Pam clustering

# example code

|  |
| --- |
| # Import list  import matplotlib.pyplot as plt  import numpy as np  import pandas as pd  from sklearn\_extra.cluster import KMedoids  from sklearn.datasets import make\_blobs  # Random Seed Set.  SEED = 30  # Load Data set.  data = pd.read\_csv("segmentation data.csv")  # Make test Data X.  X = data[['Age','Income']]  # Make PAM clustering model.  pam = KMedoids(4,method='pam',random\_state=SEED)  pam.fit(X)  # check Lables of each point.  labels = pam.labels\_  # Draw clustering result. (Medoids are represented in black.)  unique\_labels = set(labels)  colors = [plt.cm.Spectral(each) for each in np.linspace(0,1,len(unique\_labels))]  for k, col in zip(unique\_labels, colors):      class\_member\_mask = labels == k      xy = X[class\_member\_mask]      plt.plot(          xy['Age'],          xy['Income'],          "o",          markerfacecolor=tuple(col),          markeredgecolor="k",          markersize=6,      )    plt.plot(      pam.cluster\_centers\_[:,0],      pam.cluster\_centers\_[:,1],      "o",      markerfacecolor="black",      markeredgecolor="k",      markersize=6,  )  plt.title("KMedoids clustering. Medoids are represented in black.") |

# testing result

|  |
| --- |
| Text(0.5, 1.0, 'KMedoids clustering. Medoids are represented in cyan.') |