

Dear Dr. Moore,

We have started the first stages of our design process, and have come up with a preliminary proposal. The following document outlines our thoughts on the software platform and features. Attached is a preliminary UML diagram of our design. It is definitely subject to change, and as we write our program tests we will probably refine and polish it quite a bit; however, this version should give you a rough idea of our program's structure.

Platform

- The software will be written in Java, so it is designed from the start to be cross-platform.
- The user computer in the machine shop will preferably be running Windows 7 with a touch-screen monitor.
- The user computer in the machine shop will also have a keyboard and Blastercard reader. The keyboard will be used for back-up CWID entry in case the card reader is not working, and for entering other information.
- The database should also be accessible from other computers, so that administrators such as yourself may access it from other computers besides the one in the machine shop.
- We plan on using MongoDB for the database and hosting it on a Mines server.

Features

Besides the basic requirements discussed in the requirements document, we plan to add some features as time allows. Some ideas we have are as follows (and we'll probably come up with more soon):

- We hope to be able to use the school's Blastercard database to check the cards of all new users to make sure they are legitimate, and also to run periodic database cleanings where all users with inactive CWIDS are removed from the machine shop database.
- Allow users to request a tool (put their name on the "waiting list" for tools that are already checked out).
- Allow administrators to view detailed information about students, machines, tools, and the comings and goings of users (the log). This can be extended quite a lot, to allow more interactive control over how the admin views the relevant data. We'll see what time allows.

Thank you for your consideration. Let us know what changes you need us to make and ask us any questions you may have.

Sincerely,

Taylor Sallee
Chaeha Park
Nikki Hetrick
Shawn Toffel

