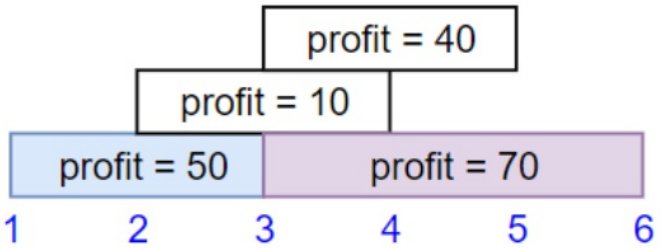
1235. Maximum Profit in Job Scheduling

Hard 304 5 Add to List Share

We have `n` jobs, where every job is scheduled to be done from `startTime[i]` to `endTime[i]`, obtaining a profit of `profit[i]`.

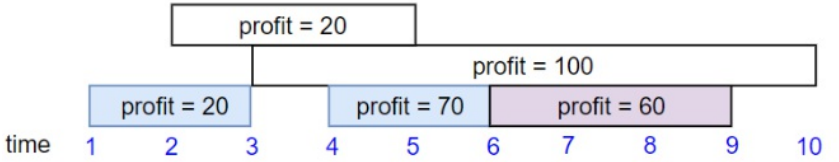
You're given the `startTime`, `endTime` and `profit` arrays, you need to output the maximum profit you can take such that there are no 2 jobs in the subset with overlapping time range.

If you choose a job that ends at time `X` you will be able to start another job that starts at time `X`.



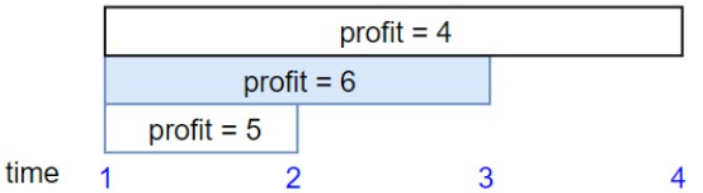
Input: startTime = [1,2,3,3], endTime = [3,4,5,6], profit = [50,10,40,70]
Output: 120
Explanation: The subset chosen is the first and fourth job.
Time range [1-3]+[3-6] , we get profit of 120 = 50 + 70.

Example 2:



Input: startTime = [1,2,3,4,6], endTime = [3,5,10,6,9], profit = [20,20,100,70,60]
Output: 150
Explanation: The subset chosen is the first, fourth and fifth job.
Profit obtained 150 = 20 + 70 + 60.

Example 3:



Input: startTime = [1,1,1], endTime = [2,3,4], profit = [5,6,4]
Output: 6

sort on the basis of end time and apply LIS over profit.

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[4,2,4,8,2]
[5,5,5,10,8]
[1,2,8,10,4]
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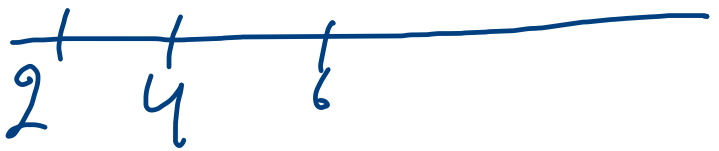


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(4 5 1) (2 5 2) (4 5 8) (2 8 4) (8 10 10)
 1 2 8 8 14
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