

Criterion A - Planning

Problem Statement

Mr.Callahan does not have a way to pair tutees and tutors quickly.

Word Count: 13

Description of Scenario

Mr.Callahan is the advisor of the Peer Tutoring Club in ISB. Every year, he receives forms from tutors that contain information about their interested subjects, available times, etc., while he also gets several tutees. He said he pairs them at the beginning of the year based on his judgments and said the process takes time.¹

Word Count: 56

Rationale for the Proposed Product

As the program dealt with a large set of tutees and tutors and required efficiency when ranking the tutors, a computer program applying Object-Oriented Programming was used to replace the spreadsheet file Mr.Callahan (Client & Advisor) was using as stated in the interview.² Graphical User Interface was used because it was easier to use compared to raw sheets of data. The code was written in Java because I was most familiar with the language and it ran in multiple platforms. I used the Netbeans IDE for its simplified but powerful GUI builder.

Word Count: 97

Success Criteria

- a. The user will be able to
 - Import CSV files³
 - Record available time, interested subject of tutees and tutors etc.⁴
 - See as many matches for one tutee or tutor ranked⁵
 - Input number of wanted pairs and produce the best pair match ups for that quantity

¹ Kevin Callahan, interviewed by author, Bangkok, November 19, 2019, audio recording 1:23-1:39, Appendix 4

² Kevin Callahan, interviewed by author, Bangkok, November 19, 2019, audio recording 8:05-8:16, Appendix 4

³ Kevin Callahan, interviewed by author, Bangkok, November 19, 2019, audio recording 8:35-8:56, Appendix 4

⁴ Kevin Callahan, interviewed by author, Bangkok, November 19, 2019, audio recording 4:00-4:20, Appendix 4

⁵ Kevin Callahan, interviewed by author, Bangkok, December 8, 2019, audio recording 7:00-7:41, Appendix 4

- Receive a list that matches up the subjects and schedule of tutees and tutors⁶
- Receive a list that matches well with the user's manual list⁷
- Delete previous inputs from the list⁸
- Change data input in the list
- Display information about the pairs matched such as their meeting time⁹

b. User-friendly features

- Intuitive GUI
- Automatic CSV files import
- User note box for special attributes not default in the program¹⁰
- Presentation of data using tables instead of text field¹¹
- Already paired tutees and tutors no longer appear in the ranking¹²
- Labelling of variables in my program matches Mr.Callahan's¹³

c. Error/exception handling

- If wrong data type is input, program notifies the user
- If subject choice is not present in the options, there is an 'other' button where the user can add a new subject¹⁴

Word Count: 0 (Bulleted List)

Criterion A Word Count: 166

⁶ Kevin Callahan, interviewed by author, Bangkok, November 19, 2019, audio recording 2:00-2:19, Appendix 4

⁷ Kevin Callahan, interviewed by author, Bangkok, December 8, 2019, audio recording 21:50 - 22:07, Appendix 5

⁸ Kevin Callahan, interviewed by author, Bangkok, December 8, 2019, audio recording 19:30 - 19:53, Appendix 5

⁹ Kevin Callahan, interviewed by author, Bangkok, December 8, 2019, audio recording 16:46 - 17:00, Appendix 5

¹⁰ Kevin Callahan, interviewed by author, Bangkok, December 8, 2019, audio recording 2:44 - 2:52, Appendix 5

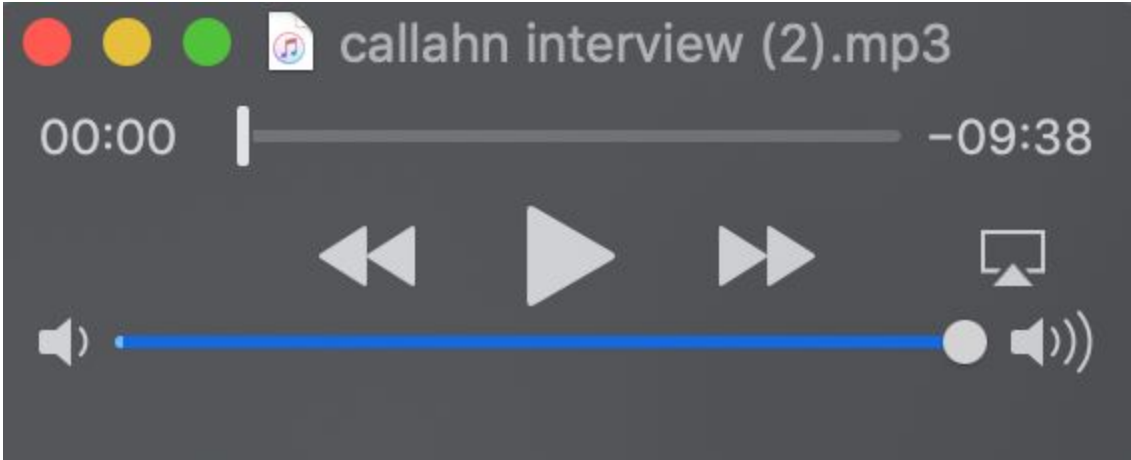
¹¹ Kevin Callahan, interviewed by author, Bangkok, December 8, 2019, audio recording 2:35 - 2:39, Appendix 5

¹² Kevin Callahan, interviewed by author, Bangkok, December 8, 2019, audio recording 7:21 - 8:26, Appendix 5

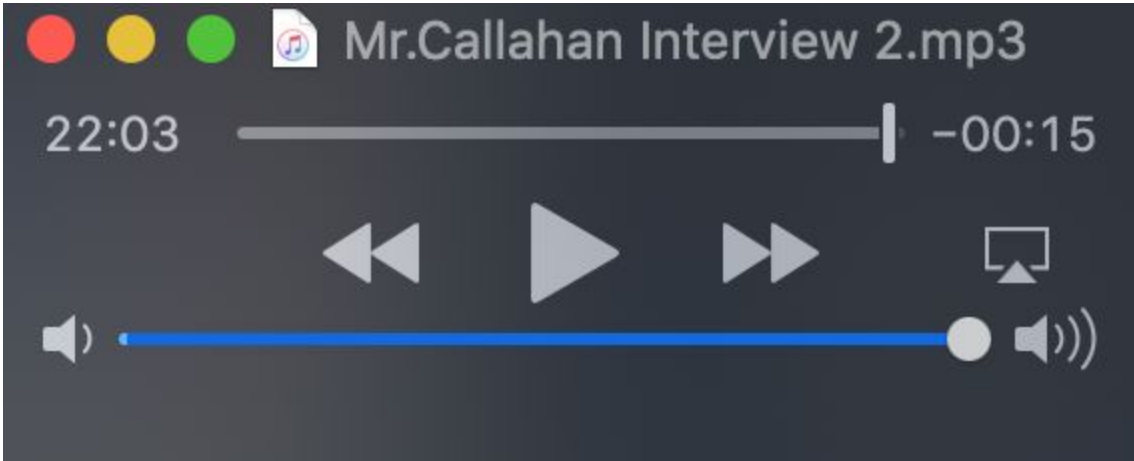
¹³ Kevin Callahan, interviewed by author, Bangkok, December 8, 2019, audio recording 10:50-11:03, Appendix 5

¹⁴ Kevin Callahan, interviewed by author, Bangkok, December 8, 2019, audio recording 15:01 - 15:20, Appendix 5

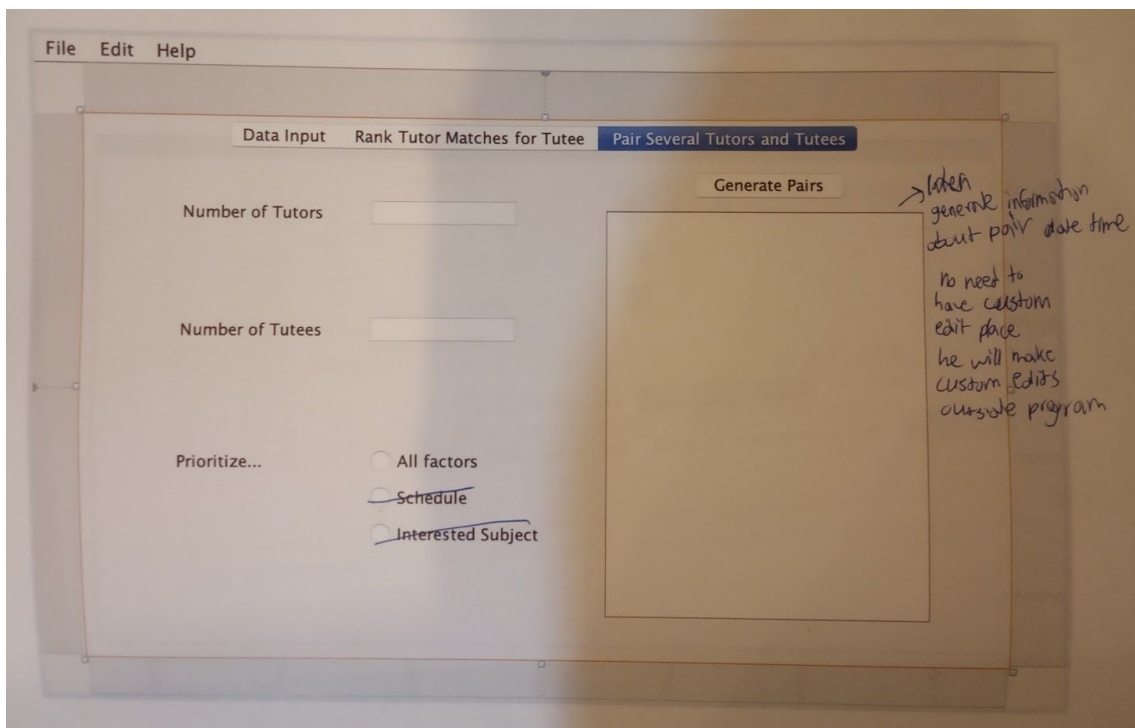
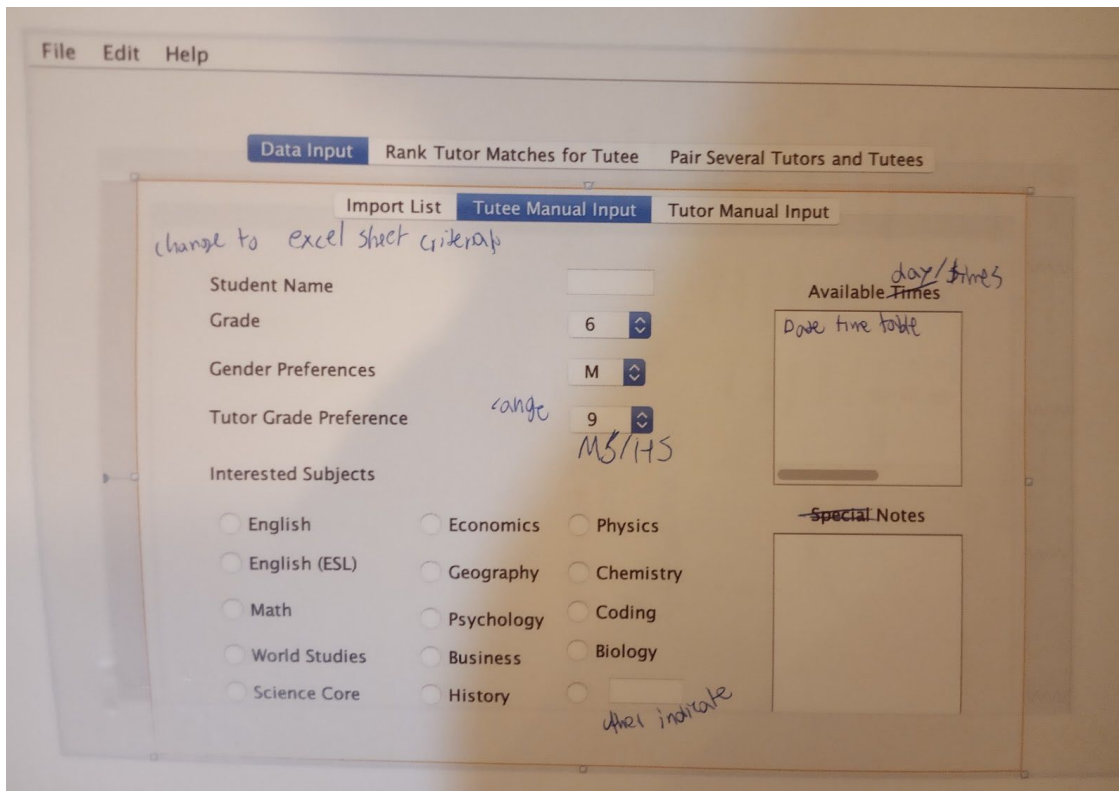
Initial Interview with Mr.Callahan - See Appendix 1



Prototype Interview with Mr.Callahan - See Appendix 2



Prototype Interview Annotations - See Appendix 3



PB or not PB

Student Name

Grade

9

Gender

M

Tutee Grade Preference

6

range

Interested Subjects

English

Economics

Physics

English (ESL)

Geography

Chemistry

Math

Psychology

Coding

World Studies

Business

Biology

Science Core

History

Special Notes

1) replace these with excel sheet language code

2) reading/writing don't worry

same charges apply

1) MS/HS
1:1

2) PB
↓
HS

4) MS/HS

5) MS on call
PB after school

