

Quality Plan

for the

Electronically Returned Assignments

by

Zachary Auer
Joshua Raben
Michael Rhodes
Cameron Scott

of

ER Assignments

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Unit Testing

Team members will conduct unit testing on individual modules of code throughout development. Unit tests will ensure that each individual module works individually, as well as together as a larger unit. Members will also integration test code developed in previous sprints to ensure that the addition of new code did not break previous modules. Specific aspects of our project that members will unit test include QR code reading, uploading documents to the server, ordering and orienting PDF documents, and more. Team members will be the primary conductor of these tests.

Client Acceptance Testing

Client Acceptance Testing will be conducted every time a new functional product has been produced. Members will guide the client through the general workflow to ensure that everything works as the client envisioned. Members will ask the client specific questions about each part of the process to identify any potential areas that could be improved. The client will be the primary source of information for these tests, but the team members will be conducting them.

Field Testing

Team members will walk through the entire work process, using only equipment that will be used in the field. This includes using the Chemistry Department scanner, printer, and computers (if necessary). In doing this we will be confirming that our software works both by itself as well as when we integrate it into its intended position when all software has been developed. We will make sure to stress test the section of our program that deals with the processing of PDFs. We will conduct these stress tests with approximately double the amount of PDFs that we expect the teacher to supply our software with. We hope that our algorithm will be able to process the expected amount of PDFs within a reasonable time of time, estimated to be around 5 minutes.

Usability Testing

Team members may conduct usability testing post-Beta phase in 499 to ensure that the work flow comes naturally to users outside of the development team. The team will most likely conduct these tests on Professors at SIUE, Teacher's Assistants, and other students. Depending on the results of these tests, the team may have to re-design the user interface to make it easier to use.

Open Project Methodology

The team plans to use certain features provided by Open Project. These features include the meeting minutes in order to keep track of specific topics addressed at each meeting, and decisions that were made during each meeting. We will also use the User Story feature to document each piece of functionality that needs to be included in the software, and who will be responsible for completing each task. We plan to use burndown charts to help visualize the amount of work remaining in our project, as well as team velocity and effort.

Repository Structure

The structure of our repository will resemble the 'standard', where we will each branch off of a "develop" branch at the beginning of the sprint, develop our individual user stories/tasks in our own local branch, merge into a story specific "develop" branch, and then merge those "develop" branches back into the main "develop" branch. Once we have integrated all team members functionality in the develop branches, we will push the finalized code into master.