iResume

Milestone 4

Higher Fidelity Prototyping and Evaluation Planning

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Part 1

Feedback and Adjustments

The feedback recieved from peers and instructors after Milestone 3 compelled our team to improve certain aspects of the existing prototypes, as well as introduce a new prototype concept in order to accomodate all aspects of iResume's features. This prototype is a version management window, allowing users to review, manage, and access versions of sections and resumes that already exist in the system. With this, we believe that all major functions in iResume are reflected in prototypes, and can be embedded into future high-quality UI prototypes.

We began with a review of our existing personas and use cases to identify areas for improvement. We determined that our personas are still satisfying everything that we need them to, and do not need any adjustments. However, Amy's second use case has been improved to match some new requirements. The process of her new use case is described below.

Goal: While editing the current resume, Amy wants to access to a different resume that she uploaded a few hours before, in order to quote a paragraph in that resume.

1) Amy finds the version option on the menu bar, she moves her mouse to the "version" buttom.

2) Under the version button, a drop-down menu appears, shown four options, "Import, Open recent, View All Resumes, View All Sections ".

3) Amy clicks the "View All Resumes"

4) The browser opens a new tab that shows all the resumes uploaded in the system, and the files are originally set to be ordered by recently edited

5) Amy move her mouse to the top left, and click "order by recently edited", then she choose "order by date".

6) Then all the resumes sorted by date.

7) Amy clicks "resume31", which she wants to edit.

8) The system shows three operation buttom on the "resume31", "view, edit and download".

9) Amy clicks "pencil" buttom, which means to edit the file.

10) The system jumps to a new interface that shows the content of the file and allows Amy to edit it.

As a result of Amy's updated use case, we had to mock up a new interface that would reflect the View all Resumes section that Amy navigates to in step 3. The representation of that has been mocked up using Balsamiq for inclusion in this report; however, we are in the process of updating all prototypes to a high quality representations. We will describe this transition from low to high fidelity in the following section of this report. Below is a figure demonstrating the new UI required for Amy's new use case.
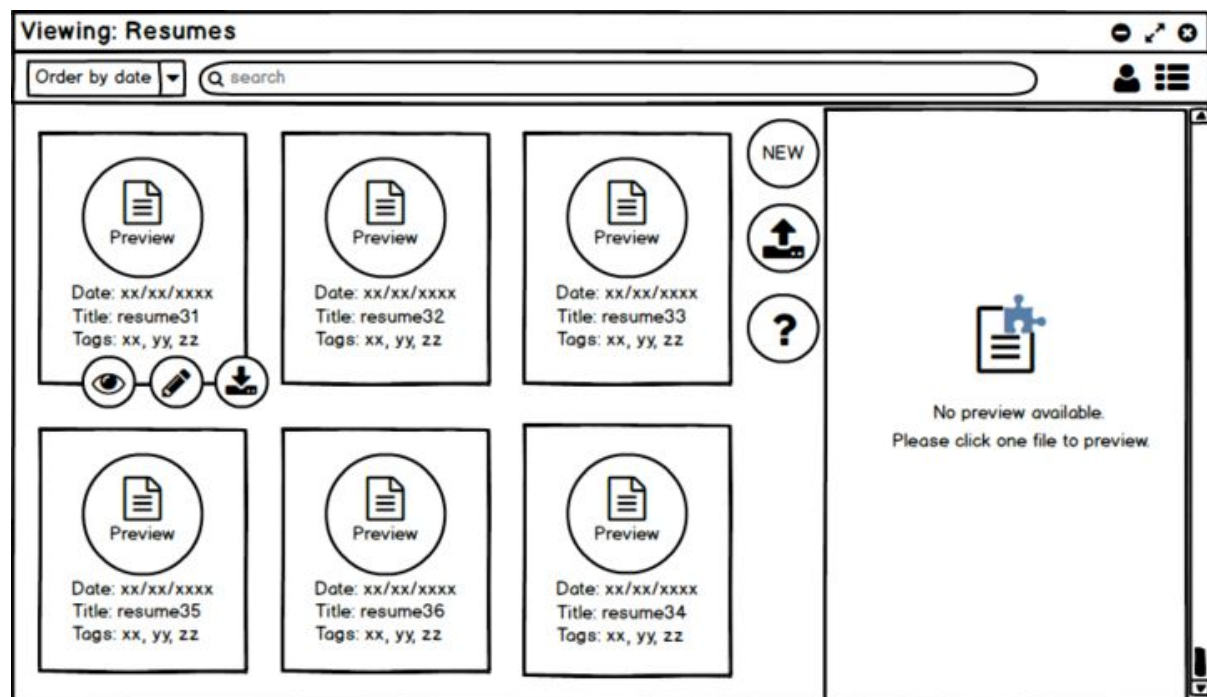
The Viewing: Resumes Interface

The interface above shows a section of iResume where users are able to see a cards panel of all existing resumes; by default, the latest committed version is presented. On hovering over a card, they are presented with some rapid options to view, edit, or download a copy of the resume. By selecting one with a mouse-click, the right-hand area updates with a small preview of that resume, and further meta-data details as to it's creation date, last modified date and time, tag-editing options, a naming option, options to created a copy or delete the file, as well as the same hover options previously described. between these panels, a column of buttons to create a new resume, upload a resume, and access help are presented for quick access.

High-Fidelity Prototyping

Since two fifths of the team use OS X and the rest use Windows, our options to generate high-quality prototypes are limited by software selections. Our options are to use software that supports multiple operating system environments, either as a cloud-based solution, or dedicated software that installs on either environment; or to choose software that is best suited to either environment, and designate our team into two groups, each working with the software suited to their environment.

In the course of identifying cross-compatible software, we trialed a variety of cloud-based and cross-system prototyping solutions, and found none to be satisfactory. As a result, we determined that splitting into groups was the preffered option. We recognize that this introduces a limitation for streamlined collaboration, which may impede our progress. Unfortunately, "Due to the technologies and frameworks exclusive to OS X that Sketch has been built upon" the *de facto* industry standard, Sketch, is "not considering supporting Sketch on either *[Linux or Windows]*". The other common industry option is Photoshop, but this software is comparitively complicated and inaccessible to users who have already exceeded Adobe's trial period. Considering these, we decided to split into groups along the lines of the operating systems most readily available to each memeber, and use software most appropriate to each individual.

As a result, OS X users will proceed with Sketch to built the high-quality UIs, and Winows users will use Photoshop to do the same. We will designate certain use cases to each group and will share as many assets as possible in order to make prototypes mimick each other as closely as possible. By sharing a foundational layout and assets for our interface, we should be able to effectively separate the work into groups, each transforming the low fidelity Balsamiq-developed prototypes into high fidelity ones, indistinguishable as to whether they were designed in Sketch or Photoshop.

Changelog summary for this milestone

Milestone 3	Milestone 4
There are windows and mac system upload- files demonstration, as our two groupmembers did this part using their own PC with different operating system.	We will stick to a single operating system unless specifically identified in the scenario. i-Resume is a web, instead of an app, which can avoid differences between operating system.
No question mark on login "help"	Question mark on login "help"
Connect to Linked	Connect to LinkedIn
The Versions>import (located on the furthest left)	We will rename it as "file"
Dynamic password appears following Amy's use case	Define dynamic password, like move it to "account setting"
There is no visual signifiers to show user next step	We colored buttons for next click
No templates selection	Adding different templates selection
No saved resumes navigation button	Add saved resumes (labelled as "History" in UI)

Part 2

We will be conducting an evaluation of our prototype through a well planned and designed user study. Users would perform a set of 3-5 tasks within 30 minutes. These tasks would represent the most common user goals, we have come to a realiztion that watching users try to accomplish tasks on our system would the most effective and efficient way to uncover usability problems. This will be fundamental to answering the following questions:

1) Are the functions valid and easy to use?
2) Can the user quickly find the right function to achieve the task?
3) Does every operation of the user on the web give correct feedback?
4) Does the information follow real-world conventions that the user are consentaneous with it?
5) Can the user navigate successfully to the important functions through the prototype's homepage?
6) Is there a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue?
7) How quickly can new users learn to use our system?
8) Where and when do users encounter errors?

To commence our user study, we will need to recruit participants that fall into our target demographic. In order to recruit them we will connect with current UVic Co-op students through the co-op message board and through a call for participants in the HCI Slack channel. This limited For this study, we plan to recruit four particpants: two male and two female.

On contacting potential particpants, we will explain the purpose of our iResume application, and ask if they would be interested in assisting us in developing our software through their particpation in our user study. If they show interest, then we will provide them with a consent form explaining the goals of the study, how we will use information that they provide us through their participation, and how their information will be kept private and secure. This consent form will be developed to comply with UVic's standards of research ethics. We will schedule a time to conduct the study with them sometime during the week of March 14th.

In the use case, we will be asking users to attempt the following tasks:

1) Upload a resume file.
2) Editing.
3) Version control (view previous versions).
4) Create an account (domestic password).
5) Open the main menu and use to complete other tasks.

These are all the primary features of iResume, and a use case already exists for each. It is important to conduct user studies exploring these functions in order to determine problems with the prototype, or misinterpretations that users might encounter as they attempt to perform each task.

We will perform the study in a library study room so that environmental factors are more easily controlled, and so that we can schedule exact times for at least one researcher to be available to accomodate users as they test our prototypes. In a library study room we can easily control environmental factors such as the likelyhood of exposure to interruptions and volume. We will request users turn their cell phones to silent for the duration of the study to avoid interruptions. Talk to the users before the user study to make sure they are calm and dispassionate.

The users will be asked to conduct evaluations of our prototypes over the week of March 14th at a time that best suits them, when they have at least an hour to commit to our study.

We will collect data through interview, observation and logging data. For the interview part, before using our iResume, we will tell them the basic function, and how to use it. Then, we will ask them which kind of function do they need the most before they use, and what experience do they expect when they using our web, etc. We set these questions as a short interview, and after they use our web, we will continue to interview them for serveral questions, such as, does the need-most function satisfy their needs, how is the expectation between the real web and their intention. We will design the interview questions as an echo for the beginning interview. Through these two stages interview, we can determine our web function improvement direction. For the observation part, during their usage, we can observe their usage habit through their facial expression, and click habit, viewing habit, etc. For example, when they knit their brows, or bite their lips, these micorexpression demonstrate their dissatisfaction of our design. If they often click wrong place, it may demonstrate our design violate their using habit. For the logging data part, we can collect their click or edition time to determine which part of function is the most useful part, and then we may can potimize this part to satisfy user needs. For instance, we can put these function to the most prominent place, design more big label for usage, or design customize shortcut key for expert mode.

The pilot study would be conducted with a volunteer participant, a student in the CO-OP program, preferrably in the Computer science or Engineering department . We plan to conduct the pilot test 1-2 days prior to the first test session so we can have time to deal with any technical issues, configure our usability testing software capable of recording the computer screen and facial expressions during testing (TechSmith and SilverBack), and also edit or remove any task scenarios that are not suitable. The pilot study will also serve as a practice session for the moderator and the note-takers.

Each member will take an opportunity to observe at least one user test over the course of this evaluation. Further to that each team member would serve as a moderator, making use of the concurrent think aloud (CTA) moderating technique. This method is used to understand the users' thoughts as they interact with our system. The goal is to encourage our participants to keep a running stream of conciousness as they work, which provides us with meaningful qualitative data for later analysis. It also benefits we the researchers because we can get real-time feedback and responses. In addition to one moderator, we will also have a note taker for each evaluation.

The teams are presented in the table on the proceeding page.

Team A

Researcher	User Evaluation 1	User Evaluation 2
Mark Walle	Observer/Note taker	Moderator
Adewale Adekoya	Moderator	Observer/Note taker

Team B:

Researcher	User Evaluation 1	User Evaluation 2
Saige Liu	Observer	Moderator
Rui Ma	Observer/Note Taker	Observer/Note taker
Huiying Wang	Moderator	Observer

<u>Pilot Study Script</u>

- Moderator welcomes the participants and explain the test process, ask the participant to sign the consent form.

- Provide a short introduction to ourselves and the iResume software.

- Moderator would explain the "thinking aloud" method and asks if the user has questions.

- The user reads the task scenarios and works to complete all scenarios while they think aloud.

- Note-takers take notes to the participant's behaviours, comments, errors and completion (pass or fail) on each task

- The session continues until all task scenarios are completed or the time assigned has expired.

- The moderator ends the session, and directs the user to an online survey OR post-task questinnaire, thanks the partcipant and escorts them from the testing environment.

- The moderator then resets the materials and equipment, speaks briefly with the observers and waits for the next participant to arrive.

<u>NOTES</u>

- Treat participants with respect and make them feel comfortable.

- Note-takers should capture what the participant did in as much detail as possible. This helps with our analysis.

- Remain neutral; if the participant asks a question, reply with "What do you think/feel?" or "I am interested in how you would react in ths situation."

- Do not jump in to helo participants right away, do not lead the participant. Let them try to figure out the path to task completion themselves. If the particioant gives up and asks for help, you must decide whether to end the scenario, give a hint, or give more substantial help.

<u>TASK SCENARIOS</u>

- Task scenarios should be realistic, encourage an action, and dont give away how the interface should be used.