We are given 2 inputs:

* List of dictionaries (represents blocks on street)
* List of required building names (Gym, School, Store)

We must find the block that has apartment from where we must walk least amount of distance to reach all the required buildings.

Every block has apartments.

{

"gym": false,

"school": true,

"store": false,

}

Above dictionary represents at this block, apartment: school is available and others are not (gym & store as their value is false)

So, writing the given sample input by eliminating false values:

G 🡪 Gym

Sc 🡪 School

St 🡪 Store

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 |
| Sc | G | G | Sc | Sc |
|  |  | Sc |  | St |

Here at index 3, the farthest you would have to walk to reach a gym, a school, or a store is 1 block; at any other index, you would have to walk farther.

We can use 3 for loops to solve the problem 🡪

1. First Loop: Iterate through all blocks.
2. Second Loop: At every block iterate through each of the required apartment.
3. Third Loop: Re-Iterate through all blocks to calculate the closest apartment to me.

Time complexity = O (B^2 \* R)

B^2 = as we must loop through block twice (loop 1 & loop 3).

R = as we iterate once through required apartments.