

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 $(\text{Job}_{\text{id}}, \text{Deadline}, \text{Profit})$ associated with that Job.

Example 1:

Input:

$N = 4$

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

Output:

2 60

Explanation:

Job_1 and Job_3 can be done with maximum profit of 60 $(20+40)$.

Example 2:

Input:

$N = 5$

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

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.

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

Expected Auxilliary Space: $O(N)$

Constraints:

$1 \leq N \leq 10^5$

$1 \leq \text{Deadline} \leq 100$

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