

## Maximum Bipartite Matching

There are  $M$  job applicants and  $N$  jobs. Each applicant has a subset of jobs that he/she is interested in. Each job opening can only accept one applicant and a job applicant can be appointed for only one job. Given a matrix  $G$  with  $M$  rows and  $N$  columns where  $G(i,j)$  denotes  $i^{\text{th}}$  applicant is interested in the  $j^{\text{th}}$  job. Find the maximum number of applicants who can get the job.

### **Example 1:**

**Input:**

$M = 3, N = 5$

$G = \{\{1,1,0,1,1\}, \{0,1,0,0,1\},$   
 $\{1,1,0,1,1\}\}$

**Output:** 3

**Explanation:** There is one of the possible assignment-

First applicant gets the 1st job.

Second applicant gets the 2nd job.

Third applicant gets the 4th job.

### **Example 2:**

**Input:**

$M = 6, N = 2$

$G = \{\{1,1\}, \{0,1\}, \{0,1\}, \{0,1\},$   
 $\{0,1\}, \{1,0\}\}$

**Output:** 2

**Explanation:** There is one of the possible assignment-

First applicant gets the 1st job.

Second applicant gets the 2nd job.

**Your Task:**

You don't need to read or print anything. Your task is to complete the function **maximumMatch()** which takes matrix G as input parameter and returns the maximum number of applicants who can get the job.

**Expected Time Complexity:**  $O(N^3)$ .

**Expected Auxiliary Space:**  $O(N)$ .

**Constraints:**

$1 \leq N, M \leq 100$