

1456. Find the City With the Smallest Number of Neighbors at a Threshold Distance

Difficulty : Medium

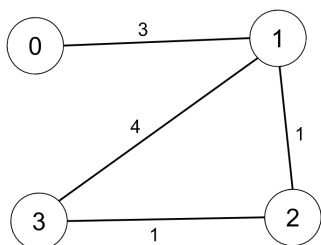
<https://leetcode.com/problems/find-the-city-with-the-smallest-number-of-neighbors-at-a-threshold-distance>

There are n cities numbered from 0 to $n-1$. Given the array `edges` where `edges[i] = [from i , to i , weight i]` represents a bidirectional and weighted edge between cities `from i` and `to i` , and given the integer `distanceThreshold`.

Return the city with the smallest number of cities that are reachable through some path and whose distance is **at most** `distanceThreshold`. If there are multiple such cities, return the city with the greatest number.

Notice that the distance of a path connecting cities i and j is equal to the sum of the edges' weights along that path.

Example 1:



Input: `n = 4, edges = [[0,1,3],[1,2,1],[1,3,4],[2,3,1]], distanceThreshold = 4`

Output: `3`

Explanation: The figure above describes the graph.

The neighboring cities at a `distanceThreshold = 4` for each city are:

City `0` -> [City `1`, City `2`]

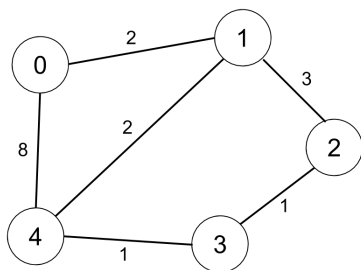
City `1` -> [City `0`, City `2`, City `3`]

City `2` -> [City `0`, City `1`, City `3`]

City `3` -> [City `1`, City `2`]

Cities `0` and `3` have 2 neighboring cities at a `distanceThreshold = 4`, but we have to return city `3` since it has the greatest number.

Example 2:



Input: `n = 5, edges = [[0,1,2],[0,4,8],[1,2,3],[1,4,2],[2,3,1],[3,4,1]], distanceThreshold = 2`

Output: `0`

Explanation: The figure above describes the graph.

The neighboring cities at a `distanceThreshold = 2` for each city are:

City `0` -> [City `1`]

City `1` -> [City `0`, City `4`]

City `2` -> [City `3`, City `4`]

City `3` -> [City `2`, City `4`]

City `4` -> [City `1`, City `2`, City `3`]

The city `0` has 1 neighboring city at a `distanceThreshold = 2`.

Constraints:

- $2 \leq n \leq 100$

- $1 \leq \text{edges.length} \leq n * (n - 1) / 2$
- $\text{edges}[i].\text{length} == 3$
- $0 \leq \text{from}_i < \text{to}_i < n$
- $1 \leq \text{weight}_i, \text{distanceThreshold} \leq 10^4$
- All pairs $(\text{from}_i, \text{to}_i)$ are distinct.