1. The k-nearest neighbor (k-NN) algorithm has hyper-parameters in addition to the value of k. Use the titanic dataset to simultaneously tune the values of more than one hyper-parameter. E.g. value of k, weight, and metric. You can either do nested for loops for this, or use the grid search function from scikit-learn. Recommendation is you submit code inside of a Jupyter notebook.
2. Can you use the k-nearest neighbors for regression? If so, how would the target variable values be calculated or predicted a k-NN regressor?
3. What do you think some of the disadvantages of k-NN algorithm are?