

## Individual Milestone 4 Report

### Executive Summary

Research on Plugins. Aftering semester 1, I found almost plugin system use APIs, but, so far, most of us have done some tickets, which means that if using APIs, we need to redo what we've done. Therefore, I compare some other skills. Two main techniques of them are Method 1: Use code, which can run itself and Method 2: APIs.

### Tasks and Activities Assigned

- Method 1 Use code.
  - Sub-task 1: Look at how it works in ruby on rails.
    - \* Description: The function can be used in any tickets. When tickets are installed in earth, the function will run firstly and then trigger the main functions in the ticket. So ticket can run itself.
    - \* Idea/Solution: Search wheter there is function like other languanges, Java or C++, that can use directly, or we need to build it ourselves.
    - \* Estimated time taken (planned): N/A hours
    - \* Estimated time taken (actual): 40 hours
  - Sub-task 2: Solve the security issue.
    - \* Description: There is a security issue in this way, and some tickets have mentioned that we need to think about which part of earth coding we can expand and / or extend.
    - \* Idea/Solution: Set privilege, or protect function to avoid illegal action.
    - \* Git commits: Spend lots of time on it, and, unfortunately, have on idea about it.
    - \* Estimated time taken (planned): N/A hours
    - \* Estimated time taken (actual): 20 hours
- Method 2 APIs.
  - Make structure on earth.
    - \* Description: Set earth structure and express how other ways are not good enough to solve our problems.
    - \* Idea/Solution: Discuss it with other group member to get same idea and answer their questions.
    - \* Affected files: N/A
    - \* Git commits: N/A
    - \* Estimated time taken (planned): N/A hours
    - \* Estimated time taken (actual): 5 hours
  - Sub-task 2: Publish standards and API
    - \* Description: Set three main parts up-level: front-end, back-end, database
    - \* Idea/Solution: rebuild file\_monitor
    - \* Affected files: N/A
    - \* Git commits: N/A
    - \* Estimated time taken (planned): N/A hour
    - \* Estimated time taken (actual): N/A hours

- Rebuild file\_monitor
  - Description: Set an example on how to use APIs to create plugin.
  - Idea/Solution: Divide it into several basic functions
  - Comments: Divide file\_monitor into several different basic functions, no matter which of privilege it is in the file\_monitor. However, I change mind again, when nearly finishing, and use the next skill). Set file\_monitor as a up-level package to control database. Do the new code with ken and test it.
  - Estimated time taken (actual): 15 hours
- Discuss with other MSE students
  - Description: See whether we need to rebuild subgroup to do our MSE project.
  - Idea/Solution: Make us more effective and more ambitious
  - Comments: Most of us eager to rebuild.
  - Estimated time taken (actual): 1 hours
- Research on the Gui.
  - Description: Ruby is different from Javascript and Asp, and observer part can meet problem to use APIs.
  - Idea/Solution: Talk with friends, search info from webpage.
  - comments: Find problem, try to solve it.
  - Estimated time taken (actual): 1 hours

## Resource Contributions

No idea how to write this part.

## Rooms for Improvement

I need to estimate time and try to show more what I have done, especially coding.