How to Visualize Your Decision Tree

In the previous workspace, you created a decision tree for the Titanic survival dataset. But what do you do if you want to inspect your tree visually, and make sure it makes logical sense? We'll look at how to do that in this workspace, using Graphviz open source graph visualization software. Graph visualization is a way of representing structural information as diagrams of abstract graphs and networks.

We'll start by importing the same dataset, and taking the same steps we did earlier to split the data and train the tree.

In [1]:
```
# Import libraries necessary for this project
import numpy as np
import pandas as pd
from IPython.display import display # Allows the use of display() for DataFram
es

# Pretty display for notebooks
%matplotlib inline

# Set a random seed
import random
random.seed(42)

# Load the dataset
in_file = 'titanic_data.csv'
full_data = pd.read_csv(in_file)
```

In [2]:
```
# Store the 'Survived' feature in a new variable and remove it from the datase
t
outcomes = full_data['Survived']
features_raw = full_data.drop(['Survived'], axis = 1)
```

In [3]:
```
features = pd.get_dummies(features_raw)
```

In [4]:
```
features = features.fillna(0.0)
```

In [5]:
```
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(features, outcomes, test_s
ize=0.2, random_state=42)
```

In [6]:
```
# Import the classifier from sklearn
from sklearn.tree import DecisionTreeClassifier
```