Big Little

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Project Description

- A matching program for bigs and littles
- Designed using a genetic algorithm for matching up mentors and mentees of organizations based off of preferences

Project Goals

- Decrease bias within selecting bigs and littles
- Decrease the workload and stress on people in organizations who do the matching
- Allows people to good matches with mentors in their organizations

Project Justification

Why this project is important to me:

- I have 4 littles and 2 bigs
- My roommate is in Greek life and this process at scale is a huge source of drama

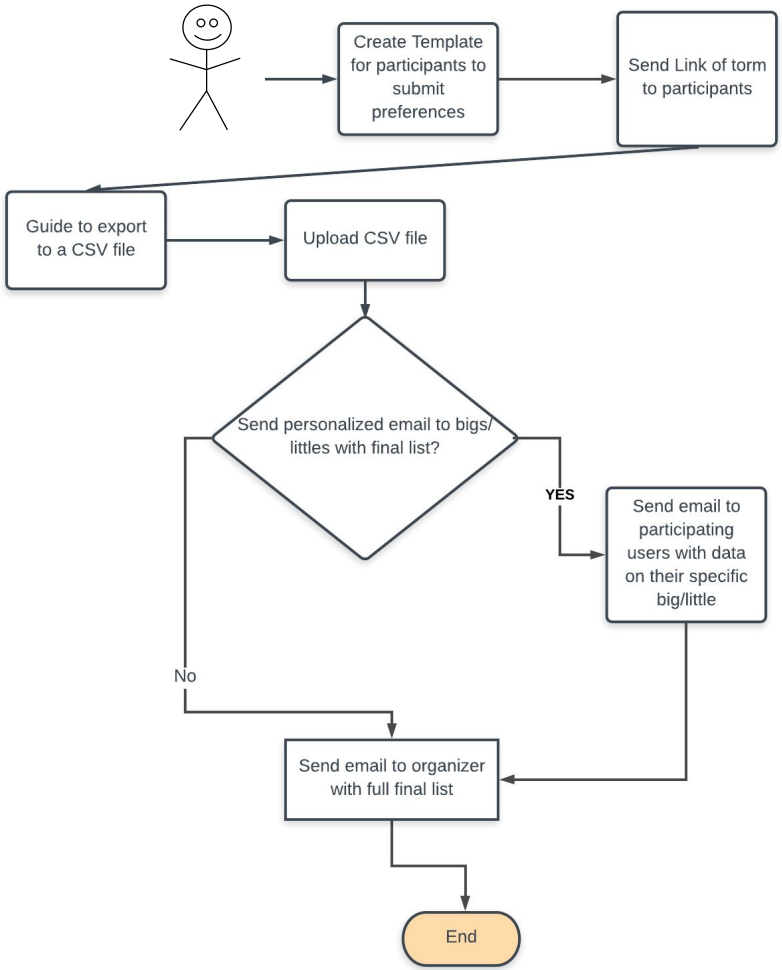
Why it’s a good use of my abilities:

- I LOVE algorithms
- I want to make things as simple as possible for people

Operational Goals

- User creates a google forms based off of a template we give them/ we create for them based on specific variables
- They send this form to their organizations to rank and select bigs and littles
- They export their data to a CSV
- They upload the CSV to my website and my algorithm takes in the CSV and runs a genetic algorithm to match all their users with a good match
- People who rank each other as a top choice will always be given their top choice!
- Benefits: The organizer still owns all the data, makes them less hesitant to take a chance on my algorithm

Use Case Diagram



BIG LITTLE

Swipe Down to Begin

Click here to create a google form!

Click here if you already have your users preferences!

Upload your form here!

STEP 1

Create a google form to get the preferences of your members!

LAST STEP

Send to Each Big and Little

Let all of your members know who they got matched with!

Send to Just the Bigs

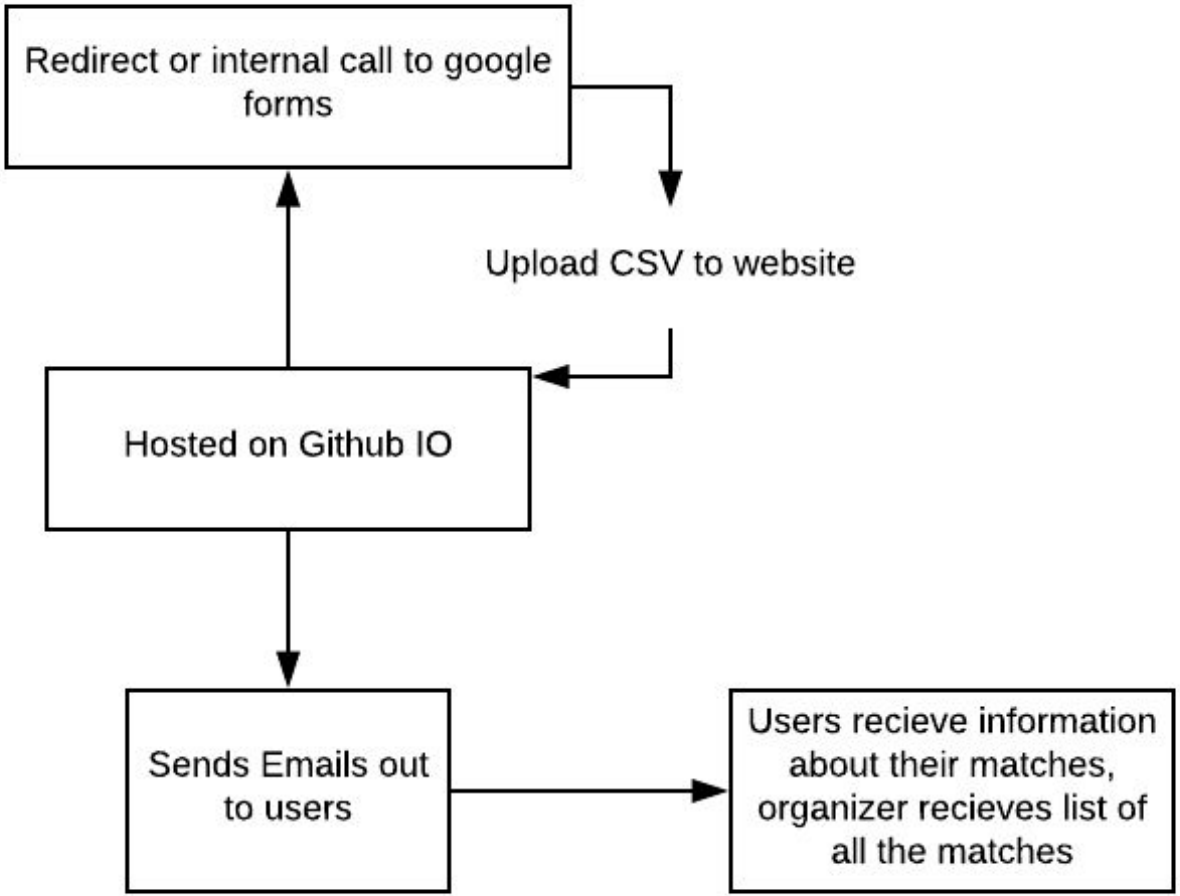
It's a surprise! We totally understand, click here to just let the bigs know who there littles are!

Just me thanks!

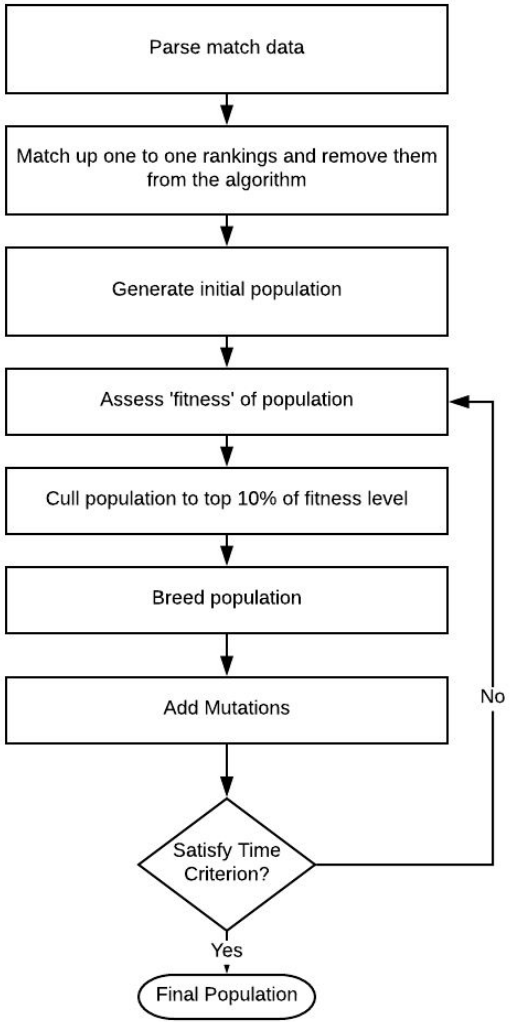
We'll send you the full list anyways but if you'd rather us just send it to you that's perfect!

Please allow 20 minutes for emails to be sent, generating the perfect match takes time!

System Diagram



Genetic Algorithm Diagram



Demonstration

Challenges

- Not having pivoted to this project until 2/3s of the way through the semester
- Figuring out whether or not to use the database in the final product or not

Status Update

- Working on building out the project sans database
- Working on the back end portion- the algorithm adapting it to work for varying sizes of littles/bigs, making it more optimal
- Next semester will start to work on the front end as well as the best way of doing generation for the google form, possible use of selenium(?)

Thank you!