

B. type of list: singly linked list

Reason: list size is unlimited, fast to add more node to list

C. If growing the hotel with rooms of more beds is a possibility in the future, I need to add 1 more RoomLinkedList to my code (In my solution, each RoomLinkedList store occupied room for each type of room)

D. Complexity

Class RoomLinkedList

print $O(n)$

remove $O(n)$

removeUnusedRoom $O(n^2)$ traverse linked list twice

addRoom $O(1)$