Durham University

COMP1051 Computational Thinking

2018-19 Summative Assignment

hrhq57

April 2019

Smallest Distance: 15 - a:b

d(ab,c) = (24+32)/2 = 28

d(ab,d) = (29+31)/2 = 30

d(ab,e) = (25+23)/2 = 24

d(ab,f) = (37+43)/2 = 40

-	a	b	c	d	e	f
a	0	*15*	24	29	25	37
b	*15*	0	32	31	23	43
c	24	32	0	30	43	49
d	29	31	30	0	45	57
e	25	23	43	45	0	55
f	37	43	49	57	55	0

Smallest Distance: 24 - ab:e

d(abe,c) = (2(28)+43)/3 = 33

d(abe,d) = (2(30)+45)/3 = 35

d(abe,f) = (2(40)+55)/3 = 45

-	ab	c	d	e	f
ab	0	28	30	*24*	40
c	28	0	30	43	49
d	30	30	0	45	57
e	*24*	43	45	0	55
f	40	49	57	55	0

Smallest Distance: 30 - c:d

d(cd,abe) = (33+35)/2 = 34

d(cd,f) = (49+57)/2 = 53

-	abe	c	d	f
abe	0	33	35	45
c	33	0	*30*	49
d	35	*30*	0	57
f	45	49	57	0

Smallest Distance: 34 - abe:cd

d(abecd,f) = (3(45)+2(53))/5 = 48.2

-	abe	cd	d
abe	0	*34*	45
cd	*34*	0	53
d	45	53	0

-	abecd	f
abecd	0	48.2
f	48.2	0

-	abecdf
abecdf	0