FINAL PROJECT PROPOSAL

ResumeReady

[Apr 6 2022]

PREPARED FOR

COM S 3190 - Construction of User Interfaces

Iowa State University Computer Science Department

PREPARED BY

Mani Raj Rejinthala

Kenny Jia Hui Leong

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1. Introduction

We, Mani Raj Rejinthala(sai143@istate.edu) and Kenny Jia Hui Leong(kennyljh@iastate.edu) are from team IP_21. We are both Seniors in Computer Science here at ISU. Our prior experience involved having collectively completed COM S 309, which involves frontend and backend collaborative work in designing a functional and interactive Android application, completed numerous in class coding activities in COM S 319 that aimed to hone our skills in web development, as well as completed our midterm project in COM S 319 involving the usage of pure HTML, CSS, Javascript and JSON to create a responsive and appealing online storefront. Our ongoing project, ResumeReady, was founded on the basis that resumes needed to be more Applicant Tracking System(ATS) compliant rather than be visually appealing. We wanted to create a website that educates its users on the importance of ATS compliant resumes, a major step in obtaining an interview for most online job applications, as well as provide them with the tools necessary to create such resumes with ease.

2. Purpose of the Proposal

Our goal for this project is to develop a website that allows the users to develop their own personal resumes. Our website, “ResumeReady,” puts an emphasis on helping our clients to create informative yet ATS(Applicant Tracking Software) friendly resumes. Given the nature of how resumes are processed by companies before reaching human hands, we believe that this website will educate its users on the importance of a basic looking but content filled resume for the application processing stage.

3. Goals and Objectives

Our project’s goals and objectives include:

- Gain experience in full-stack web development.
- Gain additional experience in working within a collaborative environment.
- Developing a user-friendly and interactive website.

- Provide users with a straightforward and easy process to create their resumes, where they are only required to type in their information in text format and all of the resume formatting is done by the website.
- Educate users on the importance of an ATS compliant and no nonsense resume, increasing their chances at landing an interview.
- Demonstrate proficiency in the usage of Node.js, React, MongoDB/MySQL, Tailwind on top of existing tools such as HTML, CSS, Javascript, and Bootstrap in web development.
- Provide users an array of simple, attractive, and ATS compliant resume templates to choose for their own resumes

4. Project Description

We intend to create a functional full stack resume building website for our project “ResumeReady”. Our main motive is to allow user to create good resumes not just visually but also ats friendly by guiding them on resume building process; further, we relieve users from bothering about aesthetics and managing information on resume by enabling them to enter their information for different categories in simple form based style with optional custom styling options such as font styles, and warming font colors that are appropriate for a resume. Moreover, we provide users with some resume templates to start with rather than starting from scratch and also provide suggestions on what categories they can have on their resumes where they can select the existing categories and also add any new categories. Overall, this website empowers users to make well-informed and professional choices, eliminating the need to worry about whether a particular style is appropriate or widely accepted.

5. Project Path Selection

We choose **Option 1: Extend Midterm Project**. Since our midterm project is a partial implementation of what we had planned to create for our resume creation website, we want to expand on that by porting all existing features into both frontend and backend integrations, as well as add additional features to fully realize our goal of creating ResumeReady. All existing code from our midterm

project will be ported into our final project by converting them into React components. All existing data manipulation/retrieval operations will be integrated and handled by our backend using MongoDB.

6. Feature Ownership and Responsibility

- User account login and signup
    - **Purpose:** This feature serves as a gateway for users to create resumes, make purchases, access/resume existing projects, and save/delete their resumes.
    - **Assigned:** Mani Raj Rejinthala
    - **Tech Involvement:** React Bootstrap + MongoDB + NodeJs+ Rest API
- Template selection Page and Asset Selection Page
    - **Purpose**: Allows users to select their base resume template and preferred asset options.
    - **Assigned**: Mani Raj Rejinthala
    - **Tech Involvement:** React + Bootstrap + MongoDB + NodeJs+ Rest API
- User Account edits
    - **Purpose**: Allows users to change their password and delete their account.
    - **Assigned**: Mani Raj Rejinthala
    - **Tech Involvement:** React +Bootstrap + MongoDB + NodeJs+ Rest API
- Custom Preference selection
    - **Purpose**: Allows users to edit dashboard layout preferences.
    - **Assigned**:Kenny Jia Hui Leong
    - **Tech Involvement:** React +Bootstrap + MongoDB + NodeJs+ Rest API
- Resume creation page
    - **Purpose:** Allows users to create/modify their resumes according to their liking. They may load templates or assets they owned into their working project. Similar to Overleaf's online editor/compiler, users enter

the information they desire in forms on the left side and it will be dynamically rendered/compiled on the right side.
    - **Assigned:** Kenny Jia Hui Leong
    - **Tech Involvement:** React + Tailwind + Bootstrap + MongoDB + NodeJs+ Rest API
- Dashboard that dynamically updates based on user's resumes, templates & assets
    - **Purpose:** Central hub that connects all pages. Allows users to be redirected to the shop, resume creation, past resume projects viewing & account settings/preferences editing.
    - **Assigned:** Kenny Jia Hui Leong
    - **Tech Involvement:** React + Tailwind + Bootstrap + MongoDB + NodeJs

7. Resources and Tools

We plan using the following tools and resources:

- Web development scripting and programming languages such as HTML, CSS, and Javascript.
- GitLab to host the repository remotely
- Git for version control
- Excalidraw for wireframes
- w3schools or GeeksForGeeks to learn or lookup unfamiliar functions/operations for the tools we are using
- Bootstrap for premade react components
- Tailwind for pure css styling and design
- Node.js to run javascript on the backend
- React library for frontend development
- MongoDB to store information

- Will draw design inspirations from Canva, Overleaf, and resume.co.
- VisualStudioCode as the code editor

8. File Structure and Project Organization

- **frontend/** - *Contains all React components*

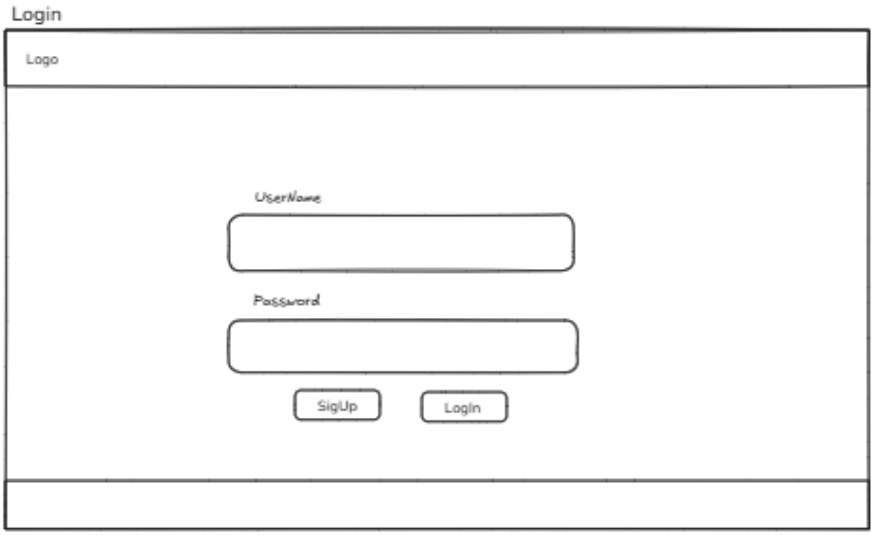
  |..... src/
  | |..... assets/
  | | |..... data/ - *contains json files*
  | | |..... images/ - *contains images used in website*
  | |..... components/ - *React components*
  | |..... App.jsx, main.jsx, App.css, index.css
  |.... index.html - *project core html*
  |.... package-lock.json
  |.... package.json
- **backend/** - *data manipulation/retrieval logic*
- **documents/** - *final project proposal, demonstration video*
- **resources/** - *contains resources that are to be shared between group members*

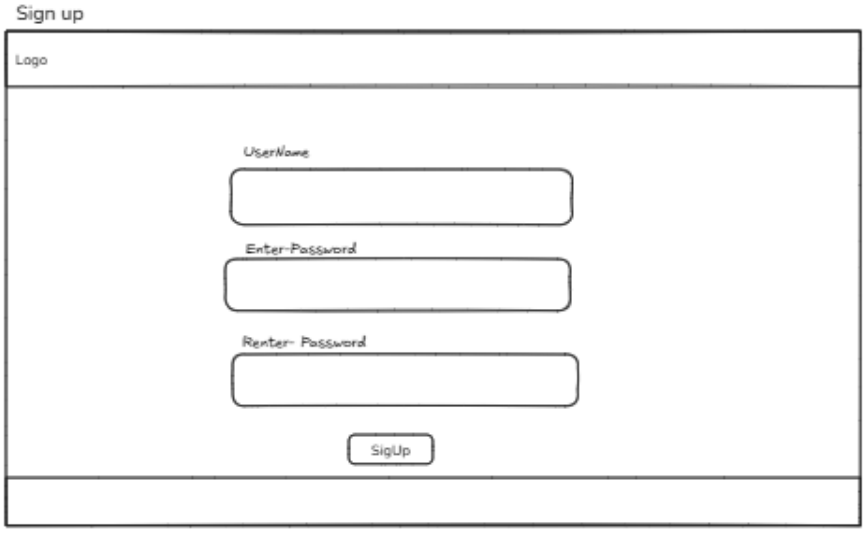
We will use CRUD operations from the REST API to integrate the frontend and backend to seamlessly store, fetch, delete and update data.

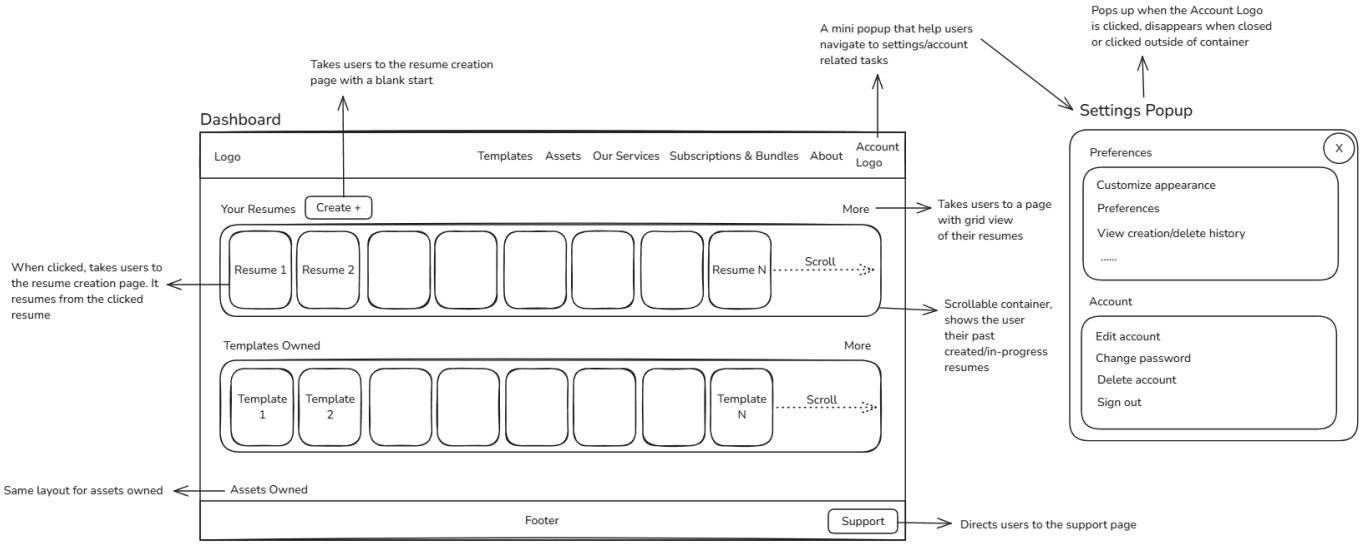
9. Data Sources and Management

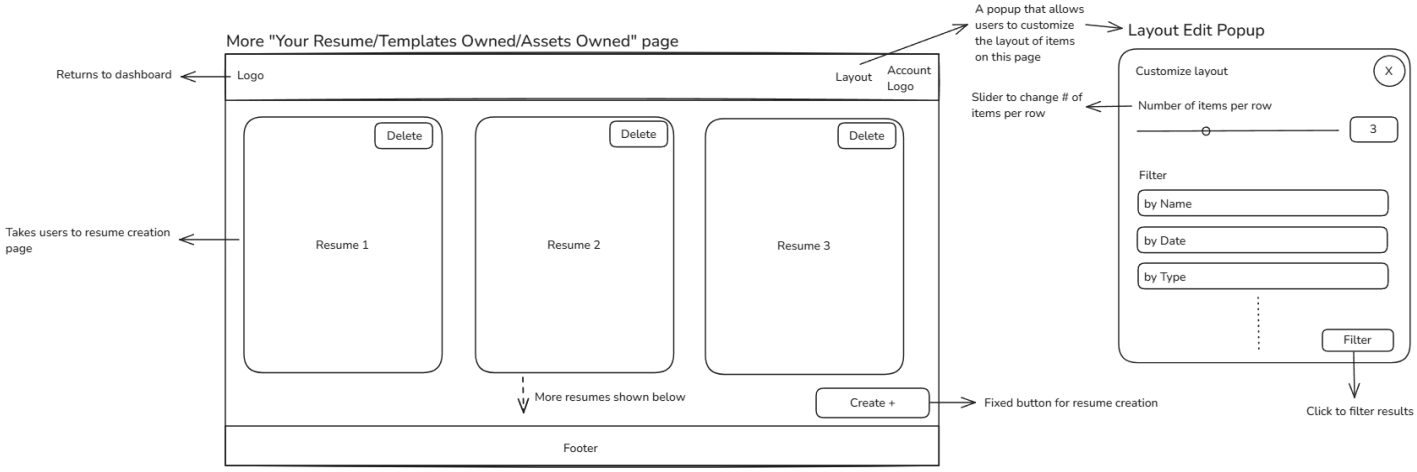
We primarily use a database, MongoDB, to manage user-specific data such as passwords, preferences, owned assets, and templates. To establish a connection between the backend and frontend for retrieving, storing, updating, and deleting data in the database, we use REST API's CRUD operations. Specifically, we use POST, PUT, GET, and DELETE Rest API’s methods to perform create, update, fetch, and delete operations, respectively. On the other hand, general information that is common across all users such as images, descriptions, and titles for web pages is stored in JSON files to reduce unnecessary CRUD operation loads.

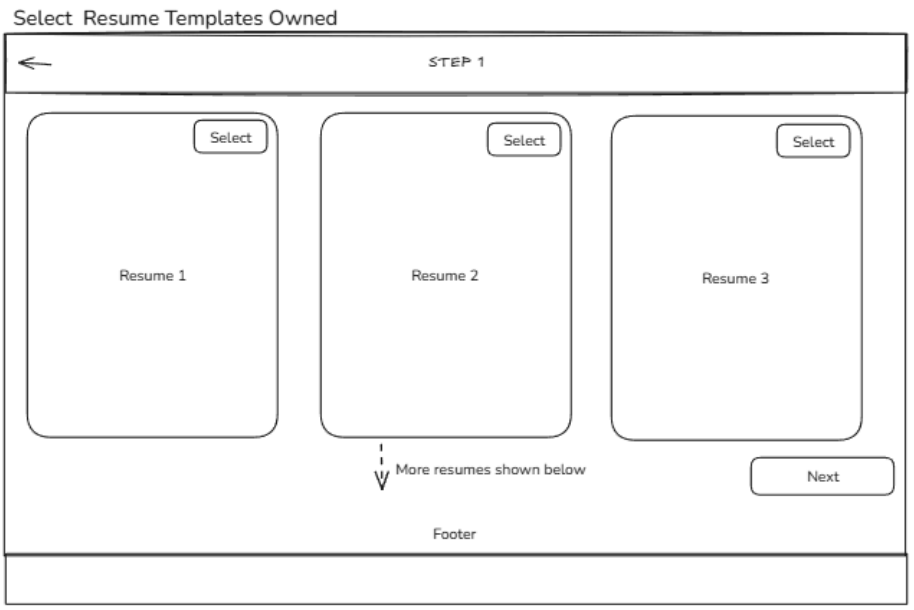
10. User Experience Views

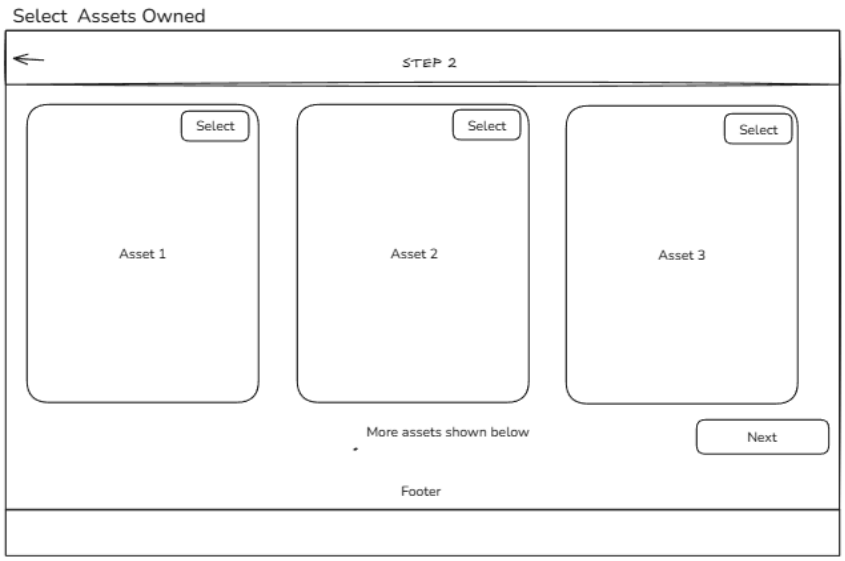


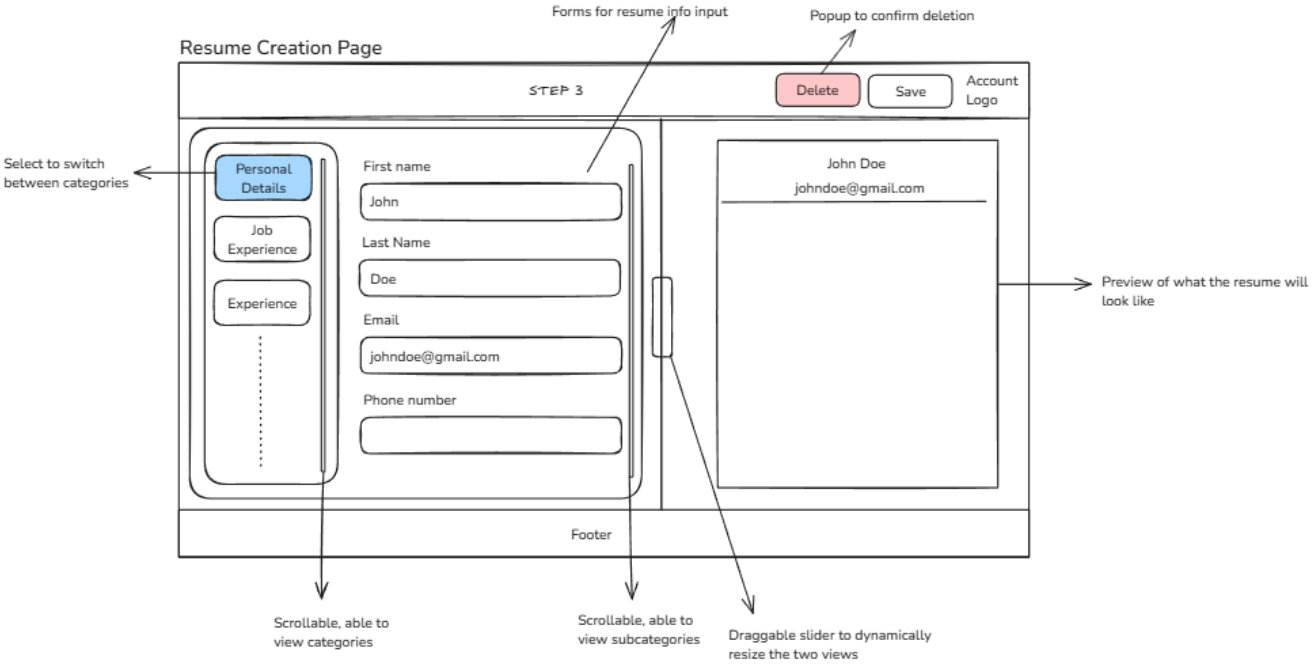



Dashboard
Logo
Templates
Assets
Our Services
Subscriptions & Bundles
About
Account Logo
Your Resumes
Create +
More
Resume 1
Resume 2
Resume N
Scroll
Templates Owned
More
Template 1
Template 2
Template N
Scroll
Assets Owned
Footer
Support
Takes users to the resume creation page with a blank start
A mini popup that help users navigate to settings/account related tasks
Pops up when the Account Logo is clicked, disappears when closed or clicked outside of container
Settings Popup
Preferences
X
Customize appearance
Preferences
View creation/delete history
.....
Account
Edit account
Change password
Delete account
Sign out
Takes users to a page with grid view of their resumes
When clicked, takes users to the resume creation page. It resumes from the clicked resume
Scrollable container, shows the user their past created/in-progress resumes
Same layout for assets owned
Directs users to the support page


More "Your Resume/Templates Owned/Assets Owned" page
Returns to dashboard
Logo
Layout
Account Logo
A popup that allows users to customize the layout of items on this page
Layout Edit Popup
Customize layout
X
Slider to change # of items per row
Number of items per row
3
Filter
by Name
by Date
by Type
Filter
Click to filter results
Delete
Resume 1
Resume 2
Resume 3
Takes users to resume creation page
More resumes shown below
Create +
Fixed button for resume creation
Footer


Select Resume Templates Owned
STEP 1
Select
Resume 1
Resume 2
Resume 3
More resumes shown below
Next
Footer





11. Final Comments

Overall, we are excited to build a functional full stack application. We aim to improve our proficiency in full stack web development tools and also build a potentially valuable resource for a lot of professionals and students.

You ran reach out to us at:
sai143@iastate.edu or kennyljh@iastate.edu