adjacency list

0 → 1 → 3

1 → 2 → 3 → 5

2 → 1 → 3 → 4 → 5

3 → 0 → 1 → 4

4 → 2 → 3 → 6

5 → 1 → 2

6 → 1 → 4

traversal using DFS

0	
1	3

↓

0	1	
2	3	5

↓

0	2	2
3	4	5

↓

0	1	2	3
4	5		

↓

0	1	2	3	4
6	5			

→

0	1	2	3	4	6
5					

0	1	2	3	4	6	5

Applications of DFS are

i) Solving puzzles
ii) topological Sorting