

Graph.java

```
1  import java.util.HashMap;
2  import java.util.LinkedList;
3
4  public class Graph {
5      HashMap<Node,LinkedList<Node>> adjacencyMap;
6      boolean directed;
7
8      public Graph(boolean dir){
9          adjacencyMap = new HashMap<Node,LinkedList<Node>> ();
10         directed = dir;
11     }
12     public void insertEdge(Node Source,Node Desti){
13         if(!adjacencyMap.keySet().contains(Source)){
14             LinkedList<Node> temp = new LinkedList();
15             temp.add(Desti);
16             adjacencyMap.put(Source, temp);
17         }else{
18             LinkedList<Node> temp = adjacencyMap.get(Source);
19             temp.add(Desti);
20             adjacencyMap.put(Source, temp);
21         }
22     }
23
24     public HashMap<Node,LinkedList<Node>> getAdjacencyMap(){
25         return adjacencyMap;
26     }
27
28     public void printEdge(){
29         for(Node n: adjacencyMap.keySet()){
30             System.out.print(n.getName() + ":");
31             for(Node desti:adjacencyMap.get(n)){
32                 System.out.print(desti.getName()+ ",");
33             }
34             System.out.print("\n");
35         }
36     }
37 }
38
```