

Criterion E: Evaluation

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Evaluation of the Product

Evaluation Based on the Success Criteria

The final product has successfully fulfilled all the success criteria listed in “Criterion A – Planning” Section. They are:

- A **login** system is included.
- The client can **input** student and dormitory data into the software easily.
- All the data can be **stored and maintained** in a database.
- The client can **update** the student and dormitory data in the software easily.
- The client can **check** if a student is already allocated.
- The client can **find** where the students are allocated.
- The allocation of students can be **visualized**.
- The client can **load** different allocation files.
- Students are allocated to **optimize** for diversity in all rooms.
- The file allocation can be **exported** to a spreadsheet.

In addition, some extra features were added in the development process, such as the “name searching” feature in student configuration.

Evaluation Based on the Feedback from the Client

Overall functionality to perform the room allocation task: 10/10

Diversity in the final room allocation: 9/10

User-friendliness: 8.5/10

Other Comments:

“The software is a little difficult to use in the beginning as a person who is not skilled in computer. However, once I got familiar with the software, it is very easy to use and user-friendly. It reduced my workload to allocate students to a great extent.”

Recommendations for further development

1. Add the option for number of student batches in the school so that the software can be extended for other schools with different size.
2. Optimize the efficiency of the genetic algorithm implemented in this software so that it can allocate rooms faster.
3. Optimize the genetic algorithm to take into account the balance of the nationalities of students among each building, rather than just rooms.

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