Progress Report: Phase 1

Group 4

**Improving the Usability of Password Managers**

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## Progress in this Phase

In the first phase of our project, we have accomplished our first two major tasks in the work plan:

1. Create a list of criterion for our usable password manager, supported by the literature
2. Establish a prototype of the password manager, based upon 1.

Our criteria consists of 7 concise points that are each backed by observations from previously conducted studies. They primarily relate to functionality within the extension, and do not prescribe many specifics, at least in terms of the implementation of those features.

Establishing the prototype was the process of translating the features into an actual interface. We used Draw.io to accomplish this, and present the key functionality of the prototype, alongside explanations, in the following pages.

## Learning Experiences

Our main learning experience in this phase was the realization that each of us have a different idea of what it means to create a usable browser extension. We each came to the table with differing ideas and priorities when it came to crafting the criteria for our extension. Much of the obstacles in this phase were simply deciding which of our goals were compatible and feasible in the timeframe.

Resolving these conflicts in an amicable way was an important aspect of our group meetings. We would suggest ideas, and hear feedback from the group members, before deciding to include the feature in the extension. In some cases, where we could not reach a majority opinion (such as the placement of the “Fill” button), we elected to produce both options, and incorporate the question as part of study design in Phase 2. In this way, we were able to organically determine some of the questions that may arise during the piloting process.

## Lingering Questions

We were struck in our prototype development by the expanding scope of the problem, and wondered if it was realistic to create an actual browser extension in the time allotted. We had not anticipated the delays that would arise from our differing opinions, and realized too late that we could not actually implement the extension before the deadline.

After discussing with Dr. Hawkey and Hubert, we compromised by creating a wireframe prototype that visually describes the functionality. Unfortunately, this is only a static visualization. The question is: will we need a functioning prototype to be able to effectively conduct a usability pilot in the second phase? We could provide doctored examples, and simply ask the user to choose their likely action based on the image, but is this too low interactivity?