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1 DFS(G) :
2   Input: Graph, G
3   Output: A labeling of the edges on
4           G as discovery and back edges
5
6   foreach (Vertex v : G.vertices()):
7       setLabel(v, UNEXPLORED)
8   foreach (Edge e : G.edges()):
9       setLabel(e, UNEXPLORED)
10  foreach (Vertex v : G.vertices()):
11      if getLabel(v) == UNEXPLORED:
12          DFS(G, v)

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14 DFS(G, v) :
15 Queue q
16   setLabel(v, VISITED)
17 q.enqueue(v)
18
19 while !q.empty():
20 v = q.dequeue()
21   foreach (Vertex w : G.adjacent(v)):
22       if getLabel(w) == UNEXPLORED:
23           setLabel(v, w, DISCOVERY)
24           setLabel(w, VISITED)
25           DFS(G, w)
26       elseif getLabel(v, w) == UNEXPLORED:
27           setLabel(v, w, BACK)

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