import java.util.\*;

public class Main{

public static void dfsAdjList(Map<Integer, List<Integer>> graph, int start, Set<Integer> visited) {

if(visited == null){

visited = new HashSet<>();

}

visited.add(start);

System.out.println(start + "");

for(int adjacent:graph.get(start)){

if(!visited.contains(adjacent)){

dfsAdjList(graph, adjacent, visited);

}

}

}

public static void main(String[] args){

Map<Integer,List<Integer>>graph = new HashMap<>();

graph.put(0,Arrays.asList(1,2,3));

graph.put(1,Arrays.asList(0,3));

graph.put(2,Arrays.asList(0,3));

graph.put(3,Arrays.asList(0,1,2));

System.out.println("DFS using Adjacency List:");

dfsAdjList(graph, 0, null);

}

}