

Scenario

Your task is to develop an application to solve a classic mentoring challenge: matching! The application should allow uploading a .csv file that contains background information on employees, and present the ideal matches for the given employees.

Data

Uploaded files must contain 5 columns and 1 header row. The header row must be ordered as:

- Name
- Email
- Division
- Age
- UTC offset (number range [-12, 12])

We've attached a file named employees.csv that you can use for testing.

Scoring

A match is simply a pairing between two employees. Each match can be scored as follows:

- If both employees are in the same division: 30%
- If the age difference between employees is less than or equal to 5 years: 30%
- If both employees are in the same timezone: 40%

For example, given the following background information:

Name	Email	Division	Age	UTC offset
Gabrielle Clarkson	tamas@me_example.com	Accounting	25	2
Zoe Peters	gozer@icloud_example.com	Finance	30	3
Jacob Murray	lstein@me_example.com	Accounting	22	2
Nicholas Vance	saridder@outlook_example.com	Engineering	27	-3

A match between Gabrielle Clarkson and Zoe Peters would have a score of 30%.

Application Features

Your application should include:

1. An interface for uploading a .csv file as described above
2. A recommendation page that is shown after processing an input file showing the list of matches with the highest average match score

Example

In the case of 4 employees there are 3 possible combinations:

1. Gabrielle Clarkson with Zoe Peters (30%), Jacob Murray with Nicholas Vance (30%)
2. Gabrielle Clarkson with Jacob Murray (100%), Zoe Peters with Nicholas Vance (30%)
3. Gabrielle Clarkson with Nicholas Vance (30%), Zoe Peters with Jacob Murray (0%)

All the combinations have a certain average match score. Since all employees should be matched only once, the final result should be one of the three possible combinations. And that one combination should have a higher average match score than any other combination.

In this example the result is #2 and the highest average match score is 65%.

Note: There are rumors that the company has plans to update its matching requirements.