Project Proposal

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As a group, we will be designing and developing a database driven application for Mizzou Student Unions. The goal of the application will be to help our client have a better inventory management system that will allow them to create or remove items that students are able to check out from the desk and better manage their checkout services. To obtain that goal, the application will be web-based, allow the user to enter in notes about the item or mention it’s quality, it will send an automated email if an item is broken, it will allow the user to view all the items and show if they are currently checked out or not, different locations will be able to use our application, the user can also add or edit locations, the user will be able to tell where items are checked in or out at, information of whether or not the waiver has been signed by the student renting items, items will be editable, there will be a way to renew rentals, a rental history for each user will be available, the application will have a pop-up for overdue items, time limits for checkouts will be created, and items can be assigned tags. We have already met as a group to discuss how we will be going about creating this application.

We will be using php, SQL, Bootstrap, and CSS to develop our application. We have also already joined Github to help us share our code with the other members in our group. To make communication even easier, we made a GroupMe group for all of us to share ideas and ask questions when we are not meeting face-to-face. We will, however, be meeting every Tuesday evening to work on this project together. We will be meeting in a reserved study room at the Student Center to minimize distractions and maximize the amount of work we can finish during our time together. Even though this is a group project, we still expect everyone to pull their weight and meeting in person will help us keep track of how far each member has progressed in their work.

Another way to make sure that all of our group members are doing their part, we have assigned different tasks to each member (we will still work together as a group and help each other out, but each member is expected to focus on their assigned area to help delegate tasks and complete our application before the semester ends). Reiker Seiffee will be focusing on the CSS and the front end of the application, as well as the actual creation of the database, Cameron Barker will be focusing on the rentable items backend, Michael Smith will be working on the students backend, Jeff Ruffolo will be working on the faculty backend, and Megan Cochran will be focusing on the locations backend. These tasks are based on the current ERD that we have created together based on what we know so far. However, some of this is subject to change since we do not actually have much knowledge from our client yet. As stated earlier, we do have an ERD made to help point us in the right direction, but it is just a draft until we get more information about what the client actually wants. To help us gain a better grasp of what Mizzou Student Unions is looking for in this application, we have put together a list of twenty questions to ask them. Those twenty questions are listed here:

1. What are all the items that are able to be checked out?
2. How many items can a student check out at a time?
3. What restrictions are there on checking out multiple items of same type? For example, could I check out two laptops at the same time?
4. What conditions can items be in? New, good, broken, fine? Or is it on a numerical scale ranking the condition?
5. Can students who have a history of damaging items be banned from renting out certain items?
6. Can an item have multiple conditions?
7. Should condition history be kept?
8. What search queries can be run?
9. How many waivers are there?
10. Do waivers expire?
11. How many locations are there?
12. Do you have to return the item to the same location?
13. Can items be moved to different locations based on demands?
14. Should location history be kept?
15. What item tags should there be?
16. Should each item be able to have multiple tags?
17. Can somebody else check-in an item for another person?
18. Do we need to track which employee checks out items?
19. Should each employee have a login or only have one per location?
20. Are there varying levels of permissions for employees? Will a regular student employee be able to see everything that the manager can on this application?

These questions were ones asked by all of our group members, and will hopefully be able to help us gain a better understanding for what the client wants. While meeting in our group and coming up with our ERD, we were stumped several times on whether or not a table or an attribute was necessary to be added to our database. We also are not fully knowledgeable on how the Mizzou Student Unions rental services work. After talking to the clients, our vision for what needs to be included will be much clearer and we will be able to start on our application together.

Once we have received our answers, we will be able to begin putting together our application. We will have the information needed to create our database based on the pieces of information that Mizzou Student Unions wants to store/access while using this application. We may have to change up our initial tasks/ERD based on new information from the client, but we already came to terms with that as a group beforehand and agreed that everyone will play an equal part in developing our application and in participating in the “database work” of the application.