FindEventualSafeNodes.java

```
1  package Graph;
2
3  import java.util.ArrayList;
4  import java.util.List;
5
6  public class FindEventualSafeNodes {
7      public static List<Integer> eventualSafeNodes(int[][] graph) {
8          int n = graph.length;
9          boolean [] visited = new boolean[n];
10
11         int [] unsafe = new int[n];
12 2       for(int i = 0;i<n;i++){
13 1           if(unsafe[i]==0){
14                 visited[i] = true;
15                 dfs(i,visited,graph,unsafe);
16                 visited[i] = false;
17             }
18         }
19         ArrayList<Integer> result = new ArrayList<>();
20 2       for(int i = 0;i<unsafe.length;i++){
21 1           if(unsafe[i]==1) result.add(i);
22         }
23 1       return result;
24     }
25
26     public static boolean dfs(int node, boolean [] visited, int [][] graph, int[] unsafe){
27         boolean isSafe = true;
28         for(int neighbor: graph[node]){
29
30 2           if(visited[neighbor] || unsafe[neighbor]==2){
31                 isSafe = false;
32                 break;
33             }
34 1           if(unsafe[neighbor]==1) continue;
35             visited[neighbor] = true;
36 1           if(!dfs(neighbor, visited, graph, unsafe)) isSafe = false;
37             visited[neighbor] = false;
38         }
39 1       unsafe[node] = isSafe?1:2;
40 2       return isSafe;
41     }
42 }
```

Mutations

12	1. changed conditional boundary → KILLED 2. negated conditional → KILLED
13	1. negated conditional → KILLED
20	1. changed conditional boundary → KILLED 2. negated conditional → KILLED
21	1. negated conditional → KILLED
23	1. replaced return value with Collections.emptyList for Graph/FindEventualSafeNodes::eventualSafeNodes → KILLED
30	1. negated conditional → KILLED 2. negated conditional → KILLED
34	1. negated conditional → KILLED
36	1. negated conditional → KILLED
39	1. negated conditional → KILLED
40	1. replaced boolean return with false for Graph/FindEventualSafeNodes::dfs → KILLED 2. replaced boolean return with true for Graph/FindEventualSafeNodes::dfs → KILLED

Active mutators

- CONDITIONALS_BOUNDARY

- EMPTY_RETURNS
- FALSE_RETURNS
- INCREMENTS
- INVERT_NEGS
- MATH
- NEGATE_CONDITIONALS
- NULL_RETURNS
- PRIMITIVE_RETURNS
- TRUE_RETURNS
- VOID_METHOD_CALLS

Tests examined

- Graph.FindEventualSafeNodesTest.testEventualSafeNodes(Graph.FindEventualSafeNodesTest) (0 ms)

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