

Our Solution(s)

Run Code

Your Solutions

Run Code

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 // O(a * (a + r) + a + r + alog(a)) time | O(a + r) space - where a is the number of airports and r is the number of routes
4 function airportConnections(airports, routes, startingAirport) {
5   const airportGraph = createAirportGraph(airports, routes);
6   const unreachableAirportNodes = getUnreachableAirportNodes(airportGraph, startingAirport);
7   markUnreachableConnections(airportGraph, unreachableAirportNodes);
8   return getMinNumberOfNewConnections(airportGraph, unreachableAirportNodes, startingAirport);
9 }
10
11 // O(a + r) time | O(a + r) space
12 function createAirportGraph(airports, routes) {
13   const airportGraph = {};
14   for (const airport of airports) {
15     airportGraph[airport] = new AirportNode(airport);
16   }
17   for (const route of routes) {
18     const [airport, connection] = route;
19     airportGraph[airport].connections.push(connection);
20   }
21   return airportGraph;
22 }
23
24 // O(a + r) time | O(a) space
25 function getUnreachableAirportNodes(airportGraph, airports, startingAirport) {
26   const visitedAirports = {};
27   depthFirstTraverseAirports(airportGraph, startingAirport, visitedAirports);
28
29   const unreachableAirportNodes = [];
30   for (const airport of airports) {
31     if (airport in visitedAirports) continue;
32     const airportNode = airportGraph[airport];
33     airportNode.isReachable = false;
```

Our Tests

Solution 1 Solution 2 Solution 3

```
1 function airportConnections(airports, routes, startingAirport) {
2   // Write your code here.
3 }
4
5 // Do not edit the line below.
6 exports.airportConnections = airportConnections;
7
```

Custom Output

Submit Code

Run or submit code when you're ready.