Rational behind the code:

heuristic (h) : our heuristic is (total number of people in the world) - (people i can rescue from my position)

in the heuristic we didn't check about the validity of the way, we check only that we reach on time the shelter.

in the A* algorithm we use the min(f) function : f= g +h.

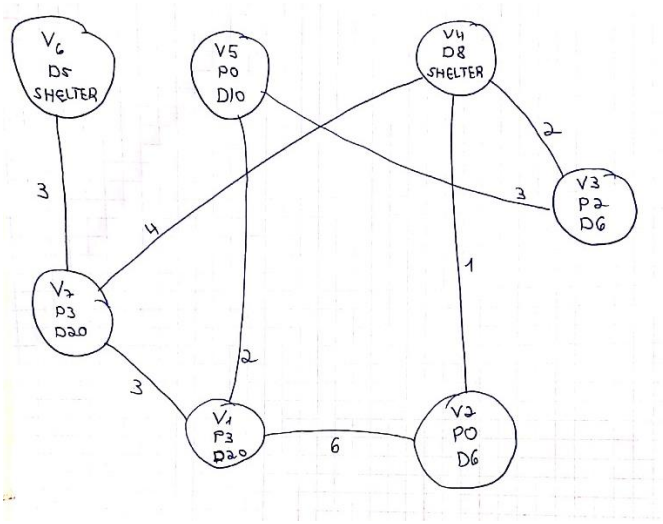
The g function build by the next struct: (number of people that stil wait for evacuation) + k + (2* number of people in the car at the moment)

but we calculate the g just when we been in terminated state

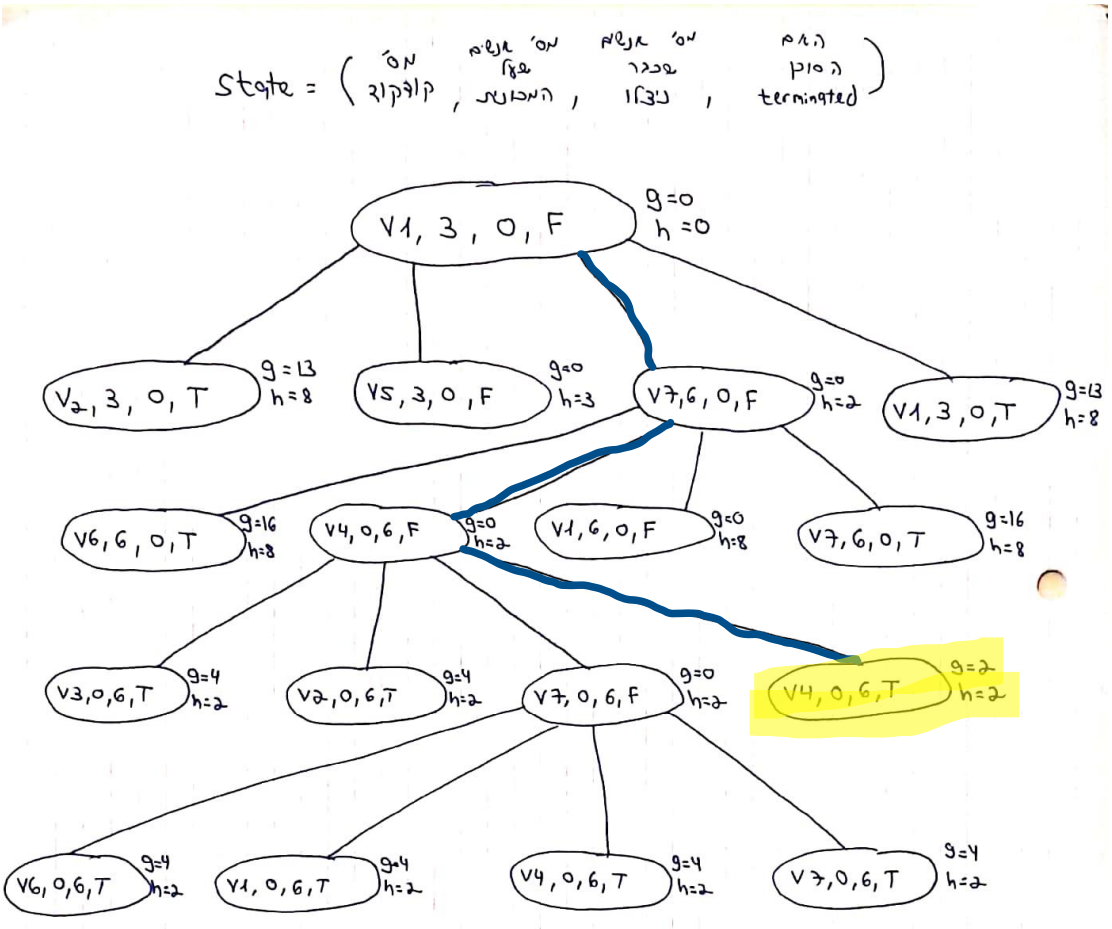
we use the min() function with the priority queue because we want to lose less people as possible in the Tzunami

Running Example using our program (K = 2, t = 0.0000001):

The Graph:

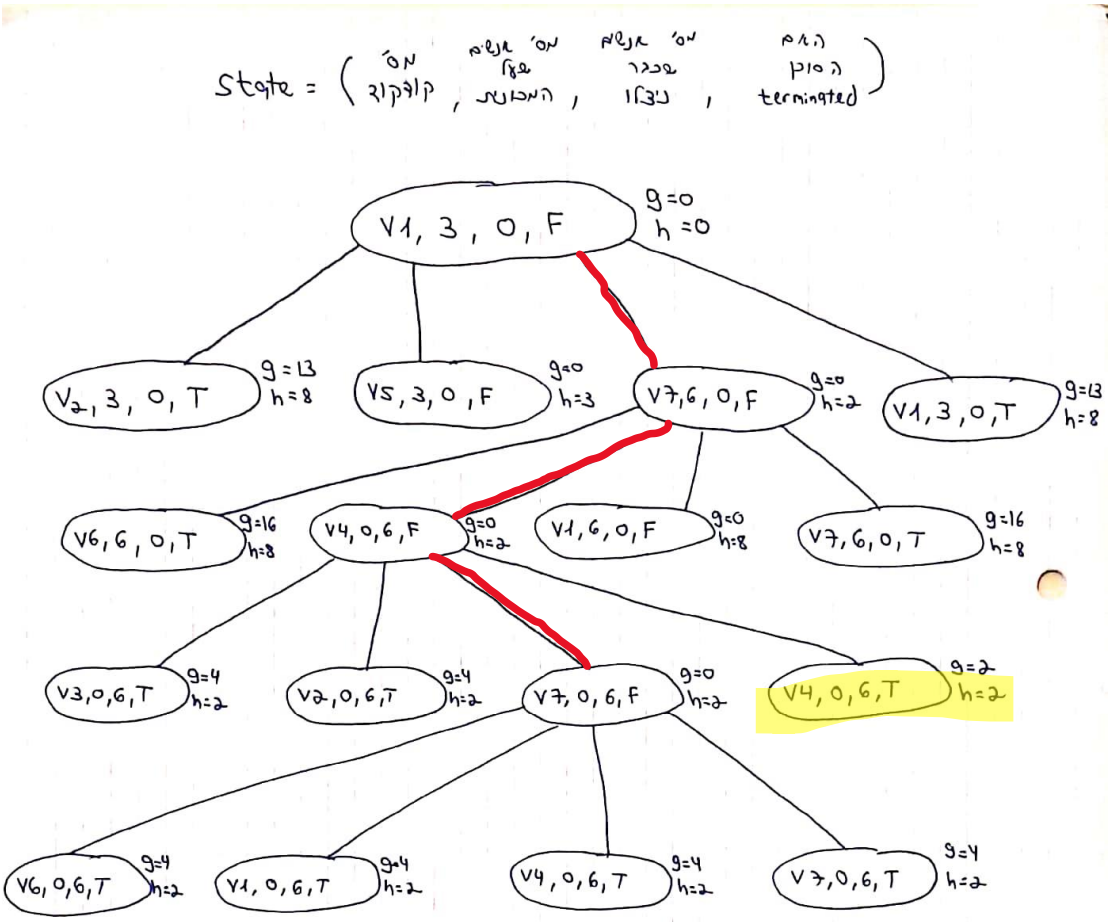


Search Tree – Greedy agent run (using only h values):



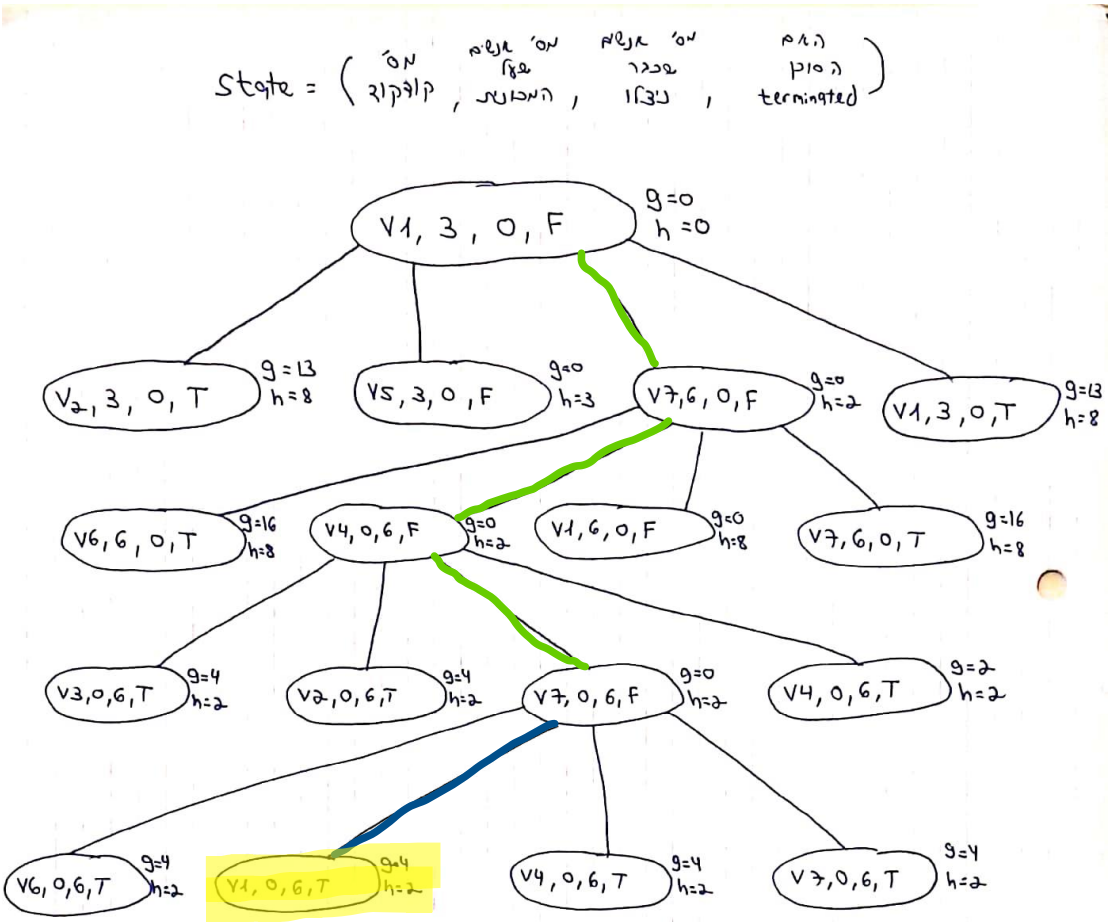
SCORE: 4

Search Tree A* Agent:



SCORE: 4

Search tree real time A* agent (L = 3):



SCORE: 2