

Job Sequencing Problem

Given a set of N jobs where each job_i has a deadline and profit associated with it.

Each job takes 1 unit of time to complete and only one job can be scheduled at a time. We earn the profit associated with job if and only if the job is completed by its deadline.

Find the number of jobs done and the maximum profit.

Note: Jobs will be given in the form (Job_{id}, Deadline, Profit) associated with that job.

Example 1:

Input:

$N = 4$

Jobs = { (1, 4, 20), (2, 1, 10), (3, 1, 40), (4, 1, 30) }

Output:

2 60

Explanation:

Job₁ and Job₃ can be done with maximum profit of 60 (20+40).

Example 2:

Input:

$N = 5$

Jobs = { (1, 2, 100), (2, 1, 19), (3, 2, 27),
(4, 1, 25), (5, 1, 15) }

Output:

2 127

Explanation:

2 jobs can be done with maximum profit of 127 (100+27).

Your Task :

You don't need to read input or print anything. Your task is to complete the function `JobScheduling()` which takes an integer N and an array of Jobs (Job id, Deadline, Profit) as input and returns the count of jobs and maximum profit as a list or vector of 2 elements.

Expected Time Complexity: $O(N \log N)$

Expected Auxilliary Space: $O(N)$

Constraints:

$1 \leq N \leq 10^5$

$1 \leq \text{Deadline} \leq N$

$1 \leq \text{Profit} \leq 500$