**DBSCAN聚类算法**

使用sklearn实现DBSCAN聚类算法对鸢尾花数据进行聚类

import matplotlib.pyplot as plt

import numpy as np

from sklearn.cluster import KMeans

from sklearn import datasets

from sklearn.cluster import DBSCAN

iris = datasets.load\_iris()

X = iris.data[:, :4] # #表示我们只取特征空间中的4个维度

print(X.shape)

# 绘制数据分布图

plt.scatter(X[:, 0], X[:, 1], c="red", marker='o', label='see')

plt.xlabel('sepal length')

plt.ylabel('sepal width')

plt.legend(loc=2)

plt.show()

dbscan = DBSCAN(eps=0.4, min\_samples=9)

dbscan.fit(X)

label\_pred = dbscan.labels\_

# 绘制k-means结果

x0 = X[label\_pred == 0]

x1 = X[label\_pred == 1]

x2 = X[label\_pred == 2]

plt.scatter(x0[:, 0], x0[:, 1], c="red", marker='o', label='label0')

plt.scatter(x1[:, 0], x1[:, 1], c="green", marker='\*', label='label1')

plt.scatter(x2[:, 0], x2[:, 1], c="blue", marker='+', label='label2')

plt.xlabel('sepal length')

plt.ylabel('sepal width')

plt.legend(loc=2)

plt.show()

**运行（测试）过程及结果：**

