Problem encountered

1. Technical
2. Requirements collection

In the beginning, there was no stakeholder except the supervisor in this project. Moreover, there were only a few basic requirements provided. Therefore, how to collect requirements was the first problem we encountered. After discussion, we decided the target users of the software firstly and then agreed with the supervisor. Further, survey and focus group approaches were used to obtain requirements from the target users. The results of both methods were quite useful and helped to deal with the problem, which was the lack of requirements.

1. Software engineering method choice

For us who are inexperienced in software engineering, it is not easy to decide which software engineering method to use, traditional or agile. Firstly, we reviewed the related lectures of the Software Engineering module and listed the advantages and disadvantages of both methods. Also, we referred to the advice of the supervisor. Finally, we decided to combine two methods to develop this software. The traditional development method was used to detailly record the requirement documents, while the agile development method would be used in the design and development stages.

1. Technical research

For the technical research of development platform, development language, we did not know the detailed research direction and content. That perhaps because nobody has relevant experience in this team. Therefore, we referred the suggestion of supervisor. Further, we analyzed the report rubric and discussed carefully to determine the general direction.

1. Grammar problem

The supervisor pointed out that there were several grammar errors in the documentation files. Because all members of this team are Chinese, there is indeed some difficulty in writing formal reports in English. To deal with this problem, we decided to double-check all documentation and pay more attention to vocabulary usage and grammar errors when writing reports.

1. Managerial
2. Document management

For this one-year project, there are quite a lot of files need to be stored. Further, it is necessary that all members need to be able to check all files at any time. In the beginning, we sent files to the WeChat group. However, because of the massive amounts of messages, members always missed the essential files. Therefore, we decided to use GitHub repo to store all files.

1. Team management

Different members are responsible for different work in this project. However, it is difficult for members with cooperation to keep track of the progress of each other. To solve that problem, we decided to use the Kanban function in GitHub. At the same time, we assign issues in GitHub to ensure that each member knows about the tasks.

1. Time management
2. Formal meeting time longer than 30min

The supervisor emphasized that each formal meeting must be controlled within 30 minutes. However, sometimes we may have lots of content expected to discuss with the supervisor, which led to the meeting longer than 30 minutes. To solve this problem, one member pays attention to the time in each formal meeting. This member will remind everyone when necessary. Further, we carefully choose the more important content to discuss in the formal meetings.

1. The overall schedule

Compared to other groups, our overall progress seems a bit slow. That reason may be that we need to do more work to collect user requirements. Some members have raised concerns about whether we could finish the project. Then, we showed the module convenor the timeline and asked him if it was a reasonable arrangement to schedule time. The result is that he reminded us to focus on ourselves because it is meaningless to compare with different groups. We should follow our timeline.

1. Interpersonal
2. Disagreement about the prototype

A severe disagreement occurred during the prototype design stage. Different members had different opinions about the process of learning sorting algorithms. This kind of situation is not a surprise, and we predicted it in the risk management section. To deal with this problem, all the members must keep calm. Then, we decide to finish the sequence diagram together, and the disagreement above solved finally.

1. The chairperson and secretary assignment

Since the chairperson of each meeting needs to prepare in advance, while the secretary is responsible for meeting minutes and assigning tasks. It is not reasonable for the same person to do the work in every meeting. Therefore, we decided to take turns to be the chairperson and secretary of each meeting to make sure that everyone had a relatively equal workload.