

Honors Project - Are You the One?

Overview

Design a simulator of MTV's reality show *Are You the One*. The rules of this game are:

- 16 contestants get paired into 8 pairs of "perfect matches"
- Each week:
 - contestants pair up with who they think their perfect match is
 - contestants are told the number of correct perfect matches, but not which pairs are correct
 - one couple is sent to the "truth booth" for a definitive result of whether they are a perfect match

The goal is to find all perfect pairs as quickly as possible. In season 8, bisexual, pansexual, and gender queer contestants were chosen such that any contestant could be the perfect match of any other. This is also what we will simulate: you do not need to account for the gender or sexuality of contestants.

Requirements

Your simulator **must** do the following:

- Create 16 contestants and randomly select the 8 perfect pairs
- Simulate the game play

Additionally, your simulator must do **at least one** of the following:

- Visualize the game using a GUI
- Compare three or more game playing algorithms

Schedule

The schedule below is designed to keep you on track. Feel free to go faster if you would like. We will meet Fridays at 9:00 AM EST in Discord.

- Sept 17 - Intro meeting
- Oct 1 - Students present block diagram of proposed program. Include all necessary functions, classes, and modules, complete with expected inputs and outputs
- Nov 5 - Students demo (mostly) functioning program
- Dec 10 - Students demo fully functioning program

Deliverables

- Oct 15 - High quality block diagram prepared with e.g. Visio or code2flow
- Nov 5 & Dec 10 - 2 Presentations (code demos)
- Dec 10 - Code repo (feel free to use UConn's Github)

Expectations

I purposely leave a lot of room for creativity in this project - what does a good block diagram look like? How should my GUI look? How do I compare algorithms?

This is to encourage creativity and (hopefully) yield a lot of different approaches to this problem.

Feel free to try weird things and be creative. As long as your final project is high-quality and clearly written by you, we can have some wiggle room with the above deliverables. Reach out to me as soon as possible if there is a specific deliverable/requirement you would like to adjust.