Task 1:

First of all, make all the distance for each node is infinity. Create a visited list and prev list to keep the track of previous node. Now from source node what's distance is 0 and push to the head and then pop from heap and check if the node is not visited if so, then we will check it new cos which is distance of node and the cost is smaller previous if so then update the weight mean cost and push to head again and recursively does it again.

Lastly if any node's cost is inf. then we will make it's cost to -1.

Task 2:

Same as before.

Now, 2 call two time dijkstra algorithm as one for person 1 and 2. for person two.

Same as before we will use priority queue and push from the node of person 1 and it's cost 0 and pop from the queue and check new distance if the distance is less then it's current + weight we will update the new- distance.

For two person we will get two distance list. Now, we check the two distance is not inf. then we will take the max of two and compare to min-time which

is previously set to inf. If new time is smaller then min-time then will update the min-time to to and meet will update with the node.

Now, If the meet value is not None and min-time not inf then we will print min-time and meet value.

Task 3:

Same as previous we will heap and initially make the danger list to infinity for all node and set source node as 0.

By priority queue it will maintaind by the smallest current danger. Now, recursively use dijkstra algorithm and select with

their lowest danger and updated of its neighbours when it is less than current value. If dest destination reached it returns minimum danger.