Team 2 - Product Backlog

Noah Alderton, Joseph Barr, Derek Nobbe, Nicholas Raphael, Melissa Ruiz Ruiz, Emma Wrege

Problem Statement

One of the biggest problems for job and internship applicants is keeping track of all the applications. It can be difficult to manage what information you have submitted, to whom you have talked, when to follow up, etc. The goal of Officium is to aggregate all the information from your job/internship search into a single user-friendly interface. Unlike other job tracking websites like JobTrack, Officium will make important calculations and information retrievals that greatly facilitate the job search.

Background Information

Audience

When applying to jobs and internships, one often applies to so many different positions it can be hard to keep track of them and all the pertinent information for each. Applicants need a way to rein in all this information, as well as get more insights to make more holistic considerations for such significant decisions. Officium is designed with three main demographics in mind: unemployed individuals, recent graduates, and currently enrolled students. Unemployed individuals and recent graduates would primarily be using Officium to keep track of their job applications, which current students would use the application to keep track of their internship applications.

Similar Platforms

The two major competing platforms for Officium are JobTrack and spreadsheet applications like Microsoft Excel and Google Sheets. JobTrack is a web interface that allows the user to input information about potential jobs and subsequently sort and prioritize them. It also facilitates follow ups and keeps track of application progress. Spreadsheets only allows for the input, storage, and sorting of information about positions.

Limitations

These platforms do help users manage their job application process. Unfortunately, they provide little information aside from that which the individual user inputs. We believe, since the

capabilities of the internet and modern APIs greatly facilitate the retrieval and generation of information, a solution must exist that takes advantage of these new abilities to provide insight into the job search beyond that which the user knew when applying. Examples include comparing Glassdoor reviews and the cost of living between employment options. The goal of Officium is to not only allow for better application management, but also to make it easier for users to weigh their various options.

Functional Requirements

1. As a user, I would like to be able to register for Officium with my email.
2. As a user, I would like to be able to register for Officium using Google.
3. As a user, I would like to be able to register for Officium using Facebook.
4. As a user, I would like to be able to register for Officium using Twitter.
5. As a user, I would like to be able to register for Officium using GitHub.
6. As a user, I would like to be able to logout.
7. As a user, I would like to be able to change my password.
8. As a user, I would like to receive a confirmation email when an account was created.
9. As a user, I would like to be able to recover my account after forgetting my password.
10. As a user, I would like to be able to store the company name.
11. As a user, I would like to be able to store the job title of the application.
12. As a user, I would like to be able to store the location of the job/internship.
13. As a user, I would like to be able to store recruiter contact information.
14. As a user, I would like to be able to store how I applied to the job/internship.
15. As a user, I would like to be able to store the status of my application.
16. As a user, I would like to be able to store if I interviewed for the position.
17. As a user, I would like to be able to store any references used for a position.
18. As a user, I would like to be able to store if I received an offer.
19. As a user, I would like to be able to rate my optimism for a particular application.
20. As a user, I would like to be able to rate my enthusiasm for a particular application.
21. As a user, I would like to be able to store the status of my applications.
22. As a user, I would like to be able to store the link to the employers' portal.
23. As a user, I would like to be able to store my credentials for the application portal.
24. As a user, I would like Officium to be responsive so I can use it on various devices.
25. As a user, I would like to be able to store pictures of business cards.
26. As a user, I would like to be able to see the physical distance to a particular location.
27. As a user, I would like to be able to see the cost of living for a particular location.
28. As a user, I would like to be able to sort companies alphabetically.
29. As a user, I would like to be able to sort companies by my level of optimism.
30. As a user, I would like to be able to sort companies by my level of enthusiasm.
31. As a user, I would like to be able to sort by due date.
32. As a user, I would like to be able to sort by geographic proximity.
33. As a user, I would like to be able to sort by cost of living.
34. As a user, I would like to be able to sort by estimated pay rate from the Glassdoor API.

35. As a user, I would like to receive timely emails when an application deadline is approaching.
36. As a user, I would like to receive emails when I have not heard from a company in a long time.
37. As a user, I would like to be able to weigh my priorities for how to select a job.
38. As a user, I would like to be able to upload my resume.
39. As a user, I would like to be able to update my resume on file.
40. As a user, I would like to be able to remove my resume on file.
41. As a user, I would like to be able to upload my cover letter.
42. As a user, I would like to be able to update my cover letter on file.
43. As a user, I would like to be able to remove my cover letter on file.
44. As a user, I would like to be able to rank companies by preference.
45. As a user, I would like to be able to delete a particular application.
46. As a user, I would like to be able to generate a Sankey diagram for my applications.
47. As a user, I would like to be able to see Glassdoor reviews of a particular employer.
48. As a user, I would like to be able to see estimated pay rates for a particular employer from Glassdoor.
49. As a user, I would like to be able to see a map of the company locations using Google Maps.
50. As a user, I would like to be able to modify company information.
51. As a user, I would like to be guided through the user interface.
52. As a user, I would like to be able to get help for the user interface.
53. As a user, I would like to be able to insert notes for particular companies.
54. As a user, I would like to be able to modify notes.
55. As a user, I would like to be able to export due dates into a CSV file.
56. As a user, I would like to be able to export due dates into Google Calendar.
57. As a user, I would like to be able to export contacts as a vCard.
58. As a user, I would like to be able to view all my contacts.
59. As a user, I would like to be able to report bugs with my experience.

Non-functional Requirements

Architecture and Performance

Our project will be divided into two primary components: frontend and backend. Our 6-person team will be divided into two teams of 3, each of which focus primarily on its delegated portion. Our backend will be written in Node.js and hosted on Firebase. For the frontend, we will be using the React Framework. These technologies have seen rapid uptake in recent years, and thus developers enjoy the benefits of a huge base of support and reference. Furthermore, these technologies are specifically tailored for rapid development and prototyping, which will mesh well with the Scrum model by which we will be developing this project. We will access authentication APIs for login from Facebook, GitHub, Google, and Twitter using Firebase

Authentication. Other APIs to be utilized include Glassdoor for retrieving company information and Google Maps for mapping locations.

Security

Officium will serve all users the same and will facilitate no inter-user communication, so permission particulars will be at a minimum. However, we will be implementing an email and password based authentication system, and storing this information securely will be a paramount consideration. Fortunately, Firebase is a tried-and-true service which has built-in software that will handle security in an industry standard fashion. Assuming we can follow established norms for credential storage, as well as that of a user's personal information, security should not be a major issue.

Usability

The primary audience for Officium will be students and generally younger professionals looking for work. These demographics tend to be more tech savvy than average, so we will be able to prioritize feature-richness over pure intuition of the interface. However, we will still focus on having a simple, appealing interface to minimize additional stress for users who will tend to be in a particularly anxious time of their lives. Officium will also be usable on various different platforms, especially desktop and mobile browsers. We will also strive to make the experience accessible to users of all needs, such as including alt text for images and keeping the interface visually high in contrast.

Hosting

Officium's hosting will be done completely within Firebase. Firebase itself hosts the database, but it also has other helpful features for web app deployment. Firebase Hosting permits the hosting of React web apps. Additionally, any backend functions can be written in Node.js and hosted with Firebase Cloud Functions. For the current scope of this project, the free "Spark" tier on Firebase should be sufficient to develop, test, and demonstrate Officium. "Spark" includes 100 simultaneous connections for the realtime database, with a limit of 1 GB stored and 10 GB/month of bandwidth. Web app hosting permits 1 GB of storage and 10 GB/month of bandwidth. Their Cloud Functions permit 125 thousand invocations and 40 thousand CPU-seconds per month. All of these limits exceed our expected needs for Officum's scope within CS 307, however if there is a desire to scale in the future, Firebase allows for easy scaling by simply upgrading to their "Flame" or "Blaze" plans. "Flame" is a fixed cost structure with higher limits for $25 a month. Meanwhile, "Blaze" is a pay-as-you-go structure for very popular applications.