

## Workflow Separation

We split the work into client-side (Ruixin+Louise) and server-side (Brandon+Zilong). Each pair tested and reviewed each other's' code. We occasionally did pair programming on particularly tricky bits of code. Pair programming is particularly useful in debugging as two minds are able to detect mistakes more easily.

## Testing of Source Code

The source code is not tested automatically. We performed usability testing on the following components:

- Login
- User registration
- Users navigating through the file system
- Users uploading files and creating folders
- Users downloading, overwriting and deleting files (note: overwriting is not working correctly)
- Users changing the sharing permissions of files (note: removing a user from the sharing permissions is not working correctly on the UI side)
- Users viewing the file log
- Users changing their password and emails

However, since we have no persistent state and no communication with the server, this was focused on ensuring that the UI was usable and that the client maintains a consistent and usable model.

## FindBugs

As of the 3rd of March, we had 91 bugs. Our highest ranked bug is rank 14 (Troubling). FindBugs was not concerned that we could read and write arbitrary files through a network, which is probably the biggest "security flaw".

Some bugs we fixed include:

Rank 15

- Unwritten field: `org.cs5431_client.model.User.userLogId`

Solution: set to temporary fake value since backend is not up

Rank 16

- `org.cs5431_client.controller.FileController.uploadFile(File, Folder)` may fail to close stream

Solution: comment it out since backend is not up and therefore can't respond

Rank 17

- Return value of `org.cs5431_client.controller.FileController.download(int)` ignored, but method has no side effect

Solution: read the return value but don't do anything since the backend is not up and we're mocking up the server responses

Overall, the bugs reported were not significant and mainly related to the fact that we are still testing our code that communicates between client and server, and because the backend is not yet fully functional.