

# CSE221: Algorithms

**Deadline: 21<sup>st</sup> September, 2016**

## Lab-01: Adjacency List and Adjacency Matrix

### Task 01:

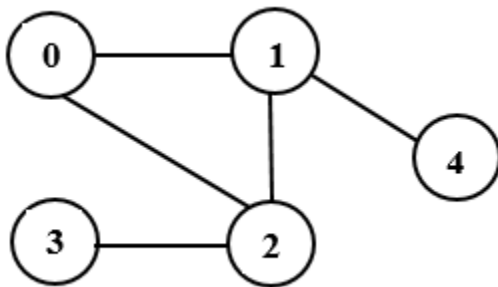
#### Input:

1. Read an undirected graph from a file with vertices and edges.

#### Output:

1. Corresponding Adjacency Matrix.

#### Example:



Input

	0	1	2	3	4
0	0	1	1	0	0
1	1	0	1	0	1
2	1	1	0	1	0
3	0	0	1	0	0
4	0	1	0	0	0

Output

**Sample input: Inputs must be taken from a file.**

5 [# of nodes]

5 [# of edges]

[Edges]

0 1

0 2

1 0

1 2

1 4

2 0

2 1

2 3

3 2

4 1

## Task 02:

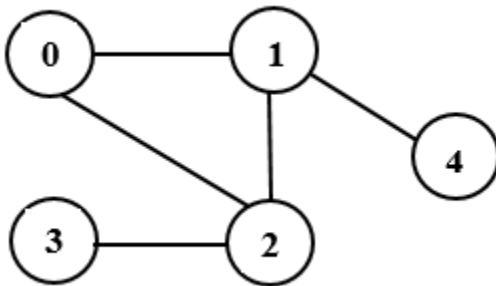
### Input:

2. Read a directed graph from a file with vertices and edges.

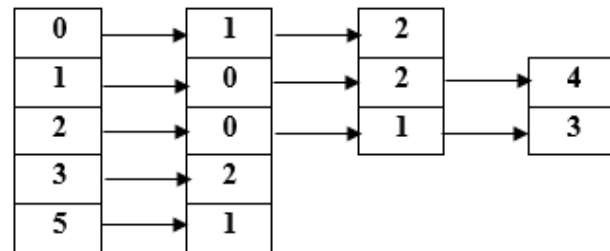
### Output:

2. Corresponding Adjacency List.

### Example:



Input



Output

**Sample input: Inputs must be taken from a file.**

5 [# of nodes]

5 [# of edges]

[Edges]

0 1

0 2

1 0

1 2

1 4

2 0

2 1

2 3

3 2

4 1