

Milestone 5 Individual Report

Alex Egan

1 Task Description

The task assigned to me was a continuation of work from the last milestone. This was to implement sorting in the Navigation view by being able to click on the column headings. Identifying the issues in the All Files view and correcting them were decided to be a prerequisite for altering the Navigation view.

2 Progress Summary

While the task was not completed, progress was made. Through work in this milestone, I feel that I have a better understanding of Ruby and the model-view-controller architecture of Ruby on Rails. The bugs in the All Files view were found to not be due to view code, but most likely controller code. This was through reading code, research and testing. There are no obvious issues in the controller code but interactions with the database appear, at this point, to be the issue. The database handles all the sorting of the file listing. This is passed to the controller and then on to the view where it is formatted for output. When there is only one page of results, the sorting breaks down but no handling of the case when there is only one page is obvious. Future investigations will be into ensuring the queries being performed are correct under the required cases and boundary conditions, investigating the removal of dynamic updating of the file listing data set from the database and complete removal of pagination.

During work on this task, it was noted that SQL injection is possible by altering the ordering criteria name in the browser address bar. There is protection for the sort direction. This will be addressed as a separate ticket at a later stage. Checking and cleaning all user inputs to prevent SQL injection needs to be carried out and added throughout the Earth codebase.

3 Resource Allocation

The estimate as in the plan is below.

Subtasks:

1. Investigate issues raised in previous milestone. (6 hrs)

2. Implement changes. (3 hrs)
3. Test and integrate solution to the group codebase. (1 hr)
4. Miscellaneous administration and meetings. (5 hrs)

Total Time Estimate: 15 hrs

4 Resource Use

See the Time Log in Section 5 for a break-down time spent by individual tasks.

The task was not completed on the planned schedule. There were less meetings than expected due to restructuring of the group and the well directed tasks. Taking time to research and review code meant that direct, immediate progress was not necessarily made but was worth it for better understanding and future development. Peer programming was very beneficial in this milestone and much of the coding time spent was during peer programming.

5 Time Log

Coding: 8 hrs
Ruby Research: 2 hrs
Ruby API Research: 1 hr
Milestone 5 Meeting: 1 hr
Pre-presentation meeting: 1 hr
Presentation: 1 hr

Sprint Total: 14 hrs