In this homework you will be implementing a decision tree classifier. A decision tree classifier is used in rule-based machine learning to classify data based on a predefined set of attributes. In our case, we will be classifying text based on the terms it contains (or does not contain). Decision trees can be used for real-life applications ranging from answering FAQs to classifying a piece of data.

In order to be able to make decisions using the decision tree classifier, we must first build the decision tree. Your program will be able to import existing decision trees from text files, and edit them in the program. Additionally, it will have to read input text and classify it based on the decision tree, printing the decisions that were made in order to reach the final verdict.