

İşaret İşleme için Makine Öğrenmesi

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HW5

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Hiyerarşik Öbekleme

Single-Linkage

	BOS	NY	DC	MIA	CHI	SEA	SF	LA	DEN
BOS	0	206	429	1504	963	2976	3095	2979	1949
NY	206	0	233	1308	802	2815	2934	2786	1771
DC	429	233	0	1075	671	2684	2799	2631	1616
MIA	1504	1308	1075	0	1329	3273	3053	2687	2037
CHI	963	802	671	1329	0	2013	2142	2054	996
SEA	2976	2815	2684	3273	2013	0	808	1131	1307
SF	3095	2934	2799	3053	2142	808	0	379	1235
LA	2979	2786	2631	2687	2054	1131	379	0	1059
DEN	1949	1771	1616	2037	996	1307	1235	1059	0

Cls-1

$$\text{BOS-NY} : 206$$

Cls-2

$$\min(\text{cls-1}, \text{DC}) = 233$$

Cls-3

$$\text{SF-LA} : 379$$

Cls-4

$$\min(\text{cls-2}, \text{CHI}) = 671$$

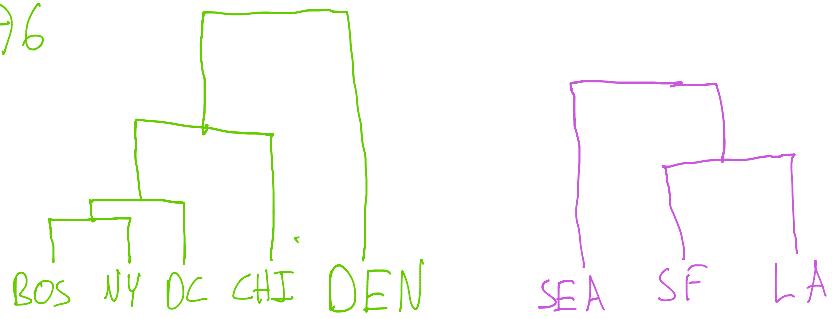
Cls-5

$$\min(\text{cls-3}, \text{SEA}) = 808$$



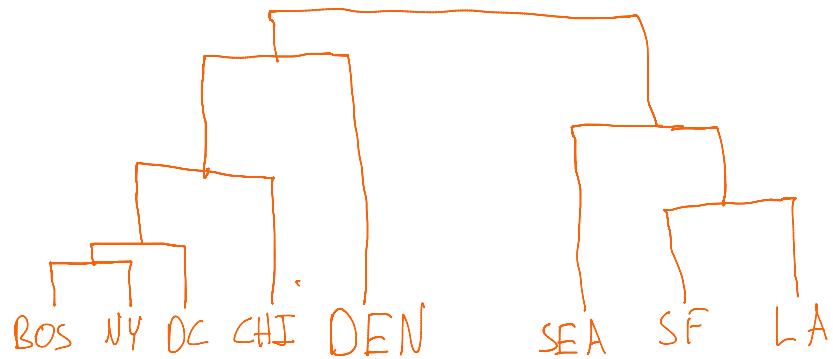
Cls-6

$$\min(Cls-4, DEN) = 996$$



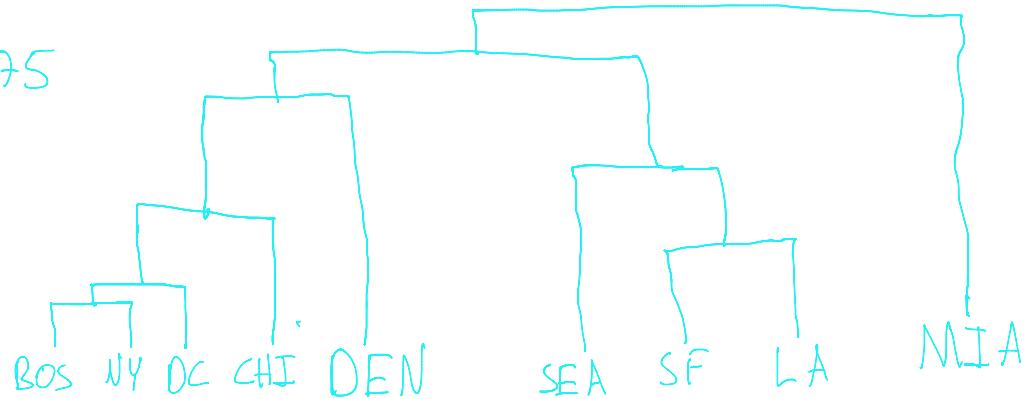
Cls-7

$$\min(Cls-6, Cls-5) = 1059$$



Cls-8

$$\min(Cls-7, MIA) = 1075$$



Complete-Linkage

	BOS	NY	DC	MIA	CHI	SEA	SF	LA	DEN
BOS	0	206	429	1504	963	2976	3095	2979	1949
NY	206	0	233	1308	802	2815	2934	2786	1771
DC	429	233	0	1075	671	2684	2799	2631	1616
MIA	1504	1308	1075	0	1329	3273	3053	2687	2037
CHI	963	802	671	1329	0	2013	2142	2054	996
SEA	2976	2815	2684	3273	2013	0	808	1131	1307
SF	3095	2934	2799	3053	2142	808	0	379	1235
LA	2979	2786	2631	2687	2054	1131	379	0	1059
DEN	1949	1771	1616	2037	996	1307	1235	1059	0

cls-1

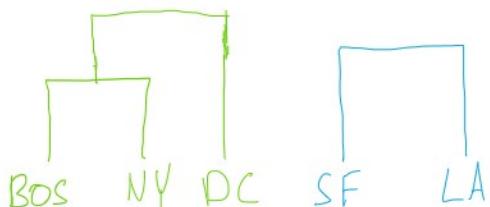


cls-2



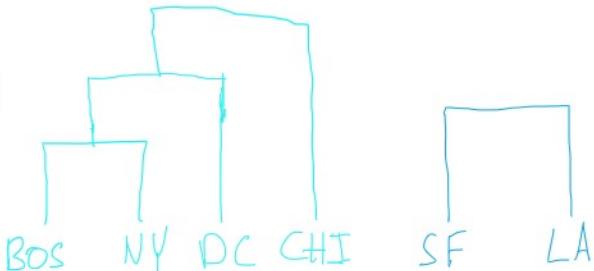
cls-3

$$\max(\text{cls-1}, \text{DC}) = 429$$



cls-4

$$\max(\text{cls-3}, \text{CHI}) = 963$$



cls-5

$$\max(\text{cls-2}, \text{SEA}) = 1131$$



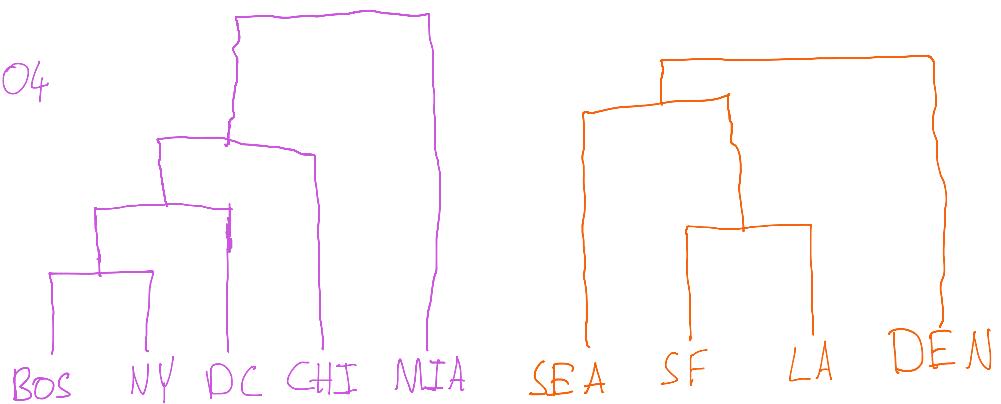
cls-6

$$\max(\text{cls-5}, \text{DEN}) = 1307$$



cls-7

$$\max(\text{cls-4}, \text{MIA}) = 1504$$



cls-8

$$\max(\text{cls-7}, \text{cls-6}) = 3273$$

