**Course Scheduling**

Doga Cambaz

There are n courses that you should take to graduate, and you can take at most k courses each quarter. Some courses have prerequisites, meaning that certain course(s) needs to be taken in the previous quarters, so that you can enroll in the course in the current quarter. Your aim is to graduate as soon as possible. You are provided the number of courses, the prerequisite relationships, and the maximum number of courses that can be taken each quarter, and you are supposed to output an integer, which is the minimum number of quarters you need to graduate.

**Example:**

**Input:**

5 4

1 4

3 4

2 4

4 5

2

**Output:**

4

n = 5

m = 4 (the length of the relations list)

prerequisites = [[1,4], [3,4], [2,4], [4,5]]

It represents the prerequisite relationship between courses that are numbered from 1 to n, and in the following format: [prerequisite, course]

k = 2

Chart

Description automatically generated