Gmail William Ting <williamdjting@gmail.com>

FW: Finding Friends

1 message

William Ting <william_ting_2@sfu.ca> Sun, Jul 16, 2023 at 6:08 AM
To: "williamdjting@gmail.com" <williamdjting@gmail.com>

From: Daily Byte
Sent: Sunday, July 16, 2023 6:08:29 AM (UTC-08:00) Pacific Time (US & Canada)
To: William Ting
Subject: Finding Friends

The Daily Byte

Good morning,

Need help with yesterday's problem? Start getting solutions.

> Today's Byte

This question is asked by Facebook. You are given a two dimensional matrix, `friends`, that represents relationships between coworkers in an office. If `friends[i][j] = 1` then coworker `i` is friends with coworker `j` and coworker `j` is friends with coworker `i`. Similarly if `friends[i][j] = 0` then coworker `i` is not friends with coworker `j` and coworker `j` is not friend with coworker `i`. Friendships in the office are transitive (i.e. if coworker one is friends with coworker two and coworker two is friends with coworker three, coworker one is also friends with coworker three). Given the friendships

in the office defined by `friends`, return the total number of distinct friends groups in the office. Note: Each coworker is friends with themselves (i.e. `matrix[i][j] = 1` for all values where `i = j`)

Ex: Given the following matrix `friends`...

```
friends = [
    [1, 1, 0],
    [1, 1, 0],
    [0, 0, 1]
], return 2.
The 0th and 1st coworkers are friends with one another (first
friend group).
The 2nd coworker is friends with themself (second friend
group).
```

Thanks,
The Daily Byte
