CS3210

Lab 10: OSPF Routing Algorithm

Results

Input 1:

9	20		
0	1	4	10
0	7	8	19
0	8	4	13
1	2	8	17
1	5	11	20
1	8	7	19
1	4	5	15
2	3	7	18
2	6	2	8
2	5	4	14
2	7	10	19
3	4	9	18
3	8	14	25
3	6	7	19
4	5	10	22
4	6	12	24
5	7	2	19 13 17 20 19 15 18 8 14 19 18 25 19 22 24 13 15 11
6	8	6	15
6	7	1	11
90001112222333445667	1 7 8 2 5 8 4 3 6 5 7 4 8 6 5 7 8 7 8 7 8	4 8 4 8 11 7 5 7 2 4 10 9 14 7 10 12 6 1	16

Output 1:

```
Routing Table for Node #0 at Fri Apr 21 17:35:20 IST 2017
        Cost
                Path
Dest
                 0 - 1
         8
 1
 2
                 0 - 1 - 2
        16
 3
        25
                 0 - 1 - 2 - 3
 4
                 0 - 1 - 4
        17
 5
        19
                 0 - 7 - 5
6
         19
                 0 - 7 - 6
7
         17
                 0 - 7
         12
                 0 - 8
 8
Routing Table for Node #0 at Fri Apr 21 17:35:40 IST 2017
        Cost
                Path
Dest
         8
                 0 - 1
 1
                 0 - 1 - 2
 2
         17
3
         26
                 0 - 1 - 4 - 3
4
         15
                 0 - 1 - 4
 5
                 0 - 7 - 5
        19
 6
         19
                 0 - 7 - 6
                 0 - 7
 7
         16
                 0 - 8
         8
```

```
Routing Table for Node #1 at Fri Apr 21 17:35:20 IST 2017
        Cost
                Path
Dest
         4
                 1 - 0
 0
 2
                 1 - 2
         10
 3
         22
                 1 - 4 - 3
 4
         13
                 1 - 4
 5
                 1 - 5
         14
 6
                 1 - 2 - 6
         15
7
         17
                 1 - 2 - 6 - 7
 8
                 1 - 8
         9
Routing Table for Node #1 at Fri Apr 21 17:35:40 IST 2017
        Cost
                Path
Dest
                 1 - 0
         7
 0
 2
         15
                 1 - 2
 3
         16
                 1 - 4 - 3
 4
         5
                 1 - 4
 5
         18
                 1 - 5
 6
                 1 - 8 - 6
         17
 7
         18
                 1 - 8 - 7
 8
         10
                 1 - 8
```

```
Routing Table for Node #2 at Fri Apr 21 17:35:20 IST 2017
Dest
        Cost
                Path
         18
                 2 - 6 - 7 - 0
 0
         15
 1
                 2 - 1
 3
         17
                 2 - 3
 4
                 2 - 6 - 4
         21
                 2 - 5
 5
         10
 6
                 2 - 6
                 2 - 6 - 7
 7
         7
8
                 2 - 6 - 8
         14
Routing Table for Node #2 at Fri Apr 21 17:35:40 IST 2017
Dest
        Cost
                Path
         18
                 2 - 6 - 8 - 0
 0
         16
 1
                 2 - 1
 3
         12
                 2 - 3
 4
         16
                 2 - 6 - 4
 5
         5
                 2 - 5
 6
                 2 - 6
         2
 7
         8
                 2 - 5 - 7
                 2 - 6 - 8
         11
```

```
Routing Table for Node #3 at Fri Apr 21 17:35:20 IST 2017
        Cost
                Path
Dest
                 3 - 2 - 1 - 0
 0
         21
                 3 - 2 - 1
 1
         16
 2
                 3 - 2
         8
 4
        17
                 3 - 4
 5
        13
                 3 - 2 - 5
6
                 3 - 2 - 6
         14
                 3 - 2 - 7
7
         21
         20
 8
                 3 - 8
Routing Table for Node #3 at Fri Apr 21 17:35:40 IST 2017
                Path
Dest
        Cost
                 3 - 8 - 0
         22
 0
         26
                 3 - 4 - 1
 1
 2
         15
                 3 - 2
 4
         15
                 3 - 4
 5
                 3 - 2 - 5
         23
 6
         15
                 3 - 6
                 3 - 6 - 7
7
         21
 8
         15
                 3 - 8
```

```
Routing Table for Node #4 at Fri Apr 21 17:35:20 IST 2017
        Cost
                Path
Dest
                 4 - 1 - 0
         14
 1
                 4 - 1
         9
 2
                 4 - 3 - 2
         17
 3
                 4 - 3
         9
 5
                 4 - 5
         16
 6
                 4 - 6
         16
 7
         25
                 4 - 1 - 0 - 7
 8
                 4 - 1 - 0 - 8
         20
Routing Table for Node #4 at Fri Apr 21 17:35:40 IST 2017
Dest
        Cost
                Path
         15
                 4 - 1 - 0
 0
 1
         10
                 4 - 1
 2
         19
                 4 - 1 - 2
 3
         11
                 4 - 3
 5
         18
                 4 - 5
 6
         23
                 4 - 6
 7
                 4 - 5 - 7
         21
 8
                 4 - 1 - 0 - 8
         20
```

```
Routing Table for Node #5 at Fri Apr 21 17:35:20 IST 2017
        Cost
                Path
Dest
                 5 - 1 - 0
 0
         21
                 5 - 1
         16
 2
                 5 - 2
         10
 3
         19
                 5 - 2 - 3
 4
                 5 - 4
         13
 6
                 5 - 7 - 6
         12
7
                 5 - 7
         10
                 5 - 7 - 6 - 8
8
         21
Routing Table for Node #5 at Fri Apr 21 17:35:40 IST 2017
        Cost
                Path
Dest
                 5 - 7 - 0
 0
         13
                 5 - 1
 1
         16
 2
                 5 - 2
         9
                 5 - 7 - 6 - 3
 3
         24
 4
                 5 - 4
         13
 6
                 5 - 7 - 6
         6
                 5 - 7
7
         3
                 5 - 7 - 6 - 8
 8
         17
```

Routing	Table	for Node #6 at Fri Apr 21 17:35:20 IST 2017	_
Dest	Cost	Path	
0 1 2 3 4 5 7 8	15 10 2 11 16 4 2 9	6 - 8 - 0 6 - 2 - 1 6 - 2 - 3 6 - 4 - 6 - 7 - 5 6 - 7 6 - 8	
Routing	Table	for Node #6 at Fri Apr 21 17:35:40 IST 2017	_
Dest	Cost	Path	
0 1 2 3 4 5 7	16 16 2 12 14 10 7 9	6 - 8 - 0 6 - 2 - 1 6 - 2 6 - 3 6 - 4 6 - 2 - 5 6 - 7 6 - 8	

```
Routing Table for Node #7 at Fri Apr 21 17:35:20 IST 2017
                Path
Dest
        Cost
                 7 - 0
 0
         11
                 7 - 0 - 1
         19
 2
                 7 - 6 - 2
         10
 3
         24
                 7 - 6 - 3
                 7 - 5 - 4
 4
         23
 5
                 7 - 5
         10
6
         8
                 7 - 6
                 7 - 8
 8
         12
Routing Table for Node #7 at Fri Apr 21 17:35:40 IST 2017
                Path
Dest
        Cost
                 7 - 0
 0
         16
                 7 - 6 - 2 - 1
 1
         19
                 7 - 6 - 2
 2
         3
 3
                 7 - 6 - 3
         13
 4
         15
                 7 - 6 - 4
 5
                 7 - 6 - 2 - 5
         8
 6
         1
                 7 - 6
 8
                 7 - 8
         10
```

```
Routing Table for Node #8 at Fri Apr 21 17:35:20 IST 2017
Dest
        Cost
                Path
         6
                 8 - 0
 0
 1
         11
                 8 - 1
 2
         12
                 8 - 7 - 6 - 2
 3
         18
                 8 - 3
4
         20
                 8 - 1 - 4
 5
                 8 - 7 - 5
         10
 6
                 8 - 7 - 6
         10
                 8 - 7
7
         8
Routing Table for Node #8 at Fri Apr 21 17:35:40 IST 2017
Dest
        Cost
                Path
                 8 - 0
         6
 0
 1
                 8 - 1
         13
                 8 - 6 - 2
 2
         9
 3
                 8 - 6 - 3
         19
4
                 8 - 1 - 4
         20
 5
                 8 - 6 - 2 - 5
         14
 6
         7
                 8 - 6
 7
                 8 - 7
```

Input 2:

9	20		
0	1	4	5
0	7	8	9
0	6	4	5
1	2	8	5 9 5 9
1	7	11	12
1	8	7	
1	4	<u></u>	6
T	4	2	U
2	3	7	8
2	8	2	3
2	5	4	8 6 8 3 5
2	7	10	11
3	4	9	11 10 15
3	5	14	15
90011112222333445667	20 1 7 6 2 7 8 4 3 8 5 7 4 5 6 5 7 6 8 7 8	4 8 4 8 11 7 5 7 2 4 10 9 14 7 10 12 6 1 7	8
4	5	10	11 13
4	7	12	13
5	6	2	
6	8	6	3 7 2 8
6	7	1	2
7	0	<u> </u>	6
1	8	1	8

Output 2:

```
Routing Table for Node #0 at Fri Apr 21 18:00:27 IST 2017
       Cost
Dest
                Path
         4
                0 - 1
                0 - 6 - 5 - 2
2
        10
                0 - 6 - 3
3
        11
4
        9
                0 - 1 - 4
5
        6
                0 - 6 - 5
6
        4
                0 - 6
                0 - 6 - 7
7
8
                0 - 6 - 8
        10
Routing Table for Node #0 at Fri Apr 21 18:00:47 IST 2017
Dest
        Cost
                Path
         4
                 0 - 1
 1
                0 - 6 - 5 - 2
2
         10
3
        11
                0 - 6 - 3
4
        9
                0 - 1 - 4
5
                0 - 6 - 5
         6
6
         4
                0 - 6
                0 - 6 - 7
7
8
                0 - 6 - 8
         10
```

```
Routing Table for Node #1 at Fri Apr 21 18:00:27 IST 2017
Dest
       Cost
                Path
                1 - 0
 0
        4
2
                1 - 2
        8
3
                1 - 4 - 3
        14
4
        5
                1 - 4
5
        10
                1 - 0 - 6 - 5
6
                1 - 0 - 6
        8
                1 - 0 - 6 - 7
7
        9
8
                1 - 8
        7
Routing Table for Node #1 at Fri Apr 21 18:00:47 IST 2017
Dest
       Cost
                Path
                1 - 0
        4
 0
2
                1 - 2
         8
3
                1 - 4 - 3
        14
4
        5
                1 - 4
5
        10
                1 - 0 - 6 - 5
6
         8
                1 - 0 - 6
7
                1 - 0 - 6 - 7
         9
         7
                1 - 8
 8
```

```
Routing Table for Node #2 at Fri Apr 21 18:00:27 IST 2017
Dest
       Cost
               Path
               2 - 5 - 6 - 0
        10
 0
1
                2 - 1
        8
3
        7
                2 - 3
               2 - 1 - 4
4
        13
5
                2 - 5
        4
6
        6
                2 - 5 - 6
        7
7
                2 - 5 - 6 - 7
8
        2
                2 - 8
Routing Table for Node #2 at Fri Apr 21 18:00:47 IST 2017
Dest
       Cost
               Path
        10
                2 - 5 - 6 - 0
 0
1
                2 - 1
        8
3
        7
                2 - 3
4
                2 - 1 - 4
        13
 5
                2 - 5
        4
                2 - 5 - 6
6
        6
7
                2 - 5 - 6 - 7
        7
                2 - 8
```

Routing	Table	for Node #3 at Fri Apr 21 18:00:27 IST 2017
Dest	Cost	Path
0 1 2 4 5 6 7	11 14 7 9 9 7 8	3 - 6 - 0 3 - 4 - 1 3 - 2 3 - 4 3 - 6 - 5 3 - 6 3 - 6 - 7 3 - 2 - 8
Routing Dest	Table	for Node #3 at Fri Apr 21 18:00:47 IST 2017 Path
0 1 2 4 5 6 7	11 14 7 9 9 7 8	3 - 6 - 0 3 - 4 - 1 3 - 2 3 - 4 3 - 6 - 5 3 - 6 3 - 6 - 7 3 - 2 - 8

```
Routing Table for Node #4 at Fri Apr 21 18:00:27 IST 2017
       Cost
                Path
Dest
        9
0
                4 - 1 - 0
        5
                4 - 1
2
                4 - 1 - 2
        13
3
                4 - 3
        9
5
        10
                4 - 5
6
                4 - 5 - 6
        12
7
                4 - 7
         12
                4 - 1 - 8
8
         12
Routing Table for Node #4 at Fri Apr 21 18:00:47 IST 2017
       Cost
                Path
Dest
                4 - 1 - 0
0
        9
        5
                 4 - 1
2
                4 - 1 - 2
        13
3
                4 - 3
        9
5
        10
                4 - 5
6
                4 - 5 - 6
         12
7
                4 - 7
         12
                 4 - 1 - 8
 8
         12
```

```
Routing Table for Node #5 at Fri Apr 21 18:00:27 IST 2017
       Cost
               Path
Dest
               5 - 6 - 0
        6
0
               5 - 6 - 0 - 1
1
        10
2
        4
                5 - 2
3
        9
                5 - 6 - 3
4
        10
               5 - 4
6
        2
                5 - 6
                5 - 6 - 7
7
        3
                5 - 2 - 8
        6
Routing Table for Node #5 at Fri Apr 21 18:00:47 IST 2017
       Cost
               Path
Dest
        6
                5 - 6 - 0
0
                5 - 6 - 0 - 1
 1
        10
2
                5 - 2
        4
3
                5 - 6 - 3
        9
4
                5 - 4
        10
6
                5 - 6
        2
7
        3
                5 - 6 - 7
        6
                5 - 2 - 8
```

```
Routing Table for Node #6 at Fri Apr 21 18:00:27 IST 2017
        Cost
                Path
Dest
                6 - 0
         4
0
                 6 - 0 - 1
 1
         8
2
         6
                 6 - 5 - 2
3
                 6 - 3
4
                6 - 5 - 4
        12
5
                 6 - 5
        2
7
        1
                 6 - 7
8
                 6 - 8
Routing Table for Node #6 at Fri Apr 21 18:00:47 IST 2017
Dest
        Cost
                Path
0
         4
                 6 - 0
         8
                 6 - 0 - 1
 1
2
         6
                 6 - 5 - 2
3
         7
                 6 - 3
4
                 6 - 5 - 4
         12
5
                 6 - 5
         2
7
                 6 - 7
                 6 - 8
 8
```

```
Routing Table for Node #7 at Fri Apr 21 18:00:27 IST 2017
       Cost
               Path
Dest
                7 - 6 - 0
        9
7
                7 - 6 - 0 - 1
1
2
                7 - 6 - 5 - 2
3
        8
                7 - 6 - 3
4
        12
                7 - 4
5
                7 - 6 - 5
        3
6
        1
                7 - 6
                7 - 8
8
        7
Routing Table for Node #7 at Fri Apr 21 18:00:47 IST 2017
Dest
       Cost
               Path
                7 - 6 - 0
        9
7
                7 - 6 - 0 - 1
1
2
                7 - 6 - 5 - 2
3
        8
                7 - 6 - 3
4
        12
                7 - 4
5
                7 - 6 - 5
        3
6
        1
                7 - 6
8
                7 - 8
        7
```

```
Routing Table for Node #8 at Fri Apr 21 18:00:27 IST 2017
                Path
Dest
        Cost
         10
                 8 - 6 - 0
0
1
         7
                 8 - 1
2
         2
                 8 - 2
3
         9
                 8 - 2 - 3
4
        12
                 8 - 1 - 4
5
                 8 - 2 - 5
         6
6
         6
                 8 - 6
7
         7
                 8 - 7
Routing Table for Node #8 at Fri Apr 21 18:00:47 IST 2017
Dest
        Cost
                Path
        10
                 8 - 6 - 0
0
1
         7
                 8 - 1
2
         2
                 8 - 2
3
                 8 - 2 - 3
         9
4
                 8 - 1 - 4
         12
5
                 8 - 2 - 5
         6
6
                 8 - 6
         6
7
                 8 - 7
         7
```