

Defining the problem

The client is a fellow student at my school. He was assigned the task of implementing the Buddy Program at our school. The Buddy Program is a way to encourage interactions between first years and second years at my school. Each first year is paired up with a second year through a lottery that takes into account the choices of the second year students

My client was selected to pair students based off the second years choices. Traditionally, this process was completed by hand. The client approached me to produce a product that would automate the process and result in a higher degree of general satisfaction among second years for their selected buddies.

My client told me that in addition to considering the second year selections, the program should consider attributes such as gender, region of the world that the student is from. The regions are broken up into NAD (North America), CLAD (Caribbean and Latin America), MIND (Middle East and Indian Subcontinent), END (Europe), AND (Africa), and PAND (Pacific Islands and Asia. Furthermore, my client wishes to have the ability to give some second years special access to instantly be given their first pick. The program must also account for the fact that the second year and first year class are not the same size.

Rationale for proposed solution

I have decided to use Java to write my program. This is mainly because I have had several years of experience with Java. It will be relatively easy to create an interface for my client to easily interact with. In addition, because of Java's portability, this solution will remain useful even as my client passes his duties on to a first year to facilitate the buddy program next year.

I will utilize google forms, google sheets and Microsoft excel to help out with the data collection process. From here, my program will read from the Microsoft excel file and process the data appropriately and return a matched list. The JXL package provides all the necessary tools for reading and writing from Microsoft Excel files. This program will take care of many of these processes allowing for a better user experience.

(Word Count: 360)

Stating success criteria

- The program should produce a list of matched first and second years. The list should account for every student
- The program should allow the user to select an appropriate excel file.
- Read and write data from/ into the excel file
- Considers region balance
- Produces appropriate data entry errors as opposed to crashing