

**192.** There are  $n$  cities numbered from 0 to  $n-1$ . Given the array `edges` where `edges[i] = [fromi, toi, weighti]` represents a bidirectional and weighted edge between cities `fromi` and `toi`, 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`

**Program:**`import heapq`

```
def findTheCity(n, edges, distanceThreshold):  
    graph = {i: {} for i in range(n)}  
    for u, v, w in edges:  
        graph[u][v] = w  
        graph[v][u] = w  
  
    def dijkstra(src):  
        pq = [(0, src)]  
        dist = {i: float('inf') for i in range(n)}  
        dist[src] = 0  
  
        while pq:  
            d, node = heapq.heappop(pq)  
            if d > dist[node]:  
                continue  
            for neighbor, weight in graph[node].items():  
                if (new_dist := d + weight) < dist[neighbor]:  
                    dist[neighbor] = new_dist  
                    heapq.heappush(pq, (new_dist, neighbor))  
  
    return sum(1 for d in dist.values() if d <= distanceThreshold)
```

```

min_reachable = n
res = -1

for i in range(n):
    reachable = dijkstra(i)
    if reachable <= min_reachable:
        min_reachable = reachable
        res = i

return res

```

# Example 1

```

n = 4
edges = [[0,1,3],[1,2,1],[1,3,4],[2,3,1]]
distanceThreshold = 4
print(findTheCity(n, edges, distanceThreshold)) # Output: 3

```

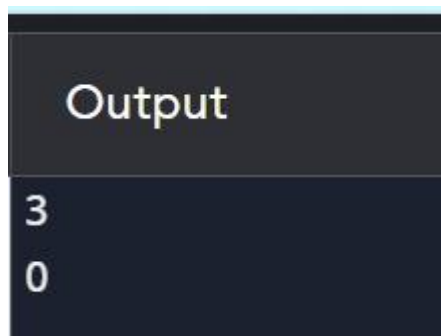
# Example 2

```

n = 5
edges = [[0,1,2],[0,4,8],[1,2,3],[1,4,2],[2,3,1],[3,4,1]]
distanceThreshold = 2
print(findTheCity(n, edges, distanceThreshold)) # Output: 0

```

**Output:**



**Timecomplexity:** $O(n^3)$