

Clustering Algorithm

구름

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Clustering (군집분석)

Classification (분류 분석)

Supervised Learning

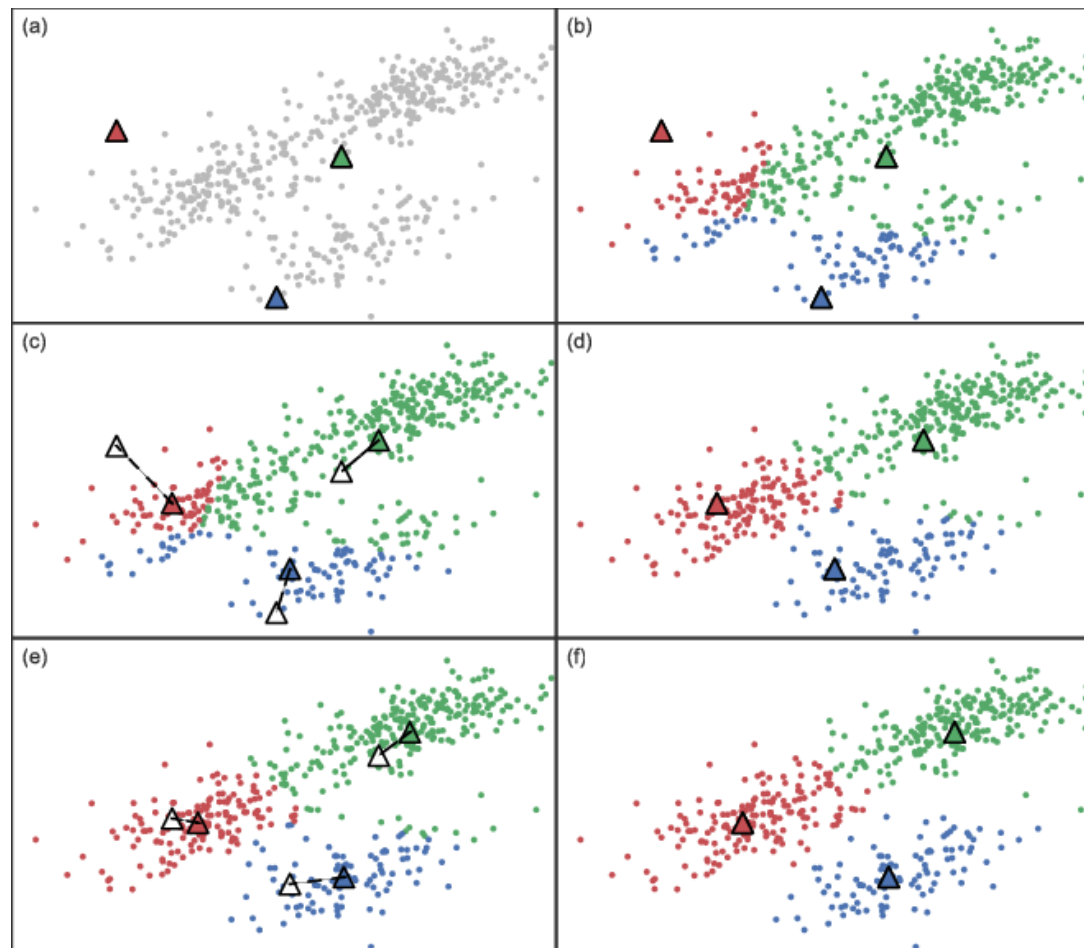
$$X(x_1, x_2, \dots, x_n) \rightarrow y$$

Clustering (군집분석)

Unsupervised Learning

$$X(x_1, x_2, \dots, x_n)$$

K-means 알고리즘



K-means 알고리즘

Input:

$D = \{t_1, t_2, \dots, t_n\}$ // Set of elements

K // Number of desired clusters

Output:

K // Set of clusters

K-Means algorithm:

Assign initial values for m_1, m_2, \dots, m_k

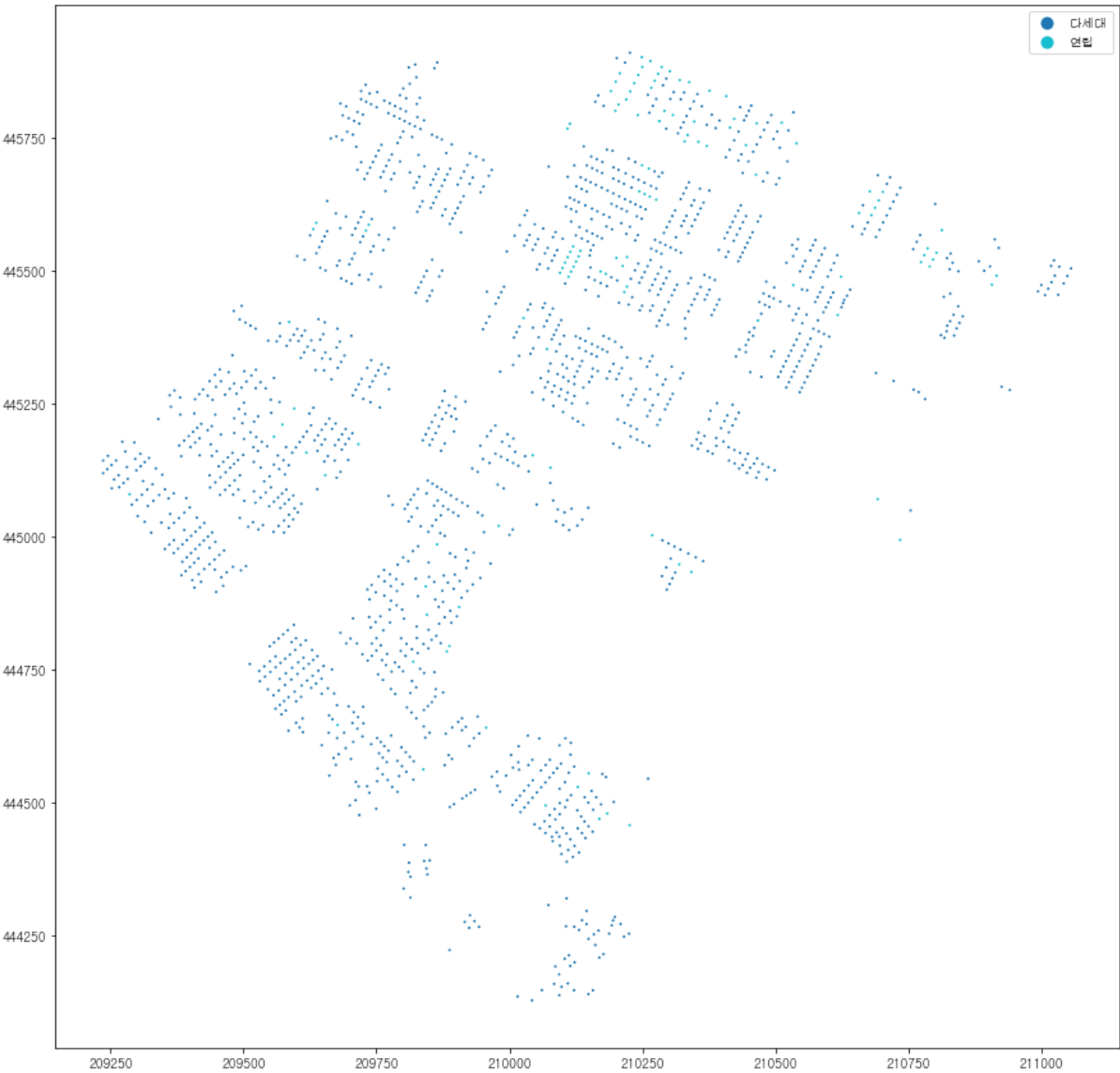
repeat

assign each item t_i to the clusters which has the closest mean;

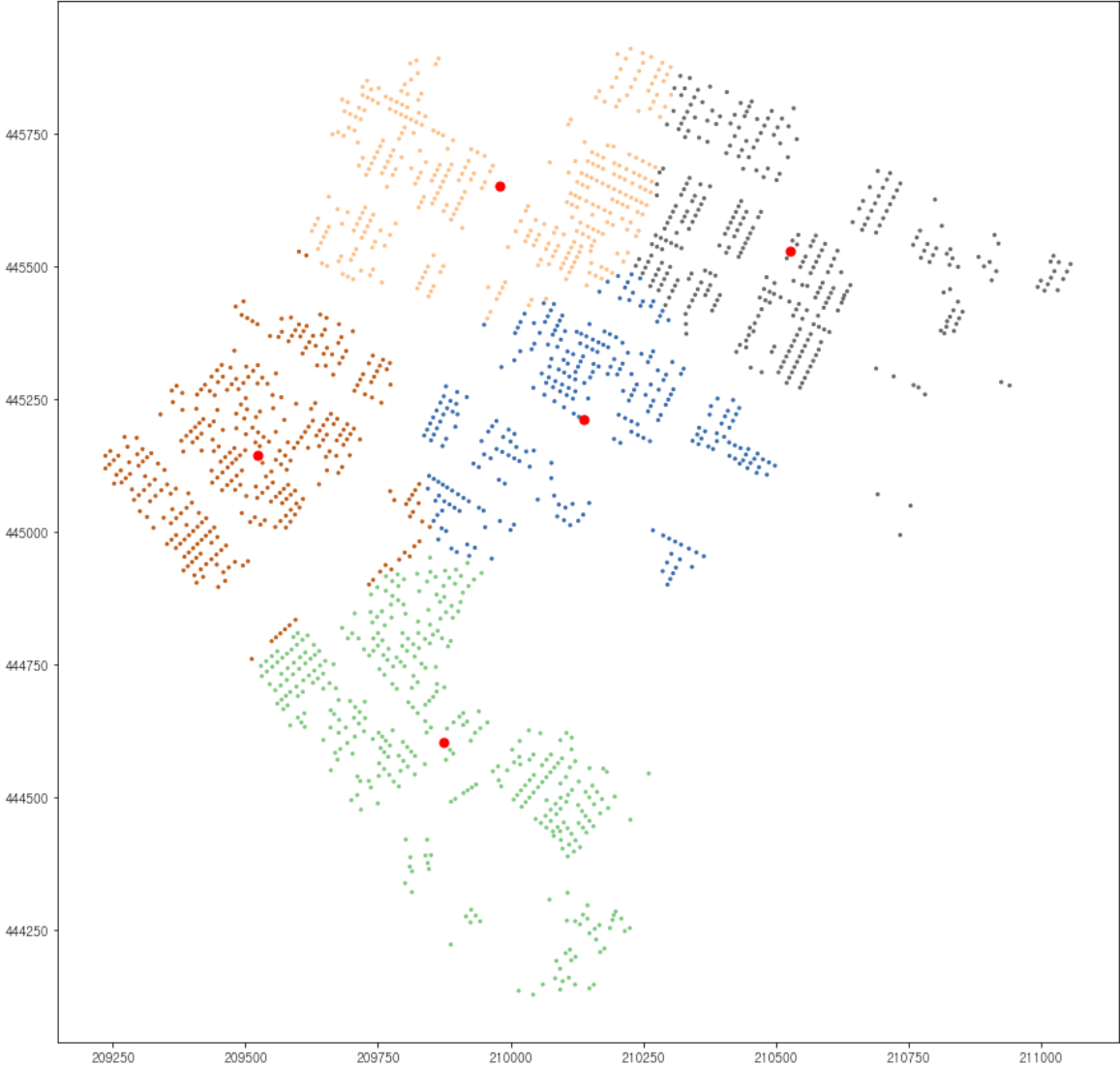
calculate new mean for each cluster;

until convergence criteria is met;

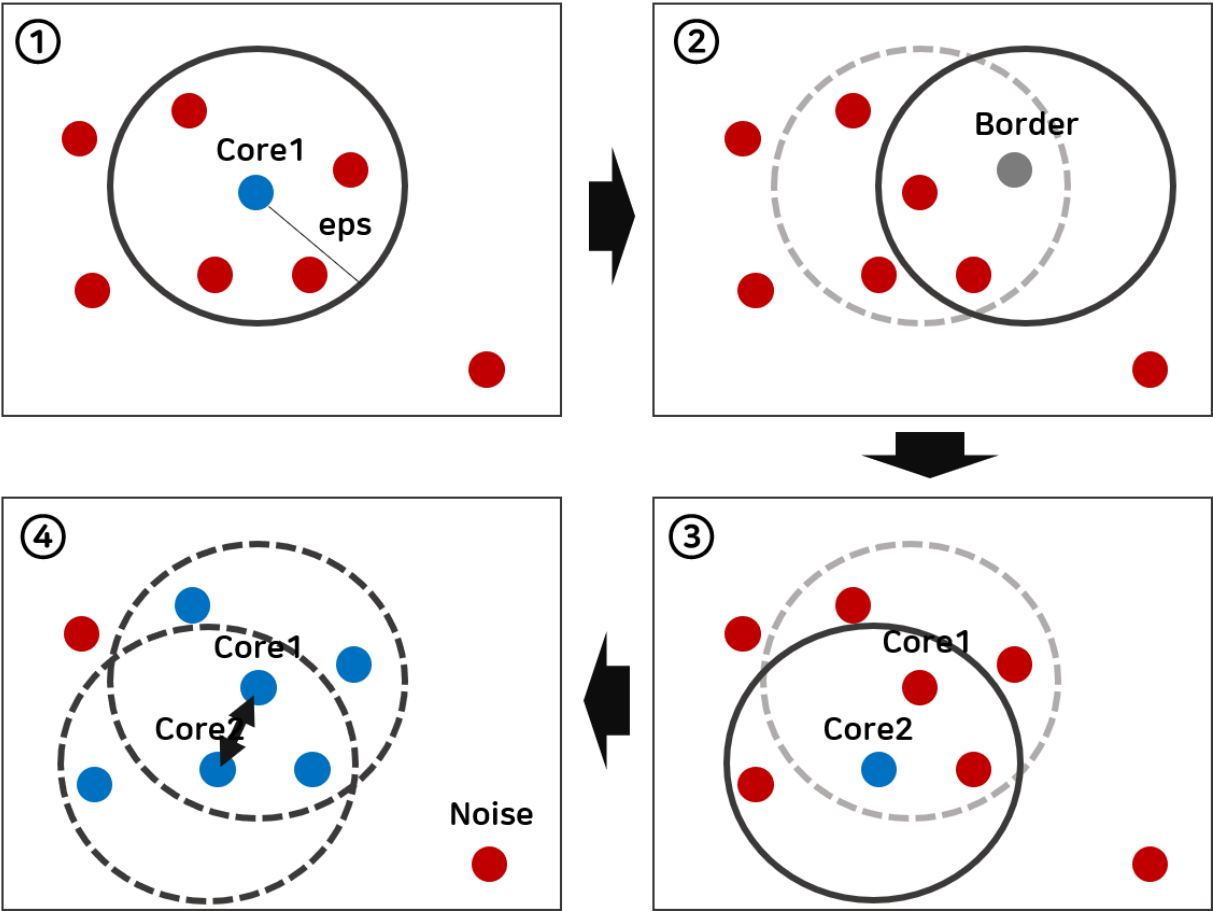
송파구 소형 공동주택



K-means 알고리즘 결과



DBSCAN(Density-based spatial clustering of applications with noise)



DBSCAN 결과

