



The rising STAR of Texas

Software Requirement Specification

For

Job Solutions Website

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1.0. Introduction

1.1 Purpose

The intention of this Software Requirement Specifications (SRS) document is to provide an overview of the Job Solutions website, including its interface, functions, and performance. This document is intended for the prospective client(s) and the developers of the website.

1.2 Scope

The scope of this project is to create and implement a Job Solutions website. The website allows users to create and maintain individual accounts, post jobs, view jobs, apply for jobs, view the status of the application, update/create/edit/view profile, and view filtered candidates based on ratings.

1.3 References

- [1] IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

1.4 Overview

In the following chapter, the Overall Description section, of this document gives an overview of the functionality of the product. This section describes the functional requirements and it establishes a base for the technical requirements specification in the next chapter.

In the third chapter, Requirements Specification section, of this document it's primarily written for the developers and describes the functionality of the product in detail.

2.0. Overall description

2.1 Product perspective

This product is a typical 3-tier web application, where the user accesses a web server using a browser, and web server acquires related data from the database server. This product is not independent and totally self-contained.

2.1.1 System interfaces

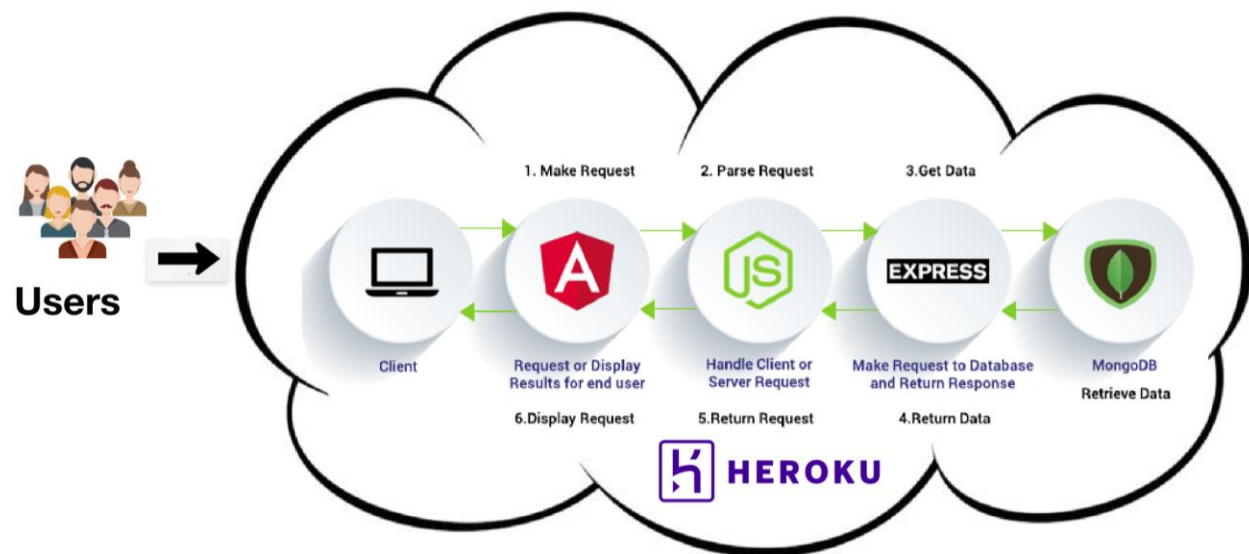


Fig 1: The interfaces used in the project

2.1.2 Software interfaces

All webpages will connect to an internal database. The information will be inputted to the database and will be pulled out when needed. Frontend, backend and database will work collaboratively to give the most efficient user experience.

2.2 Product Functions

2.2.1 Register

2.2.1.1 Description: Users can register on the website using email as a username, password, confirmation password and role.

Rationale: This makes searching for user's records easier and makes future logins easier as well.

2.2.2 Login

2.2.2.1 Description: User can access the website after login by inputting username and password and role.

Rationale: The function is to authenticate the user and provide a layer of security to the website.

2.2.3 Reset Password

2.2.3.1 Description: Users can have the option to reset their password by sending emails to the current user's email with the reset page URL. Users who receive this email can access the reset password page.

Rationale: The function allows the user to change their password if they wish.

2.2.4 New/Edit Candidate Profile

2.2.4.1 Description: This function allows candidates to build either a new profile or edit their existing one. The users will provide their information such as full name, contact information, previous experience, education, skills, projects, publications, awards, and other social profile links. There are mandatory and optional areas to fill out. The users will not be allowed to proceed until they put all mandatory information.

Rationale: The function allows the user to create a profile.

2.2.5 New/Edit HR Profile

2.2.5.1 Description: This function allows HR employees to build either a new profile or edit their existing one. Just like in the candidate profile, there are mandatory and optional areas to fill out and the users will not be allowed to complete this function until they put all the required information. HR employees will need to provide the company, location, and role.

Rationale: The function allows the user to create a profile.

2.2.6 Job Search

2.2.6.1 Description: Candidates can search for jobs using their desired position or field. The webpage then gives all job postings related to the information provided by the user. The user can view the description of the job on-click of the highlighted text of the job post. If the user can not provide any information, multiple results will be displayed.

Rationale: The function allows the user to get the information about the job that they want to find.

2.2.7 Apply for Jobs

2.2.7.1 Description: Candidates can apply for jobs using the information provided by the search results. The user needs to provide the necessary information to complete the form. The user is not allowed to the next section until all the compulsory information is filled. Once the user completes the form, can verify it on the review page. The user is also allowed to edit any information before submitting the form.

Rationale: The function allows the user to apply for the job.

2.2.8 Application Status

2.2.8.1 Description: Candidates can view the list of applications and the status of the application applied till now. The user can search the application based on the status or position. The list gets updated based on the search information. If the user can not provide any information, multiple results will be displayed.

Rationale: The function allows the user to view the status of the job applications.

2.2.9 Post Job

2.2.9.1 Description: Human Resources personnel for a company can post as many job positions as they like. The personnel shall be able to input job description, salary information, location, the time length of the job posting, skills needed, and any other specifics for the posting. The user will be able to click submit to publish the job after all the desired information has been entered.

Rationale: The function allows the user to create and publish a job posting.

2.2.10 View Job Applicants

2.2.10.1 Description: The HR personnel user will be able to view applicants for a job by clicking on the job posting. Once clicked on the posting the user shall be able to view list of names of all the applicants and the date applied, in the order of rating (highest to lowest). There shall be an indicator if there are new applications available for the job posting. There shall be an indicator of whether the application has been viewed.

Rationale: The function allows the user to view applicants for the posted jobs.

2.2.11 Update Applicant Status

2.2.11.1 Description: User shall be able to look at applications and update the status of the candidate to Review, Accepted, and Rejected.

Rationale: The function allows the user to update the status of the job applicants.

2.2.12 View Job Archives

2.2.12.1 Description: Users shall be able to view all active and inactive jobs that they have posted to date. All job postings will be displayed in chronological order of posting expiration date.

Rationale: The function allows the user to see all of their job posts.

2.2.13 Candidate Rating

2.2.12.1 Description: The system will rate applicants based on GPA, work experience, and the number of matching skills.

Rationale: The function allows HR to extract top candidates from the pool of applicants.

2.3 UML Diagrams

2.3.1 Class Diagram

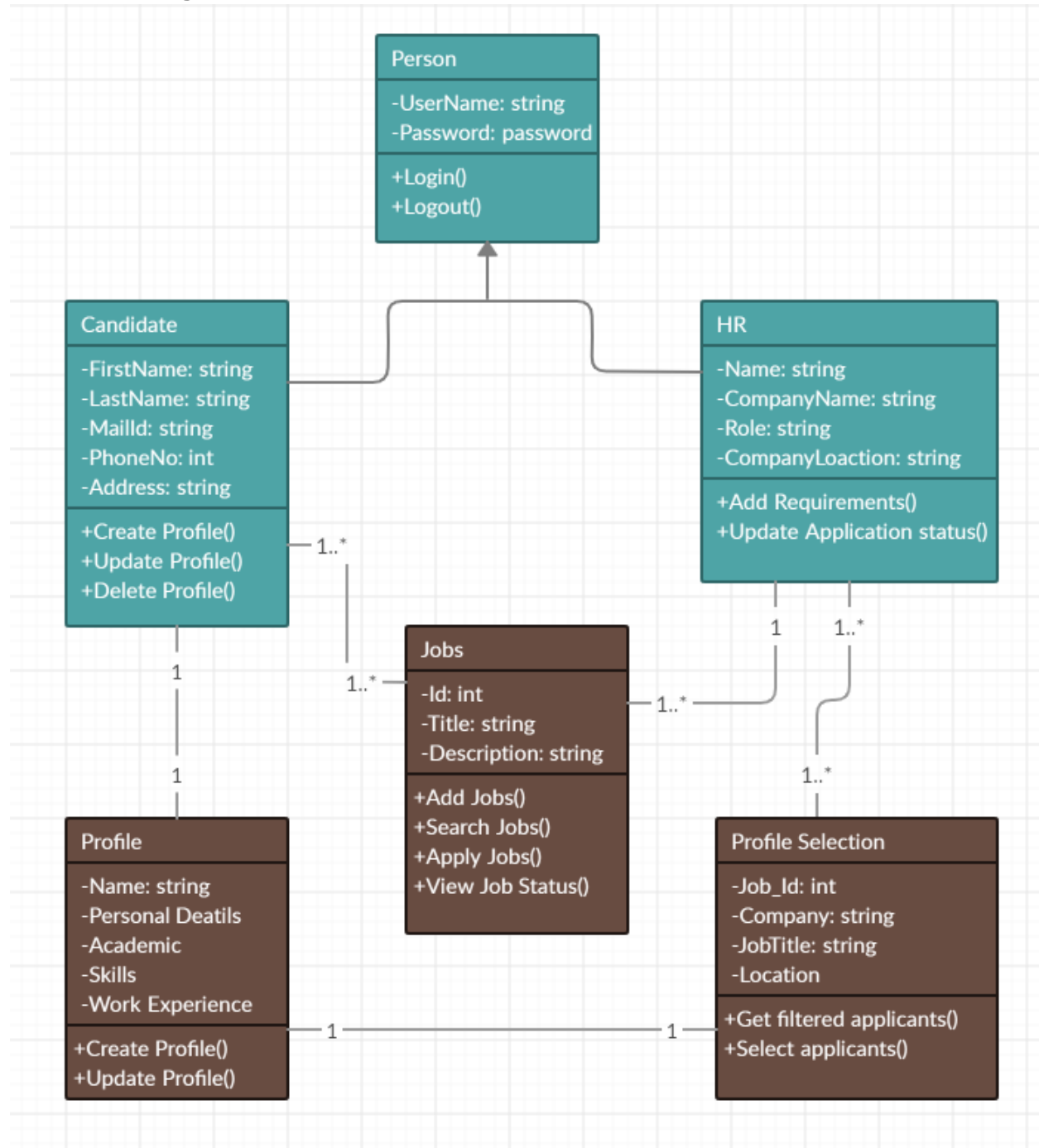


Fig 2: Class diagram showing the website structure

2.3.2 State Chart Diagram

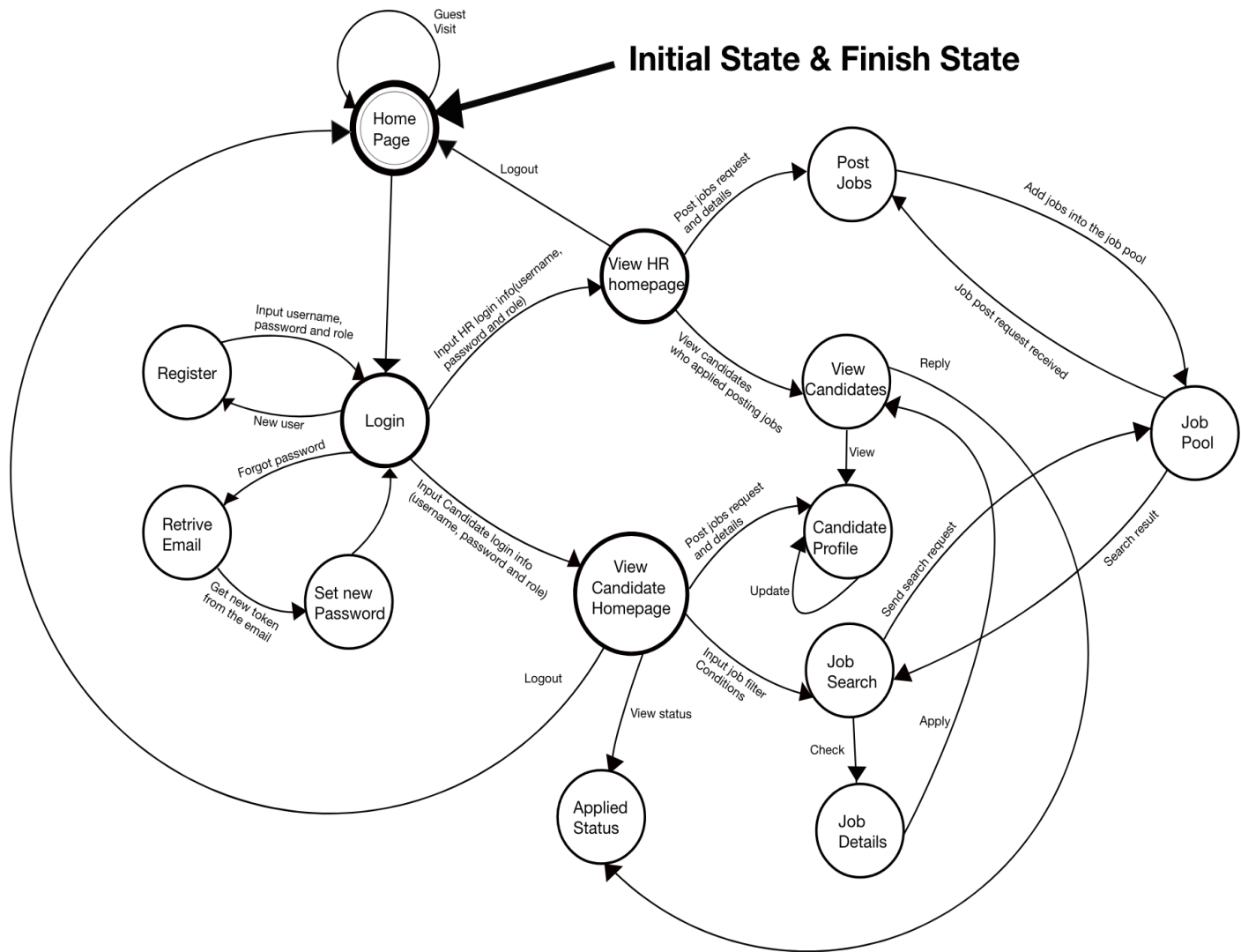


Fig 3: State Chart for the website user interactions

3.0 Functional Requirements

3.1 Register

Description:	See section 2.2.1
Inputs:	Username, password, confirmed password, role.
Source:	The input is entered by the user.
Outputs:	Successful registration or unsuccessful registration
Destination:	Screen.
Requires:	Username, password, confirmed password, role.
Event Flow	<ol style="list-style-type: none">1. Users will click “Register”.2. Users will select a role “HR” or “Candidate”.3. User will enter the username, password, and confirmed password.4. Users will click sign up to create an account.
Pre-condition:	The function is available.
Post-condition:	The user can create a new account.
Side-effects:	None

3.2 Login

Description:	See section 2.2.2
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Inputs:	Username, password, role.
Source:	The input is entered by the user.
Outputs:	Successful login or unsuccessful login.
Destination:	Screen.
Requires:	Username, password, role.
Event Flow	<ol style="list-style-type: none"> 1. Users will click “Login”. 2. Users will select a role “HR” or “Candidate”. 3. Users will enter the username and password. 4. Users will access the homepage with available functions.
Pre-condition:	The function is available.
Post-condition:	The user can access the assigned website upon role.
Side-effects:	None

3.3 Reset Password

Description:	See section 2.2.3
Inputs:	New password, confirmed password.

Source:	The input is entered by the user.
Outputs:	Successful reset password or unsuccessful reset password.
Destination:	Screen.
Requires:	New password, confirmed password.
Event Flow	<ol style="list-style-type: none"> 1. Users will click “Forgot Password”. 2. Users will enter the email to retrieve the account. 3. Users will receive an email with an URL. 4. Users will open a website with the URL. 5. Users will enter a new password and a confirmed password. 6. Users will reset the password and go to the login page.
Pre-condition:	The user received the token through email. The function is available.
Post-condition:	The user can reset a password.
Side-effects:	None

3.4 New/Edit Candidate Profile

Description:	See section 2.2.4
Inputs:	Candidate Information such as full name, previous work and education experience, certificates, contact information
Source:	The input entered by the candidate.

Outputs:	Display successfully saved page.
Destination:	Back to candidate profile page
Requires:	The candidate has to enter at least one of each section except for certificates.
Event Flow	<ol style="list-style-type: none"> 1. Candidate will enter required information 2. Candidate will click on Next for the next section 3. After completing every section, user will click on Submit to finish editing
Pre-condition:	The candidate is logged in or signed up to his/her account
Post-condition:	The candidate's profile has been created.
Side-effects:	Changes/updates candidate profile page.

3.5 New/Edit HR Profile

Description:	See section 2.2.5
Inputs:	HR employee information such as full name, contact information, company name
Source:	The input is entered by the HR employee.
Outputs:	Display successfully saved page.
Destination:	Back to HR employee profile page
Requires:	The HR employee needs to enter must-enter information

Event Flow	1. User will enter required information 2. User will click on Next for the next section 3. After completing every section, user will click on Submit to finish editing
Pre-condition:	The HR employee is logged in or signed up to his/her account
Post-condition:	The HR profile has been created.
Side-effects:	Changes/updates HR employee profile page.

3.6 Job Search

Description:	See section 2.2.6
Inputs:	Position or Field
Source:	The input is entered by the candidate.
Outputs:	Display the list of job posting related to the information.
Destination:	The outputs are displayed on the screen.
Requires:	The candidate has to enter the Position or Field.
Event Flow	5. Users will click “Job search”. 6. User will enter the keyword. 7. Users can use filters. 8. Users will click enter to see the search results.
Pre-condition:	The candidate is logged in to search for the job.
Post-condition:	The candidate has logged in and found the job.

Side-effects:	None
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3.7 Apply for Jobs

Description:	See section 2.2.7
Inputs:	First name, last name, phone, mail, address line1, address line2, city, state, country, zip code, job title, location, company, role description, start date, end date, school name, education level, college, major, minor, GPA, start date, end date, skills, application questions, self identify, voluntary disclosures.
Source:	The input is entered by the candidate.
Outputs:	Displays the ‘successful application submit’ message.
Destination:	Success message displayed on the screen.
Requires:	Candidate to choose a job post from the list
Event Flow	1. Users will click “Apply”. 2. Users will fill out the required sections. 3. Users will click “Submit”.
Pre-condition:	The candidate is logged in to apply for the job.
Post-condition:	The candidate applied for the job successfully.
Side-effects:	None

3.8 Application Status

Description:	See section 2.2.8
Inputs:	Position or status
Source:	The input is entered by the candidate.
Outputs:	Display the list of job applications based on entered inputs.
Destination:	A list of job applications are displayed on the screen.
Requires:	The candidate has to enter the Position or Field.
Event Flow	1. Users will click “Application status”. 2. Users can use filters to search specific applications. 3. Users will click enter to search.
Pre-condition:	The candidate is logged in to find the status of the job application.
Post-condition:	The candidate has found the status of the application successfully.
Side-effects:	None

3.9 Post Job

Description:	See section 2.2.9
Inputs:	Position, description, salary, location, time length, skills required, GPA required, and years of work experience.
Source:	HR personnel input job posting information.
Outputs:	Successful ‘job submitted’ message.
Destination:	The outputs are displayed on the screen.
Requires:	The user submits the job post.
Event Flow:	1. User will click “Post Job”. 2. User will fill out requires sections. 3. User will click “Submit Job”.
Pre-condition:	The HR personnel is logged in.
Post-condition:	Job posts are viewable by candidates.
Side-effects:	None

3.10 View Job Applicants

Description:	See section 2.2.10
Inputs:	Click on job posting.
Source:	The input is entered by the HR personnel.
Outputs:	Displays list of applicants for the job.
Destination:	The outputs are displayed on the screen.
Requires:	User clicking on the job post.
Event Flow:	1. User will click on Job Posting. 2. User will click on “View Candidates”.
Pre-condition:	The HR personnel is logged in.
Post-condition:	HR personnel viewed applicants.
Side-effects:	None

3.11 Update Applicant Status

Description:	See section 2.2.11
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Inputs:	Review or Accepted or Rejected.
Source:	The input is entered by the HR personnel.
Outputs:	Display the status of application.
Destination:	The outputs are displayed on the screen.
Requires:	The HR personnel and selected the status.
Event Flow:	<ol style="list-style-type: none"> 1. User personnel click dropdown menu on status. 2. User will select the appropriate status. 3. User will click update.
Pre-condition:	The HR personnel is logged in.
Post-condition:	The application status is displayed.
Side-effects:	None

3.12 View Job Archives

Description:	See section 2.2.12
Inputs:	Click on View Job Archive
Source:	The button will be on home page
Outputs:	Shows the previous job openings
Destination:	The outputs are displayed on the screen.
Requires:	HR clicking on the designated button
Event Flow:	<ol style="list-style-type: none"> 1. User will click on “View Job Archive”. 2. User will view previous job openings.
Pre-condition:	The HR personnel is logged in.
Post-condition:	HR personnel views wanted information
Side-effects:	None

3.13 Candidate Rating

Description:	See section 2.2.13
Inputs:	GPA, Skills, Years of work experience.
Source:	The input is entered by the HR personnel and candidates.

Outputs:	Matches the HR and candidate input and displays to HR by candidates application.
Destination:	The outputs are displayed on the screen.
Requires:	HR clicking on job posting.
Event Flow:	3. User will click on “View Candidates”. 4. User will view top candidates based on rating.
Pre-condition:	The HR personnel is logged in.
Post-condition:	HR personnel views candidates based on rating.
Side-effects:	None

4.0 User Interface

4.1 Home Page

Job Solutions	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="○"/>
Home				
<p style="text-align: center;">WELCOME</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="border: 1px solid black; padding: 10px; background-color: #cccccc;">Looking for a Job</div> <div style="border: 1px solid black; padding: 10px; background-color: #cccccc;">Searching for Talent</div> </div>				

4.2 Register

Job Solutions

Register

Register

HR or Candidate?

Email

abc@mail.com

Password

!PaSsWord%

Confirm Password

!PaSsWord%

Submit

4.3 Login

Job Solutions

Login

Login

Email

abc@mail.com

Password

!PaSsWord%

Confirm Password

!PaSsWord%

Submit

4.4 Password

Job Solutions

Forgot Password

Forgot Password

Email

abc@mail.com

Reset

4.5 New/Edit Candidate Profile

Home

Job Search

Edit Profile

Sign Out

Personal Information

Work Experience

Education

Certificates

Back

Next

4.6 New/Edit HR Profile

Home

Job Search

Edit Profile

Sign Out

Personal Information

You Company

Notes

Contacts

Back

Next

4.7 Job Search

The diagram shows a window titled "Jobs Solution" with standard window controls (minimize, maximize, close) on the right. Below the title bar is a "Job Search" tab. The main area contains a "Search Keyword" text field and a search button with a magnifying glass icon. On the left side, there is a vertical list of four rectangular buttons. To the right of these buttons is a vertical scrollbar. The main content area on the right is titled "Job Description" and contains several horizontal lines for text.

4.8 Job Application

The diagram shows a window titled "Job Solutions" with a "Job Application" tab. At the top, there is a progress bar with five circular markers. Below the markers are the labels: "Personal information", "Education", "Work experience", "Other informatoin", and "Done !". The "Work experience" marker is currently selected. Below the progress bar is a large rectangular form with four horizontal text input fields. At the bottom of the form are two buttons: "Cancel" and "Next".

4.9 Application Status

Job Solutions	
<input type="text" value="Search Keyword"/>	
<div>Filters</div> <div>Search</div> <div><input type="text"/></div> <div>Appliaction Type</div> <div><input type="checkbox"/> <input type="checkbox"/></div> <div>Status</div> <div><input type="checkbox"/> <input type="checkbox"/></div>	<div><input type="checkbox"/><div><div></div><div></div></div></div> <div><input type="checkbox"/><div><div></div><div></div></div></div> <div><input type="checkbox"/><div><div></div><div></div></div></div>

4.10 Post Job

Job Solutions	
Post Job	
Job Position	<input type="text"/>
Description	<input type="text"/>
Salary	<input type="text"/>
Location	<input type="text"/>
<div>Submit</div>	

4.11 View Job Applicants/Update Applicant Status

Job Solutions

Applicants

Top Candidates

Joe Smith	Resume Cover Letter	Status ▼
John Doe	Resume	Status ▲

Accept
Reject
Review

All Candidates

Jane Austen	Resume	Status ▼
Kyle Lowman	Resume Cover Letter	Review ▼
Dan Humphrey	Resume	Reject ▼

5.0 Non-Functional Requirements

5.1 Performance Requirements

- Multiple simultaneous users are supported at a time by the system.
- When a link is broken, an error for the expected page shall show upon load of the expected link.
- The website database must be updated in real-time.

5.2 Reliability

The system maintenance time will be less than 2 hours per month unless there are critical errors that need to be fixed.

5.3 Robustness

The website will display errors in the event of no internet connection, or if the job posting is unavailable for the requested search.

5.4 Availability

The website is available 24/7 with the exception maintenance, which will be notified to users at least 72 hours ahead of time.

5.5 Security

The user login information should be protected. Only the developers will have access to the information provided and the database. The passwords of the users will be stored using encryption. The only part of the database that a user may change is their own personal information related to their account. One user can't access another user's account information.