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Tasks for Online Study

Task 1

Imagine that your name is Kenneth and you are on your way to class. Before you leave the house though, you want to check that you have everything you need for the day. You move to the scanner that is by the door while remembering that you set your password to 1. When you are ready, please open this [link](#) in a new window and verify that you have everything that you need for the day. Please continue the survey when you are finished.

Task 2

Imagine that you just bought a brand new wallet that you want our system to track. You open the scheduling application on your computer. When you are ready, please open this [link](#) in a new window and add your new wallet to the system. Please continue the survey when you are finished.

Task 3

Imagine that you just started taking a dance class and you want our system to help you remember items that you need to bring to it. The class takes place at the HUB from 6 to 7 pm, and you need to bring your "Essentials", wallet, and glasses. You open the scheduling application on your computer. When you are ready, please open this [link](#) in a new window and add your new activity to the system. Please continue the survey when you are finished.

Survey Questions

For our first survey, we asked the following demographic questions:

- How often do you think you forget to bring necessary items with you? For example, you're in math class but left your calculator at home.
- How do you keep track of all the classes, meetings, and/or activities?
- How much time do you usually have in the morning to get ready before leaving your home?
- On your average day, how many times do you leave and come back to your home? For example, if you leave for class in the morning, come back for lunch, leave again for lab, and then come back again, you would answer twice a day.

For our second survey, we also asked the additional questions:

- Your gender?
- Your age?
- Your occupation?
- In general, how forgetful do you think you are?
- In general, how busy do you think you are?

We asked users to perform the same tasks in both surveys. However, due to a communication problem, our first survey had the second task link to the scanner interface, when it should have linked to the calendar interface. For both surveys we asked the following follow-up questions after each task:

- How difficult did you find this task?
- [A question that tests whether the user successfully completed the task]
- Please describe any difficulty you encountered during the task, or any other comments you have about the interface.

Study Results

We learned several things from our survey participants.

- Age range about 20 - 30
- All are students.
- All are somewhat forgetful.
- When leaving for work or school in the morning, people usually think they are not forgetting anything.
- Most people use a paper calendar or no external aids at all to keep track of planned events.
- Most people spend 30 to 60 minutes in the morning preparing for the day.
- People typically return home once or twice during the course of the day.
- Everyone discovered the interface to be either easy or very easy to use, when they were given the correct link.
- Asking users how many items they were forgetting for the first task, they indirectly told us how much the user played around with the interface. If the user went directly to the forgotten items screen, they would enter 2 forgotten items. If the user played around with the interface, they would trigger the scan again logic, and would enter 1 forgotten item (0 wasn't in the list of choices). 6 out of 8 participants entered 2 items, meaning they did not click the scan again button or play around in the interface.
- For the two participants that saw the correct task 2, both said they added the wallet to a group. However, one of the participants was still confused by the groups and wasn't sure if he had to add the item to a group or if he could just add it by itself.
- 5 out of 8 participants said that their activity was correctly added after performing task 3, even though they were not given a confirmation screen, or were able to see the added activity. People wanted feedback after registering new items with the scanner or adding events to the calendar.

Recommendations for Design Changes

- We need to add more documentation to our interface. This is especially true of the items/groups relationship since many people still found it confusing. Even though we thought our interface was simple enough that it did not need much help text, we realize that there will always be people that will not get it right away.
- We need to add confirmation screens whenever a user adds an activity or item. The lack of confirmation screens was one of our biggest complaints in our online usability testing.
- We may want to allow for a stripped down version of adding items and activities to the scanner interface. We didn't intend to add this functionality originally because we thought that people would only want use the scanner interface before they leave their house, though this may not always be the case.
- We want to use something other than DENIM since it is very difficult to take care of state and do meaningful dynamic UI updates.

Summary

Our survey shows that our interface is extremely easy to use, but lacking in appropriate visual feedback. Additionally, we discovered that people are very forgetful demonstrating the need for our product in the marketplace. DENIM, although an excellent low to medium-fidelity prototyping program, does not lend it self to being extended to include the intuitive and easy to use visual interface design tools already present in open-source IDEs, such as NetBeans. Continuing to develop DENIM would be an unnecessary diversion of effort that could be instead spent improving and extending existing interface design tools.

Appendix

See attached pages.