Decision Trees

1. Name your file **decisionTree.py**.
2. The data file is already located in the ./diabetes.csv of GradeScope but you can also download it here if you want to test it on your local machine.
3. Since this is a classification task, the main metrics we are grading on are:
    1. ***Accuracy*** → ***>= 0.75*** Prescribed value
    2. ***Precision*** → ***>= 0.75*** Prescribed value
    3. ***Recall*** → ***>= 0.75*** Prescribed value
    4. ***f1_score*** → >= 0.75 Prescribed value

    5. ***dtree_auc*** (the AUC value from the ROC curve) → >= 0.85 Prescribed value
4. We also want you to report the following which are graded as well:
    1. ***best_accuracy*** (Best accuracy score for k-fold CV) → >= 74.00 Prescribed value
    2. ***best_k_fold*** (Best value of k based on the greatest score achieved) → 8 Prescribed value
5. Please keep the variable names unchanged for the ones you are to report as GradeScope needs to find them and grade them.
6. Remember don't cheat by just assigning values to these variables, otherwise, you will get 0 immediately.
7. Please see more details in the templates.