

ELEVATOR SIMULATION

ROLL NO : CS09B048
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Problem Statement :

Simulate the 2 elevators over the floors of a building

Assumption :

Number of elevators : 2
Number of floors : 6

However, the code can be generalized to any number of floors and elevators.

Input format :

For every 4 iterations, a random number of passengers enter the building at various floors with various destinations.

Output format :

For every iteration :

- The passengers added and their source floor.
- The position of the 2 elevators.
- The passengers who enter the elevator in that floors along with waiting time.
- The passengers who leave the elevator at that floor.

Idea used :

The two elevators always operate in opposite directions and service all requests in its direction. Everytime the top floor or ground floor is reached, the elevator's direction is changed. For heavy crowd, this works well as average waiting time is less.

To be done :

To decide the direction based on the density of persons requesting the elevator.

Constraints :

10 is the maximum capacity of the elevator.