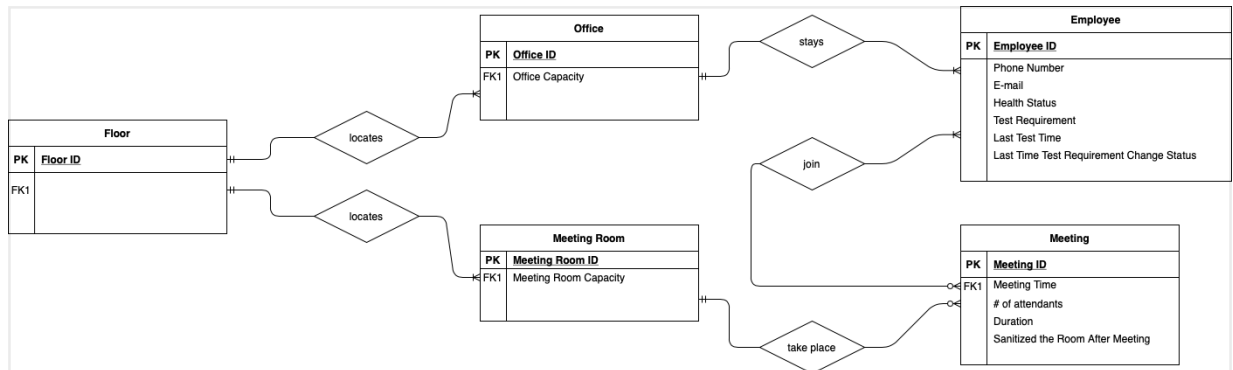


Readme



1. one floor has multiple offices (1:N) and multiple meeting rooms (1:N)
2. one office has multiple employees (1:N)
3. one meeting room holds multiple meetings (0:N)
4. one employee joins multiple meetings (0:N)

Employee has attributes:

Employee ID: ID

phone number (required)

email (optional)

Healthy status (health, sick and hospitalized)

Test Requirement (required, not required, recommended)

Last Test Time: last time he test covid

Last time Test Requirement Change Status: Test Requirement change status time

Meeting has attributes:

Meeting ID: unique id for each meeting

Meeting time: record the date of meeting, if one of the attendants is test positive, only the attendants in the meeting he joined in past 2 weeks would be informed. meeting over 2 weeks means safe.

of attendants: comparing with the room capacity, to decided whether social distance is maintained

Duration: meeting duration, if the meeting is less than certain minutes, even though someone is test positive, others have low probability to be infected

Sanitized Room After Meeting: (bool) whether the rho, is sanitized after

the meeting, if not, attendants of later meeting should be informed as well

Meeting room has attributes:

Meeting Room ID: unique id for meeting room

Capacity: number of people the room can sit

Office has attributes

Office ID: unique id for each office

Office capacity: number of employees in this office

Floor has attribute:

Floor ID: unique id for each floor

Assume all employees will stay in the office if there is no meeting

They will only go to other floor when there is a meeting, and they will only use the meeting room in that floor (no restroom etc.)

if one employee A is test positive:

1. A's health status become sick
2. find all employees in the same meetings A attended in past 2 weeks
3. list the employees in the same office as A
4. filter out people in 2. who has already tested after the meeting with A
5. inform people found in 3. and 4. to test (their Test Requirement will be 'required' until they show the test result (then it becomes not required), update the 'Last time test requirement change status' at the same time.
6. Recommend all employees in the same floor as the positive employee's office to test (their Test Requirement is recommended if previously is not required)
7. If some one test positive, start from 1 again
8. if some one's Test Requirement is recommended and the Last time test requirement change status is over 2 weeks, change it to not required
9. if some one's Test Requirement is required, they are not allowed to go to office or attend meetings.
10. if A update a doc that shows he is recovered, his health status become health again

