**Criterion A: Planning**

# Defining the client and Scenario (250-word count maximum)

My client, Ms. Lin, is the leader of a school community service club in Guangzhou.

According to her, the main goal for this club is to “help new students and faculty to know and easily adapt to the school culture.” This is done by guiding the newcomers around the school by following along with new students’ schedule, introduce them to people around the school, answer any of their questions, and basically anything that would help new students adapt the school feeling supported, confident, and not lonely on their first few days of enrollment. Ms. Lin’s job is to manage and assign “guides” (club members and volunteers) to new students by assigning guides to new members according to grade level, class schedule and others.

Presently, everything is done face to face. However, due to COVID-19 and recent years decrease in old students volunteering to be guides, some new students would be left without a guide. Moreover, even if they do have a guide, they might not have opinions of other guides and do not know who to contact if they need help.

I volunteered to help create a simple interactive interface or tutorial-like mini- program that would solve the problem. Ideally, this program would allow students to know where every class is, how to get there, all the while allowing Ms. Lin and other administrator to easier manage the club even with a lack of staff. My CS teacher, Mr. Blake, agreed to be my advisor for this endeavor.

**Word Count: 248**

# Stating Success Criteria

1. A log-in page with boxes that allows for text input of username and password for administrator to log in
2. A reset button that clears all text in field and a submit button that takes user to correct page according to their status (username and password)
3. A dropdown list for administrator to choose contact information to edit
4. A dropdown list for administrator to select grade level of contact to edit or add
5. 2 add buttons: 1 to add a new room and 1 to add a new contact
6. 2 sets of buttons for administrator to select contact availability to add, edit or delete
7. 2 sets of 2 input string text box for administrator to edit or add inputted contact first name and last name
8. A dropdown list for administrator to select room to edit or add
9. 2 input string text box for administrators to change the room names and room numbers
10. An upload button that allows administrators to choose an image from their desktop/device to go along with the selected rooms
11. A panel that shows a preview of what uploaded image of selected image of room looks like
12. An edible description panel that shows the descriptions that goes along with the room selected
13. 2 input text box for administrator to input room name and room number
14. A list that would allow users to select where they are (start location)
15. A list that would allow user to select where they want to go (destination)
16. A display “next” button that would trigger the display of next set of route instructions
17. A display of simple route instructions to how to reach the destination with photos and description based on start and end location user selects
18. A “go” button to trigger the sending of instructions and changes in display
19. A list of contacts available and contacts non-available for contacting the guides if student needs so
20. A button to allow user to see contact list to be sorted in order of grade level
21. A button to go back to the previous page

# Rationale for Proposed solution (250-word count maximum)

I used Eclipse IDE and the Java language because it was a language and IDE that was familiar to me. Also, it is easy to write different classes and using algorithm to sort information as well as handle object-oriented programming. After consulting with Ms. Lin, I broke down her situation into 2 parts when she complained that it takes a long time “finding out guide’s information and availability then assigning them to their buddies and then handing the guides the schedule of their buddies”

1. the lack of guides to show students around and adapt to school schedules and such
2. to manage and assign guides to the students as well as answer any questions from possible students and guides

I decided to use this solution as the visual display along with the description would be able to replace the need for a guide to lead students around the school. The user would be able to see where they need to go, how to get there by themselves. Ms. Lin and the other administrators would be able to edit the instructions, room locations, and guide information and availability. She would decrease the amount of time needed to hand guides the information about their new-comer-buddy and the time it takes to find guides as all she has to do is put every information into the program and the student themselves would be able to access and find their way, much less the guides.

**Word Count: 242**