
CS304 Computer Networks

Lab Assignment - 3

28th April 2021

Submitted By:

Pranjali Bajpai

2018EEB1243

How to run

```
>>gcc a3.c -o a3
```

```
>>a3
```

*Tested on VS Code on Windows 10

Assumption

2147483647=INT_MAX denotes infinity in distance vector routing table

Part 1

- Output

As no change happened in routing table in round 2. Hence, After 1 rounds of update, every node can reach every other node in the network.

*****Final Updated Routing
Table*****

For A

Destination	Distance	Next Hop
A	0	A
B	1	B
C	2	B
D	2	E
E	1	E

For B

Destination	Distance	Next Hop
A	1	A
B	0	B

C	1	C
D	2	C
E	2	A

For C

Destination	Distance	Next Hop
A	2	B
B	1	B
C	0	C
D	1	D
E	2	D

For D

Destination	Distance	Next Hop
A	2	E
B	2	C
C	1	C
D	0	D
E	1	E

For E

Destination	Distance	Next Hop
A	1	A
B	2	A

C	2	D
D	1	D
E	0	E

Part 2

- **Output**

As no change happened in routing table in round 6. Hence, After 5 rounds of update, every node can reach every other node in the network.

*****Final Updated Routing Table When Link BC
Breaks*****

For A

Destination	Distance	Next Hop
A	0	A
B	1	B
C	3	E
D	2	E
E	1	E

For B

Destination	Distance	Next Hop
A	1	A
B	0	B
C	4	A
D	3	A

E 2 A

For C

Destination	Distance	Next Hop
A	3	D
B	4	D
C	0	C
D	1	D
E	2	D

For D

Destination	Distance	Next Hop
A	2	E
B	3	E
C	1	C
D	0	D
E	1	E

For E

Destination	Distance	Next Hop
A	1	A
B	2	A
C	2	D
D	1	D

E 0 E