

CISC 325:  
Project Proposal  
“Job Journal”

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Trevor White (20348221)  
Sophia Pagazani (20333850)  
Dylan Letts (20323382)

## Problem Statement

Searching for a job can be a difficult task, especially if you have recently graduated. User research has indicated a wealth of pain points during the process—from browsing for positions to handling successful applications—summarized via a journey map in Figure 1. Some of these stem from the job boards. Filtering is inadequate, particularly for different types of students; terms like “entry level” are often filled with jobs that require years of experience. Additionally, company and role descriptions can be verbose, highly technical, and therefore unclear, according to job seekers without much experience. Irritation also occurs during an application, with inadequate resume auto-complete functionality, requiring them to re-enter the same information repeatedly. Yet other frustrations arise from the sheer volume of applications these individuals are typically submitting, all disjointed through various company websites, with very little support for the process after an application is sent. The users we spoke to either made spreadsheets or did not keep track of submitted applications, adopting the mindset that employers “email me or they don’t.” These problems converge, causing those who are least likely to have experience job hunting to be far less successful in their search than they otherwise could. For these job seekers, the immense effort of the job search begins to feel like it is not worthwhile.

Of course, many of these issues, such as poor resume auto-complete, are algorithmic in nature. Thus, the problem we shall focus on is the difficulty managing positions of interest, submitted applications and their statuses, cover letters, resumes, job descriptions, job numbers, as well as any other documentation created during the application process. This issue is both prominent and highly impactful. As previously noted, students and new grads have expressed general discontent with how they are managing their applications. With a poor system, or none at all, they require more time in subsequent sessions to determine if they have already applied to positions and to find suitable cover letters to adapt. There is also more difficulty preparing for interviews because they have lost the original job listing.

The tools that exist currently do not meet these users’ needs. Users need this stage of the application process to be quick, painless, and intuitive. It must also be unified; users get discouraged between filtering detail-heavy emails in busy, disorganized inboxes and searching for updates on each company’s website. Not to mention, it must also be convenient and easy to use simultaneously with the other activities they are performing when applying to jobs. Finally, they need the job searching process to feel worth their time and, more importantly, take less of their time so that they can apply themselves to other pursuits as well.

On that note, a solution to this pain point is necessary. The cognitive load of the job application process is already quite high, due to the frustrations at other steps along the way. Thus, this one issue, which affects the beginning, middle, and end of the process, is enough to overwhelm the user’s cognitive limit. As a result, users get discouraged from wanting to continue their search, since everything seems overwhelming. This leads to missed opportunities and diminished self-esteem. Therefore, reducing the cognitive burden of even just this task can make users feel more confident in themselves and empowered to continue their endeavours, while also having the benefit of shortening the overall process, putting their valuable time to better use.

## User Research

After conducting six unstructured interviews with “job seekers,” we focused on a subset with significant overlap in characteristics and recruited a few additional participants. Our chosen group consists of 20- to 24-year-olds of any gender—all students, new graduates, or others with less than 3 years of professional experience—who are looking for jobs in technology-related fields. These users have a comfortability with basic computer technologies, using them frequently, but are inexperienced in job search and practice in their fields. They are culturally individualistic, focused on gaining independence, knowledge, and careers of their own, often with minimal support from family.

With this group in mind, the target environment to host our solution shall be a web application. This is most appropriate considering the target users are near a computer for most of their day, and typical job application sessions occur via personal computers. User research further revealed that people may have multiple workstations or work away from home, supporting this choice over a desktop application.

To access our user group, we will host in-person sessions and video calls with participants, taking notes and recording audio and video, where appropriate, to retain their feedback. Video calls have made it possible for us to include users who are not located in Kingston. This is the approach we followed for our two rounds of interviews, which has proven to be effective. On that note, the results of this research have been summarized through two personas, Lucas and Melinda, along with user scenarios for each.

**Lucas:** Lucas is a third-year mechanical engineering student. Between school and a part-time job, he hardly has any spare time. He is searching for a co-op term for experience and to fund his education. He needs to track cover letters and job descriptions while monitoring application statuses to be prepared for potential interviews, but he finds it “frustrating that it is split across all the different company websites.” As a result of the laborious process, finding the time and motivation to apply is difficult.

**Melinda:** Melinda graduated from her computer science program one year ago. For the past year, she has been working at a software company at which she had previously interned. Although the experience has been insightful, she does not feel passionate about the work, wanting to try something new. She needs to be able to find and apply to positions without getting discouraged. As it is, she gets overwhelmed, which leads her to contemplate giving up: “It’s so hard. My job is fine anyway.”

**User Scenario 1:** Lucas has received an offer for an interview. Excited, he opens his filesystem to find the job description to get a sense of what the interviewers may ask. Frustratingly, he realizes he forgot to save the listing. He tries to retrieve it from his Workday account but has forgotten his login credentials for this company. The listing has been taken down from Indeed, too. At this point, his confidence is low, as he does not know how to prepare for his interview. (See Figure 2.)

**User Scenario 2:** Melinda arrives home from work tired but decides to look at job postings. Frustrated by the poor filtering, she finally finds an interesting position and starts looking through her files to find a resume she personalized for a similar job. Due to forgetting what she named it, she struggles to find the file but eventually does. Melinda spends the next hour drafting a cover letter and filling out the application. When done, she feels too inconvenienced to save the job description and gives her document an undescriptive name. Suddenly, she wonders if finding a new job is worth the trouble.

## Figures and Illustrations

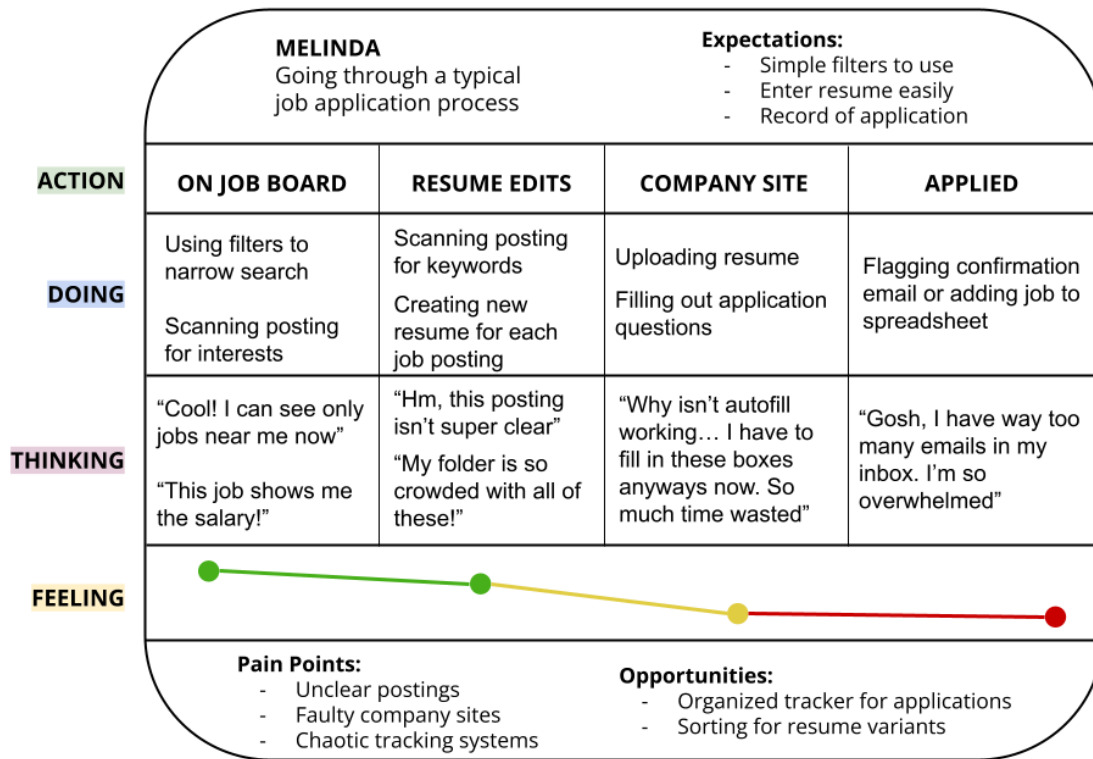


Figure 1: Journey map of the average interviewee's experience during a job search session, start to finish

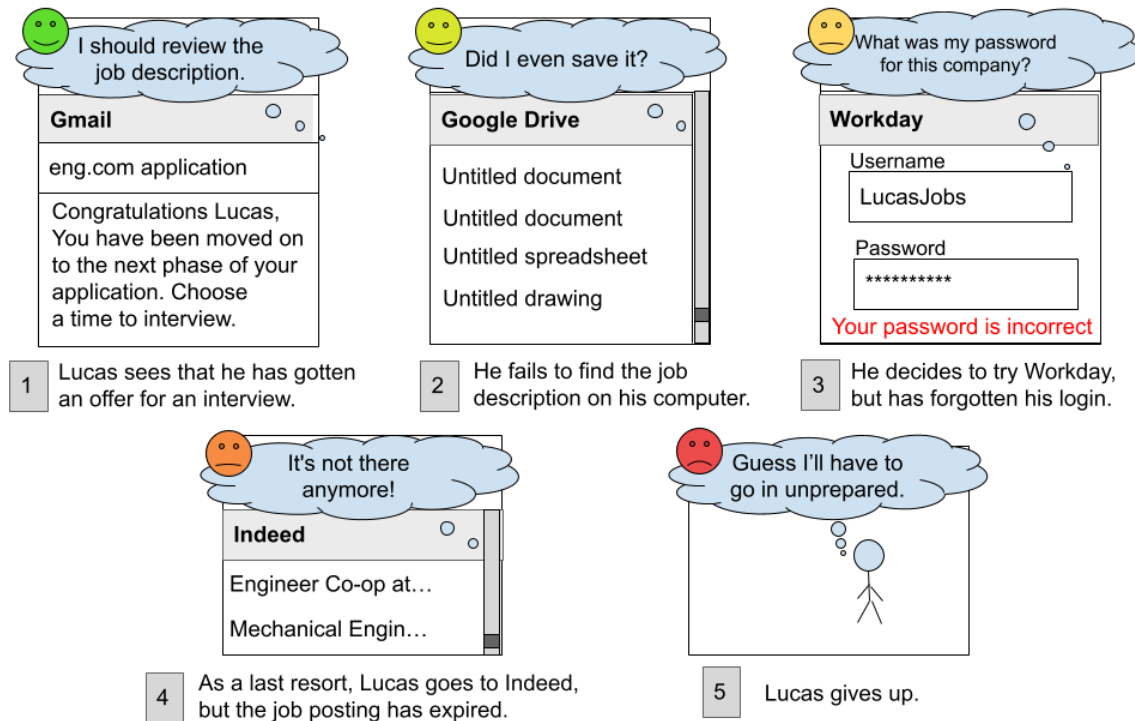


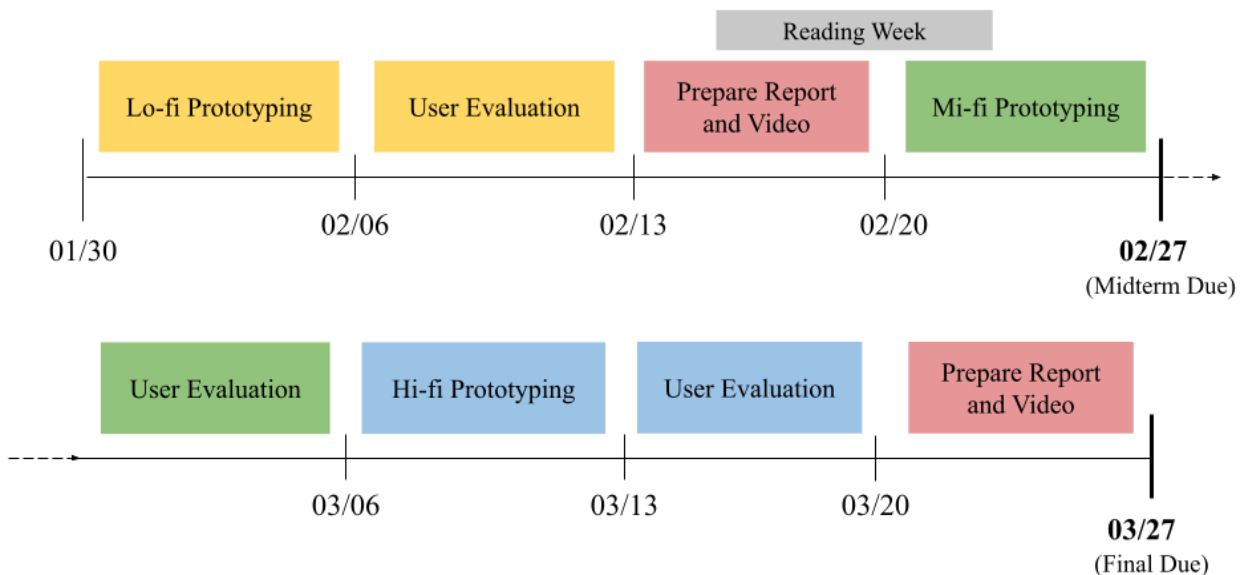
Figure 2: Storyboard of the user scenario in which Lucas fails to prepare for an interview

## Group Coordination Plan

We plan to have a group meeting each week at 1:30 in the afternoon on Thursday in Douglas Library. We shall meet with the TA in class during the active learning sessions. For weeks with no active learning session, we have booked a call with our TA through Microsoft Teams on Thursday at 2:00. This coincides with our regular group meeting, which will continue afterward so we can apply the TA's advice. During this weekly time slot, we intend to discuss the next steps of the project, update each other on our individual progress, divide the workload, address concerns, and occasionally work on indivisible tasks as a group. Most tasks, however, shall be completed individually, making sure to communicate questions and progress through our Discord group chat. This scheme allows for flexibility when needed while maintaining efficiency. For instance, prototype creation may be done together during meetings or divided into portions to work on individually.

We all agree to participate equally in meetings. As for the overall workload, each member will work on a part of each section in every assignment to avoid discontinuity and ensure a consolidated view of the project. In other words, no group member will have to handle one section on their own. For instance, during user research and evaluation, each group member will be responsible for two users each and conduct more interviews as needed. This will extend to all tasks, including prototyping. Likewise, we may have one person prepare an outline for each presentation, another shall create the video, and the last person will be responsible for the final edit of the report. Collaborating in this way will ensure an equal division of work even if some sections are heavier than others.

The anticipated timeline we shall follow for continuous progress is shown in Figure 3. Milestones occur the Thursday of each week, in line with our group meetings and the project deadlines. Prototyping must be complete to carry out effective user evaluation, and the same goes for preparing the deliverables, so we have scheduled all activities sequentially. In addition, we have agreed to work over the break and aim to begin a second prototype before Assignment 2—the midterm report—is submitted.



**Figure 3:** A simple, expected timeline for project activities, with dates listed in a MM/DD format