

Homework 5. Shortest Path

due: 6/7

1. COST MATRIX

	0	1	2	3	4	5	6
0	100	2	4	5	100	100	100
1	100	100	100	2	7	100	100
2	100	100	100	1	100	4	100
3	100	2	1	100	4	3	100
4	100	7	100	4	100	1	5
5	100	100	4	3	1	100	7
6	100	100	100	100	7	5	100

2. Shortest Path Algorithm 은 교재 또는 수업시간의 알고리즘을 사용할 것

* More informations on the Program

1) main()

- print adjacency matrix
- call shortest(vertex 0)

2) Shortest(0) //start vertex '0'

- 초기화 ($visited[7] \leftarrow false$, $dist[0] \leftarrow cost[0][I]$)
- while (<7)
 - . $u \leftarrow choose(dist, 7)$ //find min node
 - . for ($I=0 \sim 7$) find shortest //algorithm 참조
 - . print dist[I]

3) choose(dist, 7)

for all vertex, if not visited, find min node

3. Correct Output 은 다음과 같다.

1) Adjacency Matrix => Cost matrix 를 출력할 것

2) Shortest path distance

Dist: 0 2 4 4 9 100 100

Dist: 0 2 4 4 9 8 100

Dist: 0 2 4 4 8 7 100

Dist: 0 2 4 4 8 7 14

Dist: 0 2 4 4 8 7 13

Dist: 0 2 4 4 8 7 13