



PREPARED BY

**CAT SQUAD TEAM**

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# BRING THE BEST OF YOU TO THE WORLD.

## SKILL EPORTFOLIO PROJECT PROPOSAL

In this proposal, our team will first discuss the background of some job searching websites featuring SEEK and LinkedIn. Then we will talk about the objectives that our team aim to accomplish for this project. Following the objectives, user stories including acceptance criteria will be stated. Next, the story board will show some of the features and structures of the website that we are going to build. Last, we will provide system architecture including all the programming languages and APIs that will be implemented in this project.

## BACKGROUND

The main problem we are aiming to solve is to build a website that can connect the jobseeker to the employer efficiently.

The existing job searching/online portfolio websites SEEK and LinkedIn are our role models for this project. They offer various features to their users such like job searching, connecting with people in the job market, and showcase their skills and abilities. Despite all the great features, our team found that these websites have two mean drawbacks. First, the user interface, webpage itself, tends to be serious looking and can certainly put a lot of pressure on the new starters as they usually do not have enough experiences about finding a job or promote themselves. Second, we found that the resume generating features used in SEEK website a really good idea. However, this resume generator does not offer enough information as guideline, and the jobseeker can be very confused about what information they should provide to the job market. This will cause serious problems since the jobseeker, especially new starters do not usually aware of the true potential that they have. And from the employer's point of view, it can be sometimes hard to evaluate the candidate's abilities only based on some dry-written resume.

These are the common issues among existing job searching/online portfolio websites, and we are going to build a website mainly focus on solving these issues. Our website will offer different types of user account which associates with various features for different needs. For jobseekers, we provide them a home page with a search bar, and they can search the job by various searching types. We also offer the jobseekers a place to save their favoured jobs, and a place to save all applied jobs. We will provide the jobseeker a more personalized way to generate their resume, and we will provide a

detailed guideline about how to showcase themselves. For the employer, apart from being able to post a job advertisement, they can directly access each candidate's resume in the received applications page. We also enable any third-party agent to use the website and help both the jobseeker and employer to connect each other more efficiently.

## OBJECTIVES

In order to create a professional product, we will need to clearly state the objectives(epics) that we are aiming to implement in this project. The followings are objectives for this project:

1. Users can create an account on the website, which allows them to enter some basic information.
2. Jobseeker can use this website upload their resume, search jobs, and apply jobs.
3. The website will be able to generate personalized resumes for the job seekers based on the information they provided.
4. Jobseeker can apply or save a job.
5. Companies can advertise themselves by posting recruiting information.
6. Companies can accept or reject a received application.
7. Agents can pre-select qualified candidates and provide a list of job seekers to the company.
8. The employer account will unlock some features once the candidates and the company made a match. Features include online chat or online interview.
9. Using thoughtful colour scheme and motivation quote throughout the webpage, which will provide the user a better interface.

## USER STORIES

We plan to have 3 Sprints for this particular project corresponding to three demo session that we are going to have this term. The first Sprint will start in week 4, in which we will focus on building the database and user account. The second Sprint will start after we finished the first Demo, which is in week 5. The last Sprint will start after the second Demo session in week 8. We will use the retrospective to evaluate the pace of our progress and software quality of the already implemented part. Each of the member will also keep a weekly diary, and the diary with all the source code will be uploaded to GitHub. This reflects the agile software development procedure.

We are using Backlog and Active Sprint function on Jira to help us organize the project and keep track of the programming progress.

The image shows two screenshots from the Jira project management tool. The top screenshot is the 'CS Sprint 1' board, which is a Kanban-style view. It has three columns: 'TO DO', 'IN PROGRESS', and 'DONE'. The 'TO DO' column contains five user stories (CS-21 to CS-25) related to account creation and login. The 'IN PROGRESS' column contains two user stories (CS-19 and CS-20) related to account creation. The 'DONE' column is empty. The bottom screenshot is the 'Backlog' view for the same project. It shows a list of 16 user stories, each with a priority (green, yellow, or red) and a status (To Do, In Progress, or Done). The stories are grouped by epic (Epic 1, Epic 2, Epic 3, etc.). The 'Backlog' view also includes a 'Create sprint' button and a 'Quickstart' button.

**CS Sprint 1** 6 days remaining Complete sprint

TO DO IN PROGRESS DONE

CS-1 TO DO 7 sub-tasks 1. As a user, I would like to be able to create an account, so that I can access the website and save my information.

- Agents are able to create agent account using emails, agent id and passwords. CS-21
- All users can retrieve lost passwords using the email address. CS-22
- All users can login through a login page CS-23
- All users can log out by click the log out button. CS-24
- All users must have account in order to access the webpage and search function. CS-25

CS-2 TO DO 2 sub-tasks 2. As a user, I would like to be able to get help, so that I can contact the developer team about any technical issues.

CS-5 TO DO 3 sub-tasks 5. As a jobseeker, I would like to be able to search for jobs using keywords, so that I know all the current job vacancies.

CS-6 TO DO 5 sub-tasks 6. As a jobseeker, I would like to be able to apply the job, so that I can have opportunity to get hired.

Quickstart

Projects / Cat Squad / CS board

**Backlog** Share

CS Sprint 1 4 issues 02/Mar/21 2:20 PM - 16/Mar/21 2:20 PM

1. As a user, I would like to be able to create an account, so that I can access the website and save my information. Epic 1 CS-1

2. As a user, I would like to be able to get help, so that I can contact the developer team about any technical issues. Epic 1 CS-2

5. As a jobseeker, I would like to be able to search for jobs using keywords, so that I know all the current job vacancies. Epic 2 CS-5

6. As a jobseeker, I would like to be able to apply the job, so that I can have opportunity to get hired. Epic 2 CS-6

**Backlog** 12 issues Create sprint

3. As a jobseeker, I would like to be able to upload different resumes, so that I can apply different type of job using these pre-stored resumes. Epic 3 CS-3

4. As a jobseeker, I would like the website to be able to generate a resume for me, so that I can apply job easier. Epic 3 CS-4

7. As a jobseeker, I would like to be able to receive the results of the application, so that I can decide the next step. Epic 4 CS-7

8. As a jobseeker, I would like to be able to mark/save my favoured employee, so that I can check whether they offer more job opportunities in the future. Epic 4 CS-8

9. As an employer, I would like to be able to post job advertisement on the website, so that the job seeker can apply the job if they fit the criteria. Epic 5 CS-9

10. As an employer, I would like to be able to accept or reject a candidate's application, so that I let the candidates know what to do next step. Epic 5 CS-11

11. As an employer, I would like to be able to contact the qualified candidates, so that I can arrange an interview with them. Epic 6 CS-12

12. As an agent, I would like to be able to search jobseekers, so that I can recommend candidates to companies. Epic 7 CS-13

14. As an agent, I would like to be able to search job advertisement, so that I can help the employee to find job candidates. Epic 7 CS-14

14. As an agent, I would like to be able to access the job seeker's resume, so that I can pre-screen the candidates. Epic 7

16. As an agent, I would like to be able to pre-select the candidates, so that I can generate a list of qualified candidates. Epic 7

Quickstart

The followings are the user stories and the corresponding acceptance criteria.

1. As a user, I would like to be able to create an account, so that I can access the website and save my information.
  - Users are able to create jobseeker account using emails and passwords.
  - All users can retrieve lost passwords using the email address.
  - All users can login through a login page
  - All users can log out by click the log out button.
  - All users must have account in order to access the webpage and search function.
2. As a user, I would like to be able to get help, so that I can contact the developer team about any technical issues.
  - User can contact the developer team by clicking the contact us button on the bottom of the page.
  - The contact us button allow user to send emails to the developer team.
3. As a jobseeker, I would like to be able to upload different resumes, so that I can apply different type of job using these pre-stored resumes.
  - Jobseeker can add labels to the resumes to distinguish the content.
  - Only employee account and agent account can see the resume.
4. As a jobseeker, I would like the website to be able to generate a resume for me, so that I can apply job easier.
  - User needs to provide some basic information in order to generate a legit resume.
  - User must select skills from the skill list, and the system will link them to the skill sets.
5. As a jobseeker, I would like to be able to search for jobs using keywords, so that I know all the current job vacancies.
  - Jobseeker can search job vacancies through a search bar using keywords.
  - Jobseeker can search specific jobs based on location, salary, and employment type, etc.
  - Jobseeker can save the job to their account.
6. As a jobseeker, I would like to be able to apply the job, so that I can have opportunity to get hired.
  - Jobseeker can apply the job by submitting an application form.
  - Jobseeker can also apply the job by submitting their resume, and the job will be marked as applied.
  - Jobseeker cannot apply the job once the advertisement has closed.
  - Jobseeker will have a list of applied jobs linked to their account.
  - The applied jobs will be associated with a status such like: submitted, processing, finished.

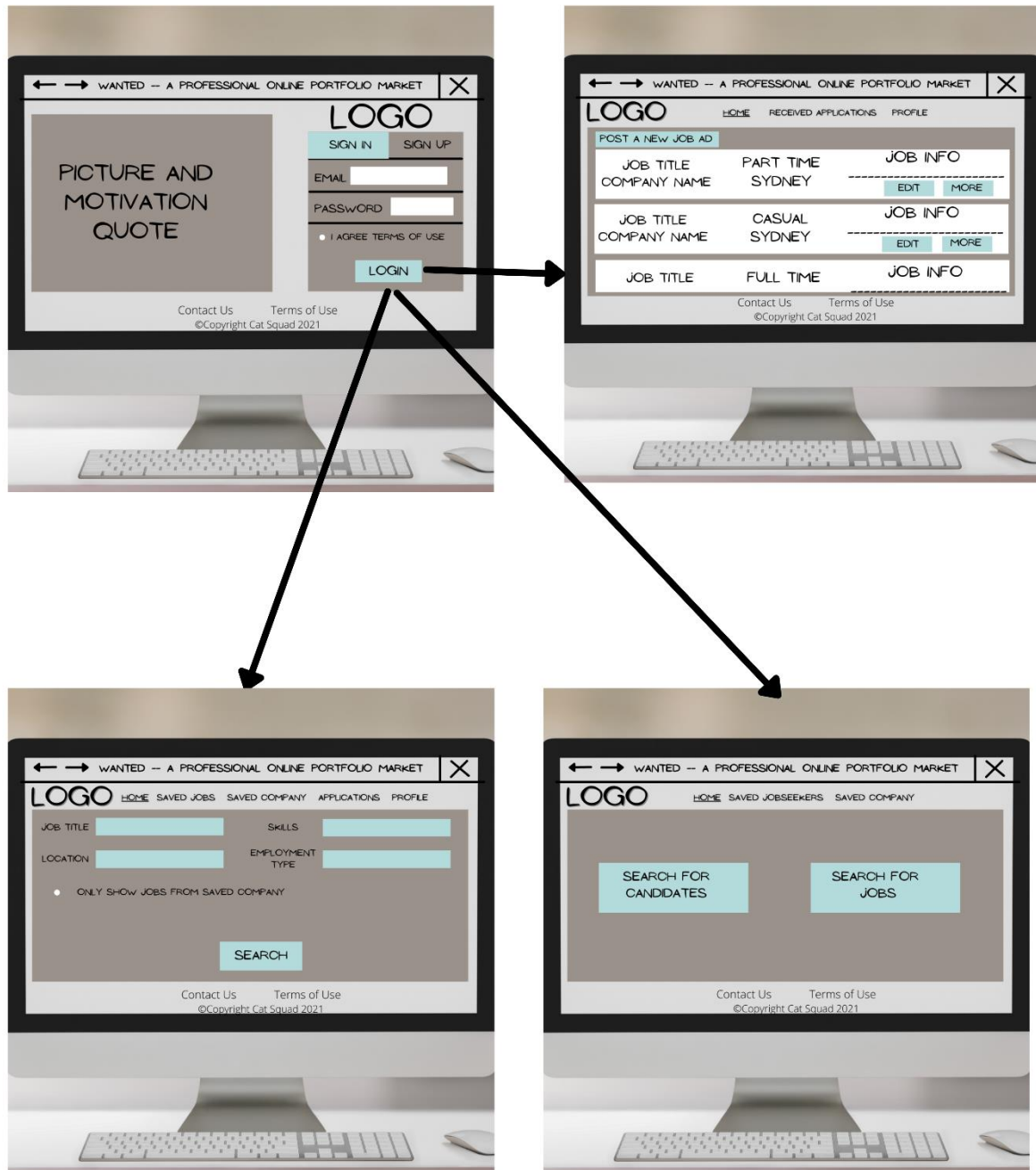
7. As a jobseeker, I would like to be able to receive the results of the application, so that I can decide the next step.
  - The status of the applied job will show accepted or not accepted (but use a better expression)
  - Once the application is successful, the jobseeker will receive a notification about the next step.
8. As a jobseeker, I would like to be able to mark/save my favoured employee, so that I can check whether they offer more job opportunities in the future.
  - Jobseeker will get notification once the company they saved published new job opportunity.
  - Jobseeker can also unmark the company.
  - Saved company will become a search option when jobseeker for jobs, means they can only search jobs offered from the saved company.
9. As an employer, I would like to be able to post job advertisement on the website, so that the job seeker can apply the job if they fit the criteria.
  - The advertisement needs to contain a job description and required skills, location, employment type, salary range and more personalized information.
  - Employer can publish jobs by clicking publish button.
  - Employer can edit the published jobs by clicking edit button.
  - Employer can let the jobseeker know whether a cover letter is favoured.
  - Employer can edit their own profile.
10. As an employer, I would like to be able to accept or reject a candidate's application, so that I let the candidates know what to do next step.
  - Employer can view all the received applications.
  - Employer can accept or reject an application by clicking the buttons.
11. As an employer, I would like to be able to contact the qualified candidates, so that I can arrange an interview with them.
  - Employer can contact the candidate by clicking the contact info button.
  - Contact info button will link to a contact information page which allow the employer to send messages to candidates through emails.
  - Employer can contact the candidate using the email or mobile number provided by the candidates.
12. As an agent, I would like to be able to search jobseekers, so that I can recommend candidates to companies.
  - Agent can search candidates through a search bar.

- Agent can save their potential candidates.
  - The job candidates will be marked as read once agent has read their resume and information.
13. As an agent, I would like to be able to search job advertisement, so that I can help the employee to find job candidates.
- Agent can search employer through a search bar.
  - Agent can save employer.
  - The job advertisement will be marked as read once agent has read the information.
14. As an agent, I would like to be able to access the job seeker's resume, so that I can pre-screen the candidates.
- Agent can contact the candidate by clicking the contact info button.
  - Contact info button will link to a contact information page which allow the agent to send messages to candidates through emails.
  - Agent can contact the candidate using the email or mobile number provided by the candidates.
15. As an agent, I would like to be able to pre-select the candidates, so that I can generate a list of qualified candidates.
- Agent can generate a list of potential candidates from the saved candidate list.
16. As a user, I would like to have a professional looking website, so that I can be more confidence or become more involved when I am using this service.
- The user interface should provide a friendly and positive atmosphere.
  - The website should show some motivation quote, so that the jobseeker can be more confidence and committed when they apply for jobs.



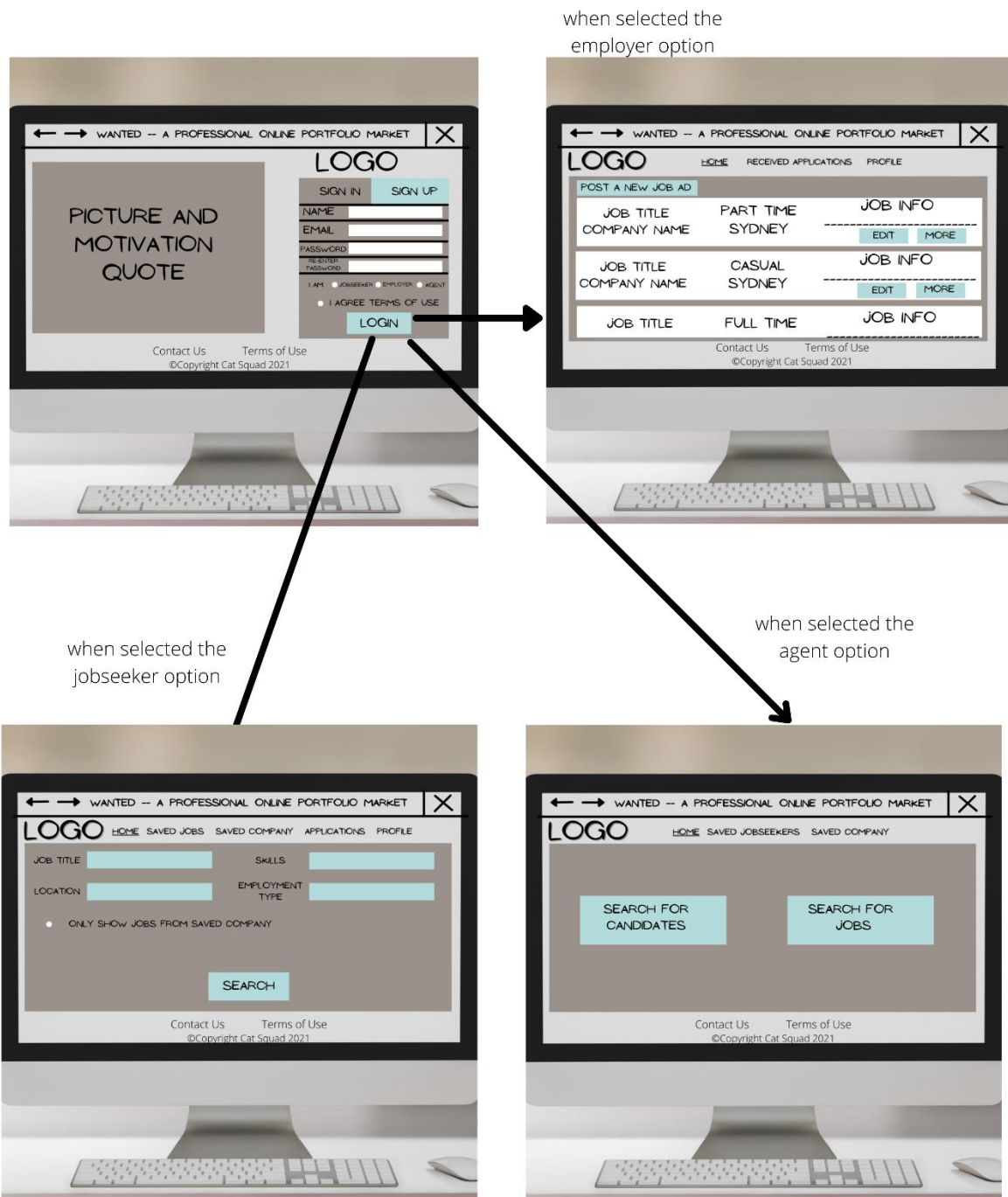
## STORY BOARD

## SIGN IN Page



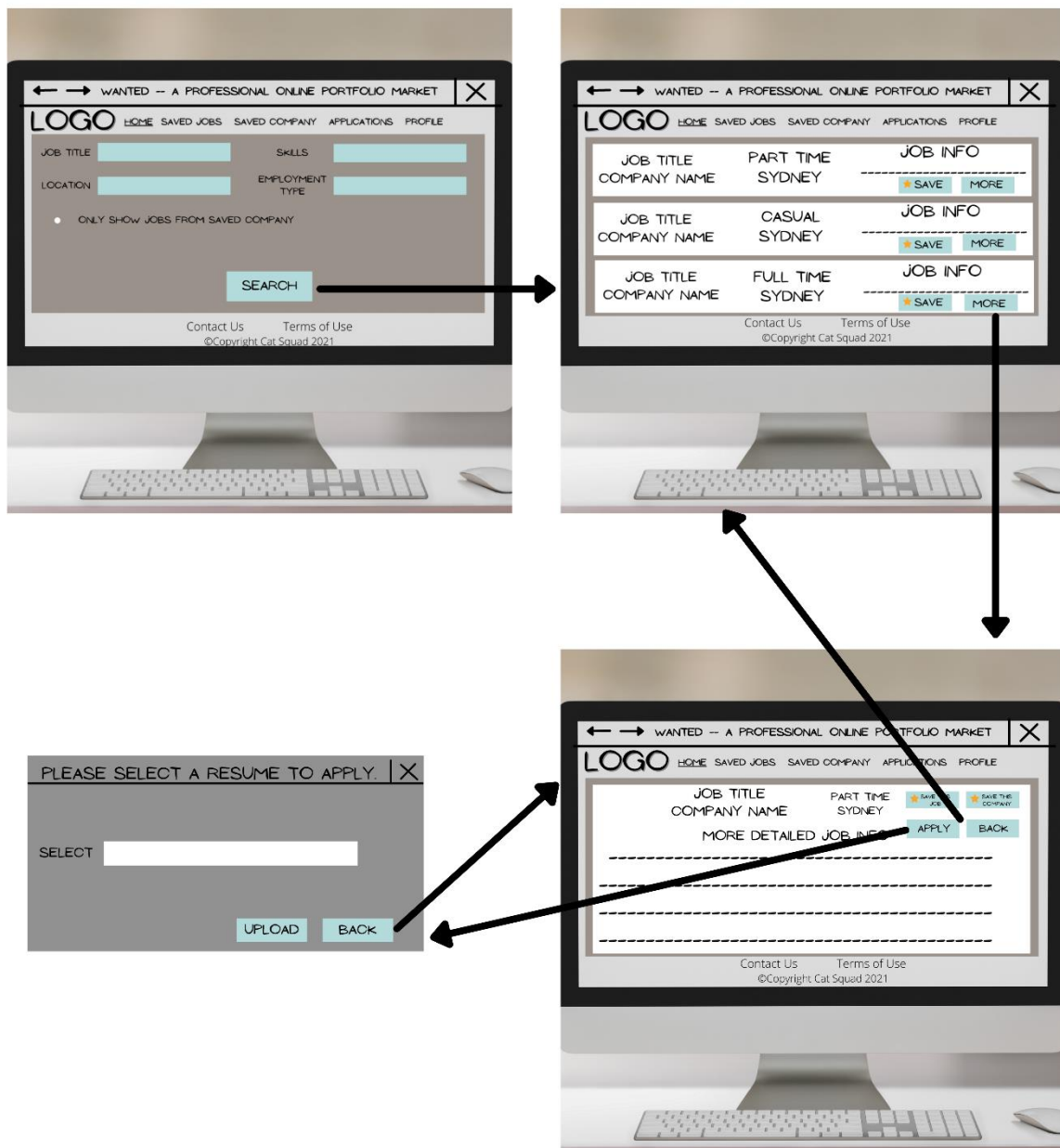
User Stories covered: 1, 2, 9, 12, 16.

# SIGN UP Page



User Stories covered: 1, 2, 9, 12, 16.

# Jobseeker Home Pages



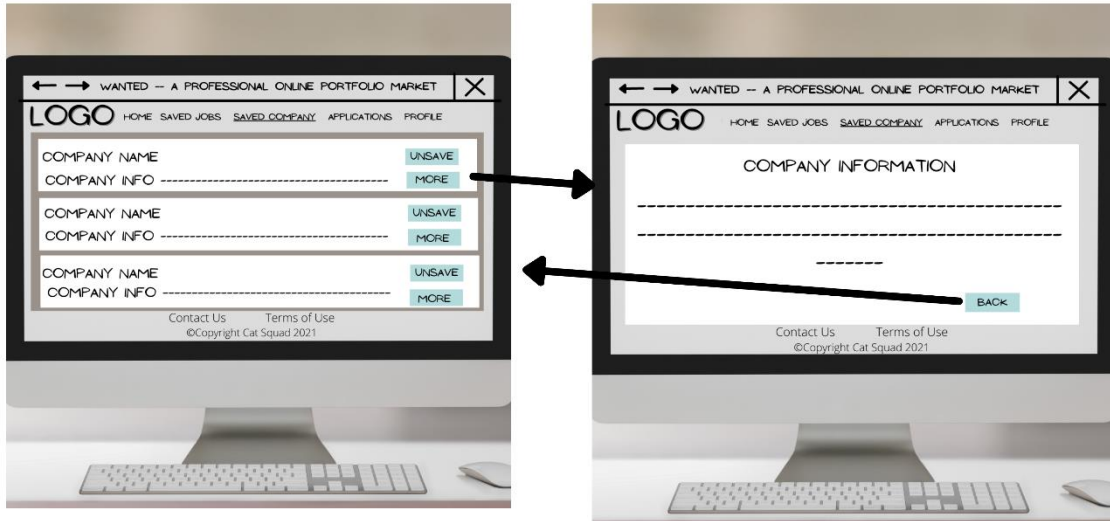
User Stories covered: 2, 6, 5, 16.

## Jobseeker Saved Jobs Pages



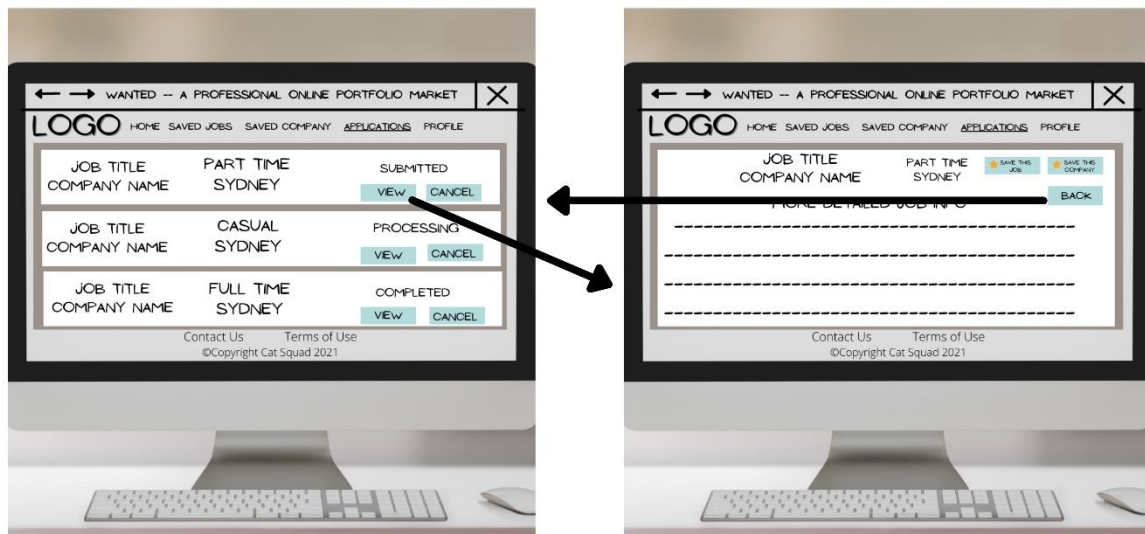
User Stories covered: 3, 8, 16.

## Jobseeker Saved Company Pages



User Stories covered: 1, 2, 9, 12, 16.

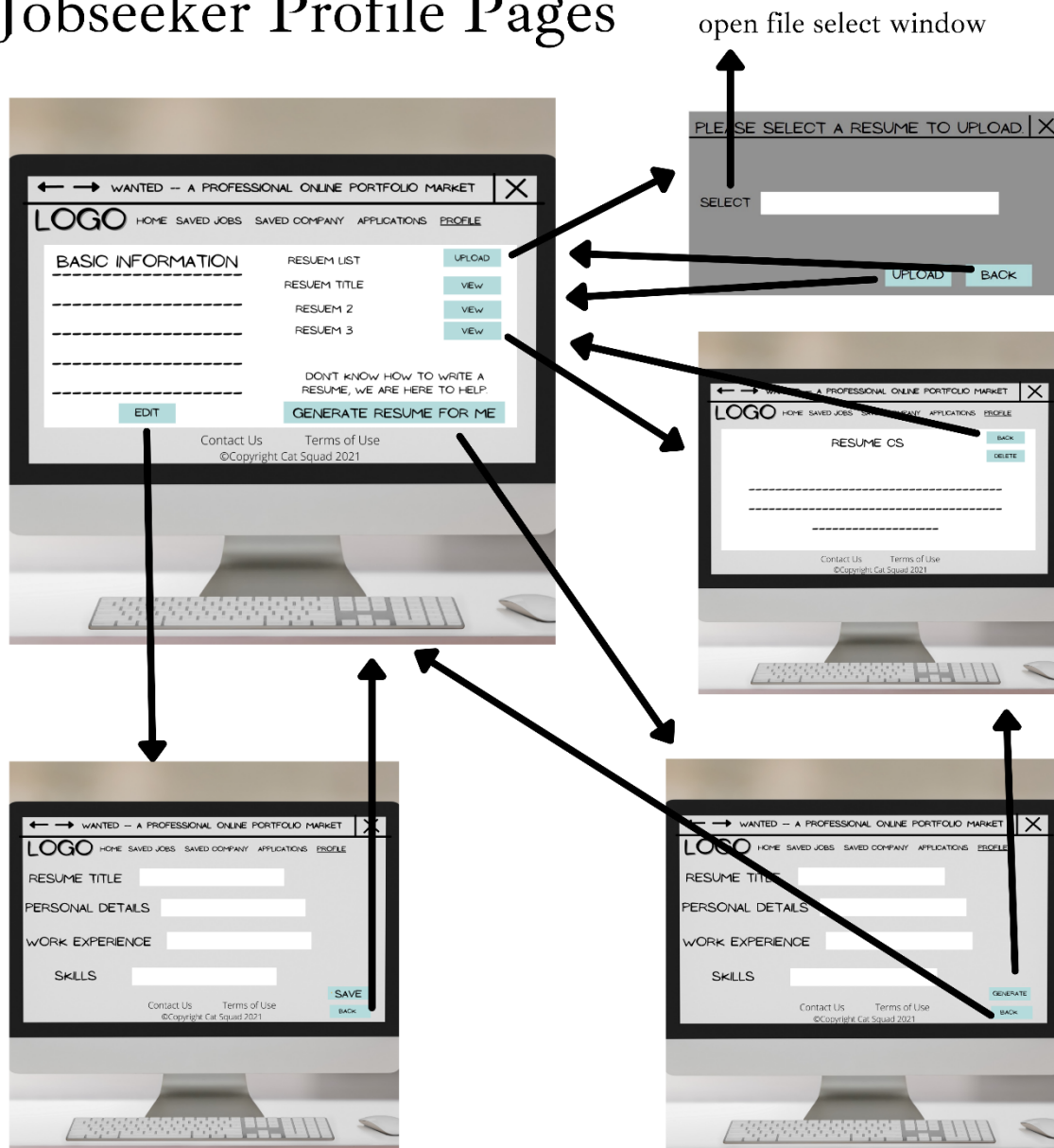
# Jobseeker Application Pages



User Stories covered: 6, 7, 8, 16.



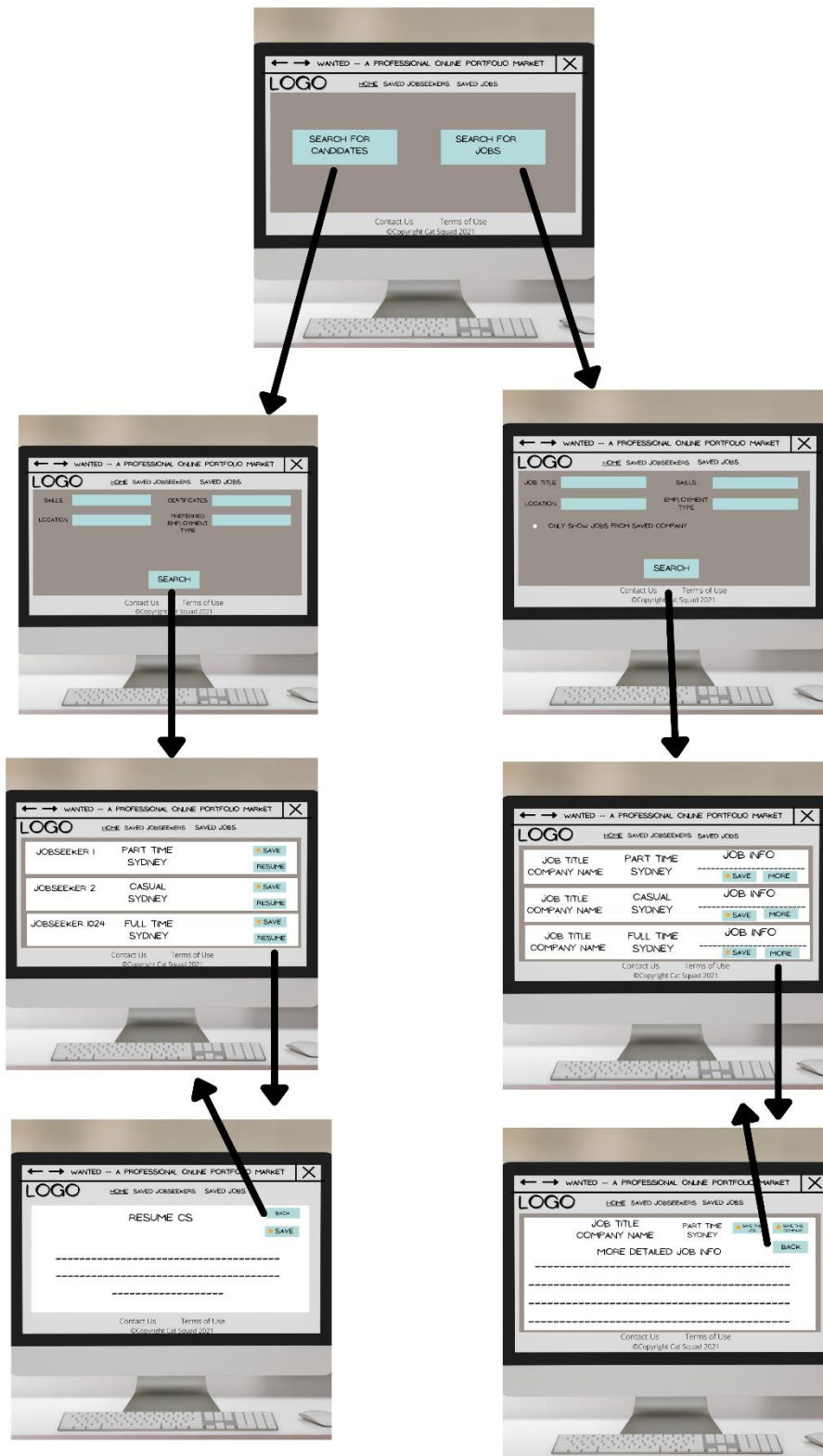
# Jobseeker Profile Pages



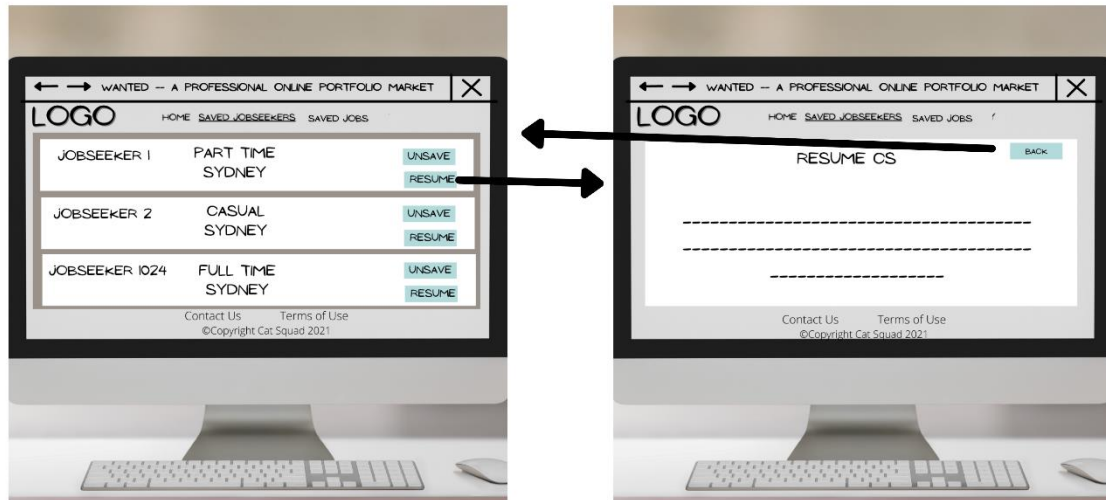
User Stories covered: 3, 4, 16.

# Agent Home Pages

User Stories covered: 12, 13, 16

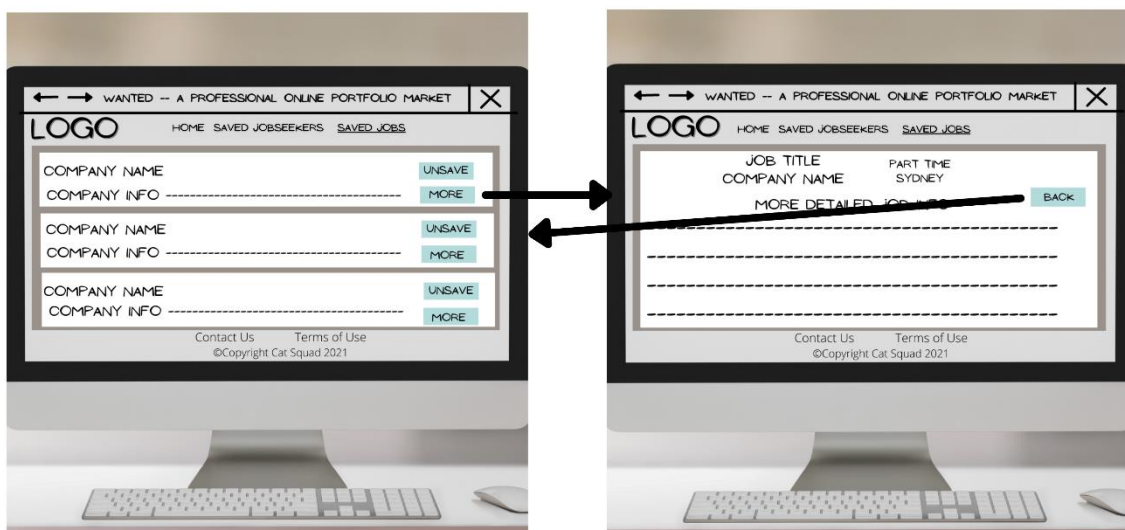


## Agent Saved Jobseeker Pages



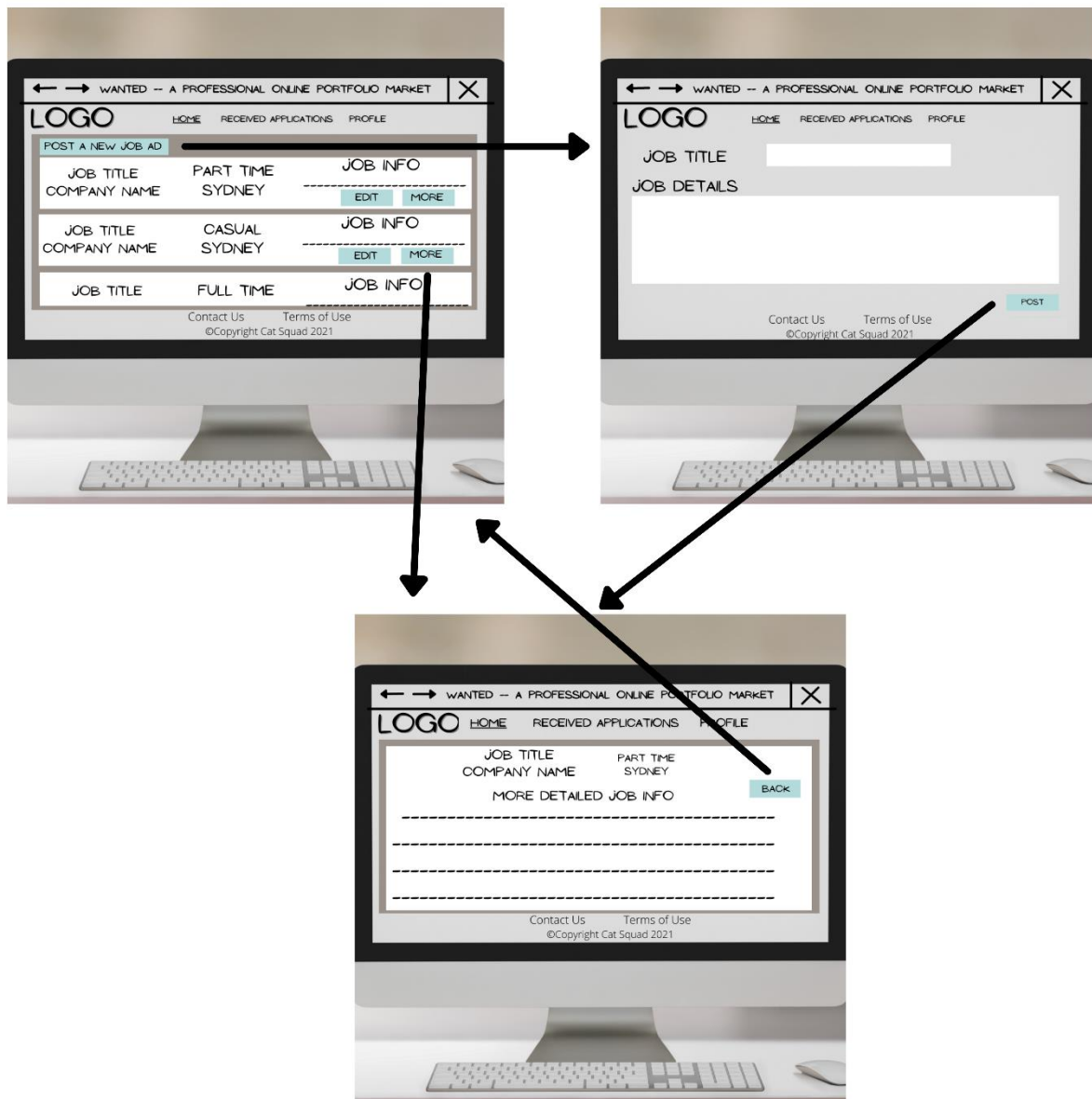
User Stories covered: 14, 15, 16

## Agent Saved Jobs Pages



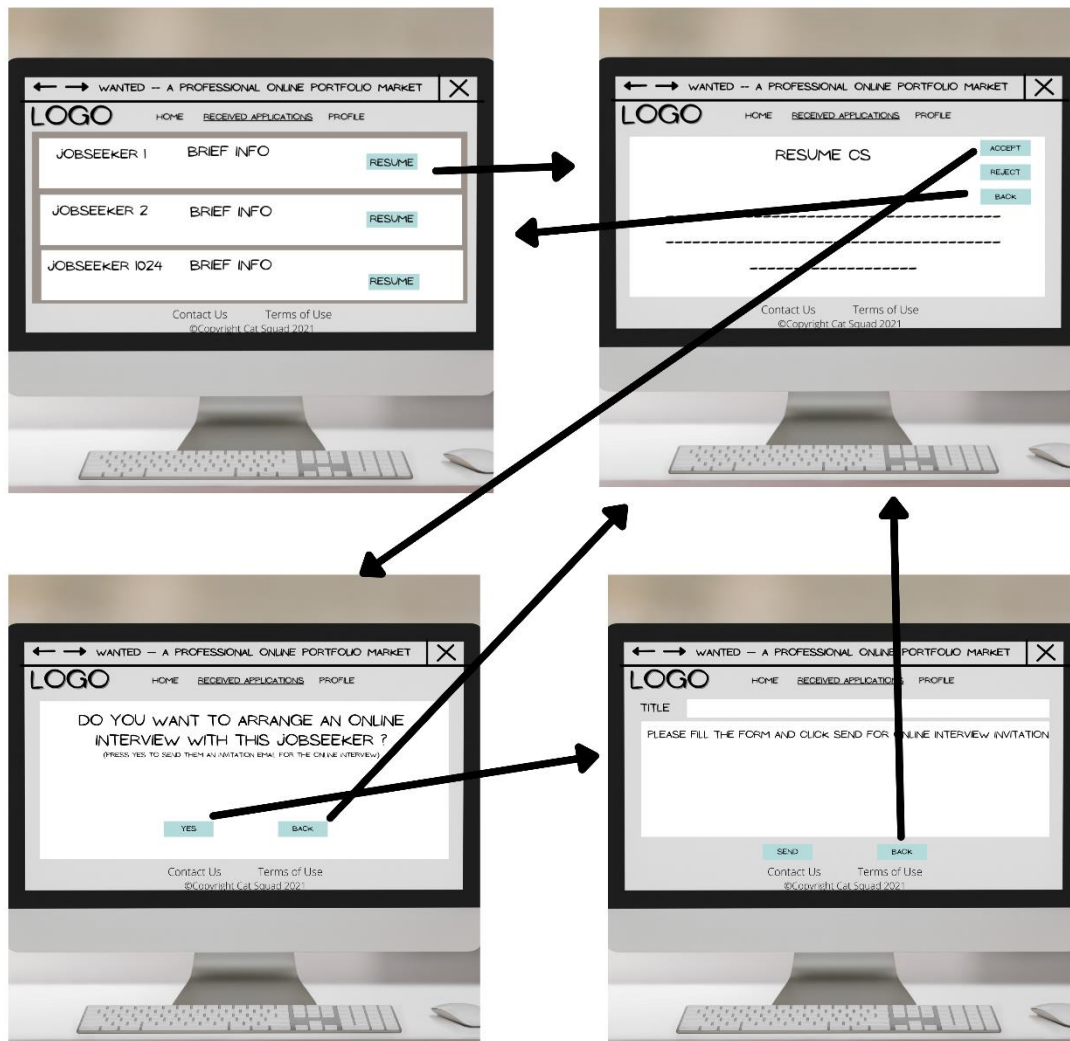
User Stories covered: 12, 16

# Employer Home Pages



User Stories covered: 12, 16

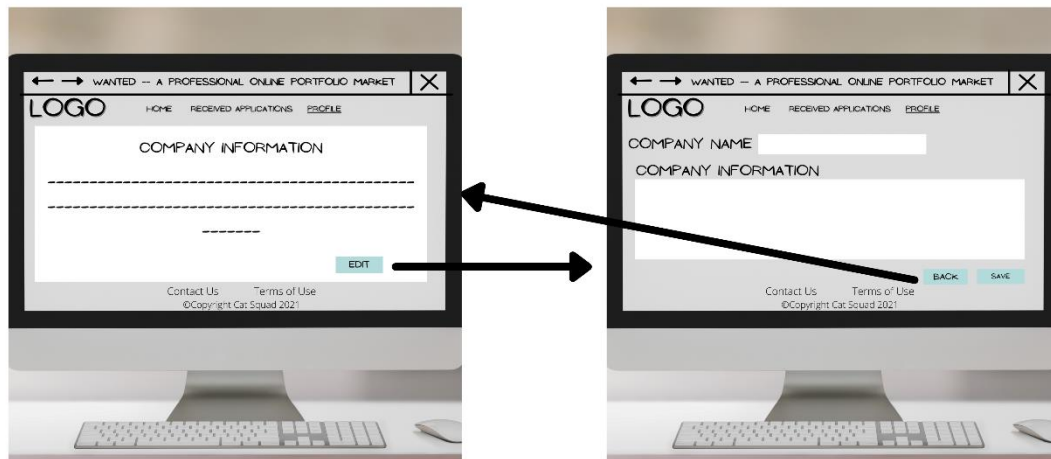
# Employer Received Application Pages



User Stories covered: 11, 12, 16



# Employer Profile Pages



User Stories covered: 9, 16

## SYSTEM

### User Types

There are three types of user: jobseeker, employer, and agent. Jobseeker is the type of user who are looking for jobs. Employer is the group of people who want to find qualified candidates to fulfill their job vacancies. Agent is the third-party personnel who help the other two types of user to connect with each other more efficiently. The interface for these three types of user differs after they click the Sign In (Sign Up) button. This will direct each type of the users to their home screen. The jobseeker account allows the user to search jobs, save jobs, apply jobs, and upload resumes. The employer account, on the other hand, enable the user to post job advertisements, edit job advertisements and access to the received applications. It also allows them to decide whether accept a particular job application or reject it. After accepting the application, the website will promote a new screen asking the employer to schedule an online interview with the candidates. The agent account let the users to search for both job candidates and job advertisement. Agent can also save jobseekers' resume and job advertisement for future communications.

## System Architecture

### Interface Layer

React Js and CSS stylesheet will be used to build UI/UX for the frontend. We will consider using Vanilla CSS as the main stylesheet framework.

### Business Layer

The backend will be constructed using Python3. The Flask will be used as the server to communicate between frontend and backend.

### API Layer

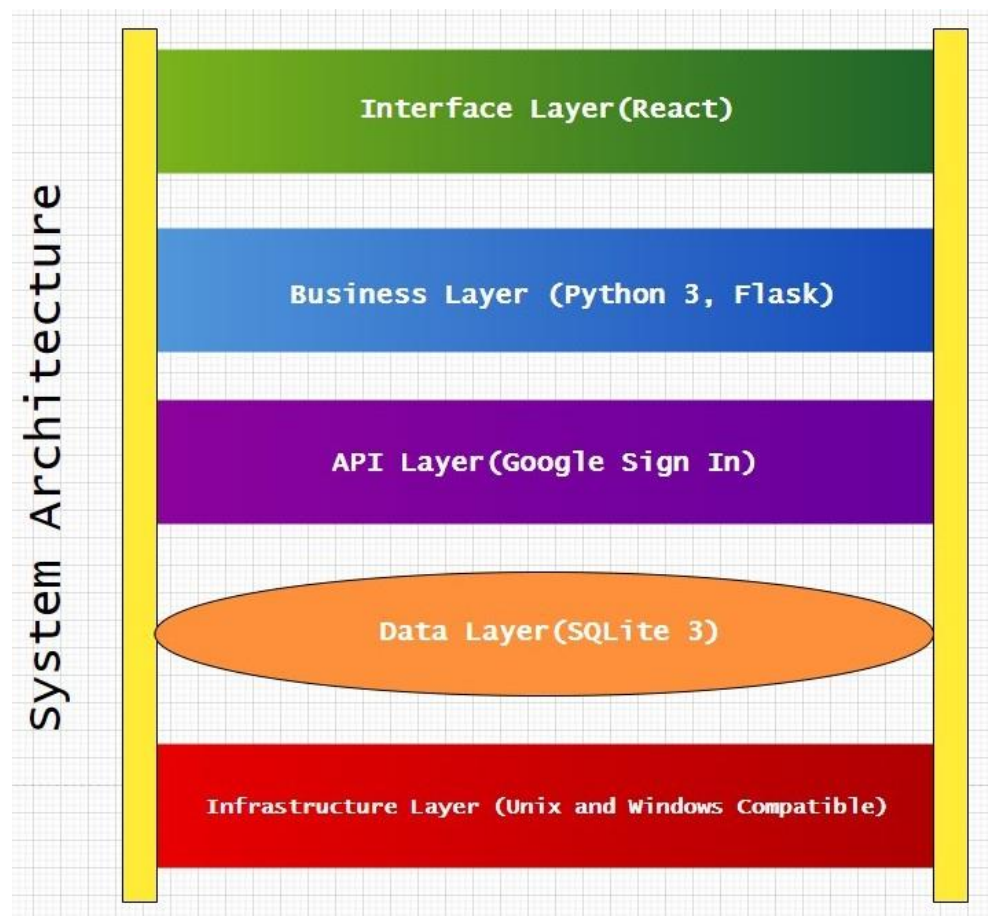
We are aiming to include Google account Sign-in API, which can enable users who have a Google account to login without creating a new account.

### Database Layer

We are using SQLite 3 to manage our database for this project. All user data and schema of the main structure of our database will be stored in .db files.

### Infrastructure Layer

This project is compatible with both Unix (Unix-like) system and Windows. But for the Windows system, the Windows Subsystem for Linux is required.



## REFERENCE

- SEEK. 2021. [online] Available at: <<https://www.seek.com.au/>> [Accessed 4 March 2021].
- LinkedIn.com. 2021. LinkedIn. [online] Available at: <[https://www.linkedin.com/feed/?trk=homepage-basic\\_google-one-tap-submit](https://www.linkedin.com/feed/?trk=homepage-basic_google-one-tap-submit)> [Accessed 4 March 2021].
- Tubik Blog: Articles About Design. (2017). Psychology in Design. Principles Helping to Understand Users. [online] Available at: <https://blog.tubikstudio.com/psychology-in-design-principles-helping-to-understand-users/>.