

SPACE-PROBE

CBRE is the world's largest Commercial Real Estate Services company by revenue. One common challenge we help our clients overcome is to help fill an office space, given a team's structure and preferences. And at the same time, maximize the amount of space available.

Assume there are 11 teams (1, 2, 3 ... 11) being allotted to 5 Floors (A, B, C, D, E).

Floor	Max Capacity
A	43
B	81
C	73
D	54
E	97

Team	Strength	Preferred	Tolerated	No way
1	22	2, 4, 6, 11	3, 8, 10	5, 7, 9
2	45	1, 3, 5	6, 7, 11	4, 8, 9, 10
3	34	1, 2, 11	7	4, 5, 6, 8, 9, 10
4	51	10	1, 3	2, 5, 6, 7, 8, 9, 11
5	11	1, 2, 3, 4	9, 10, 11	6, 7, 8
6	37	7, 10	1, 8	2, 3, 4, 5, 9, 11
7	42	1, 2, 3, 4, 5, 6	10, 11	8, 9
8	16	1, 10	2, 4, 11	3, 5, 6, 7, 9
9	29	1, 5	2, 10	3, 4, 6, 7, 8, 11
10	56	2, 6, 7, 11	4, 5, 8	1, 3, 9
11	49	1, 4, 5	2, 3, 6, 7, 9, 10	8

Create an app to visualize the most optimal way of allotting the teams to the space across the floors, so that none of the floors remain empty and at least 25% of each floor remains occupied.