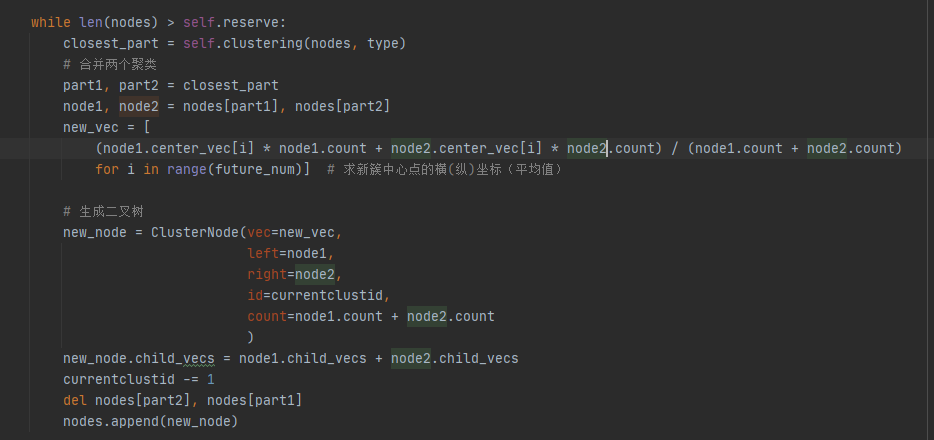
1、凝聚层次聚类算法实现

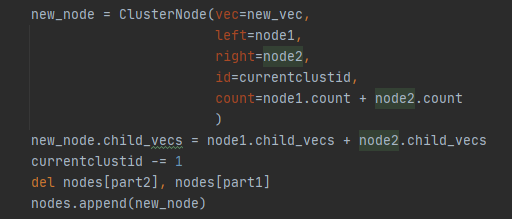
创建一个类用于标记和保存节点



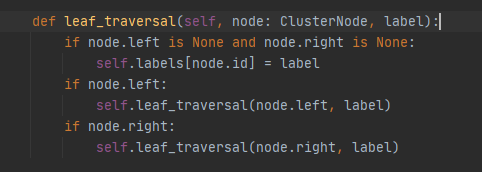
合并聚类



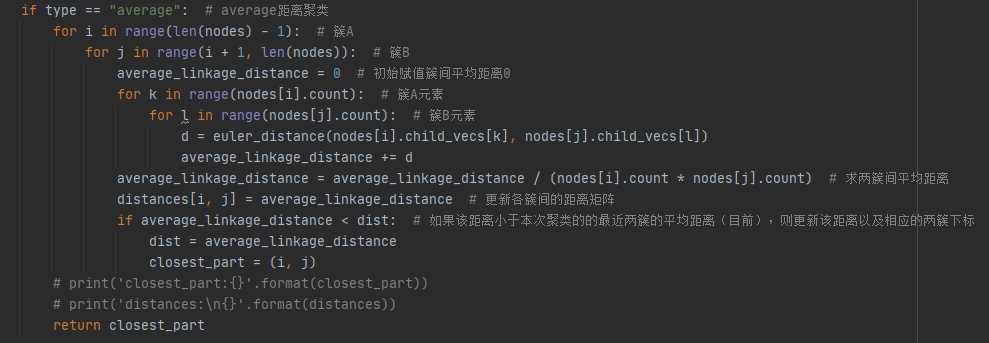
生成二叉树



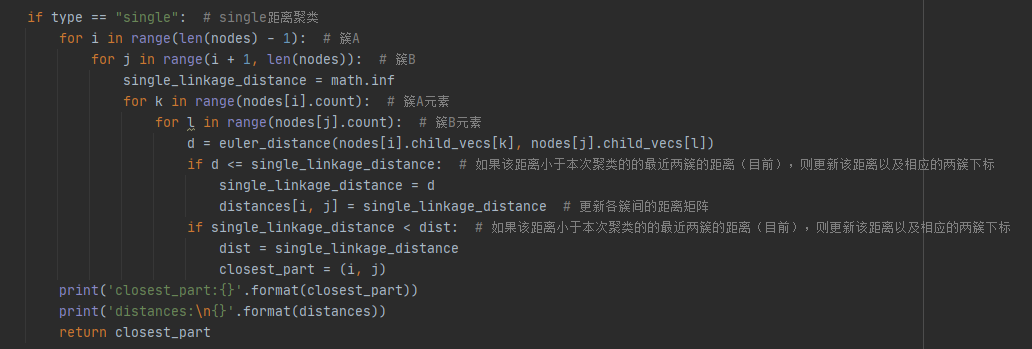
遍历叶子节点并分类



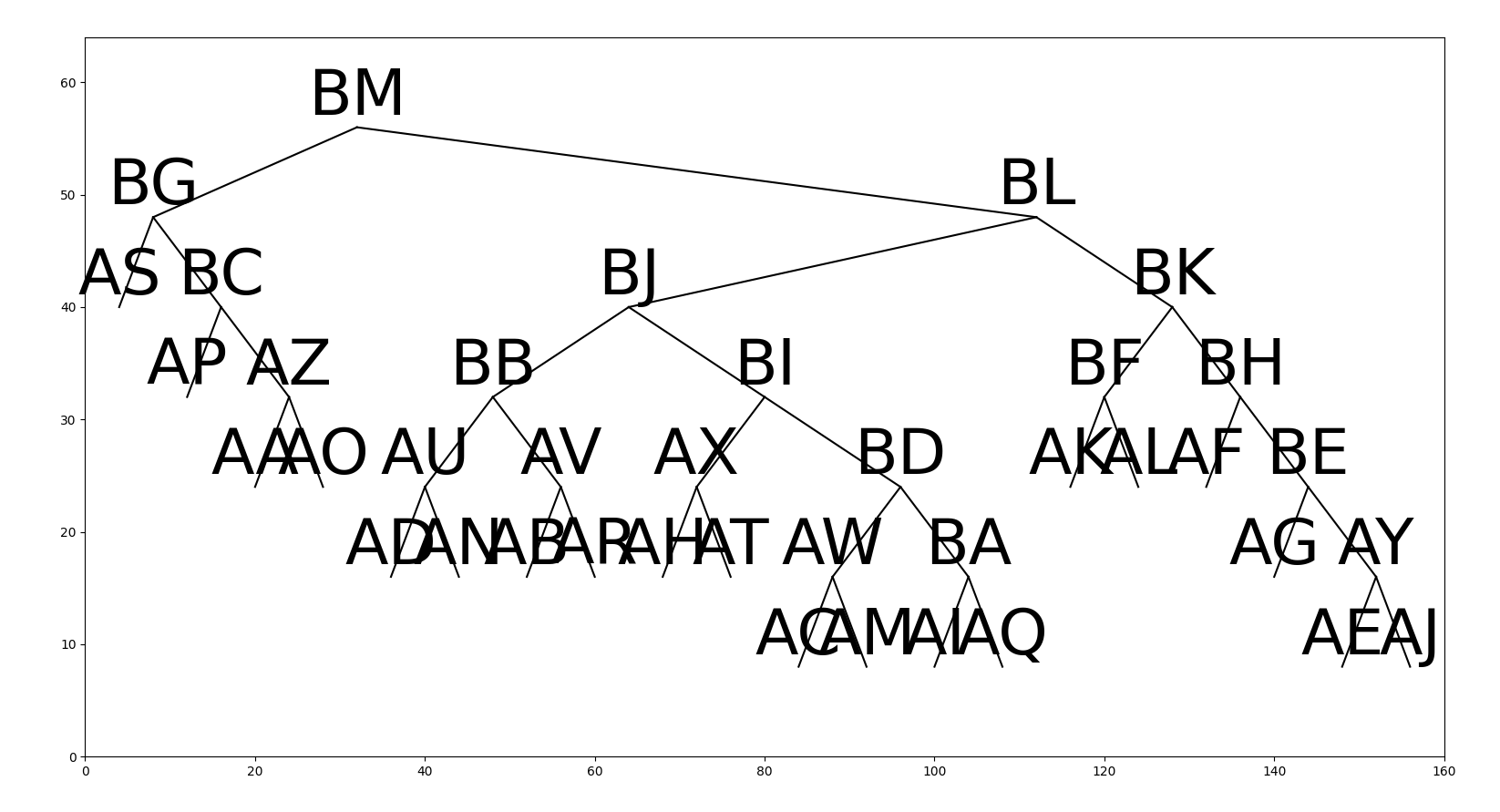
average聚类



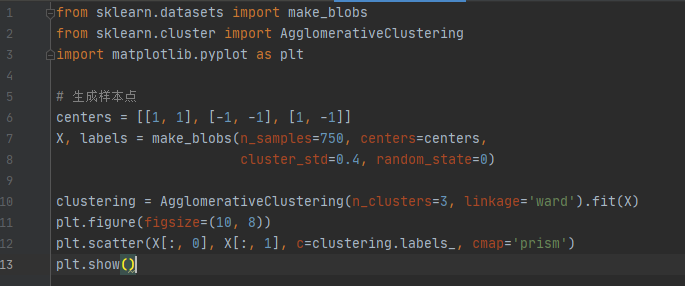
single聚类



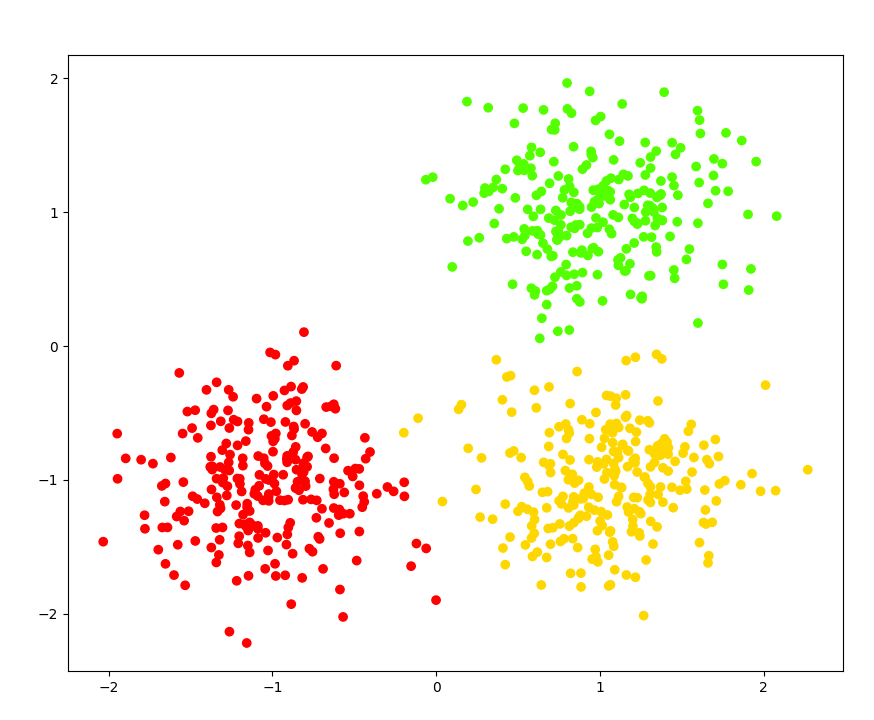
运行结果：



2、Sklearn聚类实现

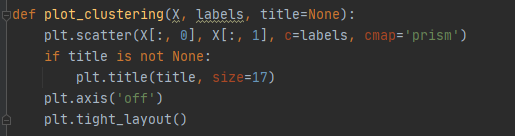


运行结果：

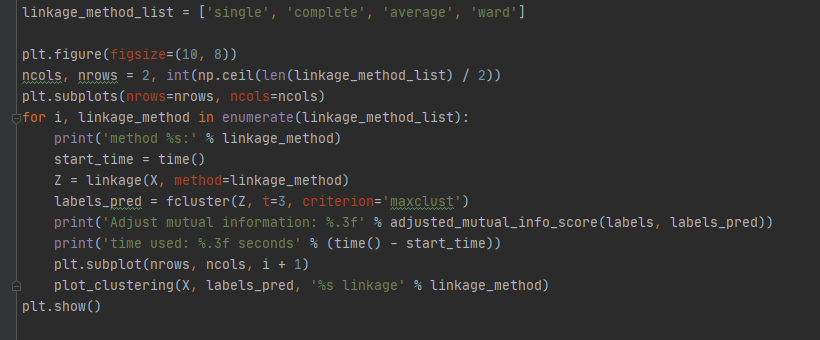


3、scipy聚类实现

可视化聚类结果



进行层次聚类



运行结果：

