

Computer Networks Lab Assignment-9

1. Implement the Distance Vector Routing (DVR) algorithm using C or C++.

Test Case 1:

Input: Enter the number of nodes or routers in the network: 3

Enter the weight or cost matrix:

0 1 5

1 0 2

5 2 0

Output: Final routing table of router A:

Destination	Distance	Next_hop
A	0	A
B	1	B
C	3	B

Final routing table of router B:

Destination	Distance	Next_hop
A	1	A
B	0	B
C	2	C

Final routing table of router C:

Destination	Distance	Next_hop
A	3	B
B	2	B
C	0	C

Test Case 2:

Input: Enter the number of nodes or routers in the network: 4

Enter the weight or cost matrix:

0	2	∞	1
2	0	3	7
∞	2	0	11
1	7	11	0

Output: Final routing table of router A:

Destination	Distance	Next_hop
A	0	A
B	2	B
C	5	B
D	1	D

Final routing table of router B:

Destination	Distance	Next_hop
A	2	A
B	0	B
C	3	C
D	3	A

Final routing table of router C:

Destination	Distance	Next_hop
A	5	B
B	3	B
C	0	C
D	6	B

Final routing table of router D:

Destination	Distance	Next_hop
A	1	A
B	3	A
C	6	A
D	0	D