nsamples = 775\nvalue = [0, 0, 0, 0, 0, 1182, 0, 46, 1, 1]'),
 Text(0.02108012829397387, 0.6323529411764706, 'X[581] <= 90.5\ngini =
0.013\nsamples = 577\nvalue = [0, 0, 0, 0, 0, 940, 0, 5, 1, 0]'),
 Text(0.020245271727875894, 0.6029411764705882, 'X[423] <= 167.5\ngini
= 0.007\nsamples = 544\nvalue = [0, 0, 0, 0, 0, 883, 0, 2, 1, 0]'),
 Text(0.019619129303302413, 0.5735294117647058, 'X[317] <= 207.5\ngini
= 0.002\nsamples = 504\nvalue = [0, 0, 0, 0, 0, 821, 0, 0, 1, 0]'),
 Text(0.019410415161777918, 0.5441176470588235, 'gini = 0.0\nsamples =
500\nvalue = [0, 0, 0, 0, 0, 816, 0, 0, 0, 0]'),
 Text(0.019827843444826906, 0.5441176470588235, 'X[541] <= 120.0\ngini
= 0.278\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 1, 0]'),
 Text(0.019619129303302413, 0.5147058823529411, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.020036557586351398, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.020871414152449374, 0.5735294117647058, 'X[485] <= 233.0\ngini
= 0.061\nsamples = 40\nvalue = [0, 0, 0, 0, 0, 62, 0, 2, 0, 0]'),
 Text(0.02066270001092488, 0.5441176470588235, 'X[390] <= 60.0\ngini =
0.031\nsamples = 39\nvalue = [0, 0, 0, 0, 0, 62, 0, 1, 0, 0]'),
 Text(0.020453985869400386, 0.5147058823529411, 'gini = 0.0\nsamples =
38\nvalue = [0, 0, 0, 0, 0, 62, 0, 0, 0, 0]'),
 Text(0.020871414152449374, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.02108012829397387, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.021914984860071842, 0.6029411764705882, 'X[420] <= 72.0\ngini
= 0.095\nsamples = 33\nvalue = [0, 0, 0, 0, 0, 57, 0, 3, 0, 0]'),
 Text(0.02170627071854735, 0.5735294117647058, 'X[416] <= 125.5\ngini
= 0.034\nsamples = 32\nvalue = [0, 0, 0, 0, 0, 57, 0, 1, 0, 0]'),
 Text(0.021497556577022854, 0.5441176470588235, 'gini = 0.0\nsamples =
31\nvalue = [0, 0, 0, 0, 0, 57, 0, 0, 0, 0]'),
 Text(0.021914984860071842, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.022123699001596338, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.024028215543007343, 0.6323529411764706, 'X[355] <= 8.5\ngini =
0.253\nsamples = 198\nvalue = [0, 0, 0, 0, 0, 242, 0, 41, 0, 1]'),
 Text(0.022749841426169818, 0.6029411764705882, 'X[551] <= 51.5\ngini
= 0.014\nsamples = 99\nvalue = [0, 0, 0, 0, 0, 138, 0, 1, 0, 0]'),
 Text(0.022541127284645326, 0.5735294117647058, 'gini = 0.0\nsamples =
94\nvalue = [0, 0, 0, 0, 0, 133, 0, 0, 0, 0]'),
 Text(0.022958555567694314, 0.5735294117647058, 'X[368] <= 115.5\ngini
= 0.278\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 5, 0, 1, 0, 0]'),
 Text(0.022749841426169818, 0.5441176470588235, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.023167269709218806, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.025306589659844867, 0.6029411764705882, 'X[329] <= 85.0\ngini
= 0.409\nsamples = 99\nvalue = [0, 0, 0, 0, 0, 104, 0, 40, 0, 1]'),
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 Text(0.024106483346079028, 0.5735294117647058, 'X[527] <= 91.0\ngini
= 0.5\nsamples = 44\nvalue = [0, 0, 0, 0, 0, 31, 0, 33, 0, 0]'),
 Text(0.023584697992267794, 0.5441176470588235, 'X[332] <= 10.5\ngini
= 0.327\nsamples = 23\nvalue = [0, 0, 0, 0, 0, 7, 0, 27, 0, 0]'),
 Text(0.023375983850743298, 0.5147058823529411, 'X[269] <= 98.5\ngini
= 0.42\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 7, 0, 3, 0, 0]'),
 Text(0.023167269709218806, 0.4852941176470588, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 7, 0, 0, 0, 0]'),
 Text(0.023584697992267794, 0.4852941176470588, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.023793412133792286, 0.5147058823529411, 'gini = 0.0\nsamples =
14\nvalue = [0, 0, 0, 0, 0, 0, 0, 24, 0, 0]'),
 Text(0.024628268699890262, 0.5441176470588235, 'X[444] <= 42.5\ngini
= 0.32\nsamples = 21\nvalue = [0, 0, 0, 0, 0, 24, 0, 6, 0, 0]'),
 Text(0.024210840416841274, 0.5147058823529411, 'X[512] <= 11.0\ngini
= 0.32\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 1, 0, 4, 0, 0]'),
 Text(0.024002126275316782, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.02441955455836577, 0.4852941176470588, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 0]'),
 Text(0.02504569698293925, 0.5147058823529411, 'X[359] <= 131.5\ngini
= 0.147\nsamples = 17\nvalue = [0, 0, 0, 0, 0, 23, 0, 2, 0, 0]'),
 Text(0.024836982841414754, 0.4852941176470588, 'gini = 0.0\nsamples =
15\nvalue = [0, 0, 0, 0, 0, 23, 0, 0, 0, 0]'),
 Text(0.025254411124463742, 0.4852941176470588, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.026506695973610706, 0.5735294117647058, 'X[360] <= 249.5\ngini
= 0.18\nsamples = 55\nvalue = [0, 0, 0, 0, 0, 73, 0, 7, 0, 1]'),
 Text(0.02629798183208621, 0.5441176470588235, 'X[395] <= 198.0\ngini
= 0.142\nsamples = 54\nvalue = [0, 0, 0, 0, 0, 73, 0, 5, 0, 1]'),
 Text(0.026089267690561718, 0.5147058823529411, 'X[388] <= 92.5\ngini
= 0.077\nsamples = 52\nvalue = [0, 0, 0, 0, 0, 73, 0, 2, 0, 1]'),
 Text(0.02567183940751273, 0.4852941176470588, 'X[603] <= 138.0\ngini
= 0.027\nsamples = 49\nvalue = [0, 0, 0, 0, 0, 72, 0, 0, 0, 1]'),
 Text(0.025463125265988238, 0.45588235294117646, 'gini = 0.0\nsamples
= 48\nvalue = [0, 0, 0, 0, 0, 72, 0, 0, 0, 0]'),
 Text(0.025880553549037226, 0.45588235294117646, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.026506695973610706, 0.4852941176470588, 'X[556] <= 188.5\ngini
= 0.444\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 1, 0, 2, 0, 0]'),
 Text(0.02629798183208621, 0.45588235294117646, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.0267154101151352, 0.45588235294117646, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.026506695973610706, 0.5147058823529411, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.0267154101151352, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.028176409105806655, 0.6617647058823529, 'X[302] <= 78.5\ngini
= 0.422\nsamples = 31\nvalue = [0, 0, 0, 0, 0, 36, 0, 12, 0, 2]'),
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 Text(0.027758980822757667, 0.6323529411764706, 'X[315] <= 111.0\ngini
= 0.576\nsamples = 13\nvalue = [0, 0, 0, 0, 0, 7, 0, 10, 0, 2]'),
 Text(0.027550266681233174, 0.6029411764705882, 'X[430] <= 5.0\ngini =
0.449\nsamples = 12\nvalue = [0, 0, 0, 0, 0, 2, 0, 10, 0, 2]'),
 Text(0.027341552539708682, 0.5735294117647058, 'X[133] <= 9.0\ngini =
0.5\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 2]'),
 Text(0.027132838398184186, 0.5441176470588235, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.027550266681233174, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.027758980822757667, 0.5735294117647058, 'gini = 0.0\nsamples =
9\nvalue = [0, 0, 0, 0, 0, 0, 0, 10, 0, 0]'),
 Text(0.027967694964282162, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.028593837388855643, 0.6323529411764706, 'X[355] <= 226.0\ngini
= 0.121\nsamples = 18\nvalue = [0, 0, 0, 0, 0, 29, 0, 2, 0, 0]'),
 Text(0.02838512324733115, 0.6029411764705882, 'X[299] <= 4.5\ngini =
0.064\nsamples = 17\nvalue = [0, 0, 0, 0, 0, 29, 0, 1, 0, 0]'),
 Text(0.028176409105806655, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.028593837388855643, 0.5735294117647058, 'gini = 0.0\nsamples =
16\nvalue = [0, 0, 0, 0, 0, 29, 0, 0, 0, 0]'),
 Text(0.02880255153038014, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.02901126567190463, 0.6911764705882353, 'X[479] <= 46.0\ngini =
0.545\nsamples = 12\nvalue = [0, 0, 0, 0, 0, 10, 0, 9, 1, 0]'),
 Text(0.02880255153038014, 0.6617647058823529, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 10, 0, 0, 0, 0]'),
 Text(0.029219979813429123, 0.6617647058823529, 'X[709] <= 76.5\ngini
= 0.18\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 0, 0, 9, 1, 0]'),
 Text(0.02901126567190463, 0.6323529411764706, 'gini = 0.0\nsamples =
5\nvalue = [0, 0, 0, 0, 0, 0, 0, 9, 0, 0]'),
 Text(0.02942869395495362, 0.6323529411764706, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.03036790759181384, 0.7205882352941176, 'X[391] <= 4.0\ngini =
0.548\nsamples = 60\nvalue = [0, 0, 0, 0, 0, 39, 0, 47, 2, 3]'),
 Text(0.029846122238002606, 0.6911764705882353, 'X[419] <= 32.0\ngini
= 0.198\nsamples = 24\nvalue = [0, 0, 0, 0, 0, 32, 0, 4, 0, 0]'),
 Text(0.02963740809647811, 0.6617647058823529, 'gini = 0.0\nsamples =
17\nvalue = [0, 0, 0, 0, 0, 27, 0, 0, 0, 0]'),
 Text(0.0300548363795271, 0.6617647058823529, 'X[445] <= 235.5\ngini =
0.494\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 5, 0, 4, 0, 0]'),
 Text(0.029846122238002606, 0.6323529411764706, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 0]'),
 Text(0.030263550521051594, 0.6323529411764706, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.030889692945625075, 0.6911764705882353, 'X[440] <= 13.0\ngini
= 0.368\nsamples = 36\nvalue = [0, 0, 0, 0, 0, 7, 0, 43, 2, 3]'),
 Text(0.030680978804100582, 0.6617647058823529, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 6, 0, 0, 0, 0]'),
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 Text(0.031098407087149567, 0.6617647058823529, 'X[355] <= 14.0\ngini
= 0.224\nsamples = 33\nvalue = [0, 0, 0, 0, 0, 1, 0, 43, 2, 3]'),
 Text(0.030680978804100582, 0.6323529411764706, 'X[372] <= 64.0\ngini
= 0.56\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 0, 3]'),
 Text(0.030472264662576087, 0.6029411764705882, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 3]'),
 Text(0.030889692945625075, 0.6029411764705882, 'X[451] <= 108.0\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 0, 0]'),
 Text(0.030680978804100582, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.031098407087149567, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.03151583537019856, 0.6323529411764706, 'X[519] <= 2.0\ngini =
0.087\nsamples = 29\nvalue = [0, 0, 0, 0, 0, 0, 0, 42, 2, 0]'),
 Text(0.03130712122867406, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 2, 0]'),
 Text(0.03172454951172305, 0.6029411764705882, 'gini = 0.0\nsamples =
28\nvalue = [0, 0, 0, 0, 0, 0, 0, 42, 0, 0]'),
 Text(0.0331855485023945, 0.75, 'X[653] <= 18.5\ngini = 0.369\nsamples
= 40\nvalue = [0, 4, 2, 0, 0, 4, 2, 2, 52, 0]'),
 Text(0.03276812021934552, 0.7205882352941176, 'X[384] <= 3.0\ngini =
0.242\nsamples = 38\nvalue = [0, 0, 0, 0, 0, 4, 2, 2, 52, 0]'),
 Text(0.032559406077821026, 0.6911764705882353, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.03297683436087001, 0.6911764705882353, 'X[298] <= 40.5\ngini =
0.165\nsamples = 35\nvalue = [0, 0, 0, 0, 0, 1, 2, 2, 52, 0]'),
 Text(0.03276812021934552, 0.6617647058823529, 'X[586] <= 0.5\ngini =
0.597\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 1, 2, 2, 7, 0]'),
 Text(0.03235069193629653, 0.6323529411764706, 'X[486] <= 106.5\ngini
= 0.5\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 0, 2, 2, 0, 0]'),
 Text(0.032141977794772035, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 2, 0, 0, 0]'),
 Text(0.032559406077821026, 0.6029411764705882, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.0331855485023945, 0.6323529411764706, 'X[444] <= 14.5\ngini =
0.219\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 7, 0]'),
 Text(0.03297683436087001, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.033394262643919, 0.6029411764705882, 'gini = 0.0\nsamples = 3\
nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 7, 0]'),
 Text(0.0331855485023945, 0.6617647058823529, 'gini = 0.0\nsamples =
28\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 45, 0]'),
 Text(0.033602976785443495, 0.7205882352941176, 'X[245] <= 47.5\ngini
= 0.444\nsamples = 2\nvalue = [0, 4, 2, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.033394262643919, 0.6911764705882353, 'gini = 0.0\nsamples = 1\
nvalue = [0, 4, 0, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.03381169092696799, 0.6911764705882353, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 2, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.036055367948356294, 0.7794117647058824, 'X[539] <= 0.5\ngini =
0.281\nsamples = 104\nvalue = [0, 135, 3, 7, 2, 10, 0, 0, 3, 0]'),
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 Text(0.034959618705352705, 0.75, 'X[628] <= 32.5\ngini = 0.108\
nsamples = 93\nvalue = [0, 134, 0, 6, 0, 1, 0, 0, 1, 0]'),
 Text(0.03443783335154147, 0.7205882352941176, 'X[460] <= 71.5\ngini =
0.611\nsamples = 5\nvalue = [0, 2, 0, 3, 0, 1, 0, 0, 0, 0]'),
 Text(0.03422911921001697, 0.6911764705882353, 'X[44] <= 75.0\ngini =
0.444\nsamples = 3\nvalue = [0, 2, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.03402040506849248, 0.6617647058823529, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.03443783335154147, 0.6617647058823529, 'gini = 0.0\nsamples =
2\nvalue = [0, 2, 0, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.03464654749306596, 0.6911764705882353, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 3, 0, 0, 0, 0, 0, 0]'),
 Text(0.03548140405916394, 0.7205882352941176, 'X[602] <= 52.0\ngini =
0.057\nsamples = 88\nvalue = [0, 132, 0, 3, 0, 0, 0, 0, 1, 0]'),
 Text(0.03506397577611495, 0.6911764705882353, 'X[70] <= 11.5\ngini =
0.029\nsamples = 86\nvalue = [0, 132, 0, 2, 0, 0, 0, 0, 0, 0]'),
 Text(0.034855261634590455, 0.6617647058823529, 'X[44] <= 91.0\ngini =
0.298\nsamples = 9\nvalue = [0, 9, 0, 2, 0, 0, 0, 0, 0, 0]'),
 Text(0.03464654749306596, 0.6323529411764706, 'X[16] <= 0.5\ngini =
0.444\nsamples = 3\nvalue = [0, 1, 0, 2, 0, 0, 0, 0, 0, 0]'),
 Text(0.03443783335154147, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 1, 0, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.034855261634590455, 0.6029411764705882, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 2, 0, 0, 0, 0, 0, 0]'),
 Text(0.03506397577611495, 0.6323529411764706, 'gini = 0.0\nsamples =
6\nvalue = [0, 8, 0, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.035272689917639446, 0.6617647058823529, 'gini = 0.0\nsamples =
77\nvalue = [0, 123, 0, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.03589883234221292, 0.6911764705882353, 'X[124] <= 74.5\ngini =
0.5\nsamples = 2\nvalue = [0, 0, 0, 1, 0, 0, 0, 0, 1, 0]'),
 Text(0.03569011820068843, 0.6617647058823529, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.036107546483737415, 0.6617647058823529, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 1, 0, 0, 0, 0, 0, 0]'),
 Text(0.037151117191359884, 0.75, 'X[475] <= 1.0\ngini = 0.691\
nsamples = 11\nvalue = [0, 1, 3, 1, 2, 9, 0, 0, 2, 0]'),
 Text(0.03694240304983539, 0.7205882352941176, 'X[90] <= 10.0\ngini =
0.8\nsamples = 7\nvalue = [0, 1, 3, 1, 2, 1, 0, 0, 2, 0]'),
 Text(0.0367336889083109, 0.6911764705882353, 'X[181] <= 236.0\ngini =
0.776\nsamples = 5\nvalue = [0, 1, 0, 1, 2, 1, 0, 0, 2, 0]'),
 Text(0.03652497476678641, 0.6617647058823529, 'X[565] <= 70.0\ngini =
0.72\nsamples = 4\nvalue = [0, 1, 0, 1, 0, 1, 0, 0, 2, 0]'),
 Text(0.036316260625261915, 0.6323529411764706, 'X[382] <= 27.0\ngini
= 0.667\nsamples = 3\nvalue = [0, 1, 0, 1, 0, 1, 0, 0, 0, 0]'),
 Text(0.036107546483737415, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.03652497476678641, 0.6029411764705882, 'X[768] <= 56.0\ngini =
0.5\nsamples = 2\nvalue = [0, 1, 0, 1, 0, 0, 0, 0, 0, 0]'),
 Text(0.036316260625261915, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 1, 0, 0, 0, 0, 0, 0, 0, 0]'),
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 Text(0.0367336889083109, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 1, 0, 0, 0, 0, 0, 0]'),
 Text(0.0367336889083109, 0.6323529411764706, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 2, 0]'),
 Text(0.03694240304983539, 0.6617647058823529, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 2, 0, 0, 0, 0, 0]'),
 Text(0.037151117191359884, 0.6911764705882353, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 3, 0, 0, 0, 0, 0, 0, 0]'),
 Text(0.03735983133288438, 0.7205882352941176, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 8, 0, 0, 0, 0]'),
 Text(0.059254908078516265, 0.8088235294117647, 'X[445] <= 7.5\ngini =
0.367\nsamples = 3930\nvalue = [1, 0, 2, 0, 0, 662, 3, 4884, 249,
427]'),
 Text(0.040125293708083924, 0.7794117647058824, 'X[366] <= 23.5\ngini
= 0.293\nsamples = 190\nvalue = [0, 0, 0, 0, 0, 258, 3, 34, 15, 0]'),
 Text(0.038820830323555836, 0.75, 'X[513] <= 34.0\ngini = 0.163\
nsamples = 173\nvalue = [0, 0, 0, 0, 0, 255, 0, 24, 1, 0]'),
 Text(0.03798597375745786, 0.7205882352941176, 'X[265] <= 1.5\ngini =
0.417\nsamples = 35\nvalue = [0, 0, 0, 0, 0, 38, 0, 16, 0, 0]'),
 Text(0.037568545474408875, 0.6911764705882353, 'X[388] <= 67.0\ngini
= 0.193\nsamples = 22\nvalue = [0, 0, 0, 0, 0, 33, 0, 4, 0, 0]'),
 Text(0.03735983133288438, 0.6617647058823529, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.03777725961593337, 0.6617647058823529, 'X[378] <= 211.5\ngini
= 0.108\nsamples = 21\nvalue = [0, 0, 0, 0, 0, 33, 0, 2, 0, 0]'),
 Text(0.037568545474408875, 0.6323529411764706, 'gini = 0.0\nsamples =
20\nvalue = [0, 0, 0, 0, 0, 33, 0, 0, 0, 0]'),
 Text(0.03798597375745786, 0.6323529411764706, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.03840340204050685, 0.6911764705882353, 'X[528] <= 41.5\ngini =
0.415\nsamples = 13\nvalue = [0, 0, 0, 0, 0, 5, 0, 12, 0, 0]'),
 Text(0.03819468789898236, 0.6617647058823529, 'gini = 0.0\nsamples =
8\nvalue = [0, 0, 0, 0, 0, 0, 0, 12, 0, 0]'),
 Text(0.03861211618203134, 0.6617647058823529, 'gini = 0.0\nsamples =
5\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.03965568688965381, 0.7205882352941176, 'X[292] <= 248.5\ngini
= 0.077\nsamples = 138\nvalue = [0, 0, 0, 0, 0, 217, 0, 8, 1, 0]'),
 Text(0.03944697274812932, 0.6911764705882353, 'X[447] <= 26.5\ngini =
0.053\nsamples = 137\nvalue = [0, 0, 0, 0, 0, 217, 0, 5, 1, 0]'),
 Text(0.03902954446508033, 0.6617647058823529, 'X[177] <= 0.5\ngini =
0.018\nsamples = 131\nvalue = [0, 0, 0, 0, 0, 215, 0, 1, 1, 0]'),
 Text(0.038820830323555836, 0.6323529411764706, 'X[262] <= 127.5\ngini
= 0.009\nsamples = 130\nvalue = [0, 0, 0, 0, 0, 215, 0, 0, 1, 0]'),
 Text(0.03861211618203134, 0.6029411764705882, 'gini = 0.0\nsamples =
129\nvalue = [0, 0, 0, 0, 0, 215, 0, 0, 0, 0]'),
 Text(0.03902954446508033, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.03923825860660483, 0.6323529411764706, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.039864401031178304, 0.6617647058823529, 'X[554] <= 118.0\ngini
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= 0.444\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 2, 0, 4, 0, 0]'),
 Text(0.03965568688965381, 0.6323529411764706, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 0]'),
 Text(0.040073115172702796, 0.6323529411764706, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.039864401031178304, 0.6911764705882353, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.041429757092612006, 0.75, 'X[495] <= 81.0\ngini = 0.651\
nsamples = 17\nvalue = [0, 0, 0, 0, 0, 3, 3, 10, 14, 0]'),
 Text(0.04090797173880077, 0.7205882352941176, 'X[519] <= 53.5\ngini =
0.555\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 2, 3, 10, 1, 0]'),
 Text(0.04049054345575179, 0.6911764705882353, 'X[375] <= 34.5\ngini =
0.165\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 0, 0, 10, 1, 0]'),
 Text(0.040281829314227295, 0.6617647058823529, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.04069925759727628, 0.6617647058823529, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 10, 0, 0]'),
 Text(0.04132540002184976, 0.6911764705882353, 'X[460] <= 102.5\ngini
= 0.48\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 2, 3, 0, 0, 0]'),
 Text(0.04111668588032527, 0.6617647058823529, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 3, 0, 0, 0]'),
 Text(0.041534114163374256, 0.6617647058823529, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.04195154244642324, 0.7205882352941176, 'X[407] <= 77.0\ngini =
0.133\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 13, 0]'),
 Text(0.04174282830489875, 0.6911764705882353, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.04216025658794774, 0.6911764705882353, 'gini = 0.0\nsamples =
10\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 13, 0]'),
 Text(0.0783845224489486, 0.7794117647058824, 'X[289] <= 55.5\ngini =
0.317\nsamples = 3740\nvalue = [1, 0, 2, 0, 0, 404, 0, 4850, 234,
427]'),
 Text(0.05840761396678755, 0.75, 'X[426] <= 9.5\ngini = 0.268\nsamples
= 3548\nvalue = [0, 0, 0, 0, 0, 384, 0, 4780, 38, 426]'),
 Text(0.045775250742321194, 0.7205882352941176, 'X[275] <= 12.5\ngini
= 0.594\nsamples = 444\nvalue = [0, 0, 0, 0, 0, 77, 0, 328, 3, 292]'),
 Text(0.042577684870996724, 0.6911764705882353, 'X[653] <= 88.0\ngini
= 0.46\nsamples = 124\nvalue = [0, 0, 0, 0, 0, 44, 0, 141, 3, 14]'),
 Text(0.04236897072947223, 0.6617647058823529, 'X[209] <= 36.0\ngini =
0.365\nsamples = 109\nvalue = [0, 0, 0, 0, 0, 22, 0, 141, 3, 14]'),
 Text(0.04216025658794774, 0.6323529411764706, 'X[416] <= 8.5\ngini =
0.307\nsamples = 104\nvalue = [0, 0, 0, 0, 0, 13, 0, 141, 3, 14]'),
 Text(0.04158629269875538, 0.6029411764705882, 'X[510] <= 96.5\ngini =
0.198\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 8, 0, 1, 0, 0]'),
 Text(0.041377578557230885, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.041795006840279876, 0.5735294117647058, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 8, 0, 0, 0, 0]'),
 Text(0.042734220477140095, 0.6029411764705882, 'X[580] <= 159.5\ngini
= 0.244\nsamples = 97\nvalue = [0, 0, 0, 0, 0, 5, 0, 140, 3, 14]'),
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 Text(0.04221243512332886, 0.5735294117647058, 'X[366] <= 137.0\ngini
= 0.118\nsamples = 78\nvalue = [0, 0, 0, 0, 0, 5, 0, 121, 3, 0]'),
 Text(0.04200372098180437, 0.5441176470588235, 'X[493] <= 254.5\ngini
= 0.076\nsamples = 77\nvalue = [0, 0, 0, 0, 0, 5, 0, 121, 0, 0]'),
 Text(0.04179500684027987 6, 0.5147058823529411, 'X[432] <= 6.5\ngini =
0.047\nsamples = 76\nvalue = [0, 0, 0, 0, 0, 3, 0, 121, 0, 0]'),
 Text(0.04158629269875538, 0.4852941176470588, 'X[421] <= 71.0\ngini =
0.48\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 3, 0, 2, 0, 0]'),
 Text(0.041377578557230885, 0.45588235294117646, 'gini = 0.0\nsamples
= 2\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.04179500684027987 6, 0.45588235294117646, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.04200372098180437, 0.4852941176470588, 'gini = 0.0\nsamples =
73\nvalue = [0, 0, 0, 0, 0, 0, 0, 119, 0, 0]'),
 Text(0.04221243512332886, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.04242114926485335, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 3, 0]'),
 Text(0.04325600583095133, 0.5735294117647058, 'X[537] <= 148.5\ngini
= 0.489\nsamples = 19\nvalue = [0, 0, 0, 0, 0, 0, 0, 19, 0, 14]'),
 Text(0.042838577547902344, 0.5441176470588235, 'X[621] <= 20.5\ngini
= 0.153\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 11]'),
 Text(0.042629863406377845, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.043047291689426836, 0.5147058823529411, 'gini = 0.0\nsamples =
5\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 11]'),
 Text(0.04367343411400031, 0.5441176470588235, 'X[574] <= 172.5\ngini
= 0.245\nsamples = 13\nvalue = [0, 0, 0, 0, 0, 0, 0, 18, 0, 3]'),
 Text(0.04346471997247582, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.04388214825552481, 0.5147058823529411, 'X[429] <= 4.0\ngini =
0.18\nsamples = 12\nvalue = [0, 0, 0, 0, 0, 0, 0, 18, 0, 2]'),
 Text(0.04367343411400031, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.044090862397049305, 0.4852941176470588, 'X[154] <= 1.0\ngini =
0.1\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 0, 0, 18, 0, 1]'),
 Text(0.04388214825552481, 0.45588235294117646, 'gini = 0.0\nsamples =
10\nvalue = [0, 0, 0, 0, 0, 0, 0, 18, 0, 0]'),
 Text(0.0442995765385738, 0.45588235294117646, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.042577684870996724, 0.6323529411764706, 'gini = 0.0\nsamples =
5\nvalue = [0, 0, 0, 0, 0, 9, 0, 0, 0, 0]'),
 Text(0.042786399012521216, 0.6617647058823529, 'gini = 0.0\nsamples =
15\nvalue = [0, 0, 0, 0, 0, 22, 0, 0, 0, 0]'),
 Text(0.048972816613645664, 0.6911764705882353, 'X[552] <= 149.0\ngini
= 0.543\nsamples = 320\nvalue = [0, 0, 0, 0, 0, 33, 0, 187, 0, 278]'),
 Text(0.046256271615365926, 0.6617647058823529, 'X[429] <= 22.0\ngini
= 0.531\nsamples = 96\nvalue = [0, 0, 0, 0, 0, 18, 0, 90, 0, 36]'),
 Text(0.04492571896314728, 0.6323529411764706, 'X[241] <= 20.5\ngini =
0.598\nsamples = 24\nvalue = [0, 0, 0, 0, 0, 9, 0, 5, 0, 16]'),
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 Text(0.04450829068009829, 0.6029411764705882, 'X[537] <= 36.0\ngini =
0.544\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 8, 0, 3, 0, 2]'),
 Text(0.0442995765385738, 0.5735294117647058, 'X[330] <= 163.5\ngini =
0.48\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 2]'),
 Text(0.044090862397049305, 0.5441176470588235, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.04450829068009829, 0.5441176470588235, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.04471700482162279, 0.5735294117647058, 'gini = 0.0\nsamples =
7\nvalue = [0, 0, 0, 0, 0, 8, 0, 0, 0, 0]'),
 Text(0.045343147246196265, 0.6029411764705882, 'X[481] <= 64.0\ngini
= 0.304\nsamples = 13\nvalue = [0, 0, 0, 0, 0, 1, 0, 2, 0, 14]'),
 Text(0.04513443310467177, 0.5735294117647058, 'X[541] <= 17.0\ngini =
0.124\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 14]'),
 Text(0.04492571896314728, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.045343147246196265, 0.5441176470588235, 'gini = 0.0\nsamples =
10\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 14]'),
 Text(0.04555186138772076, 0.5735294117647058, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.04758682426758457, 0.6323529411764706, 'X[698] <= 76.0\ngini =
0.407\nsamples = 72\nvalue = [0, 0, 0, 0, 0, 9, 0, 85, 0, 20]'),
 Text(0.04737811012606008, 0.6029411764705882, 'X[279] <= 1.5\ngini =
0.346\nsamples = 69\nvalue = [0, 0, 0, 0, 0, 3, 0, 85, 0, 20]'),
 Text(0.04628236088305649, 0.5735294117647058, 'X[247] <= 77.5\ngini =
0.226\nsamples = 56\nvalue = [0, 0, 0, 0, 0, 2, 0, 76, 0, 9]'),
 Text(0.045760575529245257, 0.5441176470588235, 'X[493] <= 216.5\ngini
= 0.081\nsamples = 45\nvalue = [0, 0, 0, 0, 0, 1, 0, 69, 0, 2]'),
 Text(0.045343147246196265, 0.5147058823529411, 'X[397] <= 58.5\ngini
= 0.033\nsamples = 37\nvalue = [0, 0, 0, 0, 0, 1, 0, 58, 0, 0]'),
 Text(0.04513443310467177, 0.4852941176470588, 'gini = 0.0\nsamples =
35\nvalue = [0, 0, 0, 0, 0, 0, 0, 56, 0, 0]'),
 Text(0.04555186138772076, 0.4852941176470588, 'X[578] <= 6.5\ngini =
0.444\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 2, 0, 0]'),
 Text(0.045343147246196265, 0.45588235294117646, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.045760575529245257, 0.45588235294117646, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.04617800381229424, 0.5147058823529411, 'X[428] <= 87.5\ngini =
0.26\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 0, 0, 11, 0, 2]'),
 Text(0.04596928967076975, 0.4852941176470588, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.04638671795381873, 0.4852941176470588, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 0, 0, 11, 0, 0]'),
 Text(0.046804146236867725, 0.5441176470588235, 'X[602] <= 44.0\ngini
= 0.56\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 1, 0, 7, 0, 7]'),
 Text(0.046595432095343225, 0.5147058823529411, 'gini = 0.0\nsamples =
5\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 6]'),
 Text(0.04701286037839222, 0.5147058823529411, 'X[497] <= 14.5\ngini =
0.37\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 1, 0, 7, 0, 1]'),
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 Text(0.046804146236867725, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.04722157451991671, 0.4852941176470588, 'X[328] <= 191.0\ngini
= 0.219\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 0, 0, 7, 0, 1]'),
 Text(0.04701286037839222, 0.45588235294117646, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 7, 0, 0]'),
 Text(0.0474302886614412, 0.45588235294117646, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.04847385936906367, 0.5735294117647058, 'X[635] <= 36.0\ngini =
0.54\nsamples = 13\nvalue = [0, 0, 0, 0, 0, 1, 0, 9, 0, 11]'),
 Text(0.04826514522753918, 0.5441176470588235, 'X[404] <= 57.5\ngini =
0.357\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 1, 0, 2, 0, 11]'),
 Text(0.04784771694449019, 0.5147058823529411, 'X[461] <= 15.0\ngini =
0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 0, 0]'),
 Text(0.0476390028029657, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.048056431086014685, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.04868257351058817, 0.5147058823529411, 'X[428] <= 15.5\ngini =
0.153\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 11]'),
 Text(0.04847385936906367, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.04889128765211266, 0.4852941176470588, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 11]'),
 Text(0.04868257351058817, 0.5441176470588235, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 7, 0, 0]'),
 Text(0.047795538409109065, 0.6029411764705882, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 6, 0, 0, 0, 0]'),
 Text(0.0516893616119254, 0.6617647058823529, 'X[573] <= 159.5\ngini =
0.456\nsamples = 224\nvalue = [0, 0, 0, 0, 0, 15, 0, 97, 0, 242]'),
 Text(0.04967396568282951, 0.6323529411764706, 'X[358] <= 17.5\ngini =
0.578\nsamples = 59\nvalue = [0, 0, 0, 0, 0, 12, 0, 48, 0, 26]'),
 Text(0.04910000179363715, 0.6029411764705882, 'X[513] <= 172.5\ngini
= 0.337\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 11, 0, 0, 0, 3]'),
 Text(0.04889128765211266, 0.5735294117647058, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 11, 0, 0, 0, 0]'),
 Text(0.049308715935161646, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 3]'),
 Text(0.05024792957202187, 0.6029411764705882, 'X[453] <= 126.5\ngini
= 0.453\nsamples = 52\nvalue = [0, 0, 0, 0, 0, 1, 0, 48, 0, 23]'),
 Text(0.04972614421821064, 0.5735294117647058, 'X[583] <= 126.5\ngini
= 0.365\nsamples = 44\nvalue = [0, 0, 0, 0, 0, 1, 0, 46, 0, 13]'),
 Text(0.049308715935161646, 0.5441176470588235, 'X[483] <= 4.0\ngini =
0.126\nsamples = 33\nvalue = [0, 0, 0, 0, 0, 1, 0, 42, 0, 2]'),
 Text(0.04910000179363715, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.04951743007668614, 0.5147058823529411, 'X[327] <= 237.0\ngini
= 0.087\nsamples = 32\nvalue = [0, 0, 0, 0, 0, 0, 0, 42, 0, 2]'),
 Text(0.049308715935161646, 0.4852941176470588, 'gini = 0.0\nsamples =
28\nvalue = [0, 0, 0, 0, 0, 0, 0, 39, 0, 0]'),
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 Text(0.04972614421821064, 0.4852941176470588, 'X[306] <= 170.5\ngini
= 0.48\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 2]'),
 Text(0.04951743007668614, 0.45588235294117646, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.04993485835973513, 0.45588235294117646, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.05014357250125962, 0.5441176470588235, 'X[382] <= 217.5\ngini
= 0.391\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 11]'),
 Text(0.04993485835973513, 0.5147058823529411, 'gini = 0.0\nsamples =
7\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 10]'),
 Text(0.050352286642784114, 0.5147058823529411, 'X[638] <= 22.5\ngini
= 0.32\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 1]'),
 Text(0.05014357250125962, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.05056100078430861, 0.4852941176470588, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 0]'),
 Text(0.050769714925833105, 0.5735294117647058, 'X[457] <= 71.5\ngini
= 0.278\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 10]'),
 Text(0.05056100078430861, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.0509784290673576, 0.5441176470588235, 'gini = 0.0\nsamples =
7\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 10]'),
 Text(0.053704757541021296, 0.6323529411764706, 'X[185] <= 72.5\ngini
= 0.317\nsamples = 165\nvalue = [0, 0, 0, 0, 0, 3, 0, 49, 0, 216]'),
 Text(0.05225680318419512, 0.6029411764705882, 'X[580] <= 92.5\ngini =
0.192\nsamples = 136\nvalue = [0, 0, 0, 0, 0, 2, 0, 21, 0, 193]'),
 Text(0.05160457149193108, 0.5735294117647058, 'X[562] <= 128.0\ngini
= 0.408\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 2]'),
 Text(0.05139585735040658, 0.5441176470588235, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 0]'),
 Text(0.05181328563345557, 0.5441176470588235, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.05290903487645916, 0.5735294117647058, 'X[510] <= 10.0\ngini =
0.159\nsamples = 130\nvalue = [0, 0, 0, 0, 0, 2, 0, 16, 0, 191]'),
 Text(0.05223071391650456, 0.5441176470588235, 'X[183] <= 1.0\ngini =
0.444\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 1]'),
 Text(0.052021999774980066, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.05243942805802906, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.05358735583641377, 0.5441176470588235, 'X[351] <= 242.0\ngini
= 0.143\nsamples = 128\nvalue = [0, 0, 0, 0, 0, 0, 0, 16, 0, 190]'),
 Text(0.05285685634107804, 0.5147058823529411, 'X[368] <= 0.5\ngini =
0.122\nsamples = 125\nvalue = [0, 0, 0, 0, 0, 0, 0, 13, 0, 187]'),
 Text(0.052021999774980066, 0.4852941176470588, 'X[428] <= 159.5\ngini
= 0.048\nsamples = 105\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 158]'),
 Text(0.05160457149193108, 0.45588235294117646, 'X[335] <= 65.0\ngini
= 0.025\nsamples = 101\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 156]'),
 Text(0.05139585735040658, 0.4264705882352941, 'gini = 0.0\nsamples =
99\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 153]'),
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 Text(0.05181328563345557, 0.4264705882352941, 'X[632] <= 11.0\ngini =
0.48\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 3]'),
 Text(0.05160457149193108, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.05202199774980066, 0.39705882352941174, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 3]'),
 Text(0.05243942805802906, 0.45588235294117646, 'X[295] <= 191.0\ngini
= 0.5\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 2]'),
 Text(0.05223071391650456, 0.4264705882352941, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.05264814219955355, 0.4264705882352941, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.05369171290717602, 0.4852941176470588, 'X[362] <= 61.0\ngini =
0.361\nsamples = 20\nvalue = [0, 0, 0, 0, 0, 0, 0, 9, 0, 29]'),
 Text(0.053274284624127026, 0.45588235294117646, 'X[541] <= 166.5\
ngini = 0.486\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 0, 0, 7, 0, 5]'),
 Text(0.053065570482602534, 0.4264705882352941, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 5]'),
 Text(0.053482998765651525, 0.4264705882352941, 'gini = 0.0\nsamples =
5\nvalue = [0, 0, 0, 0, 0, 0, 0, 7, 0, 0]'),
 Text(0.054109141190225, 0.45588235294117646, 'X[511] <= 94.5\ngini =
0.142\nsamples = 12\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 24]'),
 Text(0.05390042704870051, 0.4264705882352941, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.054317855331749494, 0.4264705882352941, 'gini = 0.0\nsamples =
11\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 24]'),
 Text(0.054317855331749494, 0.5147058823529411, 'X[430] <= 115.0\ngini
= 0.5\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 3]'),
 Text(0.054109141190225, 0.4852941176470588, 'gini = 0.0\nsamples = 2\
nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 3]'),
 Text(0.05452656947327399, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.05515271189784747, 0.6029411764705882, 'X[429] <= 132.5\ngini
= 0.514\nsamples = 29\nvalue = [0, 0, 0, 0, 0, 1, 0, 28, 0, 23]'),
 Text(0.054735283614798486, 0.5735294117647058, 'X[484] <= 200.5\ngini
= 0.346\nsamples = 10\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 14]'),
 Text(0.05452656947327399, 0.5441176470588235, 'gini = 0.0\nsamples =
8\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 14]'),
 Text(0.05494399775632298, 0.5441176470588235, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 0]'),
 Text(0.05557014018089646, 0.5735294117647058, 'X[502] <= 247.5\ngini
= 0.431\nsamples = 19\nvalue = [0, 0, 0, 0, 0, 1, 0, 24, 0, 9]'),
 Text(0.05536142603937197, 0.5441176470588235, 'X[220] <= 84.5\ngini =
0.253\nsamples = 16\nvalue = [0, 0, 0, 0, 0, 1, 0, 24, 0, 3]'),
 Text(0.05515271189784747, 0.5147058823529411, 'X[385] <= 178.5\ngini
= 0.145\nsamples = 14\nvalue = [0, 0, 0, 0, 0, 1, 0, 24, 0, 1]'),
 Text(0.05494399775632298, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.05536142603937197, 0.4852941176470588, 'X[246] <= 58.0\ngini =
0.077\nsamples = 13\nvalue = [0, 0, 0, 0, 0, 0, 0, 24, 0, 1]'),
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 Text(0.05515271189784747, 0.45588235294117646, 'gini = 0.0\nsamples =
11\nvalue = [0, 0, 0, 0, 0, 0, 0, 23, 0, 0]'),
 Text(0.05557014018089646, 0.45588235294117646, 'X[328] <= 230.0\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 1]'),
 Text(0.05536142603937197, 0.4264705882352941, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.055778854322420954, 0.4264705882352941, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.05557014018089646, 0.5147058823529411, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.055778854322420954, 0.5441176470588235, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 6]'),
 Text(0.0710399771912539, 0.7205882352941176, 'X[348] <= 2.5\ngini =
0.179\nsamples = 3104\nvalue = [0, 0, 0, 0, 0, 307, 0, 4452, 35,
134]'),
 Text(0.05982269081445802, 0.6911764705882353, 'X[356] <= 200.0\ngini
= 0.528\nsamples = 130\nvalue = [0, 0, 0, 0, 0, 102, 0, 97, 2, 4]'),
 Text(0.05823124548533375, 0.6617647058823529, 'X[531] <= 4.5\ngini =
0.467\nsamples = 89\nvalue = [0, 0, 0, 0, 0, 91, 0, 48, 2, 0]'),
 Text(0.057031139171567914, 0.6323529411764706, 'X[413] <= 187.5\ngini
= 0.234\nsamples = 38\nvalue = [0, 0, 0, 0, 0, 51, 0, 8, 0, 0]'),
 Text(0.05661371088851893, 0.6029411764705882, 'X[480] <= 64.0\ngini =
0.083\nsamples = 29\nvalue = [0, 0, 0, 0, 0, 44, 0, 2, 0, 0]'),
 Text(0.05640499674699444, 0.5735294117647058, 'X[356] <= 68.5\ngini =
0.32\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 8, 0, 2, 0, 0]'),
 Text(0.05619628260546994, 0.5441176470588235, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.05661371088851893, 0.5441176470588235, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 8, 0, 0, 0, 0]'),
 Text(0.05682242503004342, 0.5735294117647058, 'gini = 0.0\nsamples =
21\nvalue = [0, 0, 0, 0, 0, 36, 0, 0, 0, 0]'),
 Text(0.057448567454616906, 0.6029411764705882, 'X[326] <= 58.5\ngini
= 0.497\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 7, 0, 6, 0, 0]'),
 Text(0.057239853313092406, 0.5735294117647058, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 4, 0, 0, 0, 0]'),
 Text(0.0576572815961414, 0.5735294117647058, 'X[388] <= 187.0\ngini =
0.444\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 3, 0, 6, 0, 0]'),
 Text(0.057448567454616906, 0.5441176470588235, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.05786599573766589, 0.5441176470588235, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 6, 0, 0]'),
 Text(0.05943135179909959, 0.6323529411764706, 'X[499] <= 154.0\ngini
= 0.523\nsamples = 51\nvalue = [0, 0, 0, 0, 0, 40, 0, 40, 2, 0]'),
 Text(0.05890956644528836, 0.6029411764705882, 'X[537] <= 38.5\ngini =
0.501\nsamples = 39\nvalue = [0, 0, 0, 0, 0, 37, 0, 22, 2, 0]'),
 Text(0.058492138162239374, 0.5735294117647058, 'X[466] <= 27.0\ngini
= 0.142\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 1, 0, 12, 0, 0]'),
 Text(0.05828342402071488, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.058700852303763866, 0.5441176470588235, 'gini = 0.0\nsamples =
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8\nvalue = [0, 0, 0, 0, 0, 0, 0, 12, 0, 0]'),
 Text(0.05932699472833735, 0.5735294117647058, 'X[609] <= 58.5\ngini =
0.392\nsamples = 30\nvalue = [0, 0, 0, 0, 0, 36, 0, 10, 2, 0]'),
 Text(0.05911828058681285, 0.5441176470588235, 'X[256] <= 27.0\ngini =
0.254\nsamples = 26\nvalue = [0, 0, 0, 0, 0, 36, 0, 4, 2, 0]'),
 Text(0.05890956644528836, 0.5147058823529411, 'X[535] <= 18.0\ngini =
0.18\nsamples = 25\nvalue = [0, 0, 0, 0, 0, 36, 0, 4, 0, 0]'),
 Text(0.058492138162239374, 0.4852941176470588, 'X[591] <= 14.0\ngini
= 0.444\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 1, 0, 2, 0, 0]'),
 Text(0.05828342402071488, 0.45588235294117646, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.058700852303763866, 0.45588235294117646, 'gini = 0.0\nsamples
= 1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.05932699472833735, 0.4852941176470588, 'X[402] <= 187.5\ngini
= 0.102\nsamples = 22\nvalue = [0, 0, 0, 0, 0, 35, 0, 2, 0, 0]'),
 Text(0.05911828058681285, 0.45588235294117646, 'X[241] <= 65.5\ngini
= 0.054\nsamples = 21\nvalue = [0, 0, 0, 0, 0, 35, 0, 1, 0, 0]'),
 Text(0.05890956644528836, 0.4264705882352941, 'gini = 0.0\nsamples =
17\nvalue = [0, 0, 0, 0, 0, 30, 0, 0, 0, 0]'),
 Text(0.05932699472833735, 0.4264705882352941, 'X[467] <= 54.5\ngini =
0.278\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 5, 0, 1, 0, 0]'),
 Text(0.05911828058681285, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.05953570886986184, 0.39705882352941174, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.05953570886986184, 0.45588235294117646, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.05932699472833735, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 2, 0]'),
 Text(0.05953570886986184, 0.5441176470588235, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 6, 0, 0]'),
 Text(0.059953137152910826, 0.6029411764705882, 'X[404] <= 31.5\ngini
= 0.245\nsamples = 12\nvalue = [0, 0, 0, 0, 0, 3, 0, 18, 0, 0]'),
 Text(0.059744423011386334, 0.5735294117647058, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.060161851294435326, 0.5735294117647058, 'X[247] <= 73.0\ngini
= 0.1\nsamples = 10\nvalue = [0, 0, 0, 0, 0, 1, 0, 18, 0, 0]'),
 Text(0.059953137152910826, 0.5441176470588235, 'gini = 0.0\nsamples =
9\nvalue = [0, 0, 0, 0, 0, 0, 0, 18, 0, 0]'),
 Text(0.06037056543595982, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.061414136143582286, 0.6617647058823529, 'X[465] <= 24.5\ngini
= 0.38\nsamples = 41\nvalue = [0, 0, 0, 0, 0, 11, 0, 49, 0, 4]'),
 Text(0.061205422002057794, 0.6323529411764706, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 4, 0, 0, 0, 0]'),
 Text(0.06162285028510678, 0.6323529411764706, 'X[545] <= 243.0\ngini
= 0.315\nsamples = 38\nvalue = [0, 0, 0, 0, 0, 7, 0, 49, 0, 4]'),
 Text(0.061414136143582286, 0.6029411764705882, 'X[239] <= 46.5\ngini
= 0.246\nsamples = 36\nvalue = [0, 0, 0, 0, 0, 7, 0, 49, 0, 1]'),
 Text(0.060996707860533295, 0.5735294117647058, 'X[555] <= 225.0\ngini

= 0.112\nsamples = 32\nvalue = [0, 0, 0, 0, 0, 2, 0, 48, 0, 1]'),
 Text(0.0607879937190088, 0.5441176470588235, 'X[611] <= 218.0\ngini =
0.077\nsamples = 31\nvalue = [0, 0, 0, 0, 0, 2, 0, 48, 0, 0]'),
 Text(0.06057927957748431, 0.5147058823529411, 'X[418] <= 1.5\ngini =
0.04\nsamples = 30\nvalue = [0, 0, 0, 0, 0, 1, 0, 48, 0, 0]'),
 Text(0.06037056543595982, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.0607879937190088, 0.4852941176470588, 'gini = 0.0\nsamples =
29\nvalue = [0, 0, 0, 0, 0, 0, 0, 48, 0, 0]'),
 Text(0.060996707860533295, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.061205422002057794, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.06183156442663127, 0.5735294117647058, 'X[552] <= 154.5\ngini
= 0.278\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 5, 0, 1, 0, 0]'),
 Text(0.06162285028510678, 0.5441176470588235, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.06204027856815576, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.06183156442663127, 0.6029411764705882, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 3]'),
 Text(0.08225726356804978, 0.6911764705882353, 'X[238] <= 61.0\ngini =
0.147\nsamples = 2974\nvalue = [0, 0, 0, 0, 0, 205, 0, 4355, 33,
130]'),
 Text(0.07270354061935921, 0.6617647058823529, 'X[542] <= 143.5\ngini
= 0.099\nsamples = 2662\nvalue = [0, 0, 0, 0, 0, 108, 0, 3986, 20,
87]'),
 Text(0.06683435985089983, 0.6323529411764706, 'X[296] <= 0.5\ngini =
0.055\nsamples = 2127\nvalue = [0, 0, 0, 0, 0, 74, 0, 3286, 5, 17]'),
 Text(0.06370999170035171, 0.6029411764705882, 'X[404] <= 163.0\ngini
= 0.462\nsamples = 45\nvalue = [0, 0, 0, 0, 0, 21, 0, 46, 2, 0]'),
 Text(0.06287513513425375, 0.5735294117647058, 'X[514] <= 10.0\ngini =
0.355\nsamples = 29\nvalue = [0, 0, 0, 0, 0, 8, 0, 36, 2, 0]'),
 Text(0.062457706851204754, 0.5441176470588235, 'X[341] <= 17.0\ngini
= 0.653\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 3, 0, 2, 2, 0]'),
 Text(0.06224899270968026, 0.5147058823529411, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.06266642099272925, 0.5147058823529411, 'X[317] <= 30.5\ngini =
0.5\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 2, 0]'),
 Text(0.062457706851204754, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 2, 0]'),
 Text(0.06287513513425375, 0.4852941176470588, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.06329256341730273, 0.5441176470588235, 'X[328] <= 87.0\ngini =
0.224\nsamples = 24\nvalue = [0, 0, 0, 0, 0, 5, 0, 34, 0, 0]'),
 Text(0.06308384927577823, 0.5147058823529411, 'gini = 0.0\nsamples =
20\nvalue = [0, 0, 0, 0, 0, 0, 0, 33, 0, 0]'),
 Text(0.06350127755882722, 0.5147058823529411, 'X[378] <= 75.5\ngini =
0.278\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 5, 0, 1, 0, 0]'),
 Text(0.06329256341730273, 0.4852941176470588, 'gini = 0.0\nsamples =

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1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.06370999170035171, 0.4852941176470588, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.0645448482664497, 0.5735294117647058, 'X[527] <= 1.0\ngini =
0.491\nsamples = 16\nvalue = [0, 0, 0, 0, 0, 13, 0, 10, 0, 0]'),
 Text(0.0641274199834007, 0.5441176470588235, 'X[307] <= 22.0\ngini =
0.18\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 9, 0, 1, 0, 0]'),
 Text(0.06391870584187621, 0.5147058823529411, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 9, 0, 0, 0, 0]'),
 Text(0.0643361341249252, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.06496227654949868, 0.5441176470588235, 'X[321] <= 146.0\ngini
= 0.426\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 4, 0, 9, 0, 0]'),
 Text(0.06475356240797418, 0.5147058823529411, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 4, 0, 0, 0, 0]'),
 Text(0.06517099069102317, 0.5147058823529411, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 0, 0, 9, 0, 0]'),
 Text(0.06995872800144795, 0.6029411764705882, 'X[200] <= 1.5\ngini =
0.043\nsamples = 2082\nvalue = [0, 0, 0, 0, 0, 53, 0, 3240, 3, 17]'),
 Text(0.06829324418413153, 0.5735294117647058, 'X[377] <= 13.5\ngini =
0.04\nsamples = 2076\nvalue = [0, 0, 0, 0, 0, 50, 0, 3238, 1, 17]'),
 Text(0.06600584725712115, 0.5441176470588235, 'X[276] <= 153.0\ngini
= 0.278\nsamples = 62\nvalue = [0, 0, 0, 0, 0, 16, 0, 80, 0, 0]'),
 Text(0.06558841897407217, 0.5147058823529411, 'X[273] <= 27.5\ngini =
0.153\nsamples = 57\nvalue = [0, 0, 0, 0, 0, 7, 0, 77, 0, 0]'),
 Text(0.06537970483254767, 0.4852941176470588, 'X[511] <= 196.0\ngini
= 0.115\nsamples = 55\nvalue = [0, 0, 0, 0, 0, 5, 0, 77, 0, 0]'),
 Text(0.06485791947873643, 0.45588235294117646, 'X[423] <= 3.5\ngini =
0.052\nsamples = 50\nvalue = [0, 0, 0, 0, 0, 2, 0, 73, 0, 0]'),
 Text(0.06444049119568744, 0.4264705882352941, 'X[403] <= 27.5\ngini =
0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 0, 0]'),
 Text(0.06423177705416296, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.06464920533721194, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.06527534776178542, 0.4264705882352941, 'X[389] <= 133.0\ngini
= 0.027\nsamples = 48\nvalue = [0, 0, 0, 0, 0, 1, 0, 72, 0, 0]'),
 Text(0.06506663362026092, 0.39705882352941174, 'X[457] <= 210.5\ngini
= 0.095\nsamples = 14\nvalue = [0, 0, 0, 0, 0, 1, 0, 19, 0, 0]'),
 Text(0.06485791947873643, 0.36764705882352944, 'gini = 0.0\nsamples =
13\nvalue = [0, 0, 0, 0, 0, 0, 0, 19, 0, 0]'),
 Text(0.06527534776178542, 0.36764705882352944, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.0654840619033099, 0.39705882352941174, 'gini = 0.0\nsamples =
34\nvalue = [0, 0, 0, 0, 0, 0, 0, 53, 0, 0]'),
 Text(0.0659014901863589, 0.45588235294117646, 'X[525] <= 106.5\ngini
= 0.49\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 3, 0, 4, 0, 0]'),
 Text(0.06569277604483441, 0.4264705882352941, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 0]'),
 Text(0.06611020432788339, 0.4264705882352941, 'gini = 0.0\nsamples =
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2\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.06579713311559665, 0.4852941176470588, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.06642327554017013, 0.5147058823529411, 'X[531] <= 63.5\ngini =
0.375\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 9, 0, 3, 0, 0]'),
 Text(0.06621456139864564, 0.4852941176470588, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 9, 0, 0, 0, 0]'),
 Text(0.06663198968169463, 0.4852941176470588, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.07058064111114191, 0.5441176470588235, 'X[290] <= 194.0\ngini
= 0.032\nsamples = 2014\nvalue = [0, 0, 0, 0, 0, 34, 0, 3158, 1,
17]'),
 Text(0.07037192696961742, 0.5147058823529411, 'X[365] <= 235.0\ngini
= 0.031\nsamples = 2013\nvalue = [0, 0, 0, 0, 0, 32, 0, 3158, 1,
17]'),
 Text(0.07016321282809293, 0.4852941176470588, 'X[194] <= 32.0\ngini =
0.03\nsamples = 2012\nvalue = [0, 0, 0, 0, 0, 30, 0, 3158, 1, 17]'),
 Text(0.06995449868656843, 0.45588235294117646, 'X[568] <= 149.5\ngini
= 0.028\nsamples = 2010\nvalue = [0, 0, 0, 0, 0, 30, 0, 3158, 1,
15]'),
 Text(0.06871953874174723, 0.4264705882352941, 'X[531] <= 129.5\ngini
= 0.025\nsamples = 1965\nvalue = [0, 0, 0, 0, 0, 29, 0, 3085, 1,
10]'),
 Text(0.0675019037012518, 0.39705882352941174, 'X[187] <= 135.5\ngini
= 0.023\nsamples = 1909\nvalue = [0, 0, 0, 0, 0, 29, 0, 3012, 1, 5]'),
 Text(0.06569277604483441, 0.36764705882352944, 'X[554] <= 0.5\ngini =
0.022\nsamples = 1907\nvalue = [0, 0, 0, 0, 0, 29, 0, 3011, 1, 4]'),
 Text(0.062700631565731, 0.3382352941176471, 'X[373] <= 213.5\ngini =
0.07\nsamples = 314\nvalue = [0, 0, 0, 0, 0, 17, 0, 476, 0, 1]'),
 Text(0.061865806590475136, 0.3088235294117647, 'X[456] <= 224.0\ngini
= 0.045\nsamples = 272\nvalue = [0, 0, 0, 0, 0, 9, 0, 425, 0, 1]'),
 Text(0.061448378307426145, 0.27941176470588236, 'X[302] <= 239.0\
ngini = 0.024\nsamples = 264\nvalue = [0, 0, 0, 0, 0, 4, 0, 416, 0,
1]'),
 Text(0.06123966416590165, 0.25, 'X[390] <= 17.0\ngini = 0.014\
nsamples = 263\nvalue = [0, 0, 0, 0, 0, 2, 0, 416, 0, 1]'),
 Text(0.06082223588285267, 0.22058823529411764, 'X[451] <= 229.0\ngini
= 0.188\nsamples = 12\nvalue = [0, 0, 0, 0, 0, 2, 0, 17, 0, 0]'),
 Text(0.06061352174132817, 0.19117647058823528, 'X[497] <= 72.0\ngini
= 0.105\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 1, 0, 17, 0, 0]'),
 Text(0.06040480759980368, 0.16176470588235295, 'X[610] <= 38.0\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 0, 0]'),
 Text(0.060196093458279185, 0.1323529411764706, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.06061352174132817, 0.1323529411764706, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.06082223588285267, 0.16176470588235295, 'gini = 0.0\nsamples =
9\nvalue = [0, 0, 0, 0, 0, 0, 0, 16, 0, 0]'),
 Text(0.06103095002437716, 0.19117647058823528, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
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 Text(0.061657092448950644, 0.22058823529411764, 'X[296] <= 234.0\
ngini = 0.005\nsamples = 251\nvalue = [0, 0, 0, 0, 0, 0, 0, 399, 0,
1]'),
 Text(0.061448378307426145, 0.19117647058823528, 'gini = 0.0\nsamples
= 242\nvalue = [0, 0, 0, 0, 0, 0, 0, 389, 0, 0]'),
 Text(0.061865806590475136, 0.19117647058823528, 'X[582] <= 17.5\ngini
= 0.165\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 0, 0, 10, 0, 1]'),
 Text(0.061657092448950644, 0.16176470588235295, 'gini = 0.0\nsamples
= 8\nvalue = [0, 0, 0, 0, 0, 0, 0, 10, 0, 0]'),
 Text(0.06207452073199963, 0.16176470588235295, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.061657092448950644, 0.25, 'gini = 0.0\nsamples = 1\nvalue =
[0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.06228323487352412, 0.27941176470588236, 'X[364] <= 0.5\ngini =
0.459\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 5, 0, 9, 0, 0]'),
 Text(0.06207452073199963, 0.25, 'gini = 0.0\nsamples = 6\nvalue = [0,
0, 0, 0, 0, 0, 0, 9, 0, 0]'),
 Text(0.06249194901504861, 0.25, 'gini = 0.0\nsamples = 2\nvalue = [0,
0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.06353551972267109, 0.3088235294117647, 'X[293] <= 204.5\ngini
= 0.234\nsamples = 42\nvalue = [0, 0, 0, 0, 0, 8, 0, 51, 0, 0]'),
 Text(0.0631180914396221, 0.27941176470588236, 'X[509] <= 0.5\ngini =
0.042\nsamples = 35\nvalue = [0, 0, 0, 0, 0, 1, 0, 46, 0, 0]'),
 Text(0.0629093772980976, 0.25, 'X[303] <= 145.0\ngini = 0.32\nsamples
= 5\nvalue = [0, 0, 0, 0, 0, 1, 0, 4, 0, 0]'),
 Text(0.0627006631565731, 0.22058823529411764, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 0]'),
 Text(0.0631180914396221, 0.22058823529411764, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.06332680558114659, 0.25, 'gini = 0.0\nsamples = 30\nvalue =
[0, 0, 0, 0, 0, 0, 0, 42, 0, 0]'),
 Text(0.06395294800572007, 0.27941176470588236, 'X[584] <= 6.5\ngini =
0.486\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 7, 0, 5, 0, 0]'),
 Text(0.06374423386419557, 0.25, 'gini = 0.0\nsamples = 3\nvalue = [0,
0, 0, 0, 0, 7, 0, 0, 0, 0]'),
 Text(0.06416166214724457, 0.25, 'gini = 0.0\nsamples = 4\nvalue = [0,
0, 0, 0, 0, 0, 0, 5, 0, 0]'),
 Text(0.0686848889330957, 0.3382352941176471, 'X[634] <= 11.0\ngini =
0.012\nsamples = 1593\nvalue = [0, 0, 0, 0, 0, 12, 0, 2535, 1, 3]'),
 Text(0.06741629829164214, 0.3088235294117647, 'X[428] <= 218.5\ngini
= 0.012\nsamples = 1591\nvalue = [0, 0, 0, 0, 0, 11, 0, 2533, 1, 3]'),
 Text(0.0655052594333085, 0.27941176470588236, 'X[530] <= 106.5\ngini
= 0.008\nsamples = 1472\nvalue = [0, 0, 0, 0, 0, 8, 0, 2374, 0, 2]'),
 Text(0.06457909043029356, 0.25, 'X[222] <= 9.5\ngini = 0.002\nsamples
= 1168\nvalue = [0, 0, 0, 0, 0, 1, 0, 1895, 0, 1]'),
 Text(0.06416166214724457, 0.22058823529411764, 'X[507] <= 0.5\ngini =
0.001\nsamples = 1144\nvalue = [0, 0, 0, 0, 0, 1, 0, 1862, 0, 0]'),
 Text(0.06395294800572007, 0.19117647058823528, 'X[470] <= 51.0\ngini
= 0.01\nsamples = 137\nvalue = [0, 0, 0, 0, 0, 1, 0, 208, 0, 0]'),
 Text(0.06374423386419557, 0.16176470588235295, 'X[461] <= 211.5\ngini
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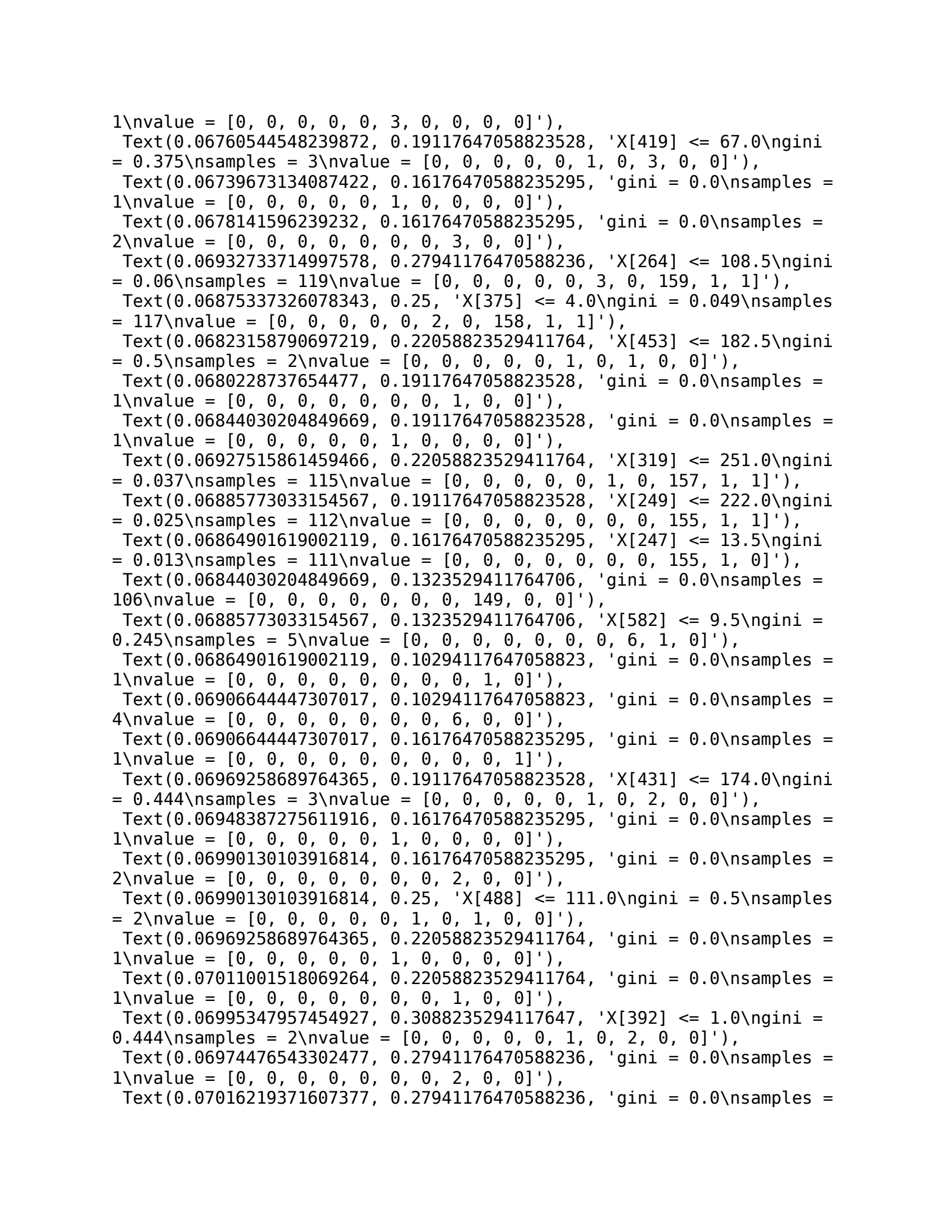
= 0.444\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 1, 0, 2, 0, 0]'),
 Text(0.06353551972267109, 0.1323529411764706, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.06395294800572007, 0.1323529411764706, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.06416166214724457, 0.16176470588235295, 'gini = 0.0\nsamples =
134\nvalue = [0, 0, 0, 0, 0, 0, 0, 206, 0, 0]'),
 Text(0.06437037628876906, 0.19117647058823528, 'gini = 0.0\nsamples =
1007\nvalue = [0, 0, 0, 0, 0, 0, 0, 1654, 0, 0]'),
 Text(0.06499651871334254, 0.22058823529411764, 'X[237] <= 7.5\ngini =
0.057\nsamples = 24\nvalue = [0, 0, 0, 0, 0, 0, 0, 33, 0, 1]'),
 Text(0.06478780457181804, 0.19117647058823528, 'gini = 0.0\nsamples =
23\nvalue = [0, 0, 0, 0, 0, 0, 0, 33, 0, 0]'),
 Text(0.06520523285486704, 0.19117647058823528, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.06643142843632344, 0.25, 'X[472] <= 14.5\ngini = 0.032\
nsamples = 304\nvalue = [0, 0, 0, 0, 0, 7, 0, 479, 0, 1]'),
 Text(0.06583137527944051, 0.22058823529411764, 'X[492] <= 220.5\ngini
= 0.245\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 2, 0, 12, 0, 0]'),
 Text(0.06562266113791602, 0.19117647058823528, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 0, 0, 12, 0, 0]'),
 Text(0.06604008942096501, 0.19117647058823528, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.06703148159320635, 0.22058823529411764, 'X[495] <= 254.5\ngini
= 0.025\nsamples = 297\nvalue = [0, 0, 0, 0, 0, 5, 0, 467, 0, 1]'),
 Text(0.066457517704014, 0.19117647058823528, 'X[438] <= 237.5\ngini =
0.021\nsamples = 294\nvalue = [0, 0, 0, 0, 0, 4, 0, 464, 0, 1]'),
 Text(0.06593573235020277, 0.16176470588235295, 'X[417] <= 49.5\ngini
= 0.009\nsamples = 279\nvalue = [0, 0, 0, 0, 0, 1, 0, 436, 0, 1]'),
 Text(0.06551830406715378, 0.1323529411764706, 'X[545] <= 87.5\ngini =
0.278\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 1]'),
 Text(0.06530958992562928, 0.10294117647058823, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 0]'),
 Text(0.06572701820867827, 0.10294117647058823, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.06635316063325175, 0.1323529411764706, 'X[434] <= 239.5\ngini
= 0.005\nsamples = 274\nvalue = [0, 0, 0, 0, 0, 1, 0, 431, 0, 0]'),
 Text(0.06614444649172725, 0.10294117647058823, 'gini = 0.0\nsamples =
267\nvalue = [0, 0, 0, 0, 0, 0, 0, 424, 0, 0]'),
 Text(0.06656187477477625, 0.10294117647058823, 'X[407] <= 20.5\ngini
= 0.219\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 1, 0, 7, 0, 0]'),
 Text(0.06635316063325175, 0.07352941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.0667705889163074, 0.07352941176470588, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 0, 0, 7, 0, 0]'),
 Text(0.06697930305782523, 0.16176470588235295, 'X[340] <= 5.5\ngini =
0.175\nsamples = 15\nvalue = [0, 0, 0, 0, 0, 3, 0, 28, 0, 0]'),
 Text(0.0667705889163074, 0.1323529411764706, 'gini = 0.0\nsamples =
14\nvalue = [0, 0, 0, 0, 0, 0, 0, 28, 0, 0]'),
 Text(0.06718801719934972, 0.1323529411764706, 'gini = 0.0\nsamples =


1\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
Text(0.06760544548239872, 0.19117647058823528, 'X[419] <= 67.0\ngini
= 0.375\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 1, 0, 3, 0, 0]'),
Text(0.06739673134087422, 0.16176470588235295, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
Text(0.0678141596239232, 0.16176470588235295, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
Text(0.06932733714997578, 0.27941176470588236, 'X[264] <= 108.5\ngini
= 0.06\nsamples = 119\nvalue = [0, 0, 0, 0, 0, 3, 0, 159, 1, 1]'),
Text(0.06875337326078343, 0.25, 'X[375] <= 4.0\ngini = 0.049\nsamples
= 117\nvalue = [0, 0, 0, 0, 0, 2, 0, 158, 1, 1]'),
Text(0.06823158790697219, 0.22058823529411764, 'X[453] <= 182.5\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 0, 0]'),
Text(0.0680228737654477, 0.19117647058823528, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
Text(0.06844030204849669, 0.19117647058823528, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
Text(0.06927515861459466, 0.22058823529411764, 'X[319] <= 251.0\ngini
= 0.037\nsamples = 115\nvalue = [0, 0, 0, 0, 0, 1, 0, 157, 1, 1]'),
Text(0.06885773033154567, 0.19117647058823528, 'X[249] <= 222.0\ngini
= 0.025\nsamples = 112\nvalue = [0, 0, 0, 0, 0, 0, 0, 155, 1, 1]'),
Text(0.06864901619002119, 0.16176470588235295, 'X[247] <= 13.5\ngini
= 0.013\nsamples = 111\nvalue = [0, 0, 0, 0, 0, 0, 0, 155, 1, 0]'),
Text(0.06844030204849669, 0.1323529411764706, 'gini = 0.0\nsamples =
106\nvalue = [0, 0, 0, 0, 0, 0, 0, 149, 0, 0]'),
Text(0.06885773033154567, 0.1323529411764706, 'X[582] <= 9.5\ngini =
0.245\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 0, 0, 6, 1, 0]'),
Text(0.06864901619002119, 0.10294117647058823, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
Text(0.06906644447307017, 0.10294117647058823, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 6, 0, 0]'),
Text(0.06906644447307017, 0.16176470588235295, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
Text(0.06969258689764365, 0.19117647058823528, 'X[431] <= 174.0\ngini
= 0.444\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 1, 0, 2, 0, 0]'),
Text(0.06948387275611916, 0.16176470588235295, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
Text(0.06990130103916814, 0.16176470588235295, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
Text(0.06990130103916814, 0.25, 'X[488] <= 111.0\ngini = 0.5\nsamples
= 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 0, 0]'),
Text(0.06969258689764365, 0.22058823529411764, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
Text(0.07011001518069264, 0.22058823529411764, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
Text(0.06995347957454927, 0.3088235294117647, 'X[392] <= 1.0\ngini =
0.444\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 2, 0, 0]'),
Text(0.06974476543302477, 0.27941176470588236, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
Text(0.07016219371607377, 0.27941176470588236, 'gini = 0.0\nsamples =

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1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.06931103135766918, 0.36764705882352944, 'X[461] <= 211.5\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 1]'),
 Text(0.0691023172161447, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.06951974549919368, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.06993717378224266, 0.39705882352941174, 'X[310] <= 2.5\ngini =
0.12\nsamples = 56\nvalue = [0, 0, 0, 0, 0, 0, 0, 73, 0, 5]'),
 Text(0.06972845964071817, 0.36764705882352944, 'gini = 0.0\nsamples =
50\nvalue = [0, 0, 0, 0, 0, 0, 0, 69, 0, 0]'),
 Text(0.07014588792376716, 0.36764705882352944, 'X[323] <= 171.0\ngini
= 0.494\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 5]'),
 Text(0.06993717378224266, 0.3382352941176471, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 5]'),
 Text(0.07035460206529165, 0.3382352941176471, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 4, 0, 0]'),
 Text(0.07118945863138963, 0.4264705882352941, 'X[273] <= 93.0\ngini =
0.142\nsamples = 45\nvalue = [0, 0, 0, 0, 0, 1, 0, 73, 0, 5]'),
 Text(0.07077203034834065, 0.39705882352941174, 'X[369] <= 21.5\ngini
= 0.031\nsamples = 33\nvalue = [0, 0, 0, 0, 0, 1, 0, 62, 0, 0]'),
 Text(0.07056331620681615, 0.36764705882352944, 'gini = 0.0\nsamples =
29\nvalue = [0, 0, 0, 0, 0, 0, 0, 55, 0, 0]'),
 Text(0.07098074448986513, 0.36764705882352944, 'X[348] <= 103.5\ngini
= 0.219\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 1, 0, 7, 0, 0]'),
 Text(0.07077203034834065, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.07118945863138963, 0.3382352941176471, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 7, 0, 0]'),
 Text(0.07160688691443862, 0.39705882352941174, 'X[504] <= 6.5\ngini =
0.43\nsamples = 12\nvalue = [0, 0, 0, 0, 0, 0, 0, 11, 0, 5]'),
 Text(0.07139817277291412, 0.36764705882352944, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 3]'),
 Text(0.07181560105596312, 0.36764705882352944, 'X[535] <= 168.5\ngini
= 0.26\nsamples = 10\nvalue = [0, 0, 0, 0, 0, 0, 0, 11, 0, 2]'),
 Text(0.07160688691443862, 0.3382352941176471, 'gini = 0.0\nsamples =
7\nvalue = [0, 0, 0, 0, 0, 0, 0, 10, 0, 0]'),
 Text(0.0720243151974876, 0.3382352941176471, 'X[530] <= 72.5\ngini =
0.444\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 2]'),
 Text(0.07181560105596312, 0.3088235294117647, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.0722330293390121, 0.3088235294117647, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.07037192696961742, 0.45588235294117646, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.07058064111114191, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.0707893552526664, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.07162421181876438, 0.5735294117647058, 'X[543] <= 62.0\ngini =
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0.653\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 3, 0, 2, 2, 0]'),
 Text(0.07141549767723988, 0.5441176470588235, 'X[429] <= 62.0\ngini =
0.5\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 2, 0]'),
 Text(0.0712067835357154, 0.5147058823529411, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 2, 0]'),
 Text(0.07162421181876438, 0.5147058823529411, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.07183292596028887, 0.5441176470588235, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.0785727213878186, 0.6323529411764706, 'X[373] <= 65.5\ngini =
0.26\nsamples = 535\nvalue = [0, 0, 0, 0, 0, 34, 0, 700, 15, 70]'),
 Text(0.07507675951728332, 0.6029411764705882, 'X[274] <= 10.5\ngini =
0.537\nsamples = 140\nvalue = [0, 0, 0, 0, 0, 17, 0, 131, 5, 61]'),
 Text(0.07369402832968355, 0.5735294117647058, 'X[155] <= 0.5\ngini =
0.256\nsamples = 62\nvalue = [0, 0, 0, 0, 0, 5, 0, 84, 1, 8]'),
 Text(0.07327660004663457, 0.5441176470588235, 'X[458] <= 3.0\ngini =
0.211\nsamples = 60\nvalue = [0, 0, 0, 0, 0, 5, 0, 84, 0, 6]'),
 Text(0.07306788590511007, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.07348531418815905, 0.5147058823529411, 'X[563] <= 193.5\ngini
= 0.179\nsamples = 59\nvalue = [0, 0, 0, 0, 0, 3, 0, 84, 0, 6]'),
 Text(0.07327660004663457, 0.4852941176470588, 'X[539] <= 254.5\ngini
= 0.143\nsamples = 58\nvalue = [0, 0, 0, 0, 0, 1, 0, 84, 0, 6]'),
 Text(0.07306788590511007, 0.45588235294117646, 'X[349] <= 9.0\ngini =
0.126\nsamples = 57\nvalue = [0, 0, 0, 0, 0, 1, 0, 84, 0, 5]'),
 Text(0.07285917176358558, 0.4264705882352941, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.07327660004663457, 0.4264705882352941, 'X[232] <= 2.0\ngini =
0.106\nsamples = 56\nvalue = [0, 0, 0, 0, 0, 0, 0, 84, 0, 5]'),
 Text(0.07306788590511007, 0.39705882352941174, 'X[408] <= 28.5\ngini
= 0.067\nsamples = 55\nvalue = [0, 0, 0, 0, 0, 0, 0, 84, 0, 3]'),
 Text(0.07285917176358558, 0.36764705882352944, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.07327660004663457, 0.36764705882352944, 'X[403] <= 224.0\ngini
= 0.045\nsamples = 54\nvalue = [0, 0, 0, 0, 0, 0, 0, 84, 0, 2]'),
 Text(0.07285917176358558, 0.3382352941176471, 'X[573] <= 98.5\ngini =
0.025\nsamples = 50\nvalue = [0, 0, 0, 0, 0, 0, 0, 79, 0, 1]'),
 Text(0.07265045762206108, 0.3088235294117647, 'gini = 0.0\nsamples =
34\nvalue = [0, 0, 0, 0, 0, 0, 0, 57, 0, 0]'),
 Text(0.07306788590511007, 0.3088235294117647, 'X[349] <= 212.0\ngini
= 0.083\nsamples = 16\nvalue = [0, 0, 0, 0, 0, 0, 0, 22, 0, 1]'),
 Text(0.07285917176358558, 0.27941176470588236, 'gini = 0.0\nsamples =
13\nvalue = [0, 0, 0, 0, 0, 0, 0, 20, 0, 0]'),
 Text(0.07327660004663457, 0.27941176470588236, 'X[432] <= 235.5\ngini
= 0.444\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 1]'),
 Text(0.07306788590511007, 0.25, 'gini = 0.0\nsamples = 2\nvalue = [0,
0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.07348531418815905, 0.25, 'gini = 0.0\nsamples = 1\nvalue = [0,
0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.07369402832968355, 0.3382352941176471, 'X[473] <= 201.5\ngini

= 0.278\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 1]'),
 Text(0.07348531418815905, 0.3088235294117647, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.07390274247120805, 0.3088235294117647, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 0]'),
 Text(0.07348531418815905, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.07348531418815905, 0.45588235294117646, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.07369402832968355, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.07411145661273254, 0.5441176470588235, 'X[603] <= 239.0\ngini
= 0.444\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 2]'),
 Text(0.07390274247120805, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.07432017075425704, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.0764594907048831, 0.5735294117647058, 'X[430] <= 106.0\ngini =
0.615\nsamples = 78\nvalue = [0, 0, 0, 0, 0, 12, 0, 47, 4, 53]'),
 Text(0.07494631317883052, 0.5441176470588235, 'X[315] <= 32.0\ngini =
0.552\nsamples = 20\nvalue = [0, 0, 0, 0, 0, 6, 0, 18, 4, 1]'),
 Text(0.07473759903730602, 0.5147058823529411, 'X[417] <= 168.0\ngini
= 0.422\nsamples = 17\nvalue = [0, 0, 0, 0, 0, 6, 0, 18, 0, 1]'),
 Text(0.07452888489578152, 0.4852941176470588, 'X[241] <= 98.5\ngini =
0.562\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 6, 0, 4, 0, 1]'),
 Text(0.07432017075425704, 0.45588235294117646, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.07473759903730602, 0.45588235294117646, 'X[215] <= 5.0\ngini =
0.406\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 6, 0, 1, 0, 1]'),
 Text(0.07452888489578152, 0.4264705882352941, 'X[509] <= 126.5\ngini
= 0.245\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 6, 0, 0, 0, 1]'),
 Text(0.07432017075425704, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.07473759903730602, 0.39705882352941174, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 6, 0, 0, 0, 0]'),
 Text(0.07494631317883052, 0.4264705882352941, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.07494631317883052, 0.4852941176470588, 'gini = 0.0\nsamples =
9\nvalue = [0, 0, 0, 0, 0, 0, 0, 14, 0, 0]'),
 Text(0.075155027320355, 0.5147058823529411, 'gini = 0.0\nsamples = 3\
nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 4, 0]'),
 Text(0.07797266823093567, 0.5441176470588235, 'X[278] <= 142.0\ngini
= 0.527\nsamples = 58\nvalue = [0, 0, 0, 0, 0, 6, 0, 29, 0, 52]'),
 Text(0.07703345459407546, 0.5147058823529411, 'X[604] <= 15.0\ngini =
0.58\nsamples = 42\nvalue = [0, 0, 0, 0, 0, 6, 0, 28, 0, 30]'),
 Text(0.07598988388645299, 0.4852941176470588, 'X[520] <= 162.0\ngini
= 0.43\nsamples = 20\nvalue = [0, 0, 0, 0, 0, 3, 0, 6, 0, 24]'),
 Text(0.075572455603404, 0.45588235294117646, 'X[335] <= 18.0\ngini =
0.375\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 3, 0, 1, 0, 0]'),
 Text(0.0753637414618795, 0.4264705882352941, 'gini = 0.0\nsamples =

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2\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.07578116974492849, 0.4264705882352941, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.07640731216950197, 0.45588235294117646, 'X[527] <= 75.5\ngini
= 0.285\nsamples = 17\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 24]'),
 Text(0.07619859802797747, 0.4264705882352941, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.07661602631102647, 0.4264705882352941, 'X[634] <= 27.0\ngini =
0.198\nsamples = 16\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 24]'),
 Text(0.07640731216950197, 0.39705882352941174, 'X[559] <= 155.5\ngini
= 0.142\nsamples = 15\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 24]'),
 Text(0.07619859802797747, 0.36764705882352944, 'gini = 0.0\nsamples =
14\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 24]'),
 Text(0.07661602631102647, 0.36764705882352944, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.07682474045255096, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.07807702530169792, 0.4852941176470588, 'X[524] <= 203.5\ngini
= 0.45\nsamples = 22\nvalue = [0, 0, 0, 0, 0, 3, 0, 22, 0, 6]'),
 Text(0.07765959701864894, 0.45588235294117646, 'X[182] <= 16.0\ngini
= 0.645\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 3, 0, 3, 0, 5]'),
 Text(0.07745088287712444, 0.4264705882352941, 'X[361] <= 182.0\ngini
= 0.469\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 5]'),
 Text(0.07724216873559994, 0.39705882352941174, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 4]'),
 Text(0.07765959701864894, 0.39705882352941174, 'X[455] <= 215.0\ngini
= 0.375\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 1]'),
 Text(0.07745088287712444, 0.36764705882352944, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.07786831116017343, 0.36764705882352944, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.07786831116017343, 0.4264705882352941, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.07849445358474691, 0.45588235294117646, 'X[532] <= 157.5\ngini
= 0.095\nsamples = 15\nvalue = [0, 0, 0, 0, 0, 0, 0, 19, 0, 1]'),
 Text(0.07828573944322241, 0.4264705882352941, 'gini = 0.0\nsamples =
14\nvalue = [0, 0, 0, 0, 0, 0, 0, 19, 0, 0]'),
 Text(0.07870316772627141, 0.4264705882352941, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.0789118818677959, 0.5147058823529411, 'X[326] <= 218.5\ngini =
0.083\nsamples = 16\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 22]'),
 Text(0.07870316772627141, 0.4852941176470588, 'gini = 0.0\nsamples =
14\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 21]'),
 Text(0.07912059600932039, 0.4852941176470588, 'X[402] <= 222.0\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 1]'),
 Text(0.0789118818677959, 0.45588235294117646, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.07932931015084488, 0.45588235294117646, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.08206868325835387, 0.6029411764705882, 'X[600] <= 215.0\ngini
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= 0.114\nsamples = 395\nvalue = [0, 0, 0, 0, 0, 17, 0, 569, 10, 9]'),
 Text(0.08185996911682937, 0.5735294117647058, 'X[364] <= 13.0\ngini =
0.094\nsamples = 390\nvalue = [0, 0, 0, 0, 0, 17, 0, 569, 3, 9]'),
 Text(0.08063377353537297, 0.5441176470588235, 'X[384] <= 22.5\ngini =
0.076\nsamples = 386\nvalue = [0, 0, 0, 0, 0, 14, 0, 568, 0, 9]'),
 Text(0.07974673843389388, 0.5147058823529411, 'X[242] <= 21.0\ngini =
0.444\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 2, 0, 1, 0, 0]'),
 Text(0.07953802429236938, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.07995545257541836, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.08152080863685207, 0.5147058823529411, 'X[500] <= 130.5\ngini
= 0.07\nsamples = 384\nvalue = [0, 0, 0, 0, 0, 12, 0, 567, 0, 9]'),
 Text(0.08037288085846735, 0.4852941176470588, 'X[392] <= 6.0\ngini =
0.163\nsamples = 76\nvalue = [0, 0, 0, 0, 0, 9, 0, 103, 0, 1]'),
 Text(0.07995545257541836, 0.45588235294117646, 'X[285] <= 2.0\ngini =
0.1\nsamples = 63\nvalue = [0, 0, 0, 0, 0, 4, 0, 91, 0, 1]'),
 Text(0.07974673843389388, 0.4264705882352941, 'X[319] <= 238.5\ngini
= 0.081\nsamples = 62\nvalue = [0, 0, 0, 0, 0, 3, 0, 91, 0, 1]'),
 Text(0.07953802429236938, 0.39705882352941174, 'X[504] <= 121.5\ngini
= 0.042\nsamples = 60\nvalue = [0, 0, 0, 0, 0, 1, 0, 91, 0, 1]'),
 Text(0.07912059600932039, 0.36764705882352944, 'X[550] <= 24.0\ngini
= 0.022\nsamples = 57\nvalue = [0, 0, 0, 0, 0, 0, 0, 89, 0, 1]'),
 Text(0.0789118818677959, 0.3382352941176471, 'X[575] <= 2.0\ngini =
0.18\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 0, 0, 9, 0, 1]'),
 Text(0.07870316772627141, 0.3088235294117647, 'X[277] <= 66.5\ngini =
0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 1]'),
 Text(0.07849445358474691, 0.27941176470588236, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.0789118818677959, 0.27941176470588236, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.07912059600932039, 0.3088235294117647, 'gini = 0.0\nsamples =
5\nvalue = [0, 0, 0, 0, 0, 0, 0, 8, 0, 0]'),
 Text(0.07932931015084488, 0.3382352941176471, 'gini = 0.0\nsamples =
50\nvalue = [0, 0, 0, 0, 0, 0, 0, 80, 0, 0]'),
 Text(0.07995545257541836, 0.36764705882352944, 'X[539] <= 220.0\ngini
= 0.444\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 1, 0, 2, 0, 0]'),
 Text(0.07974673843389388, 0.3382352941176471, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.08016416671694286, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.07995545257541836, 0.39705882352941174, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.08016416671694286, 0.4264705882352941, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.08079030914151634, 0.45588235294117646, 'X[430] <= 154.5\ngini
= 0.415\nsamples = 13\nvalue = [0, 0, 0, 0, 0, 5, 0, 12, 0, 0]'),
 Text(0.08058159499999185, 0.4264705882352941, 'X[426] <= 71.0\ngini =
0.408\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 5, 0, 2, 0, 0]'),
 Text(0.08037288085846735, 0.39705882352941174, 'gini = 0.0\nsamples =

2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.08079030914151634, 0.39705882352941174, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.08099902328304083, 0.4264705882352941, 'gini = 0.0\nsamples =
7\nvalue = [0, 0, 0, 0, 0, 0, 0, 10, 0, 0]'),
 Text(0.08266873641523678, 0.4852941176470588, 'X[243] <= 172.5\ngini
= 0.045\nsamples = 308\nvalue = [0, 0, 0, 0, 0, 3, 0, 464, 0, 8]'),
 Text(0.0820425939906633, 0.45588235294117646, 'X[300] <= 218.0\ngini
= 0.027\nsamples = 291\nvalue = [0, 0, 0, 0, 0, 3, 0, 437, 0, 3]'),
 Text(0.08141645156608983, 0.4264705882352941, 'X[416] <= 15.5\ngini =
0.014\nsamples = 276\nvalue = [0, 0, 0, 0, 0, 3, 0, 418, 0, 0]'),
 Text(0.08120773742456533, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.08162516570761431, 0.39705882352941174, 'X[415] <= 34.0\ngini
= 0.005\nsamples = 275\nvalue = [0, 0, 0, 0, 0, 1, 0, 418, 0, 0]'),
 Text(0.08141645156608983, 0.36764705882352944, 'X[387] <= 125.0\ngini
= 0.444\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 2, 0, 0]'),
 Text(0.08120773742456533, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.08162516570761431, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.08183387984913881, 0.36764705882352944, 'gini = 0.0\nsamples =
273\nvalue = [0, 0, 0, 0, 0, 0, 0, 416, 0, 0]'),
 Text(0.08266873641523678, 0.4264705882352941, 'X[437] <= 240.0\ngini
= 0.236\nsamples = 15\nvalue = [0, 0, 0, 0, 0, 0, 0, 19, 0, 3]'),
 Text(0.0824600222737123, 0.39705882352941174, 'X[444] <= 199.0\ngini
= 0.095\nsamples = 14\nvalue = [0, 0, 0, 0, 0, 0, 0, 19, 0, 1]'),
 Text(0.0822513081321878, 0.36764705882352944, 'X[274] <= 43.5\ngini =
0.375\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 1]'),
 Text(0.0820425939906633, 0.3382352941176471, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.0824600222737123, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.08266873641523678, 0.36764705882352944, 'gini = 0.0\nsamples =
11\nvalue = [0, 0, 0, 0, 0, 0, 0, 16, 0, 0]'),
 Text(0.08287745055676128, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 2]'),
 Text(0.08329487883981027, 0.45588235294117646, 'X[443] <= 172.5\ngini
= 0.264\nsamples = 17\nvalue = [0, 0, 0, 0, 0, 0, 0, 27, 0, 5]'),
 Text(0.08308616469828577, 0.4264705882352941, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 4]'),
 Text(0.08350359298133476, 0.4264705882352941, 'X[587] <= 99.0\ngini =
0.069\nsamples = 15\nvalue = [0, 0, 0, 0, 0, 0, 0, 27, 0, 1]'),
 Text(0.08329487883981027, 0.39705882352941174, 'gini = 0.0\nsamples =
13\nvalue = [0, 0, 0, 0, 0, 0, 0, 26, 0, 0]'),
 Text(0.08371230712285925, 0.39705882352941174, 'X[606] <= 60.0\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 1]'),
 Text(0.08350359298133476, 0.36764705882352944, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.08392102126438375, 0.36764705882352944, 'gini = 0.0\nsamples =

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1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.08308616469828577, 0.5441176470588235, 'X[260] <= 0.5\ngini =
0.612\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 3, 0, 1, 3, 0]'),
 Text(0.08287745055676128, 0.5147058823529411, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.08329487883981027, 0.5147058823529411, 'X[452] <= 105.0\ngini
= 0.375\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 3, 0]'),
 Text(0.08308616469828577, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 3, 0]'),
 Text(0.08350359298133476, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.08227739739987835, 0.5735294117647058, 'gini = 0.0\nsamples =
5\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 7, 0]'),
 Text(0.09181098651674034, 0.6617647058823529, 'X[191] <= 1.5\ngini =
0.458\nsamples = 312\nvalue = [0, 0, 0, 0, 0, 97, 0, 369, 13, 43]'),
 Text(0.09023054759742304, 0.6323529411764706, 'X[340] <= 14.5\ngini =
0.389\nsamples = 288\nvalue = [0, 0, 0, 0, 0, 73, 0, 361, 9, 30]'),
 Text(0.08863502582022212, 0.6029411764705882, 'X[221] <= 84.0\ngini =
0.342\nsamples = 263\nvalue = [0, 0, 0, 0, 0, 57, 0, 347, 1, 30]'),
 Text(0.08690498125649174, 0.5735294117647058, 'X[379] <= 23.5\ngini =
0.298\nsamples = 250\nvalue = [0, 0, 0, 0, 0, 46, 0, 342, 1, 24]'),
 Text(0.08589076097502116, 0.5441176470588235, 'X[303] <= 132.0\ngini
= 0.432\nsamples = 12\nvalue = [0, 0, 0, 0, 0, 13, 0, 6, 0, 0]'),
 Text(0.08568204683349666, 0.5147058823529411, 'gini = 0.0\nsamples =
5\nvalue = [0, 0, 0, 0, 0, 0, 0, 6, 0, 0]'),
 Text(0.08609947511654566, 0.5147058823529411, 'gini = 0.0\nsamples =
7\nvalue = [0, 0, 0, 0, 0, 13, 0, 0, 0, 0]'),
 Text(0.08791920153796233, 0.5441176470588235, 'X[545] <= 179.0\ngini
= 0.262\nsamples = 238\nvalue = [0, 0, 0, 0, 0, 33, 0, 336, 1, 24]'),
 Text(0.08651690339959464, 0.5147058823529411, 'X[378] <= 30.0\ngini =
0.157\nsamples = 172\nvalue = [0, 0, 0, 0, 0, 22, 0, 257, 0, 2]'),
 Text(0.0853820202550552, 0.4852941176470588, 'X[401] <= 163.0\ngini =
0.496\nsamples = 16\nvalue = [0, 0, 0, 0, 0, 10, 0, 12, 0, 0]'),
 Text(0.08496459197200622, 0.45588235294117646, 'X[250] <= 0.5\ngini =
0.391\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 4, 0, 11, 0, 0]'),
 Text(0.08475587783048172, 0.4264705882352941, 'X[507] <= 143.0\ngini
= 0.26\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 2, 0, 11, 0, 0]'),
 Text(0.08454716368895723, 0.39705882352941174, 'X[432] <= 186.0\ngini
= 0.153\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 1, 0, 11, 0, 0]'),
 Text(0.08433844954743273, 0.36764705882352944, 'gini = 0.0\nsamples =
6\nvalue = [0, 0, 0, 0, 0, 0, 0, 10, 0, 0]'),
 Text(0.08475587783048172, 0.36764705882352944, 'X[320] <= 108.5\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 0, 0]'),
 Text(0.08454716368895723, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.08496459197200622, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.08496459197200622, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.0851733061135307, 0.4264705882352941, 'gini = 0.0\nsamples =
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2\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.08579944853810419, 0.45588235294117646, 'X[389] <= 137.0\ngini
= 0.245\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 6, 0, 1, 0, 0]'),
 Text(0.0855907343965797, 0.4264705882352941, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.08600816267962869, 0.4264705882352941, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 6, 0, 0, 0, 0]'),
 Text(0.08765178654413407, 0.4852941176470588, 'X[342] <= 132.0\ngini
= 0.103\nsamples = 156\nvalue = [0, 0, 0, 0, 0, 12, 0, 245, 0, 2]'),
 Text(0.08744307240260958, 0.45588235294117646, 'X[593] <= 226.0\ngini
= 0.096\nsamples = 155\nvalue = [0, 0, 0, 0, 0, 11, 0, 245, 0, 2]'),
 Text(0.08679084071034554, 0.4264705882352941, 'X[542] <= 189.5\ngini
= 0.083\nsamples = 153\nvalue = [0, 0, 0, 0, 0, 10, 0, 245, 0, 1]'),
 Text(0.08611251975039093, 0.39705882352941174, 'X[429] <= 50.0\ngini
= 0.041\nsamples = 143\nvalue = [0, 0, 0, 0, 0, 5, 0, 233, 0, 0]'),
 Text(0.0855907343965797, 0.36764705882352944, 'X[500] <= 70.5\ngini =
0.444\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 2, 0, 1, 0, 0]'),
 Text(0.0853820202550552, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.08579944853810419, 0.3382352941176471, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.08663430510420217, 0.36764705882352944, 'X[288] <= 1.5\ngini =
0.025\nsamples = 140\nvalue = [0, 0, 0, 0, 0, 3, 0, 232, 0, 0]'),
 Text(0.08621687682115318, 0.3382352941176471, 'X[329] <= 18.5\ngini =
0.009\nsamples = 131\nvalue = [0, 0, 0, 0, 0, 1, 0, 218, 0, 0]'),
 Text(0.08600816267962869, 0.3088235294117647, 'X[367] <= 47.5\ngini =
0.049\nsamples = 27\nvalue = [0, 0, 0, 0, 0, 1, 0, 39, 0, 0]'),
 Text(0.08579944853810419, 0.27941176470588236, 'gini = 0.0\nsamples =
26\nvalue = [0, 0, 0, 0, 0, 0, 0, 39, 0, 0]'),
 Text(0.08621687682115318, 0.27941176470588236, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.08642559096267767, 0.3088235294117647, 'gini = 0.0\nsamples =
104\nvalue = [0, 0, 0, 0, 0, 0, 0, 179, 0, 0]'),
 Text(0.08705173338725115, 0.3382352941176471, 'X[293] <= 82.5\ngini =
0.219\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 2, 0, 14, 0, 0]'),
 Text(0.08684301924572665, 0.3088235294117647, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.08726044752877565, 0.3088235294117647, 'X[297] <= 235.5\ngini
= 0.124\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 1, 0, 14, 0, 0]'),
 Text(0.08705173338725115, 0.27941176470588236, 'gini = 0.0\nsamples =
7\nvalue = [0, 0, 0, 0, 0, 0, 0, 14, 0, 0]'),
 Text(0.08746916167030014, 0.27941176470588236, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.08746916167030014, 0.39705882352941174, 'X[544] <= 128.0\ngini
= 0.475\nsamples = 10\nvalue = [0, 0, 0, 0, 0, 5, 0, 12, 0, 1]'),
 Text(0.08726044752877565, 0.36764705882352944, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.08767787581182464, 0.36764705882352944, 'X[563] <= 195.0\ngini
= 0.142\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 0, 0, 12, 0, 1]'),
 Text(0.08746916167030014, 0.3382352941176471, 'gini = 0.0\nsamples =
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6\nvalue = [0, 0, 0, 0, 0, 0, 0, 12, 0, 0]'),
 Text(0.08788658995334912, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.08809530409487362, 0.4264705882352941, 'X[376] <= 184.5\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 1]'),
 Text(0.08788658995334912, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.08830401823639812, 0.39705882352941174, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.08786050068565857, 0.45588235294117646, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.08932149967633002, 0.5147058823529411, 'X[457] <= 95.0\ngini =
0.464\nsamples = 66\nvalue = [0, 0, 0, 0, 0, 11, 0, 79, 1, 22]'),
 Text(0.0885127323779226, 0.4852941176470588, 'X[571] <= 71.0\ngini =
0.637\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 4, 0, 5, 0, 8]'),
 Text(0.08830401823639812, 0.45588235294117646, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 8]'),
 Text(0.0887214465194471, 0.45588235294117646, 'X[446] <= 147.0\ngini
= 0.494\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 4, 0, 5, 0, 0]'),
 Text(0.0885127323779226, 0.4264705882352941, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 0]'),
 Text(0.08893016066097159, 0.4264705882352941, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 4, 0, 0, 0, 0]'),
 Text(0.09013026697473743, 0.4852941176470588, 'X[550] <= 58.5\ngini =
0.379\nsamples = 59\nvalue = [0, 0, 0, 0, 0, 7, 0, 74, 1, 14]'),
 Text(0.08955630308554507, 0.45588235294117646, 'X[522] <= 104.0\ngini
= 0.496\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 6, 0, 0, 0, 5]'),
 Text(0.08934758894402059, 0.4264705882352941, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 5]'),
 Text(0.08976501722706957, 0.4264705882352941, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 6, 0, 0, 0, 0]'),
 Text(0.0907042308639298, 0.45588235294117646, 'X[271] <= 193.5\ngini
= 0.231\nsamples = 52\nvalue = [0, 0, 0, 0, 0, 1, 0, 74, 1, 9]'),
 Text(0.09018244551011856, 0.4264705882352941, 'X[241] <= 254.5\ngini
= 0.061\nsamples = 38\nvalue = [0, 0, 0, 0, 0, 0, 0, 62, 0, 2]'),
 Text(0.08976501722706957, 0.39705882352941174, 'X[94] <= 0.5\ngini =
0.032\nsamples = 36\nvalue = [0, 0, 0, 0, 0, 0, 0, 60, 0, 1]'),
 Text(0.08955630308554507, 0.36764705882352944, 'gini = 0.0\nsamples =
35\nvalue = [0, 0, 0, 0, 0, 0, 0, 60, 0, 0]'),
 Text(0.08997373136859406, 0.36764705882352944, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.09059987379316754, 0.39705882352941174, 'X[502] <= 208.0\ngini
= 0.444\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 1]'),
 Text(0.09039115965164306, 0.36764705882352944, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.09080858793469204, 0.36764705882352944, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.09122601621774103, 0.4264705882352941, 'X[361] <= 208.5\ngini
= 0.558\nsamples = 14\nvalue = [0, 0, 0, 0, 0, 1, 0, 12, 1, 7]'),
 Text(0.09101730207621653, 0.39705882352941174, 'gini = 0.0\nsamples =

```
7\nvalue = [0, 0, 0, 0, 0, 0, 0, 11, 0, 0]'),
 Text(0.09143473035926553, 0.39705882352941174, 'X[470] <= 217.5\ngini
= 0.48\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 1, 7]'),
 Text(0.09122601621774103, 0.36764705882352944, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 7]'),
 Text(0.09164344450079001, 0.36764705882352944, 'X[422] <= 0.5\ngini =
0.667\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 1, 0]'),
 Text(0.09143473035926553, 0.3382352941176471, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.09185215864231451, 0.3382352941176471, 'X[579] <= 33.5\ngini =
0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 1, 0]'),
 Text(0.09164344450079001, 0.3088235294117647, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.09206087278383901, 0.3088235294117647, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.09036507038395249, 0.5735294117647058, 'X[348] <= 153.5\ngini
= 0.624\nsamples = 13\nvalue = [0, 0, 0, 0, 0, 11, 0, 5, 0, 6]'),
 Text(0.0899476421009035, 0.5441176470588235, 'X[376] <= 148.5\ngini =
0.26\nsamples = 6\nvalue = [0, 0, 0, 0, 0, 11, 0, 2, 0, 0]'),
 Text(0.08973892795937902, 0.5147058823529411, 'gini = 0.0\nsamples =
5\nvalue = [0, 0, 0, 0, 0, 11, 0, 0, 0, 0]'),
 Text(0.090156356242428, 0.5147058823529411, 'gini = 0.0\nsamples = 1\
nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.09078249866700148, 0.5441176470588235, 'X[302] <= 200.5\ngini
= 0.444\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 6]'),
 Text(0.09057378452547699, 0.5147058823529411, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 6]'),
 Text(0.09099121280852597, 0.5147058823529411, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.09182606937462395, 0.6029411764705882, 'X[260] <= 59.5\ngini =
0.643\nsamples = 25\nvalue = [0, 0, 0, 0, 0, 16, 0, 14, 8, 0]'),
 Text(0.09161735523309945, 0.5735294117647058, 'X[426] <= 144.0\ngini
= 0.498\nsamples = 20\nvalue = [0, 0, 0, 0, 0, 16, 0, 14, 0, 0]'),
 Text(0.09140864109157495, 0.5441176470588235, 'gini = 0.0\nsamples =
7\nvalue = [0, 0, 0, 0, 0, 12, 0, 0, 0, 0]'),
 Text(0.09182606937462395, 0.5441176470588235, 'X[383] <= 142.5\ngini
= 0.346\nsamples = 13\nvalue = [0, 0, 0, 0, 0, 4, 0, 14, 0, 0]'),
 Text(0.09140864109157495, 0.5147058823529411, 'X[360] <= 123.0\ngini
= 0.375\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 3, 0, 1, 0, 0]'),
 Text(0.09119992695005047, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.09161735523309945, 0.4852941176470588, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 3, 0, 0, 0, 0]'),
 Text(0.09224349765767294, 0.5147058823529411, 'X[402] <= 217.5\ngini
= 0.133\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 1, 0, 13, 0, 0]'),
 Text(0.09203478351614844, 0.4852941176470588, 'gini = 0.0\nsamples =
8\nvalue = [0, 0, 0, 0, 0, 0, 0, 13, 0, 0]'),
 Text(0.09245221179919742, 0.4852941176470588, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.09203478351614844, 0.5735294117647058, 'gini = 0.0\nsamples =
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5\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 8, 0]'),
 Text(0.09339142543605765, 0.6323529411764706, 'X[400] <= 85.0\ngini =
0.656\nsamples = 24\nvalue = [0, 0, 0, 0, 0, 24, 0, 8, 4, 13]'),
 Text(0.09286964008224642, 0.6029411764705882, 'X[262] <= 10.5\ngini =
0.689\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 5, 0, 5, 4, 12]'),
 Text(0.09245221179919742, 0.5735294117647058, 'X[566] <= 102.0\ngini
= 0.415\nsamples = 7\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 12]'),
 Text(0.09224349765767294, 0.5441176470588235, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 0]'),
 Text(0.09266092594072192, 0.5441176470588235, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 12]'),
 Text(0.0932870683652954, 0.5735294117647058, 'X[606] <= 35.0\ngini =
0.494\nsamples = 4\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 4, 0]'),
 Text(0.0930783542237709, 0.5441176470588235, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.09349578250681989, 0.5441176470588235, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 4, 0]'),
 Text(0.09391321078986889, 0.6029411764705882, 'X[539] <= 104.5\ngini
= 0.299\nsamples = 13\nvalue = [0, 0, 0, 0, 0, 19, 0, 3, 0, 1]'),
 Text(0.09370449664834439, 0.5735294117647058, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 0, 0, 3, 0, 0]'),
 Text(0.09412192493139337, 0.5735294117647058, 'X[522] <= 228.5\ngini
= 0.095\nsamples = 10\nvalue = [0, 0, 0, 0, 0, 19, 0, 0, 0, 1]'),
 Text(0.09391321078986889, 0.5441176470588235, 'gini = 0.0\nsamples =
9\nvalue = [0, 0, 0, 0, 0, 19, 0, 0, 0, 0]'),
 Text(0.09433063907291787, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 0, 1]'),
 Text(0.09836143093110966, 0.75, 'X[229] <= 3.5\ngini = 0.48\nsamples
= 192\nvalue = [1, 0, 2, 0, 0, 20, 0, 70, 196, 1]'),
 Text(0.09654822682661562, 0.7205882352941176, 'X[496] <= 59.0\ngini =
0.603\nsamples = 112\nvalue = [0, 0, 0, 0, 0, 20, 0, 70, 76, 1]'),
 Text(0.09516549563901584, 0.6911764705882353, 'X[591] <= 24.0\ngini =
0.422\nsamples = 23\nvalue = [0, 0, 0, 0, 0, 5, 0, 28, 5, 0]'),
 Text(0.09474806735596686, 0.6617647058823529, 'X[493] <= 180.5\ngini
= 0.175\nsamples = 20\nvalue = [0, 0, 0, 0, 0, 3, 0, 28, 0, 0]'),
 Text(0.09453935321444237, 0.6323529411764706, 'X[507] <= 172.0\ngini
= 0.067\nsamples = 18\nvalue = [0, 0, 0, 0, 0, 1, 0, 28, 0, 0]'),
 Text(0.09433063907291787, 0.6029411764705882, 'gini = 0.0\nsamples =
16\nvalue = [0, 0, 0, 0, 0, 0, 0, 26, 0, 0]'),
 Text(0.09474806735596686, 0.6029411764705882, 'X[209] <= 38.0\ngini =
0.444\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 2, 0, 0]'),
 Text(0.09453935321444237, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 2, 0, 0]'),
 Text(0.09495678149749136, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.09495678149749136, 0.6323529411764706, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.09558292392206484, 0.6617647058823529, 'X[490] <= 52.5\ngini =
0.408\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 5, 0]'),
 Text(0.09537420978054034, 0.6323529411764706, 'gini = 0.0\nsamples =
```

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2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 5, 0]'),
 Text(0.09579163806358933, 0.6323529411764706, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 2, 0, 0, 0, 0]'),
 Text(0.09793095801421539, 0.6911764705882353, 'X[547] <= 110.0\ngini
= 0.577\nsamples = 89\nvalue = [0, 0, 0, 0, 0, 15, 0, 42, 71, 1]'),
 Text(0.09673085170044955, 0.6617647058823529, 'X[285] <= 8.0\ngini =
0.59\nsamples = 37\nvalue = [0, 0, 0, 0, 0, 9, 0, 31, 17, 0]'),
 Text(0.09620906634663831, 0.6323529411764706, 'X[294] <= 204.0\ngini
= 0.386\nsamples = 25\nvalue = [0, 0, 0, 0, 0, 9, 0, 30, 1, 0]'),
 Text(0.09579163806358933, 0.6029411764705882, 'X[441] <= 109.0\ngini
= 0.14\nsamples = 17\nvalue = [0, 0, 0, 0, 0, 1, 0, 25, 1, 0]'),
 Text(0.09558292392206484, 0.5735294117647058, 'X[385] <= 113.5\ngini
= 0.5\nsamples = 2\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 1, 0]'),
 Text(0.09537420978054034, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.09579163806358933, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 1, 0]'),
 Text(0.09600035220511383, 0.5735294117647058, 'gini = 0.0\nsamples =
15\nvalue = [0, 0, 0, 0, 0, 0, 0, 25, 0, 0]'),
 Text(0.09662649462968731, 0.6029411764705882, 'X[441] <= 176.0\ngini
= 0.473\nsamples = 8\nvalue = [0, 0, 0, 0, 0, 8, 0, 5, 0, 0]'),
 Text(0.09641778048816281, 0.5735294117647058, 'gini = 0.0\nsamples =
3\nvalue = [0, 0, 0, 0, 0, 7, 0, 0, 0, 0]'),
 Text(0.0968352087712118, 0.5735294117647058, 'X[491] <= 251.0\ngini =
0.278\nsamples = 5\nvalue = [0, 0, 0, 0, 0, 1, 0, 5, 0, 0]'),
 Text(0.09662649462968731, 0.5441176470588235, 'gini = 0.0\nsamples =
4\nvalue = [0, 0, 0, 0, 0, 0, 0, 5, 0, 0]'),
 Text(0.0970439229127363, 0.5441176470588235, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 Text(0.09725263705426078, 0.6323529411764706, 'X[285] <= 225.5\ngini
= 0.111\nsamples = 12\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 16, 0]'),
 Text(0.0970439229127363, 0.6029411764705882, 'gini = 0.0\nsamples =
11\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 16, 0]'),
 Text(0.09746135119578528, 0.6029411764705882, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.09913106432798123, 0.6617647058823529, 'X[604] <= 17.0\ngini =
0.407\nsamples = 52\nvalue = [0, 0, 0, 0, 0, 6, 0, 11, 54, 1]'),
 Text(0.09829620776188325, 0.6323529411764706, 'X[301] <= 120.0\ngini
= 0.62\nsamples = 23\nvalue = [0, 0, 0, 0, 0, 6, 0, 9, 15, 0]'),
 Text(0.09787877947883426, 0.6029411764705882, 'X[521] <= 209.5\ngini
= 0.587\nsamples = 11\nvalue = [0, 0, 0, 0, 0, 5, 0, 8, 2, 0]'),
 Text(0.09767006533730978, 0.5735294117647058, 'X[473] <= 123.5\ngini
= 0.32\nsamples = 9\nvalue = [0, 0, 0, 0, 0, 0, 0, 8, 2, 0]'),
 Text(0.09746135119578528, 0.5441176470588235, 'X[423] <= 70.0\ngini =
0.444\nsamples = 3\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 2, 0]'),
 Text(0.09725263705426078, 0.5147058823529411, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 0, 0, 0, 2, 0]'),
 Text(0.09767006533730978, 0.5147058823529411, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 0, 0, 1, 0, 0]'),
 Text(0.09787877947883426, 0.5441176470588235, 'gini = 0.0\nsamples =
```

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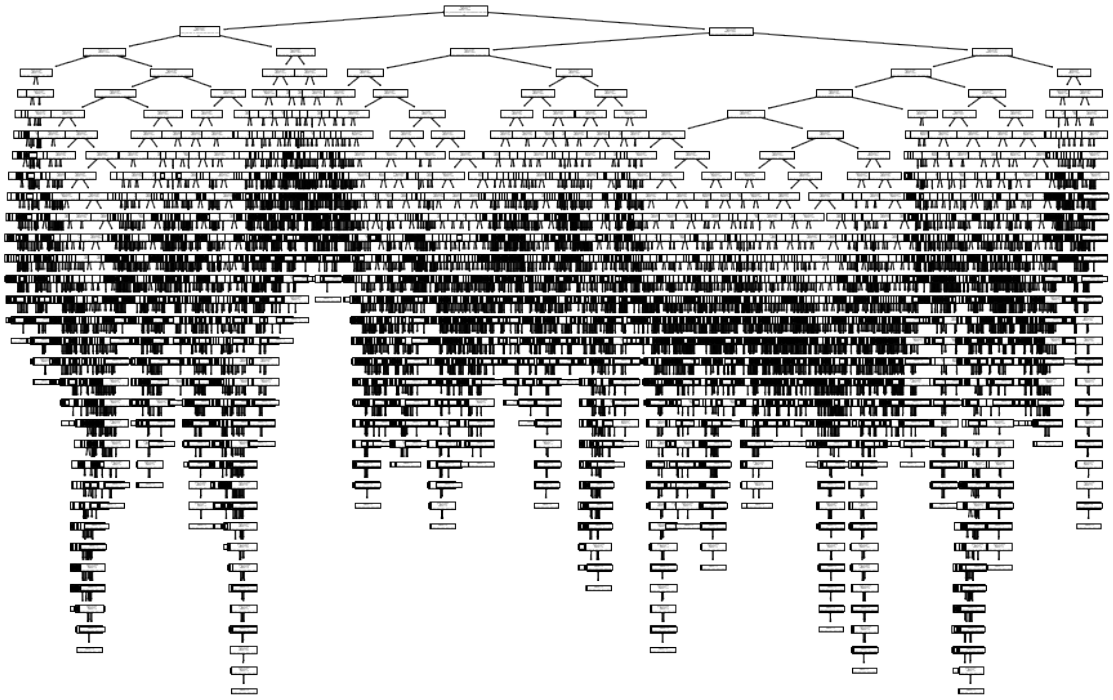
6\nvalue = [0, 0, 0, 0, 0, 0, 0, 7, 0, 0]'),
 Text(0.09808749362035876, 0.5735294117647058, 'gini = 0.0\nsamples =
2\nvalue = [0, 0, 0, 0, 0, 5, 0, 0, 0, 0]'),
 Text(0.09871363604493225, 0.6029411764705882, 'X[404] <= 109.0\ngini
= 0.24\nsamples = 12\nvalue = [0, 0, 0, 0, 0, 1, 0, 1, 13, 0]'),
 Text(0.09850492190340775, 0.5735294117647058, 'gini = 0.0\nsamples =
1\nvalue = [0, 0, 0, 0, 0, 1, 0, 0, 0, 0]'),
 ...]
```



Extra credit

(10 points) Can you sort and remove features that insignificant, to improve the testing time? Show this using code that removing certain features doesn't drastically change the error, but improves speed of testing.

Kagglization code

use this code to generate prediction.csv for you classifier. Upload the predictions to the kaggle competition. Replace xgb_clf by corresponding classifier to obtain your prediction.csv

```
## code to generate predictions

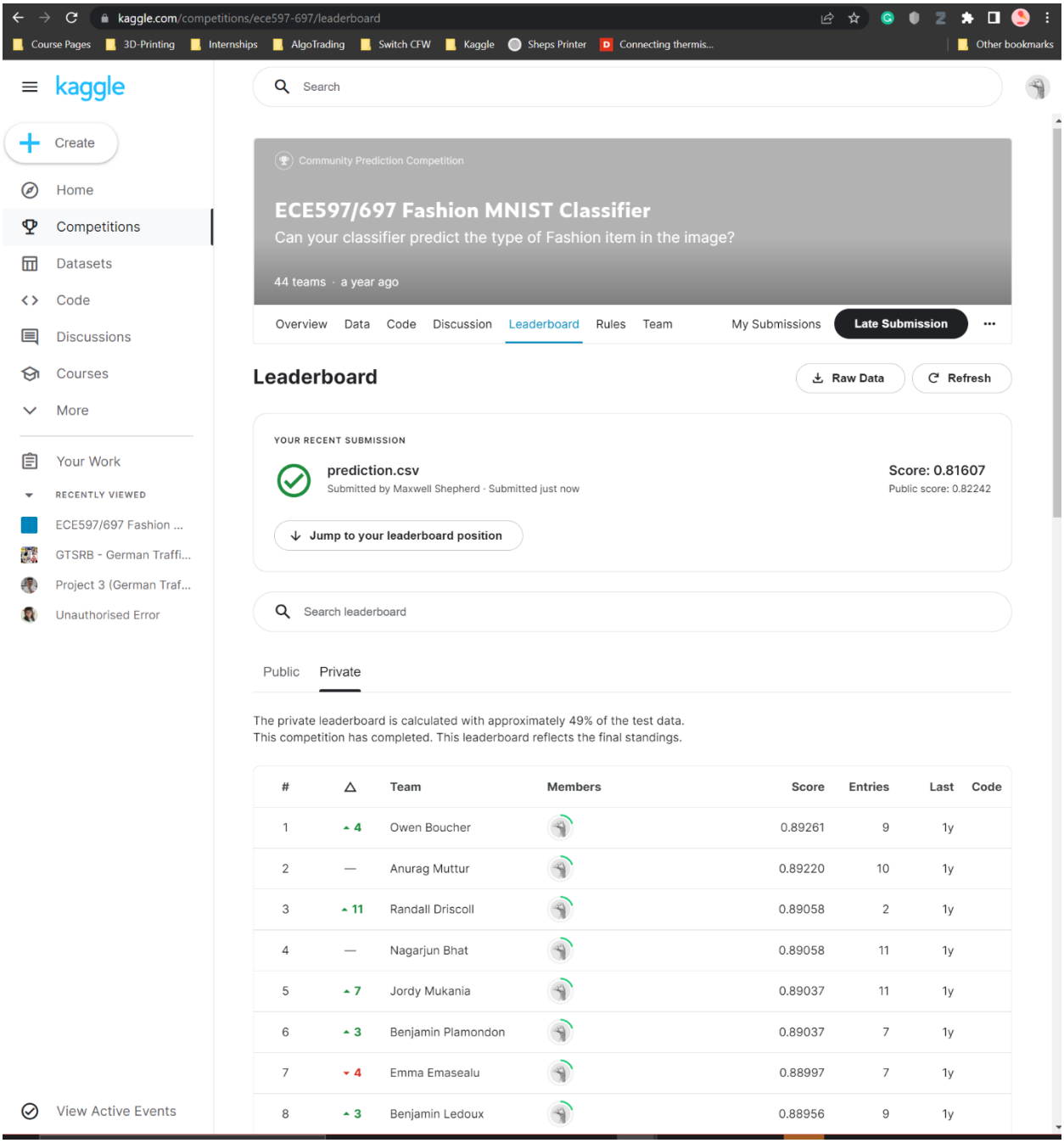
import csv
```

```
predictions = np.zeros(10000,)
for i in range(0,10000):
  predictions[i] = int((forestA.predict(X_test[i].reshape(1, -1)))) ##
make change in this line for each classifier upload output from
Decision Tree and random forest on Kaggle!

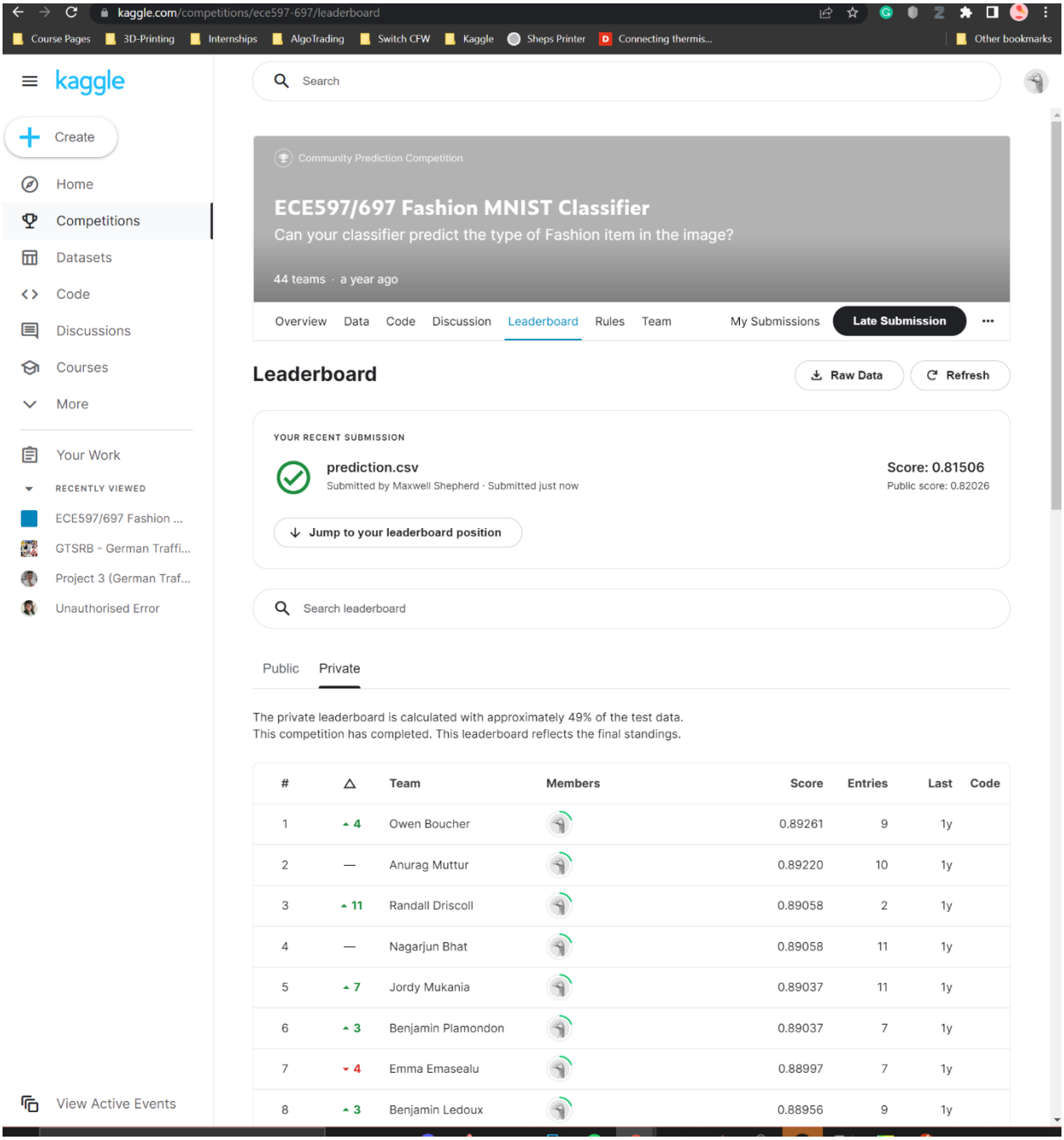
# pd
prediction = pd.DataFrame(predictions,
columns=['label']).astype(int).to_csv('prediction.csv')

format_read=pd.read_csv("prediction.csv")
format_read.columns = ["id","label"]
format_read.to_csv("prediction.csv",index=False)
```

Decision Tree 1



Decision Tree 2



Random Forest Classifier