
Algorithm 1: Graph of Triples

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1 Function main:
2   graphs  $\leftarrow$  [];
3   inputStrings  $\leftarrow$  ["A,B,C", "D,E,F", "J,G,C", "F,H,Q", "A,I,C",
4     "D,X,Q", "D,X,F", "A,M,C"];
5   for str in inputStrings do
6     tuple  $\leftarrow$  str.split(",");
7     node1  $\leftarrow$  tuple[0];
8     node2  $\leftarrow$  tuple[2];
9     edgeExistsInAllGraphs  $\leftarrow$  true;
10    for graph in graphs do
11      if not graph.edgeExists(node1, node2) then
12        edgeExistsInAllGraphs  $\leftarrow$  false;
13        break;
14      end
15    end
16    if edgeExistsInAllGraphs then
17      newGraph  $\leftarrow$  Graph();
18      newGraph.addEdge(node1, node2);
19      graphs.append(newGraph);
20    end
21    else
22      for graph in graphs do
23        if not graph.edgeExists(node1, node2) then
24          graph.addEdge(node1, node2);
25          break;
26        end
27      end
28    end
29    for i  $\leftarrow$  0 to graphs.size() - 1 do
30      graph  $\leftarrow$  graphs[i];
31      print("Graph-" + (i + 1));
32      graph.printGraph();
33      print("Number of nodes: " + graph.numberOfNodes());
34      print("Number of components: " +
35        graph.numberOfComponents());
36      print();
37    end
```
