GRAPHS...

video-40

"let's make it easy too"

If you have tried my "Graph Concepts & Qns" playlist, these Qns, will seem very easy.
Do try it once :)

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Bus Routes

Company Tags :- Uber

815. Bus Routes

Hard 3.5K 85

Companies

You are given an array `routes` representing bus routes where `routes[i]` is a bus route that the `i^th` bus repeats forever.

- For example, if `routes[0] = [1, 5, 7]`, this means that the `0^th` bus travels in the sequence `1 -> 5 -> 7 -> 1 -> 5 -> 7 -> 1 -> ...` forever.

You will start at the bus stop `source` (You are not on any bus initially), and you want to go to the bus stop `target`. You can travel between bus stops by buses only.

Return *the least number of buses you must take to travel from* `source` *to* `target`. Return `-1` if it is not possible.

Examples :-

routes = [{1, 2, 7}, {3, 6, 7}]

source = 1

target = 6

0 1 2

1, 2, 7, 1, 2, 7 . . .

7, 3, 6, 7, 3, 6 . . .

2

Intuition . . .

0 1

routes = [[1, 2, 7], [3, 6, 7]]

Source = 1

target = 6

map (map (int, vector<int>).

Stops	(idx) which route Bus
1	{0, 2, 4}
2	0
3	1
6	1
7	0, 1

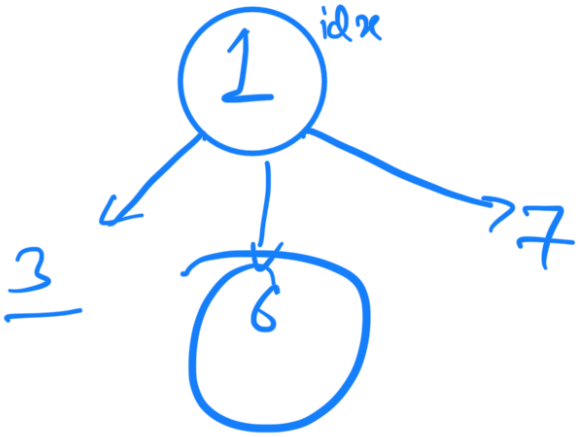
visited

0, 2

... BFS ... Source = 1

1	queue
✓	✓

Count = 1



BFS.

Return Count;

① map < int, vect >
↓ stop ↓ idxes

② BFS → que { sowce → idx }

③ BFS while.

Is target