**Problem Statement**

Let there be N workers and N jobs. Any worker can be assigned to perform any job, incurring some cost that may vary depending on the work-job assignment. It is required to perform all jobs by assigning exactly one worker to each job and exactly one job to each agent in such a way that the total cost of the assignment is minimized.

**Input Format**

Number of workers and job: N

Cost matrix C with dimension N\*N where C(i,j) is the cost incurred on assigning ith Person to jth Job.

**Sample Input**

4

[

9 2 7 8

6 4 3 7

5 8 1 8

7 6 9 4

]

**Sample Output**

13

**Constraints**

N <= 20

**Approach :**[**https://www.youtube.com/watch?v=685x-rzOIlY**](https://www.youtube.com/watch?v=685x-rzOIlY)

-> We assign jobs in sequence from job number 1 to job numbered n.

-> E.g Job number 1 can be assigned to any of the n persons but with different costs.

-> Same way in next lvl, Job number 2 can be assigned to any of n-1 persons (means excluding 1 person was assigned the job in iteration 1.) and then we return minimum of all

-> **So which people are left can be represented with masks . 0 represents a person is already assigned a job.**

-> So if dp[mask] is already processed , just return it.

**Code :** [**https://ideone.com/1KabdF**](https://ideone.com/1KabdF)