COMP90049 – Knowledge Technologies

Week8 – Workshop slides

Sep 2019

Proximity Matrix (Distance)

	apple	ibm	lemon	sun
A	4	0	1	1
B	5	0	5	2
C	2	5	0	0
D	1	2	1	7
E	2	0	3	1
F	1	0	1	0

	A	B	C	D	E	F
A	-	$\sqrt{18}$	$\sqrt{31}$	$\sqrt{49}$	$\sqrt{8}$	$\sqrt{10}$
B	$\sqrt{18}$	-	$\sqrt{63}$	$\sqrt{61}$	$\sqrt{14}$	$\sqrt{36}$
C	$\sqrt{31}$	$\sqrt{63}$	-	$\sqrt{60}$	$\sqrt{35}$	$\sqrt{27}$
D	$\sqrt{49}$	$\sqrt{61}$	$\sqrt{60}$	-	$\sqrt{45}$	$\sqrt{53}$
E	$\sqrt{8}$	$\sqrt{14}$	$\sqrt{35}$	$\sqrt{45}$	-	$\sqrt{6}$
F	$\sqrt{10}$	$\sqrt{36}$	$\sqrt{27}$	$\sqrt{53}$	$\sqrt{6}$	-

A B C D E F

Proximity Matrix (Distance)

	A	B	C	D	E	F
A	-	$\sqrt{18}$	$\sqrt{31}$	$\sqrt{49}$	$\sqrt{8}$	$\sqrt{10}$
B	$\sqrt{18}$	-	$\sqrt{63}$	$\sqrt{61}$	$\sqrt{14}$	$\sqrt{36}$
C	$\sqrt{31}$	$\sqrt{63}$	-	$\sqrt{60}$	$\sqrt{35}$	$\sqrt{27}$
D	$\sqrt{49}$	$\sqrt{61}$	$\sqrt{60}$	-	$\sqrt{45}$	$\sqrt{53}$
E	$\sqrt{8}$	$\sqrt{14}$	$\sqrt{35}$	$\sqrt{45}$	-	$\sqrt{6}$
F	$\sqrt{10}$	$\sqrt{36}$	$\sqrt{27}$	$\sqrt{53}$	$\sqrt{6}$	-

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A	4	0	1	1
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C	2	5	0	0
D	1	2	1	7
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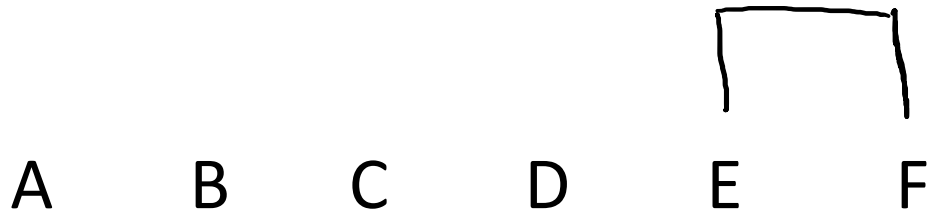
A B C D E F

Proximity Matrix (Distance)

	apple	ibm	lemon	sun
A	4	0	1	1
B	5	0	5	2
C	2	5	0	0
D	1	2	1	7
EF	**1.5**	**0**	**2**	**0.5**

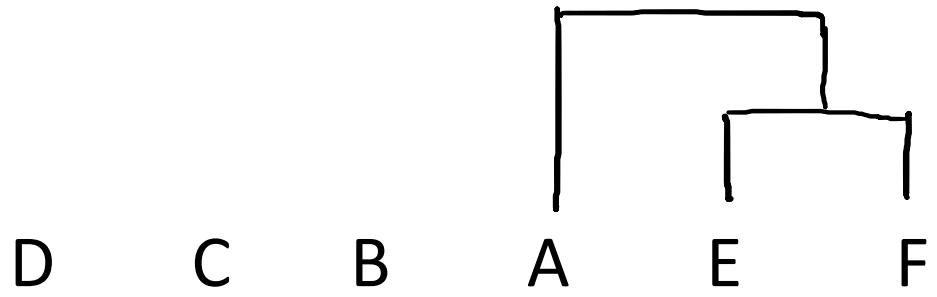
	A	B	C	D	EF
A	-	$\sqrt{18}$	$\sqrt{31}$	$\sqrt{49}$	$\sqrt{7.5}$
B	$\sqrt{18}$	-	$\sqrt{63}$	$\sqrt{61}$	$\sqrt{23.5}$
C	$\sqrt{31}$	$\sqrt{63}$	-	$\sqrt{60}$	$\sqrt{29.5}$
D	$\sqrt{49}$	$\sqrt{61}$	$\sqrt{60}$	-	$\sqrt{47.5}$
EF	$\sqrt{7.5}$	$\sqrt{23.5}$	$\sqrt{29.5}$	$\sqrt{47.5}$	-



Proximity Matrix (Distance)

	AEF	B	C	D
AEF	-	$\sqrt{20}$	$\sqrt{28.3}$	$\sqrt{46.3}$
B	$\sqrt{20}$	-	$\sqrt{63}$	$\sqrt{61}$
C	$\sqrt{28.3}$	$\sqrt{63}$	-	$\sqrt{60}$
D	$\sqrt{46.3}$	$\sqrt{61}$	$\sqrt{60}$	-

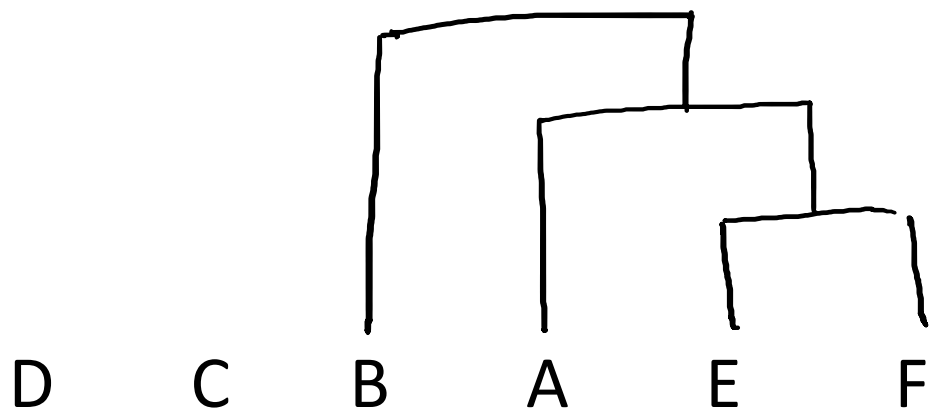
	apple	ibm	lemon	sun
AEF	**7/3**	**0**	**5/3**	**2/3**
B	5	0	5	2
C	2	5	0	0
D	1	2	1	7



Proximity Matrix (Distance)

	apple	ibm	lemon	sun
ABEF	**3**	**0**	**2.5**	**1**
C	2	5	0	0
D	1	2	1	7

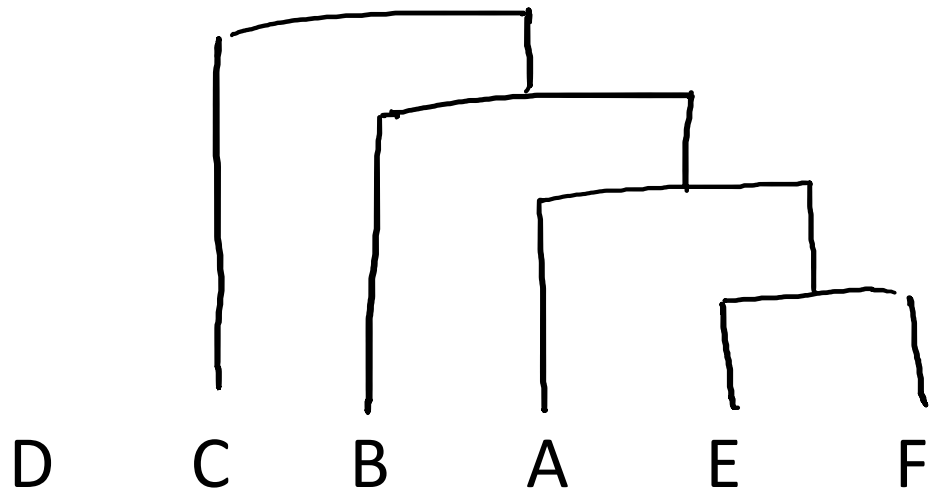
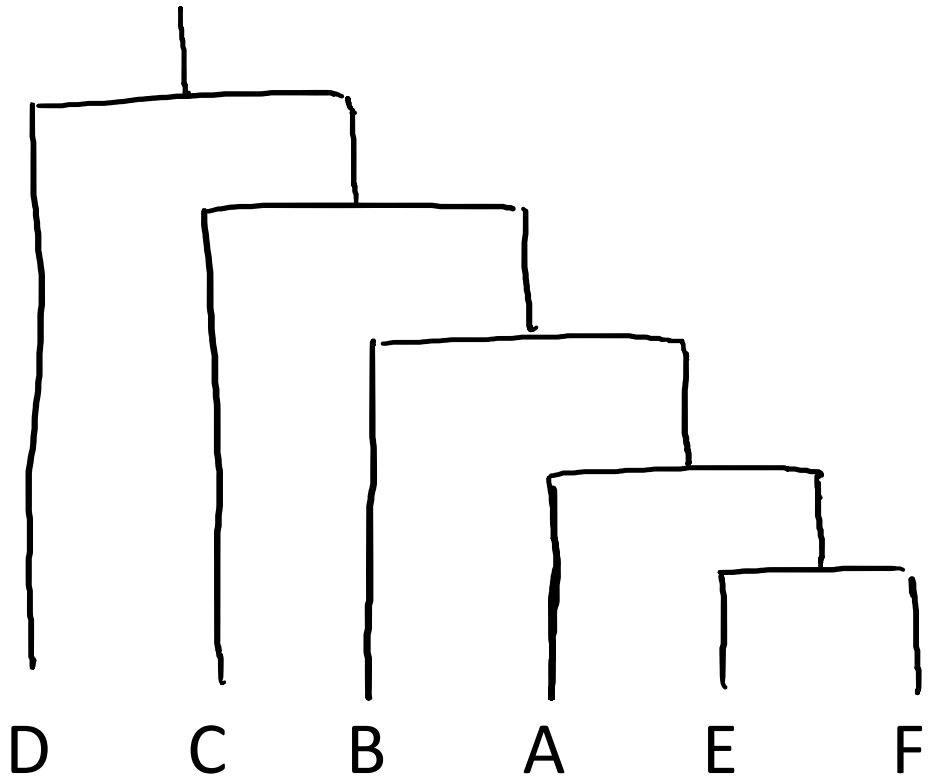
	ABEF	C	D
ABEF	-	$\sqrt{33.25}$	$\sqrt{46.25}$
C	$\sqrt{33.25}$	-	$\sqrt{60}$
D	$\sqrt{46.25}$	$\sqrt{60}$	-



Proximity Matrix (Distance)

	apple	ibm	lemon	sun
ABEF	**3**	**0**	**2.5**	**1**
C	2	5	0	0
D	1	2	1	7

	ABEF	C	D
ABEF	-	$\sqrt{33.25}$	$\sqrt{46.25}$
C	$\sqrt{33.25}$	-	$\sqrt{60}$
D	$\sqrt{46.25}$	$\sqrt{60}$	-



Proximity Matrix (Distance)