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Question 5:

To ensure the maximum profit, since all the jobs take the same unit of time ,so there's no time interleaving,then suppose totally we have n unit of time to work, we only need to find the job with highest profit gi which deadline ti >= n unit.

In order to fulfill the requirement, it can first sort dictionary by ti from smallest to largest ,then for each unit find the job with largest gi before with n unit <= ti. In the worst case it take O(n\*n) time

In order to more efficient , can sort job dictionary by using max priority ,for each i , enqueue by ti with priority gi, this shortened complexity on find the largest gi work(which is O(logn)), it cost O(n \* logn) in total