Problem Link:

<https://leetcode.com/problems/find-closest-node-to-given-two-nodes/?envType=daily-question&envId=2025-05-30>

Solution:

class Solution {

public:

vector<int> getDistances(const vector<int>& edges, int start) {

int n = edges.size();

vector<int> d(n, -1);

int curr = start, dist = 0;

while(curr != -1 && d[curr] == -1)

{

d[curr] = dist++;

curr = edges[curr];

}

return d;

}

int closestMeetingNode(vector<int>& edges, int node1, int node2) {

int n = edges.size();

vector<int> d1 = getDistances(edges, node1);

vector<int> d2 = getDistances(edges, node2);

int mind = INT\_MAX;

int res = -1;

for(int i = 0; i < n; ++i)

{

if(d1[i] != -1 && d2[i] != -1)

{

int maxd = max(d1[i], d2[i]);

if(maxd < mind)

{

mind = maxd;

res = i;

}

}

}

return res;

}

};