

Input_file_one:

11 30
0 1 3 5
0 7 7 9
1 2 2 4
1 7 11 15
1 5 1 5
1 3 8 24
2 4 7 10
2 3 2 8
3 7 3 5
3 8 14 16
3 7 3 7
3 6 3 7
3 5 12 16
4 5 3 5
4 3 8 10
5 8 7 18
5 6 8 17
6 4 4 9
6 7 31 42
7 8 6 8
7 5 6 10
7 2 1 4
8 6 5 7
8 4 10 13
8 0 8 14
9 3 90 95
9 7 60 69
10 5 30 35
10 9 10 19
10 0 5 90

For router table 0 :

Routing Table for Node No 0 at Time 1682702430.0735614

Destination	Path	Cost
1	0-1	4
2	0-1-2	7
3	0-7-3	12
4	0-1-5-4	12
5	0-1-5	8
6	0-7-3-6	16
7	0-7	8
8	0-8	13

9	0-1-5-10-9	56
10	0-1-5-10	39

Routing Table for Node No 0 at Time 1682702450.0889883

Destination	Path	Cost
1	0-1	4
2	0-1-2	7
3	0-7-3	12
4	0-1-5-4	12
5	0-1-5	8
6	0-8-6	16
7	0-7	8
8	0-8	10
9	0-10-9	47
10	0-10	30

For router table 1:

Routing Table for Node No 1 at Time 1682702430.0665407

Destination	Path	Cost
0	1-0	4
2	1-2	3
3	1-2-7-3	9
4	1-5-4	8
5	1-5	4
6	1-2-7-3-6	13
7	1-2-7	5
8	1-2-7-8	12
9	1-5-10-9	52
10	1-5-10	35

Routing Table for Node No 1 at Time 1682702450.0876389

Destination	Path	Cost
0	1-0	4
2	1-2	3
3	1-2-7-3	9
4	1-5-4	7
5	1-5	3
6	1-5-4-6	13
7	1-2-7	5
8	1-2-7-8	12
9	1-5-10-9	51
10	1-5-10	34

For routing table 2:

Routing Table for Node No 2 at Time 1682702430.0672474

Destination	Path	Cost
0	2-1-0	7
1	2-1	3
3	2-3	3
4	2-4	8
5	2-1-5	7
6	2-3-6	7
7	2-7	2
8	2-7-8	9
9	2-1-5-10-9	55
10	2-1-5-10	38

Routing Table for Node No 2 at Time 1682702450.08983

Destination	Path	Cost
0	2-1-0	7
1	2-1	3
3	2-7-3	6
4	2-4	8
5	2-1-5	7
6	2-7-3-6	10
7	2-7	2
8	2-7-8	9
9	2-1-5-10-9	55
10	2-1-5-10	38

For routing table 3

Routing Table for Node No 3 at Time 1682702430.070713

Destination	Path	Cost
0	3-7-0	12
1	3-2-1	8
2	3-2	5
4	3-4	9
5	3-7-5	12
6	3-6	5
7	3-7	4
8	3-7-8	11
9	3-7-5-10-9	60
10	3-7-5-10	43

Routing Table for Node No 3 at Time 1682702450.0939188

Destination	Path	Cost
0	3-2-1-0	11
1	3-2-1	7
2	3-2	4
4	3-4	9

5	3-2-1-5	11	
6	3-6	6	
7	3-7	4	
8	3-7-8	11	
9	3-2-1-5-10-9		59
10	3-2-1-5-10		42

For routing table 4:

Routing Table for Node No 4 at Time 1682702430.068948

Destination	Path	Cost	
0	4-5-1-0	10	
1	4-5-1	6	
2	4-2	8	
3	4-3	9	
5	4-5	4	
6	4-6	7	
7	4-2-7	10	
8	4-8	12	
9	4-5-10-9		52
10	4-5-10	35	

Routing Table for Node No 4 at Time 1682702450.0919027

Destination	Path	Cost	
0	4-5-1-0	10	
1	4-5-1	6	
2	4-2	8	
3	4-3	9	
5	4-5	4	
6	4-6	8	
7	4-2-7	10	
8	4-8	11	
9	4-5-10-9		52
10	4-5-10	35	

For routing table 5:

Routing Table for Node No 5 at Time 1682702430.0726554

Destination	Path	Cost	
0	5-1-0	6	
1	5-1	2	
2	5-1-2	5	
3	5-1-2-7-3		11
4	5-4	4	
6	5-4-6	10	

7	5-1-2-7	7
8	5-8	11
9	5-10-9	51
10	5-10	34

Routing Table for Node No 5 at Time 1682702450.0925527

Destination	Path	Cost
0	5-1-0	8
1	5-1	4
2	5-1-2	7
3	5-3	13
4	5-4	4
6	5-4-6	10
7	5-7	9
8	5-8	14
9	5-10-9	50
10	5-10	33

For routing table 6:

Routing Table for Node No 6 at Time 1682702430.0683131

Destination	Path	Cost
0	6-5-1-0	15
1	6-5-1	11
2	6-3-2	12
3	6-3	5
4	6-4	8
5	6-5	9
7	6-3-7	11
8	6-8	6
9	6-5-10-9	57
10	6-5-10	40

Routing Table for Node No 6 at Time 1682702450.0912752

Destination	Path	Cost
0	6-4-5-1-0	16
1	6-4-5-1	12
2	6-3-2	12
3	6-3	5
4	6-4	6
5	6-4-5	10
7	6-3-7	11
8	6-8	6
9	6-4-5-10-9	58
10	6-4-5-10	41

For routing table 7:

Routing Table for Node No 7 at Time 1682702430.0697715

Destination	Path	Cost
0	7-0	8
1	7-2-1	5
2	7-2	2
3	7-3	6
4	7-2-4	10
5	7-5	8
6	7-3-6	10
8	7-8	7
9	7-5-10-9	56
10	7-5-10	39

Routing Table for Node No 7 at Time 1682702450.0931647

Destination	Path	Cost
0	7-0	8
1	7-2-1	6
2	7-2	3
3	7-3	4
4	7-2-4	11
5	7-5	8
6	7-3-6	8
8	7-8	7
9	7-5-10-9	56
10	7-5-10	39

For routing table 8:

Routing Table for Node No 8 at Time 1682702430.071755

Destination	Path	Cost
0	8-0	10
1	8-5-1	11
2	8-7-2	9
3	8-6-3	11
4	8-4	12
5	8-5	9
6	8-6	6
7	8-7	7
9	8-5-10-9	57
10	8-5-10	40

Routing Table for Node No 8 at Time 1682702450.0905547

Destination	Path	Cost
0	8-0	11
1	8-7-2-1	12

2	8-7-2	9	
3	8-6-3	11	
4	8-4	11	
5	8-5	14	
6	8-6	6	
7	8-7	7	
9	8-5-10-9		62
10	8-5-10	45	

Input_file_two:

9 14
 0 1 3 5
 0 7 7 9
 1 7 10 12
 1 2 7 9
 7 8 6 8
 7 6 0 2
 2 8 1 3
 8 6 5 7
 2 3 6 8
 2 5 3 5
 6 5 1 3
 3 5 13 15
 3 4 8 10
 5 4 9 11

For routing table 0:

Routing Table for Node No 0 at Time 1682701363.1315866

Destination	Path	Cost
1	0-1	4
2	0-1-2	7
3	0-1-2-3	11
4	0-1-5-4	12
5	0-1-5	8
6	0-8-6	15

7	0-7	8
8	0-8	9

Routing Table for Node No 0 at Time 1682701383.1529615

Destination	Path	Cost
1	0-1	4
2	0-1-2	7
3	0-1-2-3	11
4	0-1-5-4	12
5	0-1-5	8
6	0-1-2-3-6	15
7	0-7	8
8	0-8	11

For routing table 1

Routing Table for Node No 1 at Time 1682701363.1274283

Destination	Path	Cost
0	1-0	4
2	1-2	3
3	1-2-3	7
4	1-5-4	6
5	1-5	2
6	1-2-3-6	11
7	1-2-7	5
8	1-2-7-8	12

Routing Table for Node No 1 at Time 1682701383.1484144

Destination	Path	Cost
0	1-0	4
2	1-2	3
3	1-2-3	7
4	1-5-4	8
5	1-5	4
6	1-2-3-6	11
7	1-2-7	5
8	1-2-7-8	12

For routing table 2:

Routing Table for Node No 2 at Time 1682701363.1282775

Destination	Path	Cost
0	2-1-0	7
1	2-1	3
3	2-3	7

4	2-4	8
5	2-1-5	7
6	2-3-6	11
7	2-7	3
8	2-7-8	10

Routing Table for Node No 2 at Time 1682701383.1490562

Destination	Path	Cost
0	2-1-0	7
1	2-1	3
3	2-3	4
4	2-4	9
5	2-1-5	7
6	2-3-6	8
7	2-7	2
8	2-7-8	9

For routing table 3:

Routing Table for Node No 3 at Time 1682701363.1288285

Destination	Path	Cost
0	3-2-1-0	10
1	3-2-1	6
2	3-2	3
4	3-4	9
5	3-2-1-5	10
6	3-6	4
7	3-7	5
8	3-6-8	10

Routing Table for Node No 3 at Time 1682701383.15148

Destination	Path	Cost
0	3-2-1-0	12
1	3-2-1	8
2	3-2	5
4	3-4	9
5	3-2-1-5	12
6	3-6	5
7	3-7	5
8	3-6-8	11

For routing table 4:

Routing Table for Node No 4 at Time 1682701363.1293619

Destination	Path	Cost
0	4-5-1-0	10

1	4-5-1	6
2	4-2	9
3	4-3	9
5	4-5	4
6	4-6	7
7	4-2-7	11
8	4-8	11

Routing Table for Node No 4 at Time 1682701383.1524713

Destination	Path	Cost
0	4-5-1-0	10
1	4-5-1	6
2	4-2	8
3	4-3	9
5	4-5	4
6	4-6	7
7	4-2-7	10
8	4-8	12

For routing table 5:

Routing Table for Node No 5 at Time 1682701363.1300974

Destination	Path	Cost
0	5-1-0	7
1	5-1	3
2	5-1-2	6
3	5-1-2-3	10
4	5-4	4
6	5-6	10
7	5-7	8
8	5-8	10

Routing Table for Node No 5 at Time 1682701383.1499035

Destination	Path	Cost
0	5-1-0	6
1	5-1	2
2	5-1-2	5
3	5-1-2-3	9
4	5-4	4
6	5-6	10
7	5-1-2-7	7
8	5-8	14

For routing table 6:

Routing Table for Node No 6 at Time 1682701363.130614

Destination	Path	Cost
0	6-8-0	15
1	6-5-1	12
2	6-3-2	12
3	6-3	6
4	6-4	6
5	6-5	10
7	6-3-7	11
8	6-8	6

Routing Table for Node No 6 at Time 1682701383.151078

Destination	Path	Cost
0	6-8-0	15
1	6-4-5-1	13
2	6-3-2	12
3	6-3	6
4	6-4	7
5	6-4-5	11
7	6-3-7	11
8	6-8	6

For routing table 7:

Routing Table for Node No 7 at Time 1682701363.1310725

Destination	Path	Cost
0	7-0	8
1	7-2-1	5
2	7-2	2
3	7-3	4
4	7-2-4	10
5	7-5	9
6	7-3-6	8
8	7-8	7

Routing Table for Node No 7 at Time 1682701383.1505103

Destination	Path	Cost
0	7-0	8
1	7-2-1	6
2	7-2	3
3	7-3	6
4	7-2-4	11
5	7-5	7
6	7-3-6	10
8	7-8	7

For routing table 8:

Routing Table for Node No 8 at Time 1682701363.1321359

Destination	Path	Cost
0	8-0	13
1	8-7-2-1	13
2	8-7-2	10
3	8-6-3	11
4	8-4	11
5	8-5	12
6	8-6	6
7	8-7	7

Routing Table for Node No 8 at Time 1682701383.1518834

Destination	Path	Cost
0	8-0	12
1	8-5-1	11
2	8-7-2	10
3	8-6-3	11
4	8-4	11
5	8-5	9
6	8-6	6
7	8-7	7

OBSERVATION:

-> I have run the code for 42 seconds , in this time every router will build 2 routing tables as we observed above.

-> for every 20 seconds each router builds a routing table as observed above

-> we observed that different routing tables were created by each router at each time

->Like this practically , in the network every router builds its routing table which is helpful for packaging routing