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# Software Requirements Specification

for

## TechJobHub

*Your gateway to tech careers*

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## 1. Introduction

TechJobHub is an innovative online platform, designed to streamline job searching and hiring in the tech industry. It allows job seekers to upload resumes, receive personalized job matches, and prepare for interviews through tailored assessments. For recruiters, the platform offers tools to post job listings, create custom assessments, and conduct interviews seamlessly online. TechJobHub uses advanced technology to ensure accurate resume parsing and skill matching, enhancing the recruitment process for both candidates and employers. The platform fosters a collaborative community by facilitating interaction and providing resources for career growth and development. With a focus on simplicity, inclusivity, and security, TechJobHub aims to make the hiring journey smooth and successful, bringing together talented professionals and leading tech firms in a supportive and efficient digital environment.

### 1.1 Problem Statement

In the tech industry, both job seekers and recruiters face several problems. Job seekers often have a hard time finding jobs that match their skills and experience, and preparing for interviews can be confusing and inconsistent. Recruiters struggle to sort through many applications and find the right candidates quickly and effectively. This makes the hiring process slow and frustrating for both sides. TechJobHub aims to solve these problems by offering a platform that accurately matches job seekers with suitable jobs, helps them prepare for interviews, and makes it easier for recruiters to find and evaluate the best candidates.

### 1.2 Purpose

The purpose of TechJobHub is to create an efficient and user-friendly platform that bridges the gap between job seekers and recruiters in the tech industry. For job seekers, it aims to provide personalized job recommendations, easy resume uploads, and tailored interview preparation to enhance their job search experience. For recruiters, the platform simplifies posting job listings, conducting assessments, and managing interviews, making it easier to find and hire suitable candidates. By leveraging advanced technology and fostering a collaborative community, TechJobHub strives to streamline the hiring process, support career growth, and ensure a successful and satisfying experience for both job seekers and employers.

### 1.3 Project Scope

- ❖ **Job Posting and Search:** Enable recruiters to post job listings with detailed descriptions. Facilitate job seekers in searching and filtering job listings based on criteria like location, category, and skills.
- ❖ **Resume Uploading and Parsing:** Allow job seekers to upload resumes to their profiles. Implement resume parsing functionality to extract key information such as skills, qualifications, and experience from uploaded resumes.
- ❖ **Insightful Skill Matching:** The system analyses the resume to extract skills and experience and then suggests suitable job openings based on this information. This streamlines recruitment, saving time and effort for both candidates and recruiters.

- ❖ **Customizable Assessments:** Enable recruiters to set up customized assessments for job seekers. Assessments may cover topics like Data Structures and Algorithms (DSA), Object-Oriented Programming (OOP), or other relevant areas.
- ❖ **Communication Channel:** Establish a communication channel for job seekers to ask questions, seek clarification, and take interviews.
- ❖ **Feedback Mechanism:** Provide personalized feedback to job seekers based on their assessment performance, highlighting strengths and areas for improvement.

## 1.4 Glossary

This section provides definitions for all document names, acronyms, and abbreviations. The application domain's terms and concepts are defined.

GUI - Graphical User Interface

API – Application Programming Interface

SRS – Software Requirement Specification

UI – User Interface

SDLC – Software Development Life Cycle

MB – Megabytes

HTML – Hyper Text Markup Language

## 1.5 Overview

TechJobHub is an innovative online platform, aimed at streamlining the job search and hiring processes in the tech industry. It addresses common challenges faced by job seekers and recruiters by leveraging advanced technology to create a seamless and efficient experience.

For job seekers, TechJobHub allows resume uploads, which are parsed to extract key information like skills and experience. This data is used to provide personalized job matches, ensuring relevant opportunities. The platform also offers tailored interview preparation through custom assessments, helping job seekers showcase their skills effectively.

For recruiters, TechJobHub simplifies the hiring process by enabling detailed job postings, custom assessments, and online interviews. The advanced matching technology ensures efficient identification of suitable candidates, reducing the time and effort involved in hiring.

TechJobHub fosters a collaborative community by facilitating interaction between job seekers, recruiters, and industry professionals through networking events and forums. This community-focused approach supports career growth and development, offering valuable resources and learning opportunities.

Overall, TechJobHub aims to enhance the recruitment process, support career advancement, and ensure a successful and satisfying experience for both job seekers and employers in the tech industry. By connecting talented professionals with leading tech firms, TechJobHub creates a dynamic environment where careers can thrive.

## 1.6 References

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

## 2. Stakeholders and Characteristics

### 2.1 Primary stakeholders:

**2.1.1 Job Seekers:** Individuals looking for job opportunities in the tech industry, including software developers, engineers, data scientists, designers, and other tech-related roles. They use TechJobHub to find relevant job listings, upload resumes, receive personalized job matches, and prepare for interviews through custom assessments.

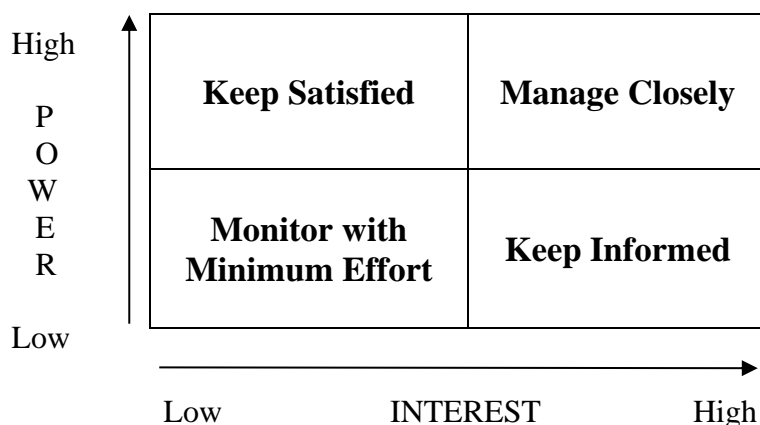
**2.1.2 Recruiters:** Individuals or agencies responsible for filling job vacancies in tech companies. They utilize TechJobHub to streamline the recruitment process, from posting job openings to conducting assessments and interviews, ensuring they find the best candidates for the job.

**2.1.3 Startups:** Employers in the technology sector seeking to hire skilled professionals for various roles within their organizations. These companies use TechJobHub to post job listings, create and administer custom assessments, conduct online interviews, and efficiently identify suitable candidates.

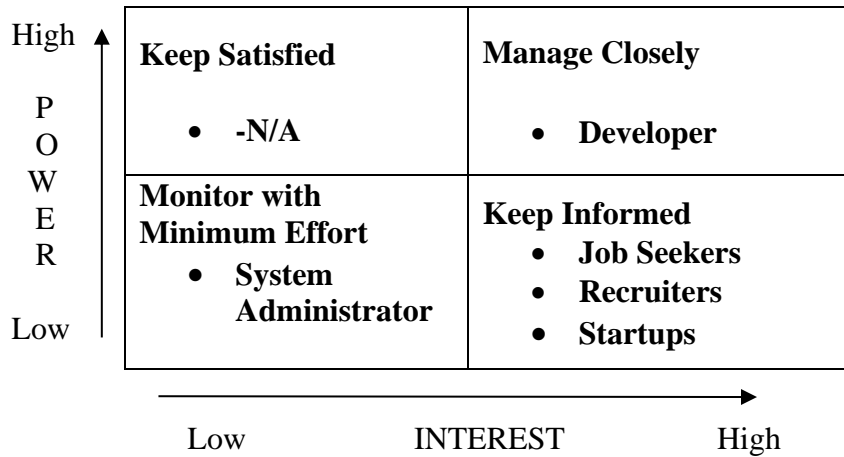
### 2.2 Secondary stakeholders:

**2.2.1 System Administrator:** The technical team responsible for building, maintaining, and supporting the TechJobHub platform. They develop the website, implement features, ensure security, and provide technical support to ensure the platform runs smoothly and meets user needs.

### 2.3 Assessment of Stakeholder Influence and Interest:







### 3. Design and Implementation Constraints

To ensure project success, we've identified design and implementation limitations. These constraints provide guidelines and tools for developers and testers to inspect and interact with the application's user interface (UI) elements. These constraints encompass the following:

#### 3.1 Language:

**3.1.1 HTML:** HTML structures web pages and their content, defining elements such as paragraphs, headings, links, and forms.

**3.1.2 CSS:** CSS dictates the presentation of HTML or XML documents, ensuring consistent styling across different media.

**3.1.3 JavaScript:** JavaScript adds interactivity to TechJobHub, making the platform dynamic and engaging for users.

**3.1.4 Python:** Python powers TechJobHub's backend, managing server-side logic and data processing efficiency with its simplicity and extensive library support, ensuring scalability and rapid feature development.

**3.1.5 Django:** Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. Developed by experienced developers, it takes care of the hassle of web development, allowing you to focus on writing your app without reinventing the wheel.

#### 3.2 Server-Side Technology:

Server-side development encompasses database management, scripting, backend logic, and API integration.

**3.2.1 Database Server:** MySQL serves as the relational database management system for TechJobHub, organizing and accessing data efficiently through SQL queries.

**3.2.2 Django:** Django is a high-level Python web framework that encourages rapid development and clean, pragmatic design. Developed by experienced developers, it takes

care of much of the hassle of web development, allowing you to focus on writing your app without needing to reinvent the wheel.

## 4. Requirement Specification

This section encompasses all requirements derived from the elicitation process.

### 4.1 Functional Requirement

Functional requirements specify what a system or software application should do, defining its features, behaviors, and interactions with users and other systems. They serve as the foundation for system design and development, ensuring that the final product meets user needs and expectations.

#### 4.1.1 User login and register

<b>F_R-1</b>	User Registration and Login to the registered account.		
<b>Description</b>	Users should have the capability to create accounts on the platform, providing necessary information such as username, email address, and password.		
<b>Stakeholders</b>	Job Seekers, Recruiter, Startups	<b>Priority</b>	High

#### 4.1.2 Job Search

<b>F_R-2</b>	Facilitate job search.		
<b>Description</b>	Users should possess the ability to search for jobs using various criteria such as company name, location, or category, facilitating easy access to desired jobs.		
<b>Stakeholders</b>	Job Seekers	<b>Priority</b>	High

### 4.1.3 Job Posting

<b>F_R-3</b>	Allow Job Posting		
<b>Description</b>	Recruiters should be able to post job openings with detailed descriptions, requirements, and other relevant information.		
<b>Stakeholders</b>	Recruiters, Startups	<b>Priority</b>	High

### 4.1.4 Upload Resume

<b>F_R-4</b>	Ensure successful resume uploading		
<b>Description</b>	Job seekers should be able to upload their resume to the platform.		
<b>Stakeholders</b>	Job seekers	<b>Priority</b>	High

### 4.1.5 Parse Resume

<b>F_R-5</b>	The system should parse the uploaded resume successfully		
<b>Description</b>	The system should parse uploaded resumes to extract skills and other relevant information.		
<b>Stakeholders</b>	System Administrator	<b>Priority</b>	High

### 4.1.6 Skills Matching

<b>F_R-6</b>	The system should match skills efficiently		
<b>Description</b>	The system should use matching algorithms to compare extracted skills with job requirements.		
<b>Stakeholders</b>	System Administrator	<b>Priority</b>	High

#### 4.1.7 Job Recommendation

<b>F_R-7</b>	The system should recommend suitable jobs to the seekers		
<b>Description</b>	The system will provide personalized job recommendations to job seekers based on their extracted resume data.		
<b>Stakeholders</b>	System Administrator, Job seekers	<b>Priority</b>	High

#### 4.1.8 Apply Job

<b>F_R-8</b>	Apply for Jobs		
<b>Description</b>	Job seekers should be able to apply for jobs directly through the platform.		
<b>Stakeholders</b>	Job seekers	<b>Priority</b>	High

#### 4.1.9 Assessment

<b>F_R-9</b>	Job seekers should be able to take skill assessments		
<b>Description</b>	Job seekers can take these assessments to showcase their abilities, and recruiters can use the results to identify qualified candidates efficiently.		
<b>Stakeholders</b>	Job seekers, Startups	<b>Priority</b>	High

#### 4.1.10 Confidential Rating

<b>F_R-10</b>	Startups can privately rate candidates		
<b>Description</b>	TechJobHub allows startups to rate candidates privately based on their performance and suitability. These ratings help in making informed hiring decisions while maintaining privacy and discretion. Only the startups and authorized personnel can view these ratings, ensuring confidentiality and unbiased evaluations.		
<b>Stakeholders</b>	Startups, Job seekers	<b>Priority</b>	Medium

#### 4.1.11 Communication Channel

<b>F_R-11</b>	Connecting talent with opportunity seamlessly		
<b>Description</b>	It enables seamless interaction between job seekers and recruiters. Users can send messages, schedule interviews, and receive updates directly through the platform. This integrated communication tool facilitates efficient and timely exchanges, enhancing the hiring process.		
<b>Stakeholders</b>	Startups, Job seekers, Recruiters	<b>Priority</b>	Medium

#### 4.1.12 Job Alert & Notification

<b>F_R-12</b>	Job Alerts & Notifications keep seekers updated on new job opportunities and application statuses		
<b>Description</b>	Job seekers will be informed about new job postings and important updates. Job seekers can set up alerts for specific job criteria and receive notifications when matching opportunities arise. Recruiters are notified about new applications and relevant candidate activities, ensuring a proactive and efficient hiring process.		
<b>Stakeholders</b>	Startups, Job seekers, Recruiters	<b>Priority</b>	High

#### 4.1.13 Confirmation

<b>F_R-13</b>	The confirmation system verifies user intent before finalizing key actions.		
<b>Description</b>	Job seekers will receive a confirmation message from the recruiters if they get hired.		
<b>Stakeholders</b>	Startups, Job seekers, Recruiters	<b>Priority</b>	High

## 5. Requirement Engineering Process

Requirements Engineering (RE) determines software requirements according to customer requirements or needs. The requirements engineering process includes requirements elicitation, needs modeling, requirements analysis, requirements assurance & validation, and requirements management.

### 5.1 Requirement Elicitation Techniques

Requirements elicitation is the practice of researching and finding system requirements for users, and other stakeholders, also known as "requirement gathering". Requirement elicitation can be done by contacting participants directly or doing research, analysis, and testing.

#### 5.1.1 Hold Interviews

Interviews are one-on-one or small group discussions with stakeholders to gather program criteria. These sessions help to obtain specific demands from participants and identify any conflicts or issues.

- Short description of the project
- Product details
- Dealing with customers & suppliers
- Transaction & feedback system

#### 5.1.2 Perform Document Analysis

Existing documentation can help to see how systems are currently operating, what they are, and what I should do. Documents include written information about current programs, business processes, needs specifications, and competitor research. Review once textual analysis can help determine which performance should remain and functionality that isn't in use. This technique is particularly useful for gaining insights into how the current system operates, identifying areas for improvement, and understanding stakeholder needs without directly interacting with them.

#### 5.1.3 Distributed Questionnaires

The questionnaire is a useful way to investigate styles, changes in attitudes and users' ideas, and user satisfaction with priorities and preferences. Our list of questions were as short as possible. The respondent may be tired or frustrated. Had a basic reason for all the questions as well as grouped the topic areas for the respondent to focus on. The main advantage of these survey responses was that they were collected in the usual way. Information was summarized by a large number of people.

## Requirement Collection 01

<b>Requirement Elicitation Techniques</b>	Interviews, Field Observation, Surveys/Questionnaires
<b>Collect From</b>	Job Seekers, Recruiters, Startups
<b>Findings</b>	<p><b>User Account Management:</b></p> <ul style="list-style-type: none"> <li>• <b>User Registration:</b> <ul style="list-style-type: none"> <li>• Intuitive and user-friendly registration process for job seekers and recruiters.</li> </ul> </li> <li>• <b>User Login:</b> <ul style="list-style-type: none"> <li>• Secure and seamless login functionality for accessing the platform.</li> </ul> </li> <li>• <b>Account Management:</b> <ul style="list-style-type: none"> <li>• Comprehensive account management features for users to update their profiles, manage applications, and track job search progress.</li> </ul> </li> </ul> <p><b>Job Search Feature:</b></p> <ul style="list-style-type: none"> <li>• <b>User-friendly Search Feature:</b> <ul style="list-style-type: none"> <li>• Intuitive search functionality for job seekers to find job listings easily based on keywords, location, category, or skills.</li> </ul> </li> <li>• <b>Advanced Search Options:</b> <ul style="list-style-type: none"> <li>• Advanced search options such as filters by job type, company size, location, and experience level for tailored job searches.</li> </ul> </li> </ul> <p><b>Job Application Management:</b></p> <ul style="list-style-type: none"> <li>• <b>Application Submission:</b> <ul style="list-style-type: none"> <li>• Streamlined process for job seekers to apply for job postings.</li> </ul> </li> <li>• <b>Application Tracking:</b> <ul style="list-style-type: none"> <li>• Real-time tracking of application status and updates.</li> </ul> </li> </ul> <p><b>Assessment and Interview Management:</b></p> <ul style="list-style-type: none"> <li>• <b>Custom Assessments:</b> <ul style="list-style-type: none"> <li>• Enable recruiters to create custom assessments to evaluate job seekers' skills.</li> </ul> </li> <li>• <b>Interview Scheduling:</b> <ul style="list-style-type: none"> <li>• Integrated tools for scheduling and conducting interviews online.</li> </ul> </li> </ul> <p><b>Communication and Feedback:</b></p> <ul style="list-style-type: none"> <li>• <b>Communication Channels:</b> <ul style="list-style-type: none"> <li>• Establish a communication channel for job seekers and recruiters to interact, ask questions, and provide feedback.</li> </ul> </li> <li>• <b>Feedback Mechanism:</b> <ul style="list-style-type: none"> <li>• Provide personalized feedback to job seekers based on their assessment performance.</li> </ul> </li> </ul>

<b>Advised Topics for Implementation</b>	Optimize registration for simplicity, offer a comprehensive search system for efficient job discovery, and integrate interactive communication tools to enhance engagement on the TechJobHub platform. Implement advanced features for application tracking, custom assessments, and interview scheduling to streamline the hiring process.
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## 5.2 Requirement Validation

Requirement validation is the process of ensuring that the identified requirements accurately represent the needs and expectations of stakeholders and are feasible to implement within the system. It involves verifying that the requirements are complete, consistent, unambiguous, and aligned with the project goals and constraints

### 5.2.1 Review the Requirements

At the time of review, potential ambiguities, conflicts, and gaps in the requirements are identified and addressed. Additionally, stakeholders may provide feedback and suggestions for refining or enhancing the requirements. The goal of requirement review is to ensure that the finalized set of requirements forms a solid foundation for the successful development and implementation of the system, minimizing the risk of misunderstandings and costly changes later in the project lifecycle.

### 5.2.2 Test the Requirements

Conducting user acceptance testing (UAT) to validate that the implemented system meets the specified requirements and satisfies the stakeholders' needs. This involves executing test cases based on the requirements and obtaining feedback from end-users.



## 6. Use Case Diagram

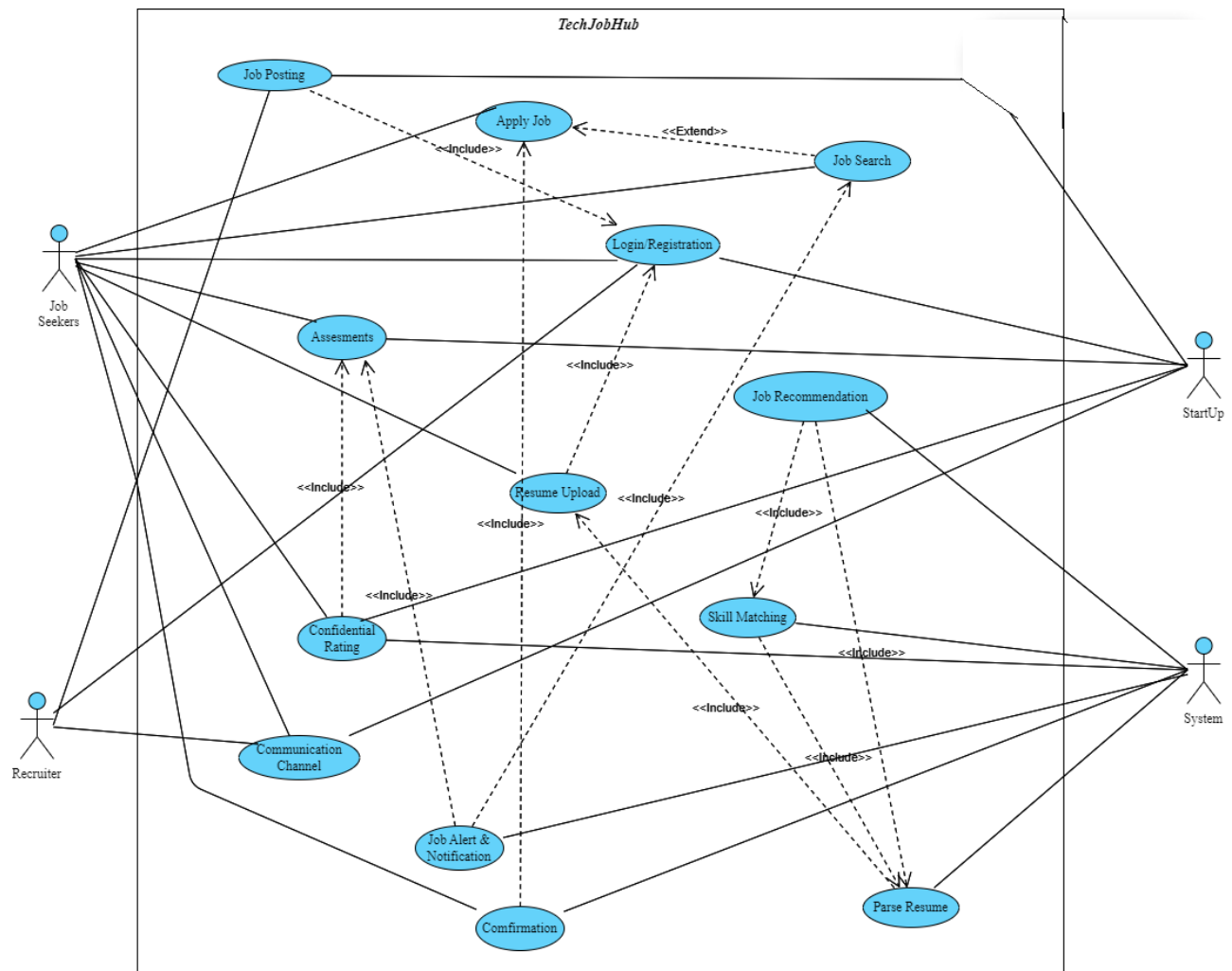


Figure 1: Use-case Diagram

## 7. Use Case Description

Table 1: Registration

<b>Use Case</b>	Registration
<b>Definition</b>	The user will create an account in the “TechJobHub” application if not registered.
<b>Preconditions</b>	N/A
<b>Success End Condition</b>	A user account is created.
<b>Failed End Condition</b>	A user account is not created.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	Job Seekers Recruiters, Startups
<b>Trigger</b>	The “Sign in” button needs to be clicked.
<b>Main Success Flows</b>	The Job Seekers opens the “TechJobHub” application.
	The Job Seekers click the “Sign in” button.
	Job Seekers provide First Name, Last Name, email, Role, and Password.
	The server checks information and provides confirmation.
	An account is created.
<b>Alternative Flows</b>	Job Seekers does not have an account
	Job Seekers need to create one.
	Job Seekers does not log in with an existing account.
	Job Seekers needs to create another account
	The server shows that information is invalid or used before.
	Job Seekers need to change the information provided.
<b>Quality Requirements</b>	First Name, Last Name, Password, Email and Role must be unique.

Table 2: Log in

<b>Use Case</b>	Login
<b>Definition</b>	Job Seekers can log in to the “TechJobHub” application.
<b>Preconditions</b>	Job Seekers should have a registered account.
<b>Success End Condition</b>	Successfully login to the “TechJobHub” application.
<b>Failed End Condition</b>	Unable to log in.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	Job Seekers Recruiters, Startups
<b>Trigger</b>	“Login” Button needs to be clicked.
<b>Main Success Flows</b>	Job Seekers opens the “TechJobHub” application.
	Job Seekers click the “Log in” button.
	Job Seekers provides a username, email, and password.
	The server checks information and provides confirmation.
	Job Seekers login is successful.
<b>Alternative Flows</b>	Job Seekers do not have an account.
	Job Seekers click the “Sign up” button to create an account.
<b>Quality Requirements</b>	Job Seekers must have an account.

Table 3: Resume Upload

<b>Use Case</b>	Resume Upload
<b>Definition</b>	Job Seekers can upload their resumes to the TechJobHub platform.
<b>Preconditions</b>	Job Seekers must be logged in.
<b>Success End Condition</b>	The resume has been successfully uploaded and parsed.
<b>Failed End Condition</b>	Unable to upload the resume.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	Job Seekers System
<b>Trigger</b>	The "Upload Resume" button needs to be clicked.
<b>Main Success Flows</b>	Job Seekers log into the application.
	Job Seekers navigate to the resume upload section.
	Job Seekers click the "Upload Resume" button.
	Job Seekers select the resume file from their device.
	The system uploads and parses the resume.
	The resume upload is confirmed.
<b>Alternative Flows</b>	Job Seekers encounter file format issues.
	The system provides an error message and prompts to upload a compatible file.
<b>Quality Requirements</b>	Resume file must be in a supported format (e.g., PDF, DOC).

Table 4: Job Posting

<b>Use Case</b>	Job Posting
<b>Definition</b>	Startups and Recruiters can post job openings on the TechJobHub platform.
<b>Preconditions</b>	Startups and Recruiters must be logged in.
<b>Success End Condition</b>	The job is successfully posted.
<b>Failed End Condition</b>	Unable to post the job.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	Startups, Recruiters System
<b>Trigger</b>	The “Post Job” button needs to be clicked.
<b>Main Success Flows</b>	Startups and Recruiters log into the application.
	Startups and Recruiters navigate to the job posting section.
	Startups and Recruiters click the “Post Job” button.
	Startups and Recruiters fill out the job details form.
	The system saves job postings.
	The job posting is confirmed and made public.
<b>Alternative Flows</b>	Startups and Recruiters encounter incomplete form submissions.
	System prompts to complete required fields.
<b>Quality Requirements</b>	All required job details must be provided.

Table 5: Job Search

<b>Use Case</b>	Job Search
<b>Definition</b>	Job Seekers can search for job listings.
<b>Preconditions</b>	Job Seekers must be logged in.
<b>Success End Condition</b>	Relevant job listings are displayed.
<b>Failed End Condition</b>	Unable to retrieve job listings.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	Job Seekers System
<b>Trigger</b>	The “Search” button needs to be clicked.
<b>Main Success Flows</b>	Job Seekers log into the application.
	Job Seekers navigate to the job search section.
	Job Seekers enter search criteria (e.g., keywords, location).
	Job Seekers click the “Search” button.
	The system retrieves and displays relevant job listings.
<b>Alternative Flows</b>	Job Seekers enter invalid search criteria.
	The system prompts us to adjust the criteria.
<b>Quality Requirements</b>	Search results must be relevant to the criteria.

Table 6: Apply Job

<b>Use Case</b>	Apply for Job
<b>Definition</b>	Job Seekers can apply for job openings.
<b>Preconditions</b>	Job Seekers must be logged in and have a resume uploaded.
<b>Success End Condition</b>	The job application has been successfully submitted.
<b>Failed End Condition</b>	Unable to apply.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	Job Seekers System
<b>Trigger</b>	The “Apply” button needs to be clicked.
<b>Main Success Flows</b>	Job Seekers log into the application.
	Job Seekers search and find a suitable job listing.
	Job Seekers click the “Apply” button.
	Job Seekers confirm application details.
	The system applies.
	Application submission is confirmed.
<b>Alternative Flows</b>	Job Seekers encounter issues with resume attachments.
	The system prompts you to re-upload or correct the issue.
<b>Quality Requirements</b>	A resume and other required documents must be attached.

Table 7: Assessments

<b>Use Case</b>	Assessments
<b>Definition</b>	Startups can create assessments; Job Seekers can take assessments.
<b>Preconditions</b>	Startups and Job Seekers must be logged in.
<b>Success End Condition</b>	Assessment is successfully created or completed.
<b>Failed End Condition</b>	Unable to create or complete the assessment.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	Startups and Job Seekers System
<b>Trigger</b>	The “Create Assessment” or “Take Assessment” button needs to be clicked.
<b>Main Success Flows</b>	Startups log into the application.
	Startups navigate to the assessment creation section.
	Startups create and save assessments.
	Job Seekers log into the application.
	Job Seekers navigate to the assessment section.
	Job Seekers take the assessment.
	The system records the results.
<b>Alternative Flows</b>	Job Seekers face technical issues during the assessment.
	The system provides troubleshooting steps or allows rescheduling.
<b>Quality Requirements</b>	Assessments must be clear and relevant to job requirements.



Table 8: Parse Resume

<b>Use Case</b>	Parse Resume
<b>Definition</b>	The system parses uploaded resumes to extract key information of skills.
<b>Preconditions</b>	Resume must be uploaded.
<b>Success End Condition</b>	Resume is successfully parsed.
<b>Failed End Condition</b>	Unable to parse the resume.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	System Job Seekers
<b>Trigger</b>	“Upload your Resume” button needs to be clicked.
<b>Main Success Flows</b>	Job Seekers upload their resume.
	The system receives the resume.
	The system parses the resume.
	Parsed data is stored in the job seeker’s profile.
<b>Alternative Flows</b>	Resume is in an unsupported format.
	The system prompts you to upload a compatible file.
<b>Quality Requirements</b>	Parsing must be accurate and comprehensive.

Table 09: Skill Matching

Use Case	Skill Matching
<b>Definition</b>	The system matches job seekers' skills with job requirements.
<b>Preconditions</b>	The resume must be parsed.
<b>Success End Condition</b>	Relevant job matches are identified.
<b>Failed End Condition</b>	No matches were found.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	System Job Seekers
<b>Trigger</b>	Resume parsing completion.
<b>Main Success Flows</b>	Resume parsing is completed.
	The system analyzes the parsed data.
	The system matches skills with job requirements.
	Relevant job matches are presented to the job seeker.
<b>Alternative Flows</b>	No direct matches were found.
	The system suggests similar jobs or additional skills to acquire.
<b>Quality Requirements</b>	Matching must be precise and relevant.

Table 10: Job Recommendation

Use Case	Job Recommendation
<b>Definition</b>	The system provides personalized job recommendations to job seekers.
<b>Preconditions</b>	Job Seekers must have a profile with parsed resume data.
<b>Success End Condition</b>	Job recommendations are provided.
<b>Failed End Condition</b>	No suitable recommendations.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	System Job Seekers

<b>Trigger</b>	System completion of skill matching.
<b>Main Success Flows</b>	The system completes skill matching.
	The system generates job recommendations.
	Job Seekers receive and review recommendations.
<b>Alternative Flows</b>	No strong matches were found.
	The system advises on profile updates for better matches.
<b>Quality Requirements</b>	Recommendations must be relevant and timely.

Table 11: Job Alert &amp; Notification

<b>Use Case</b>	Job Alert & Notification
<b>Definition</b>	The system sends alerts and notifications to job seekers about job-related updates.
<b>Preconditions</b>	Job Seekers must be registered and subscribed to alerts.
<b>Success End Condition</b>	Notifications are successfully sent.
<b>Failed End Condition</b>	Notifications fail to send.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	System Job Seekers
<b>Trigger</b>	The “Notification” button needs to be clicked. Event-based (e.g., new job posting, application status change).
<b>Main Success Flows</b>	A new job posting or relevant event occurs.
	The system generates a notification.
	Job Seekers receive the notification.
<b>Alternative Flows</b>	Job Seekers do not receive notifications due to system error.
	The system retries or logs the issue for support.
<b>Quality Requirements</b>	Notifications must be prompt and accurate.

Table 12: Communication Channel

<b>Use Case</b>	Communication Channel
<b>Definition</b>	Enables communication among job seekers, recruiters, and Job Seekers.
<b>Preconditions</b>	All parties must be logged in.
<b>Success End Condition</b>	Successful exchange of messages.
<b>Failed End Condition</b>	Unable to communicate.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	Job Seekers, Recruiters, Startups System
<b>Trigger</b>	Initiation of communication (e.g., job seeker asks a question).
<b>Main Success Flows</b>	Job Seekers or Recruiters initiate communication.
	The message is sent through the system.
	The recipient receives and responds to the message.
<b>Alternative Flows</b>	Communication fails due to network issues.
	The system retries sending the message.
<b>Quality Requirements</b>	Messages must be delivered reliably and securely.

Table 13: Confidential Rating

<b>Use Case</b>	Confidential Rating
<b>Definition</b>	Recruiters and Startups can rate job seekers confidentially based on their performance.
<b>Preconditions</b>	Job seeker must have interacted with the Recruiters and Startups.
<b>Success End Condition</b>	Rating is successfully submitted.
<b>Failed End Condition</b>	Unable to submit the rating.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	Recruiters and Startups System
<b>Trigger</b>	Completion of interaction (e.g., post-interview).
<b>Main Success Flows</b>	Recruiters and Startups complete interaction with job seekers.

	Recruiters and Startups access the rating section.
	Recruiters and Startups submit a confidential rating.
	The system records the rating.
<b>Alternative Flows</b>	Recruiters encounter issues with rating submissions.
	The system provides error messages and troubleshooting steps.
<b>Quality Requirements</b>	Ratings must remain confidential and accurate.

Table 14: Confirmation

Use Case	Confirmation
<b>Definition</b>	Involves confirming job applications, interview schedules, and job offers.
<b>Preconditions</b>	Relevant actions (e.g., job application) must be completed.
<b>Success End Condition</b>	Confirmation is successfully recorded.
<b>Failed End Condition</b>	Unable to confirm.
<b>Primary Actors:</b> <b>Secondary Actors:</b>	Job Seekers, Recruiters System
<b>Trigger</b>	Completion of relevant action.
<b>Main Success Flows</b>	Job Seekers or Recruiters complete a relevant action.
	The system prompts for confirmation.
	Users confirm the action.
	The system records the confirmation.
<b>Alternative Flows</b>	Users encounter issues with confirmation.
	System provides error message and assistance.
<b>Quality Requirements</b>	Ratings must remain confidential and accurate.

## 8. Activity Diagram

Activity Diagram (Login/Registration)

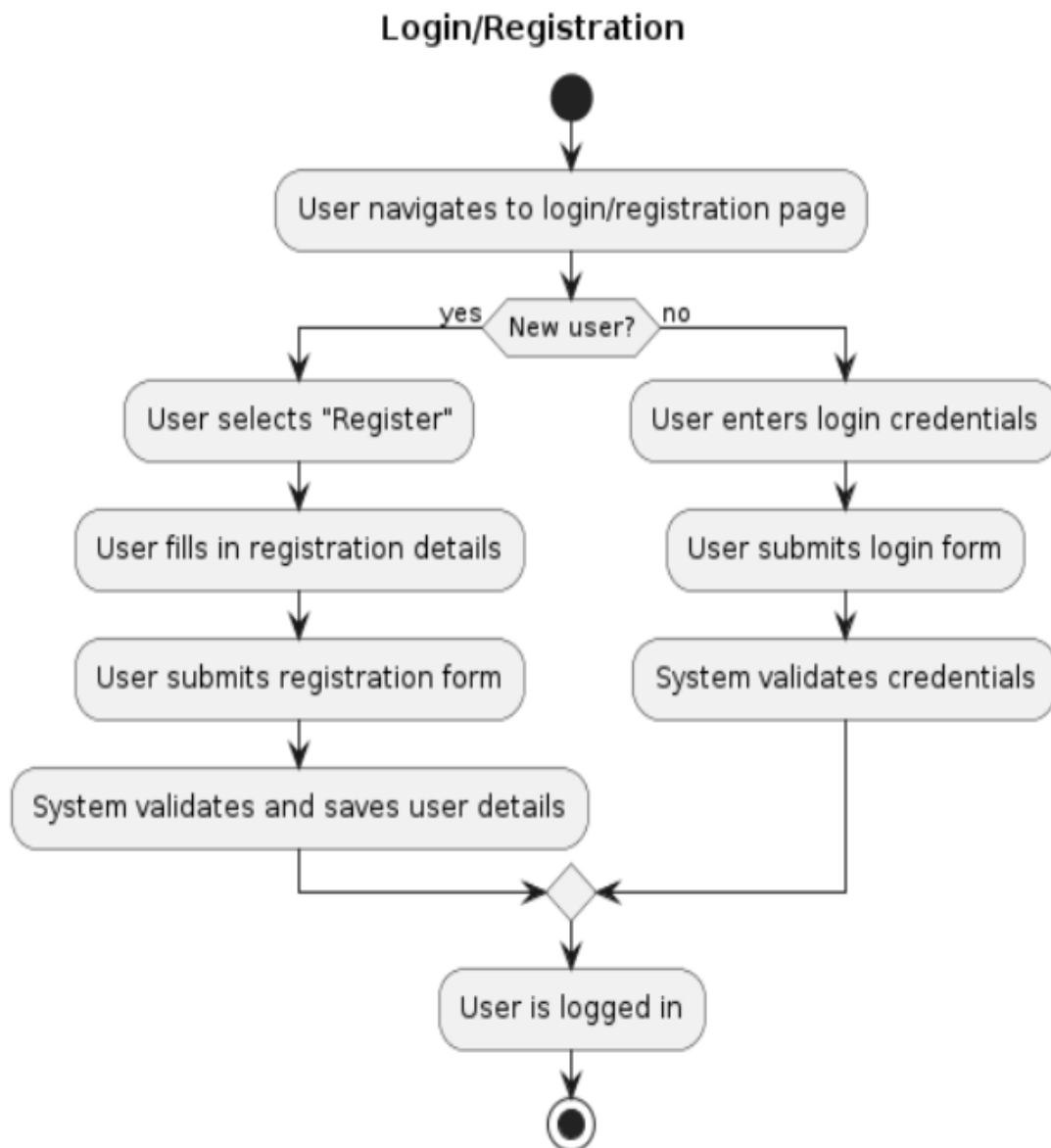
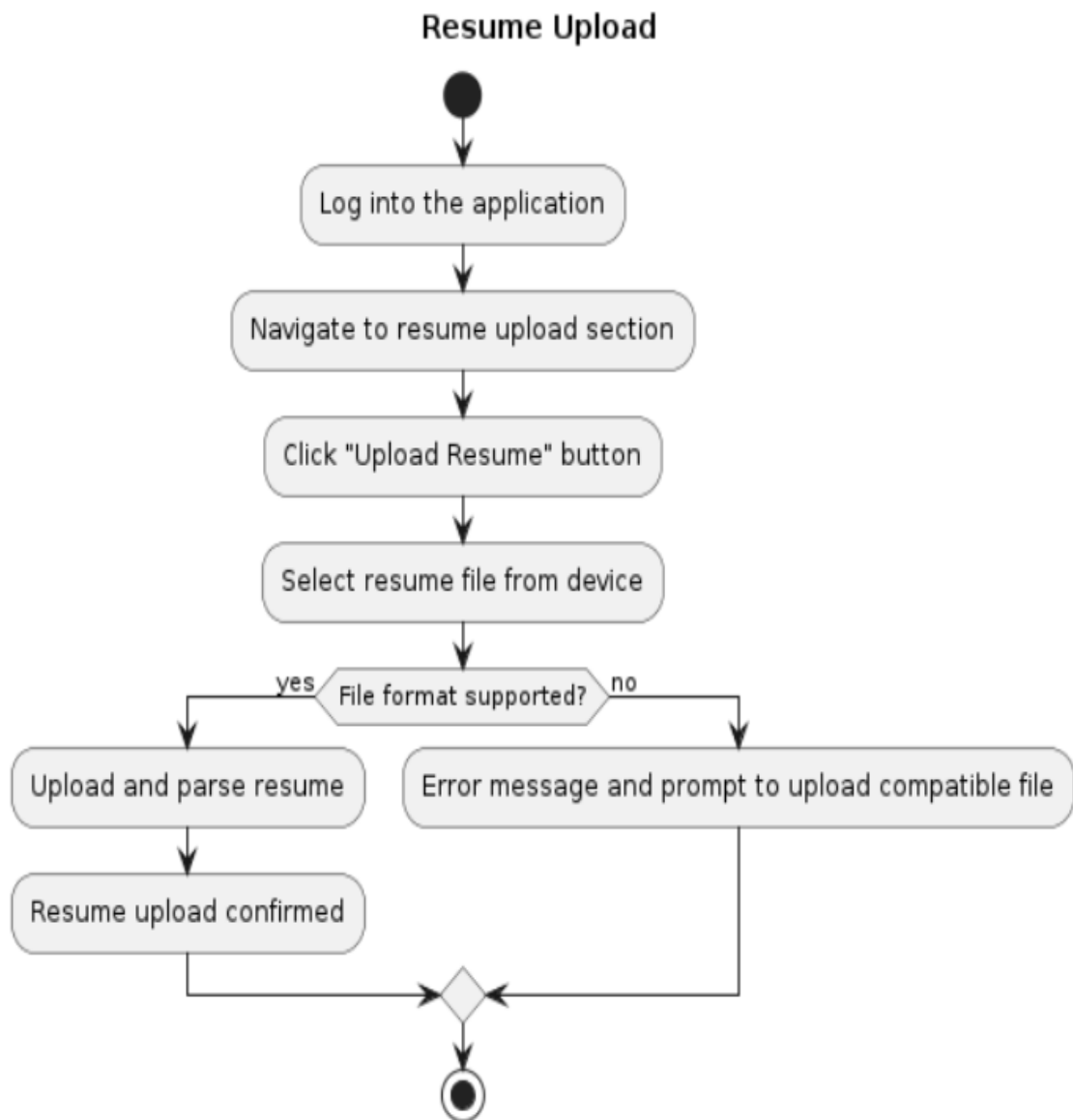


Figure 1: Login/Registration

## Activity Diagram (Resume Upload)

*Figure 2: Resume Upload*

## Activity Diagram (Job posting)

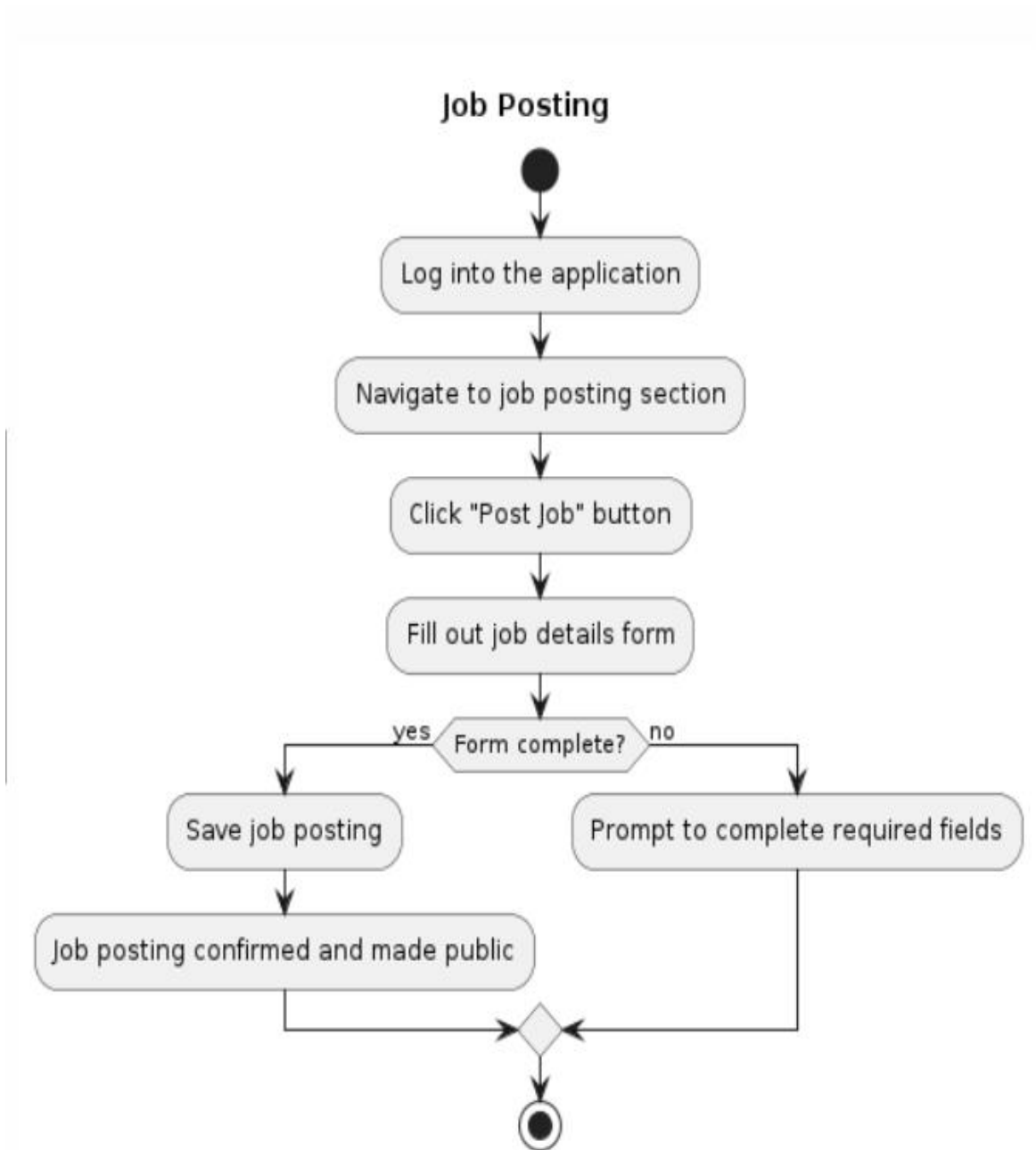
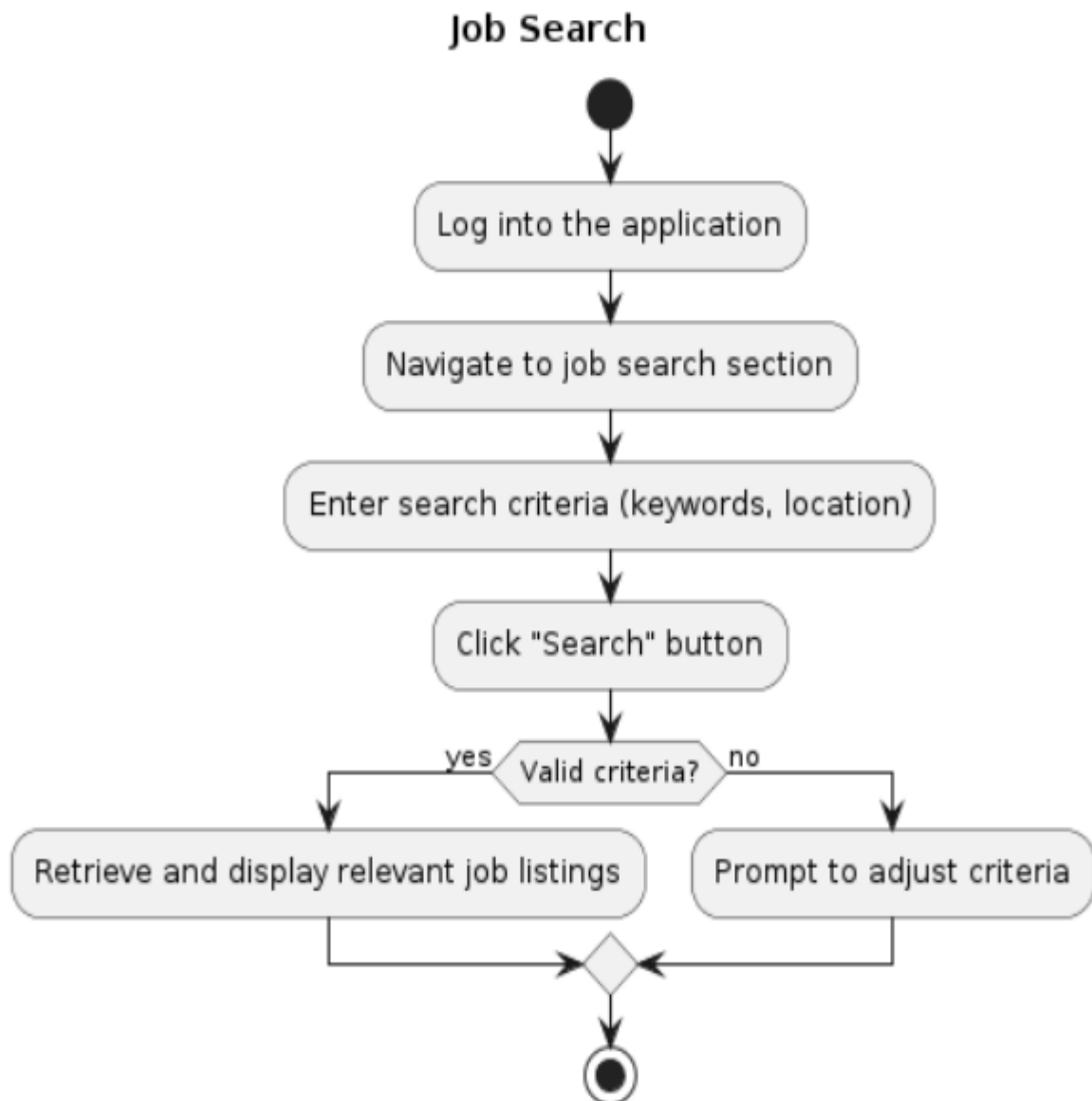


Figure 4: Job Posting



## Activity Diagram (Search Job)

*Figure 4: Job Posting*

## Activity Diagram (Apply Job)

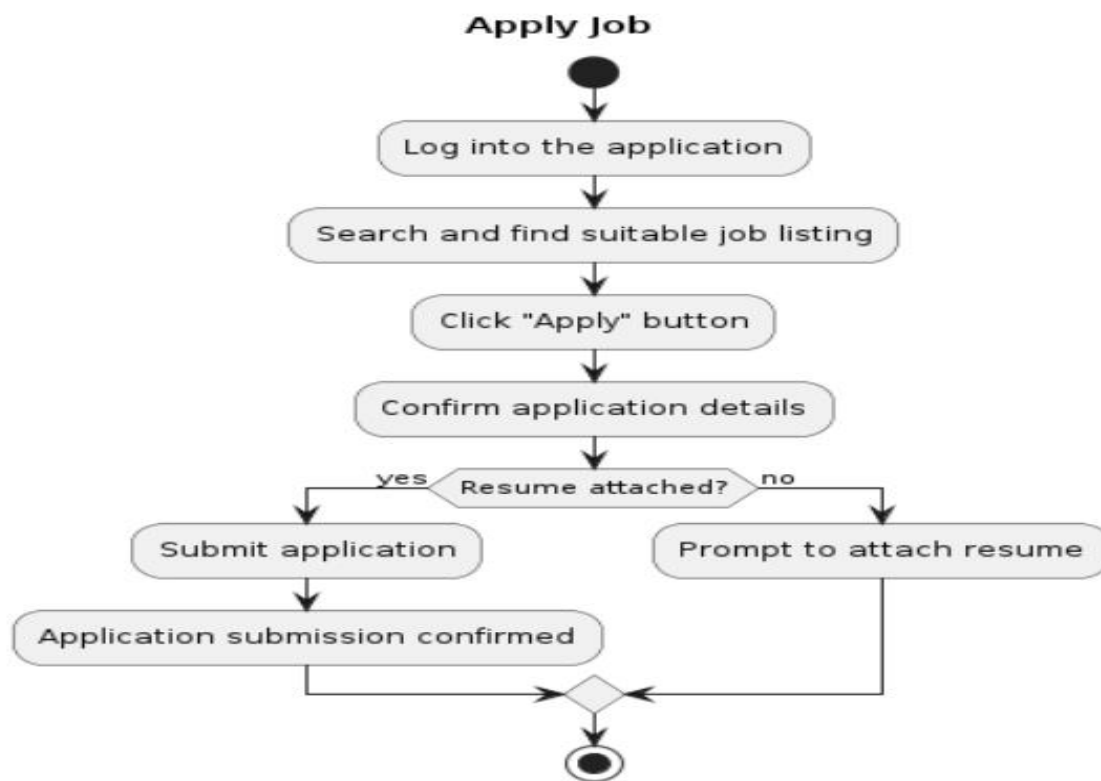


Figure 5: Apply Job

## Activity Diagram (Assessments)

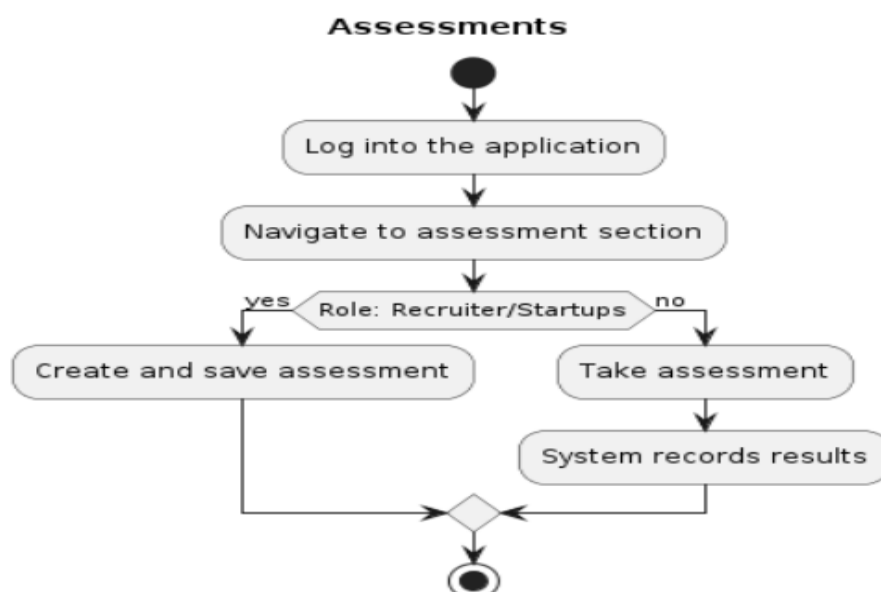
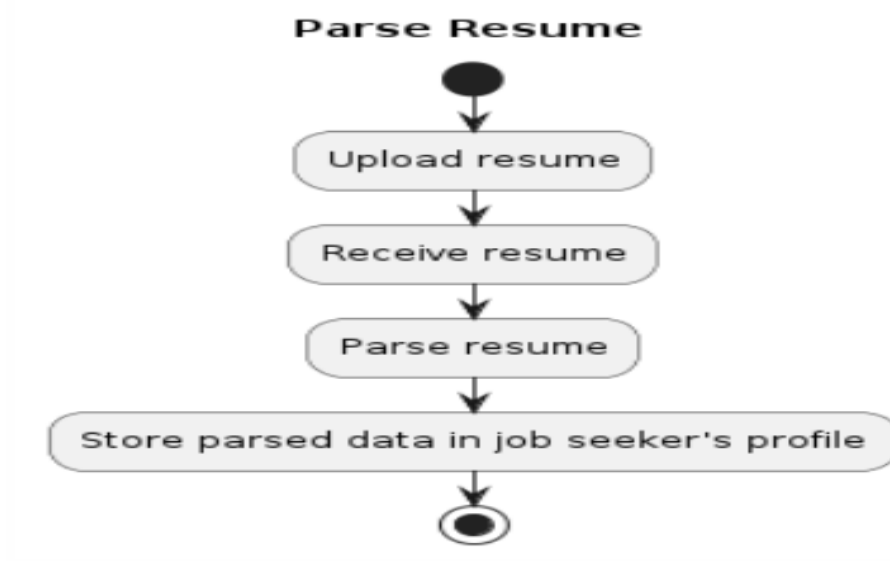


Figure 6: Assessments

## Activity Diagram (Parse Resume)

*Figure 7: Parse Resume*

## Activity Diagram (Skill Matching)

*Figure 8: Skill Matching*

## Activity Diagram (Job Recommendation)

*Figure 9: Job Recommendation*

## Activity Diagram (Job Alert &amp; Notification)

*Figure 10: Job Alert & Notification*

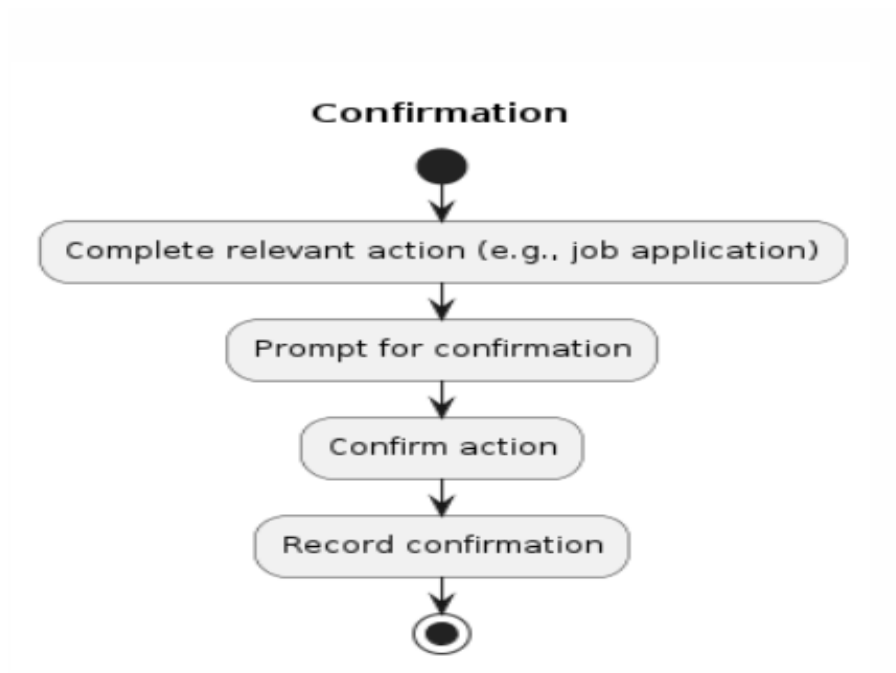
## Activity Diagram (Communication Channel)

*Figure 11: Communication Channel*

## Activity Diagram (Confidential Rating)

*Figure 12: Confidential Rating*

## Activity Diagram (Confirmation)

*Figure 13: Confirmation*

## 9. Sequence Diagram

### Sequence Diagram (Login/Registration)

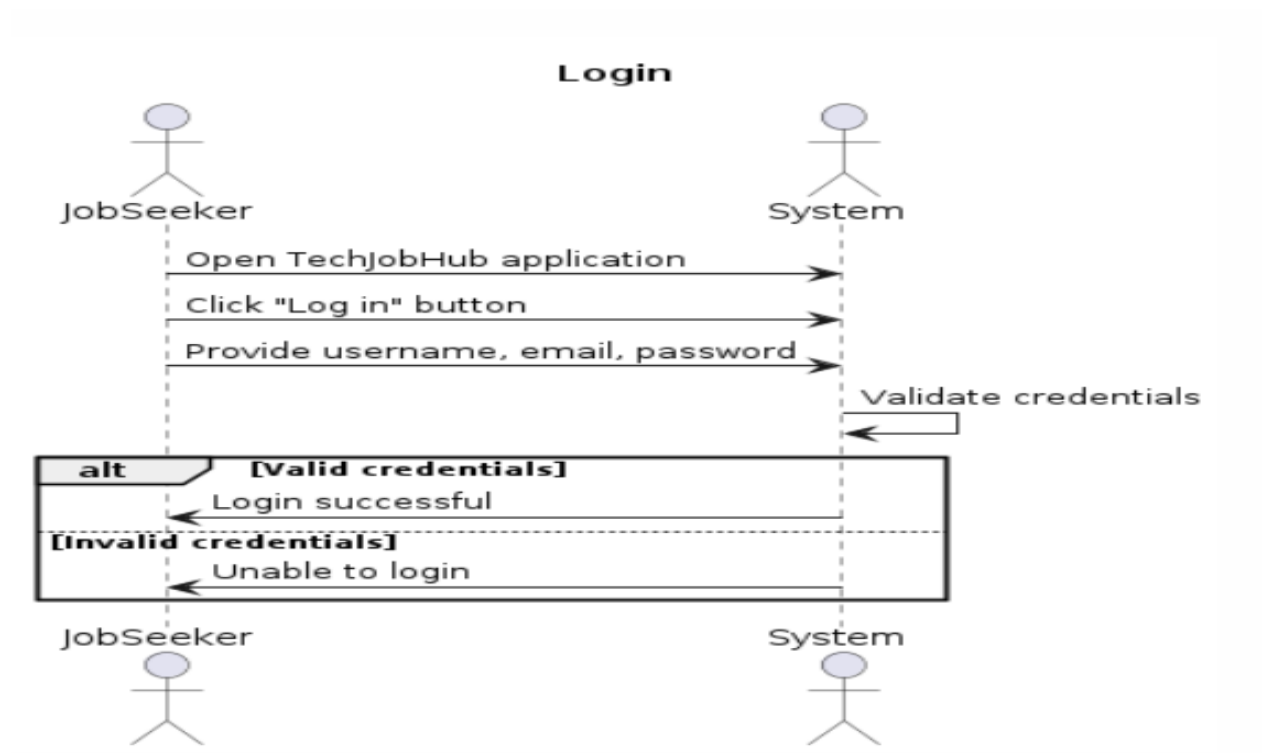
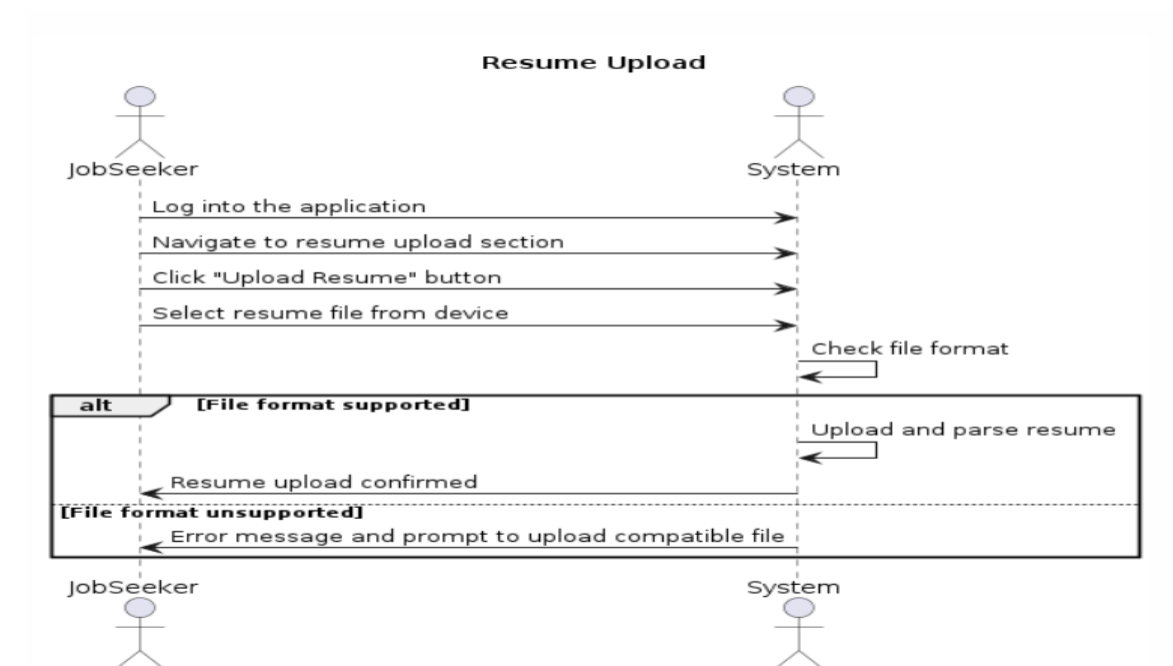


Figure 14: Login/Registration

### Sequence Diagram (Resume Upload)



15: Resume Upload

Figure

## Sequence Diagram (Job Posting)

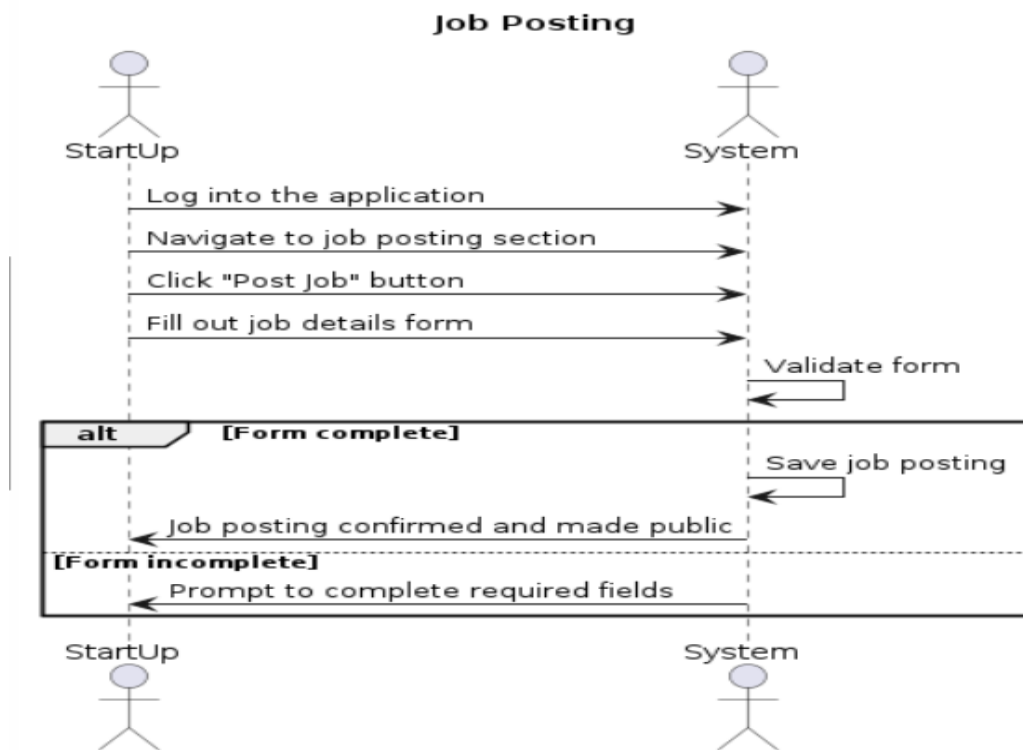


Figure 16: Job Posting

## Sequence Diagram (Job Search)

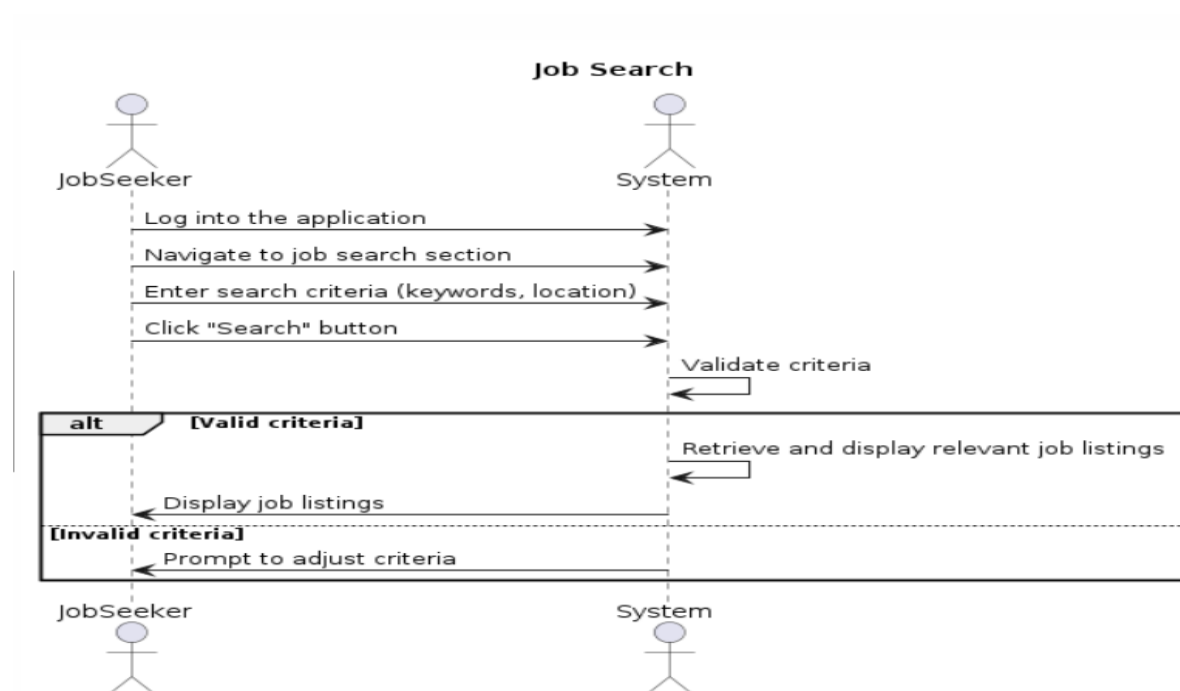


Figure 17: Job Search



## Sequence Diagram (Apply Job)

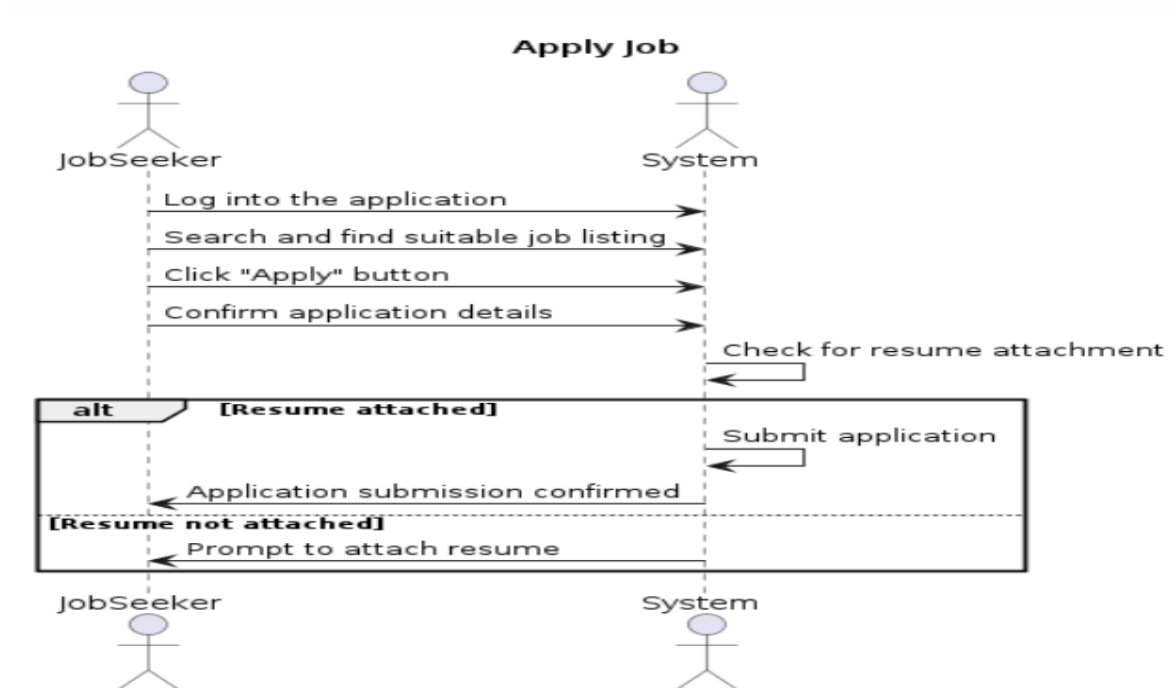


Figure 18: Apply Job

## Sequence Diagram (Assessments)

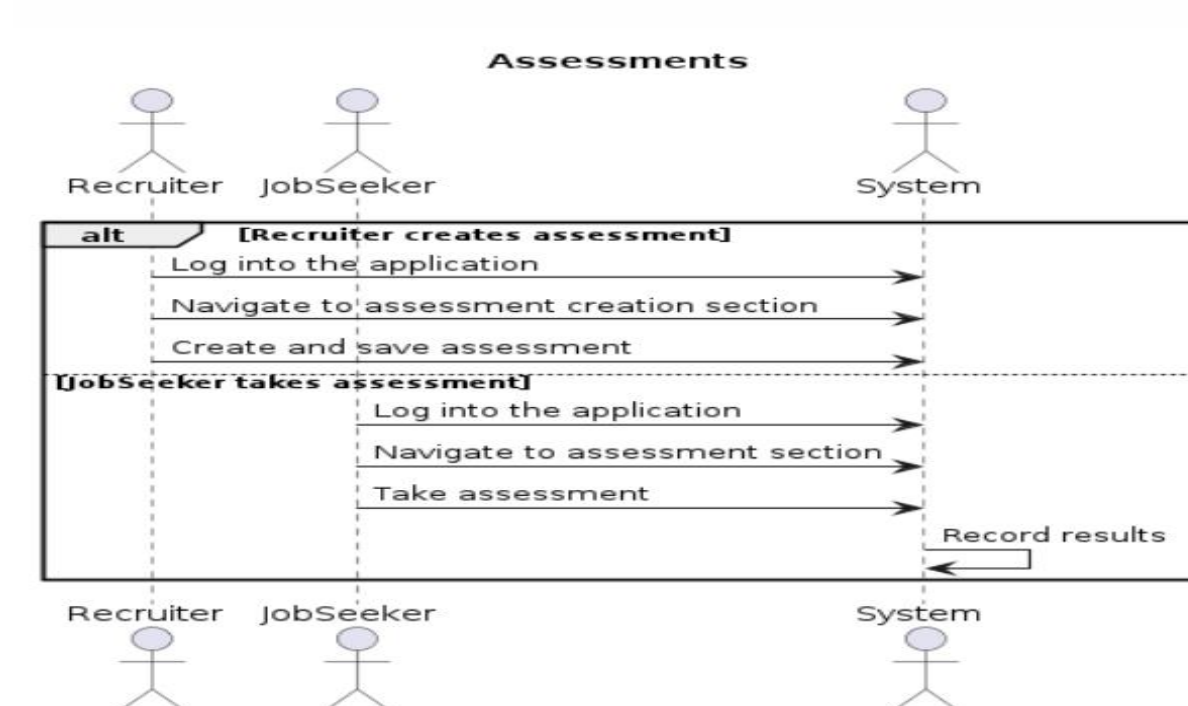


Figure 19: Assessments

## Sequence Diagram (Parse Resume)

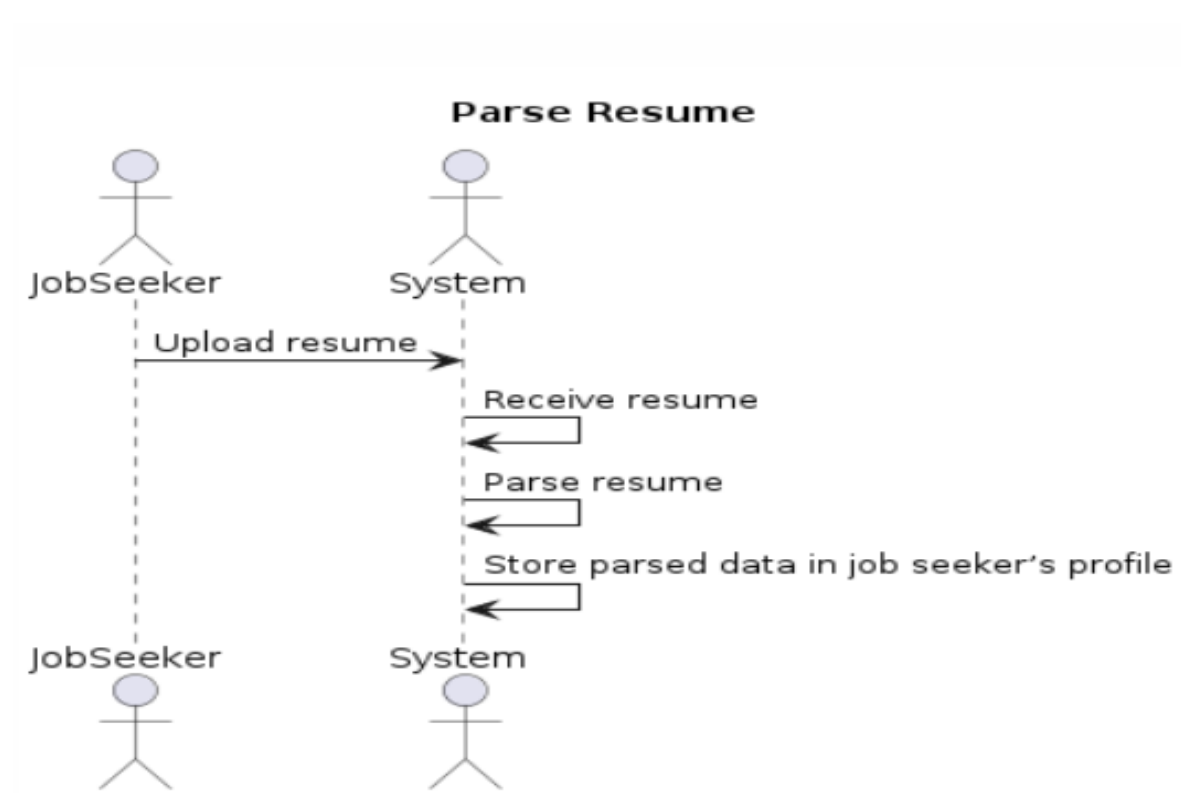


Figure 20: Parse Resume

## Sequence Diagram (Skill Matching)

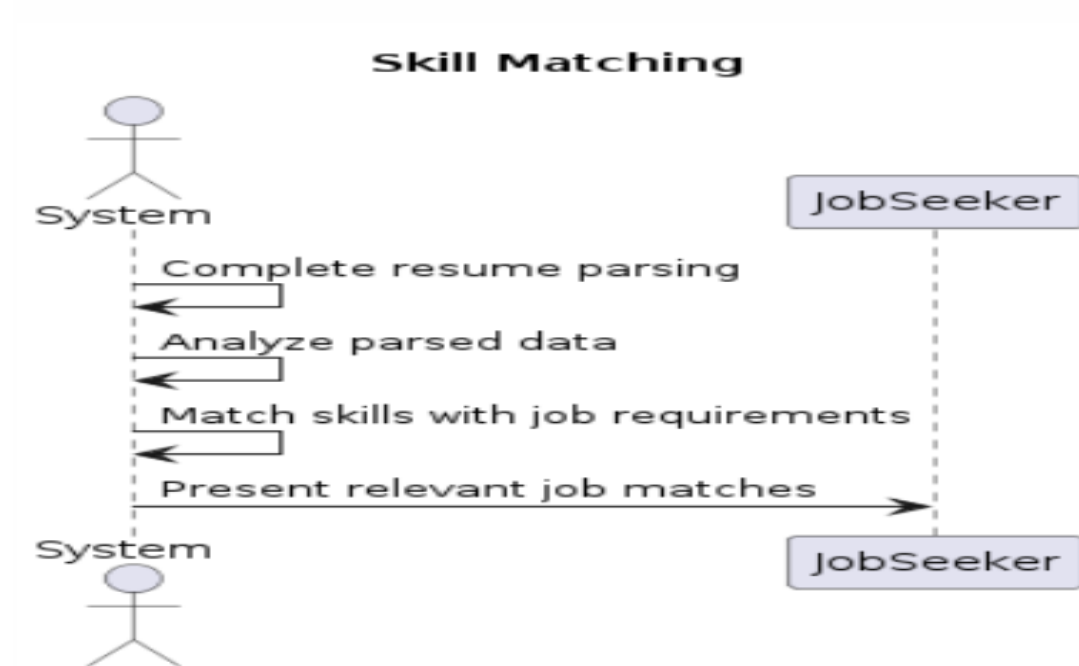


Figure 21: Skill Matching

## Sequence Diagram (Job Recommendation)



Figure 22: Job Recommendation

## Sequence Diagram (Job Alert &amp; Notification)

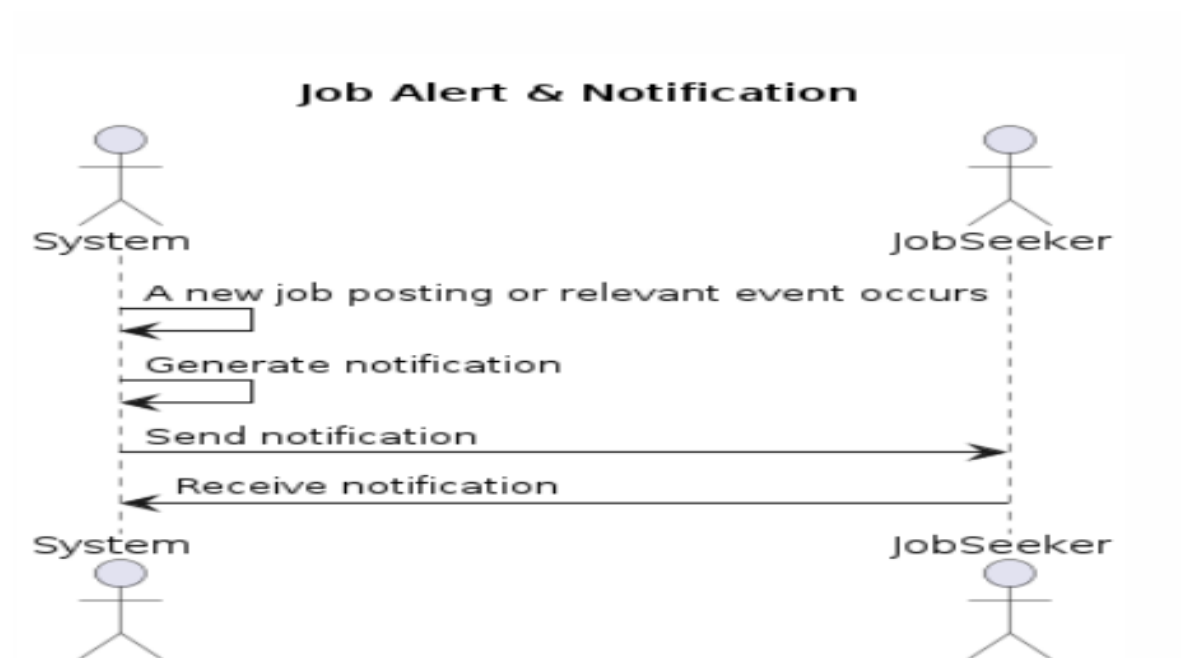


Figure 23: Job Alert &amp; Notification

## Sequence Diagram (Communication Channel)

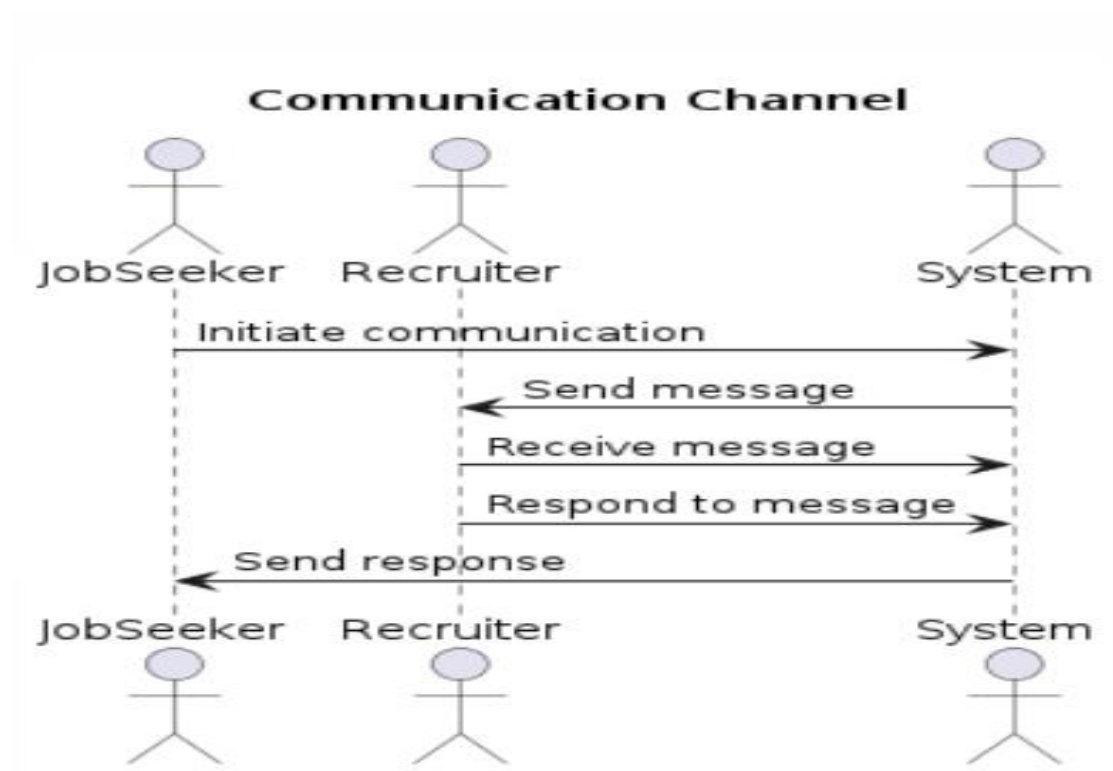


Figure 24: Communication Channel

## Sequence Diagram (Confidential Rating)

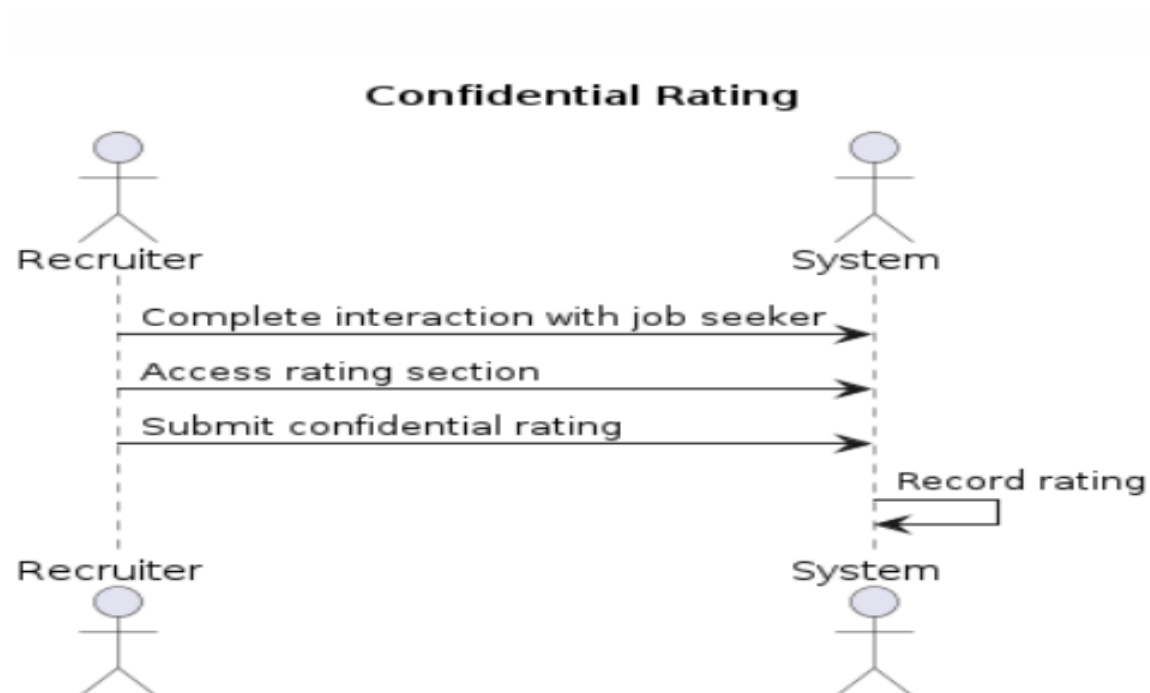


Figure 25: Confidential Rating

## Sequence Diagram (Confirmation)

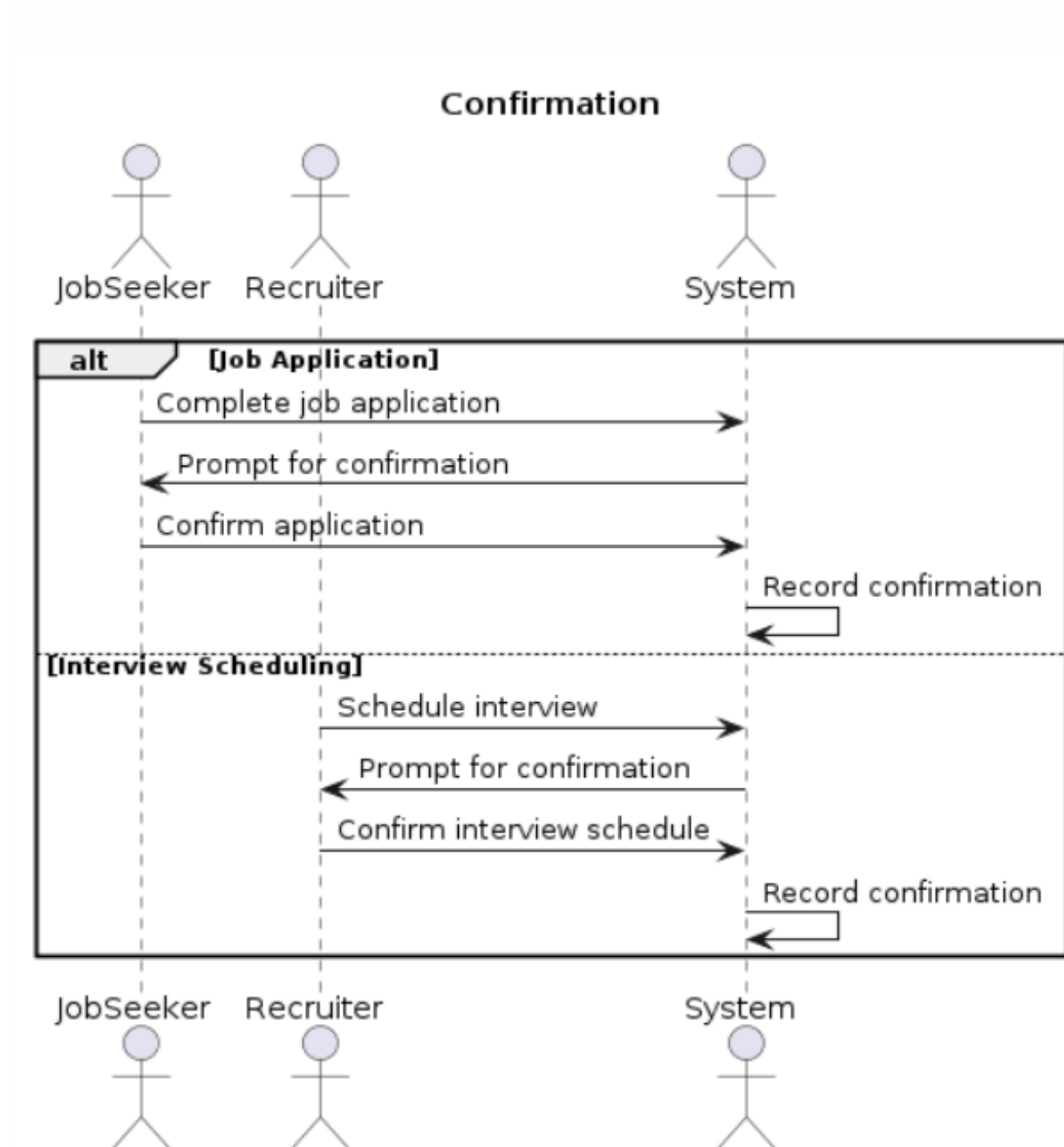


Figure 26: Confirmation

## 10. Swim Lane Diagram:

Swim Lane (Login/Registration)

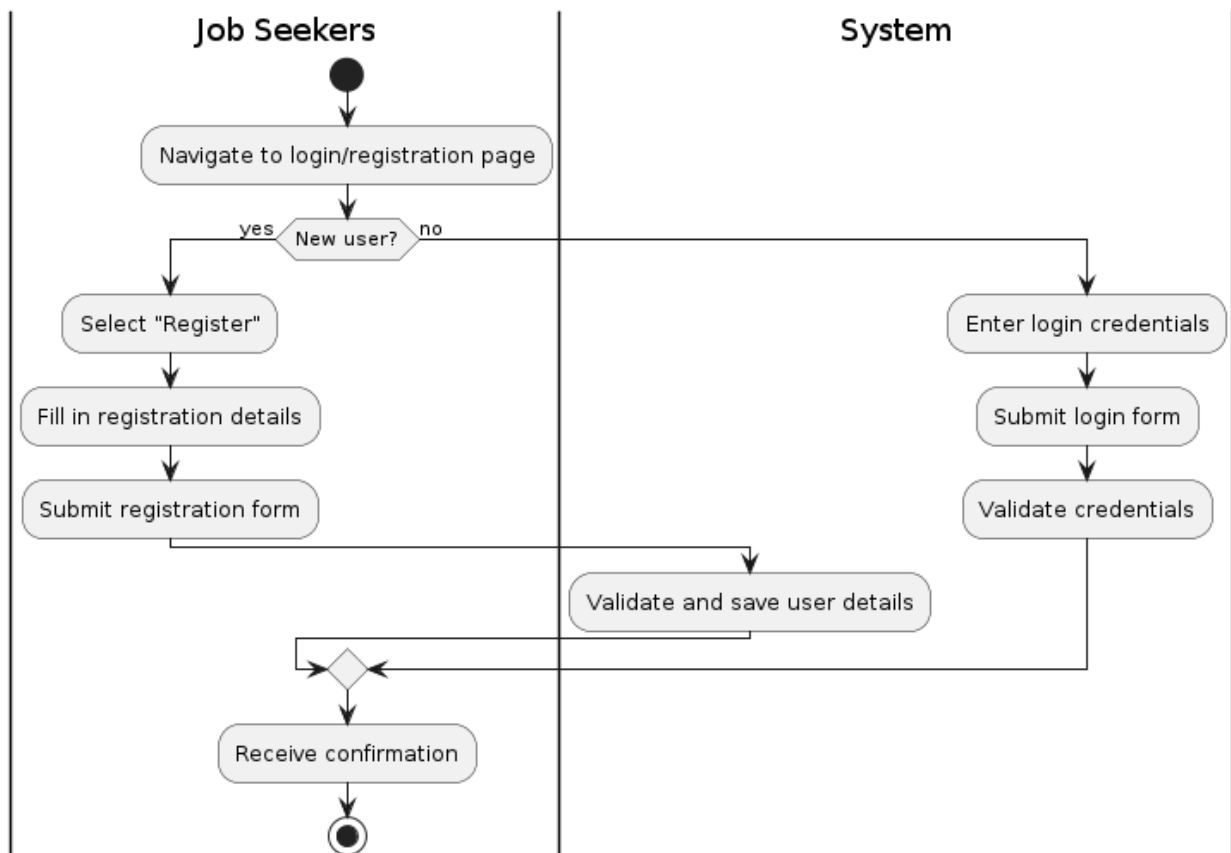


Figure 27: Login/Registration

## Swim Lane (Job Posting)

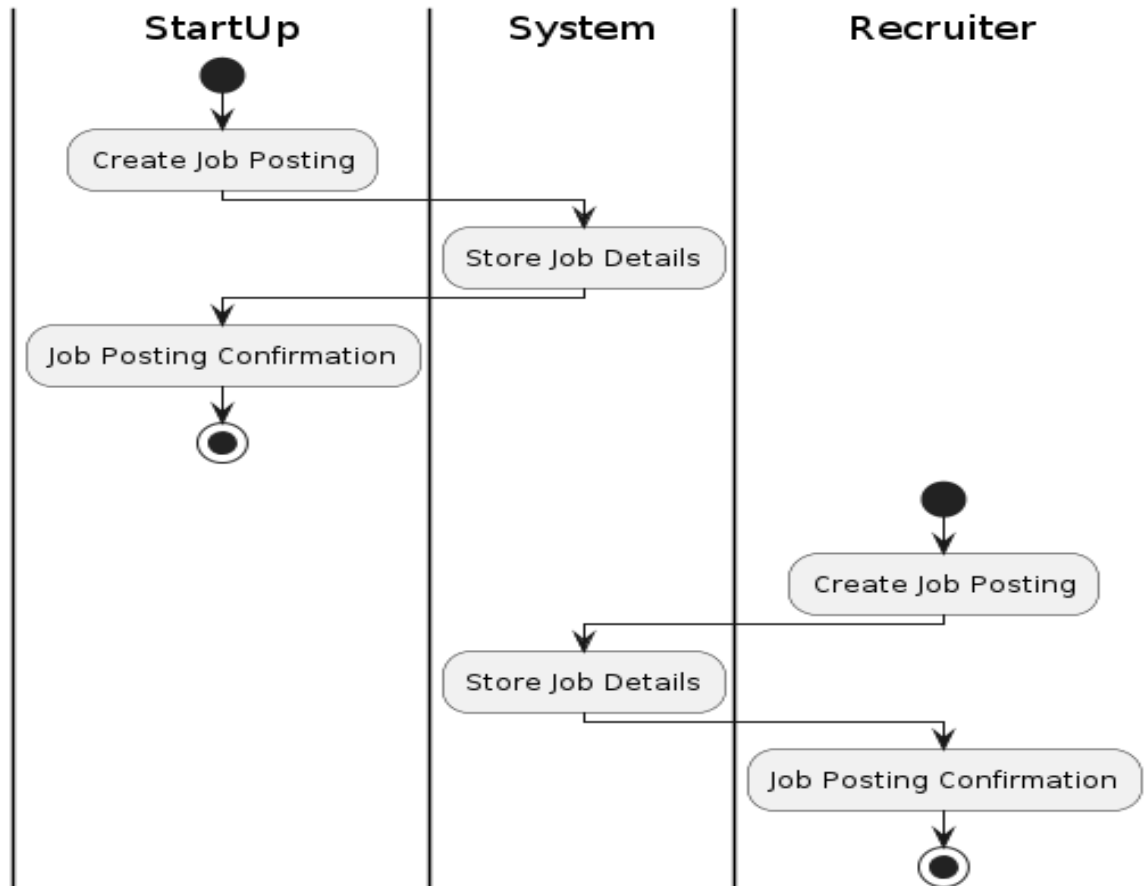


Figure 28: Job Posting

## Swim Lane (job Search)

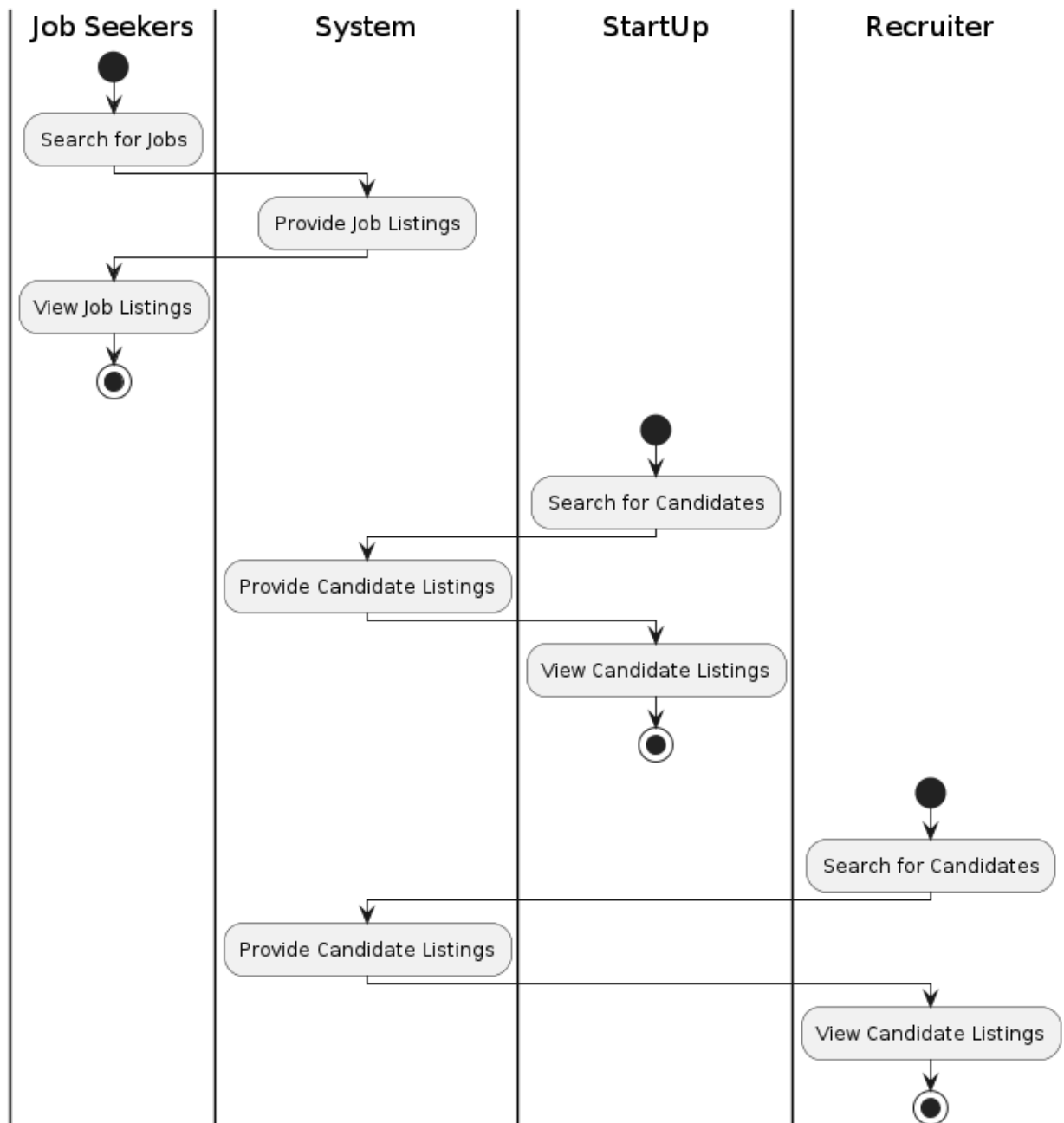


Figure 29: Job Searching



## Swim Lane (Upload Resume)

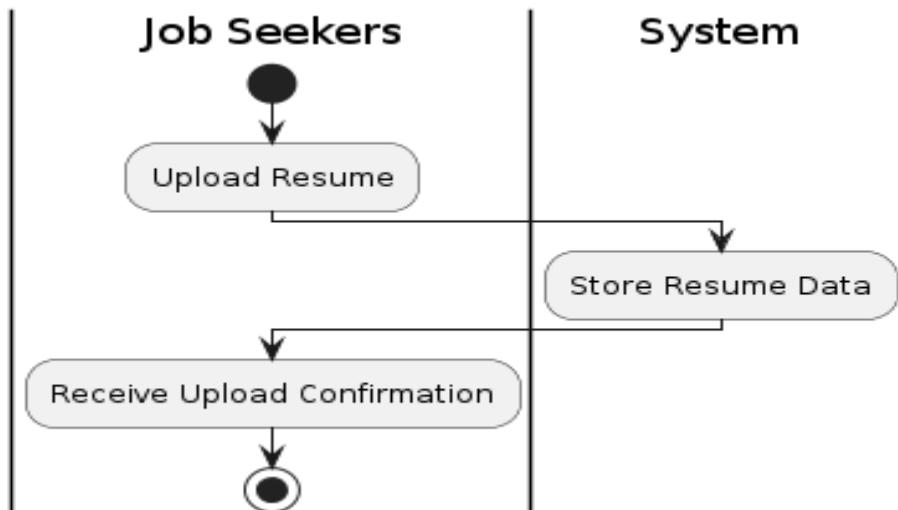


Figure 30: Upload Resume

## Swim Lane (Parse Resume)

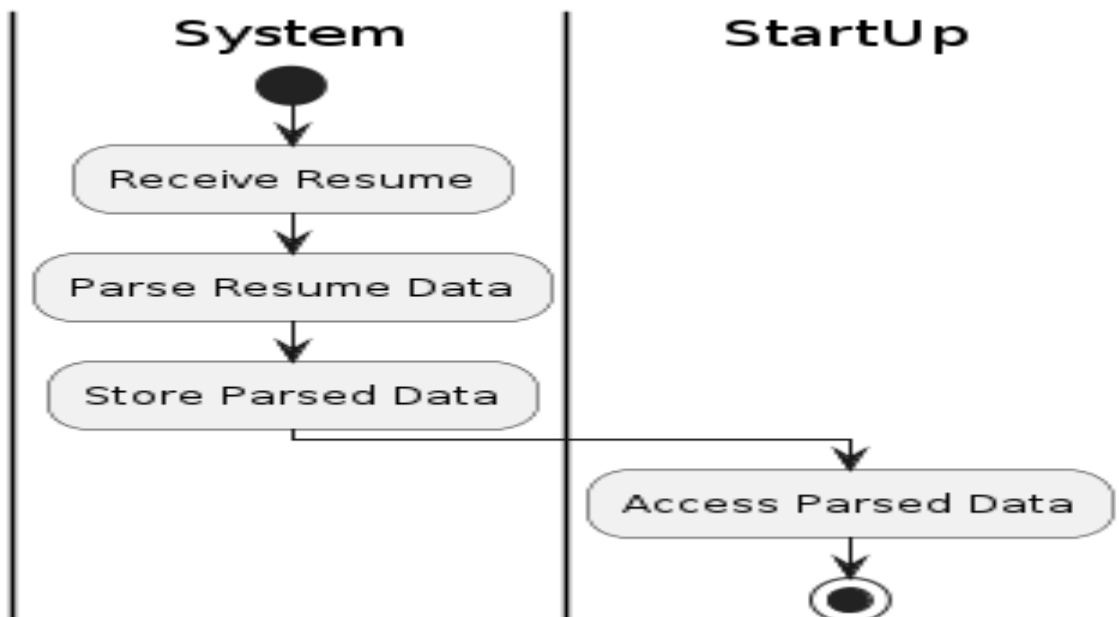


Figure 31: Parse Resume

## Swim Lane (Skill Matching)

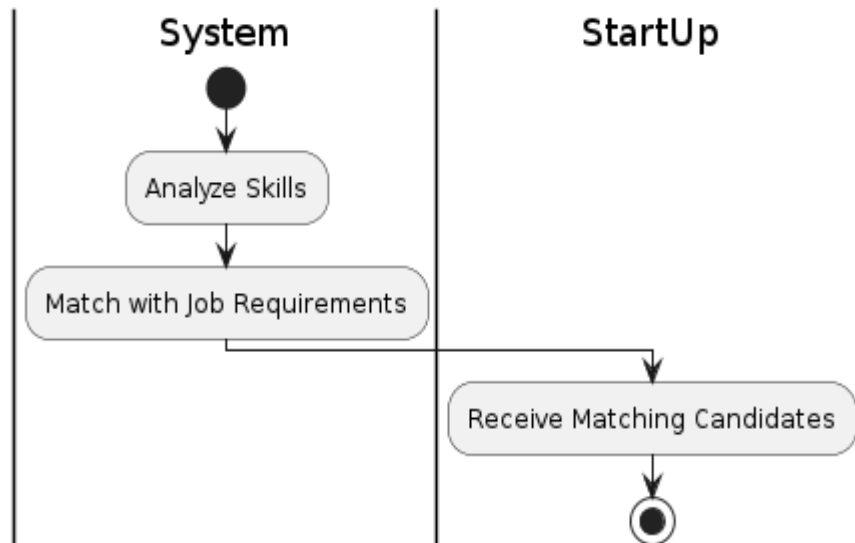


Figure 32: Skill Matching

## Swim Lane (Job Recommendation)

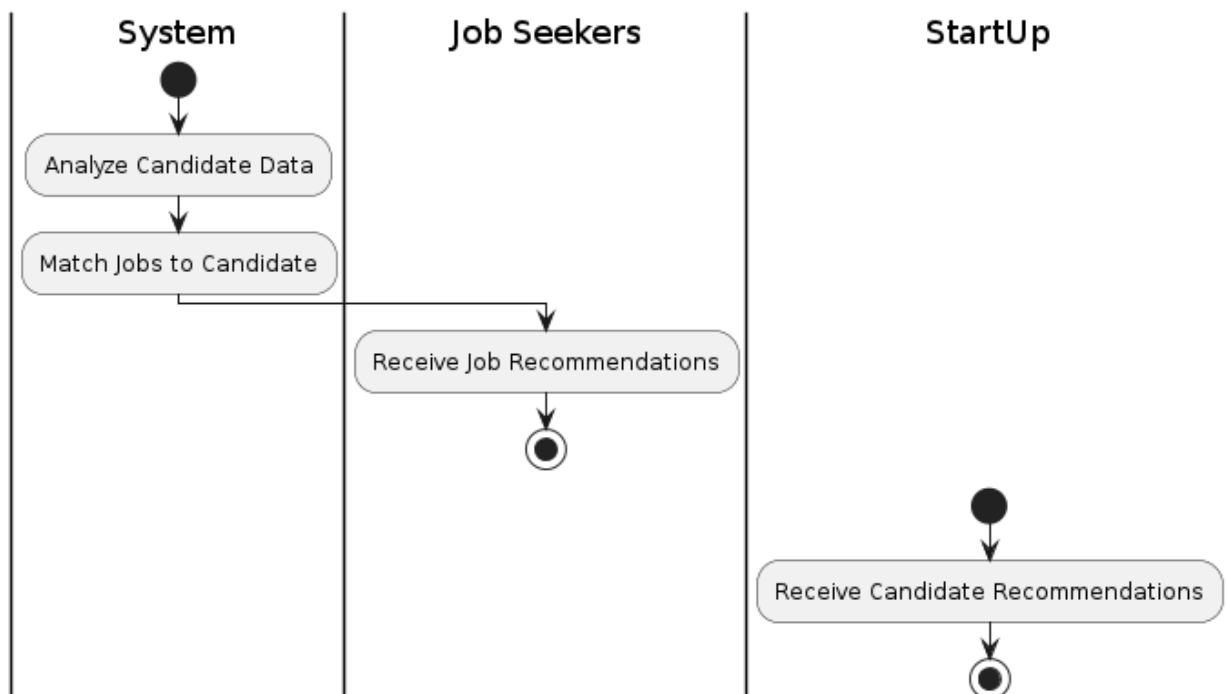


Figure 33: Job Recommendation

## Swim Lane (Apply Job)

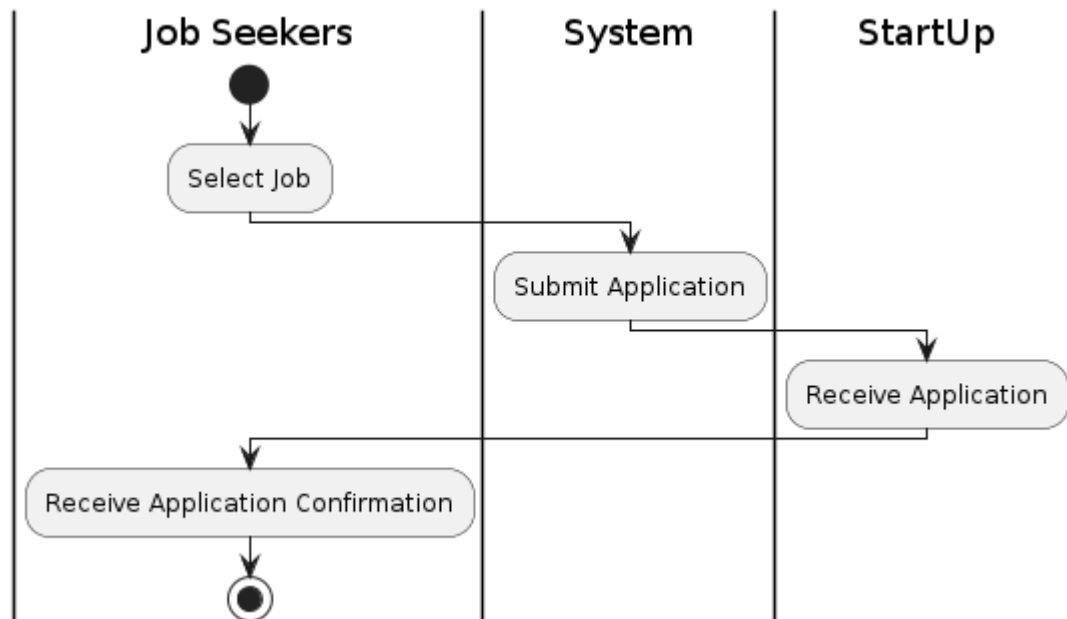


Figure 34: Apply Job

## Swim Lane (Assessment)

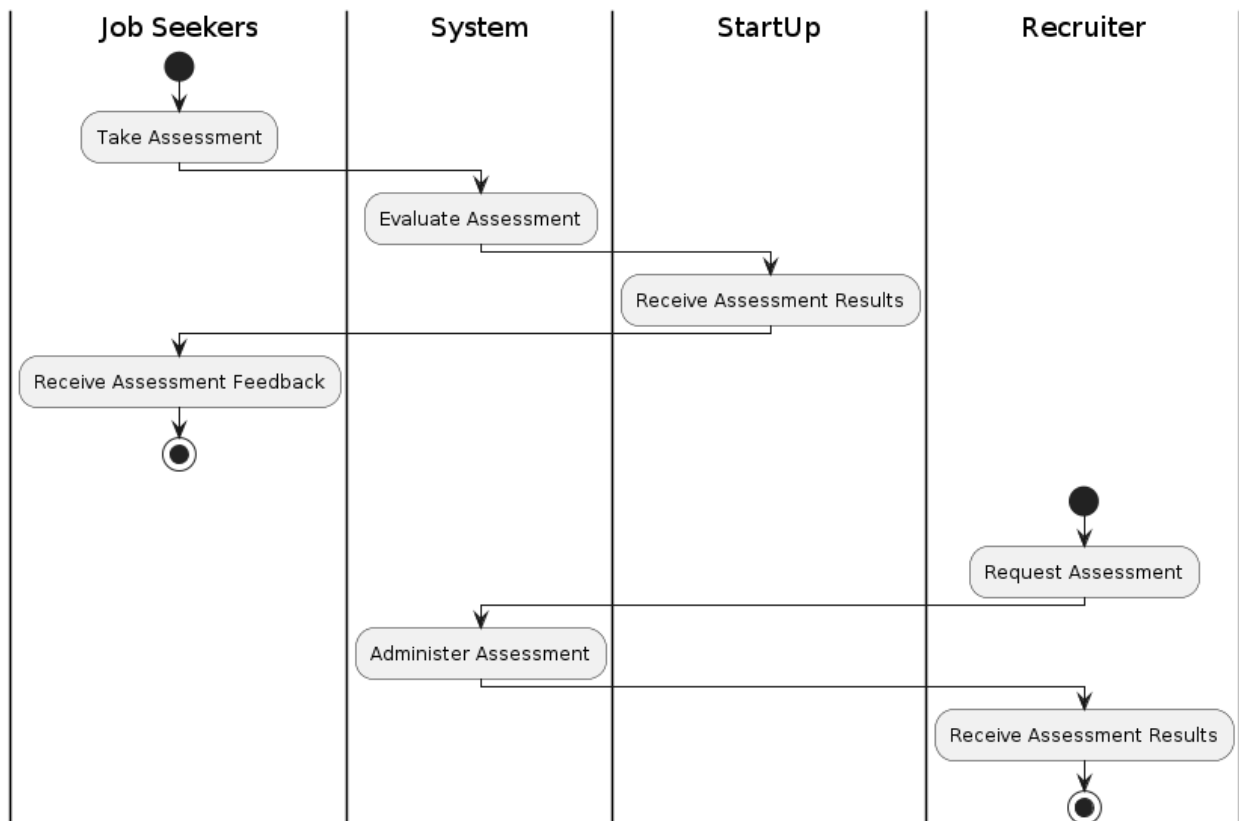


Figure 35: Assessment

## Swim Lane (Ratings)

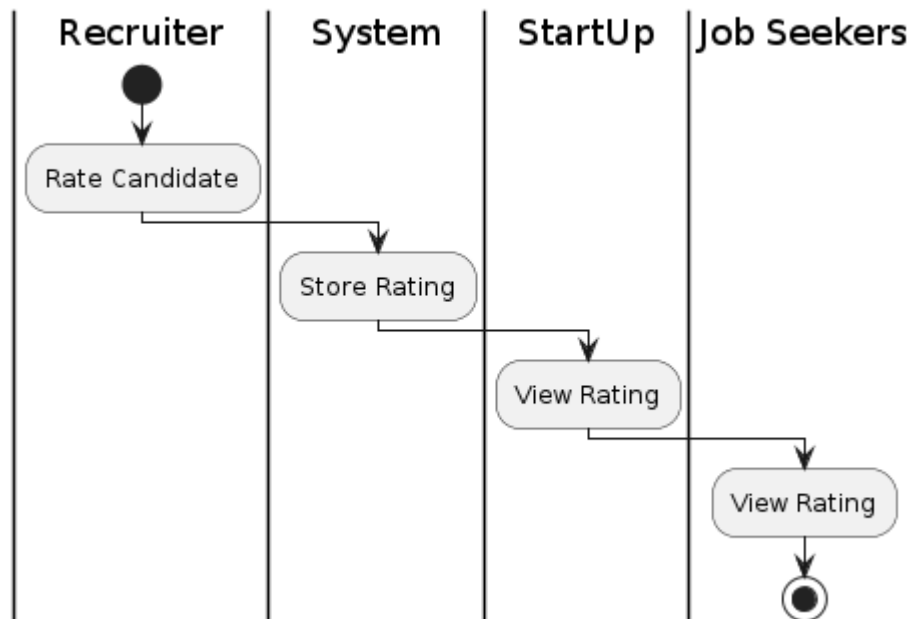


Figure 36: Ratings

## Swim Lane (Communication Channel)

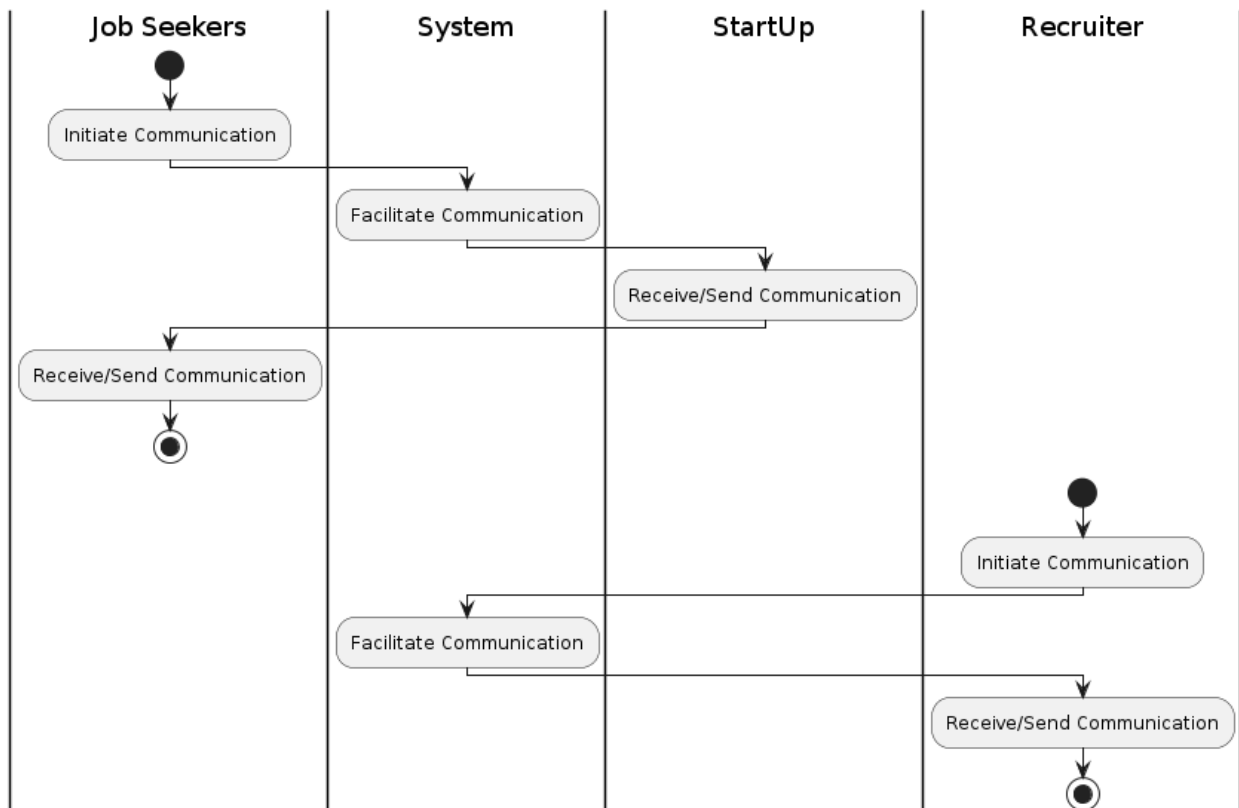


Figure 37: Communication Channel

## Swim Lane (Job Alert &amp; Notification)

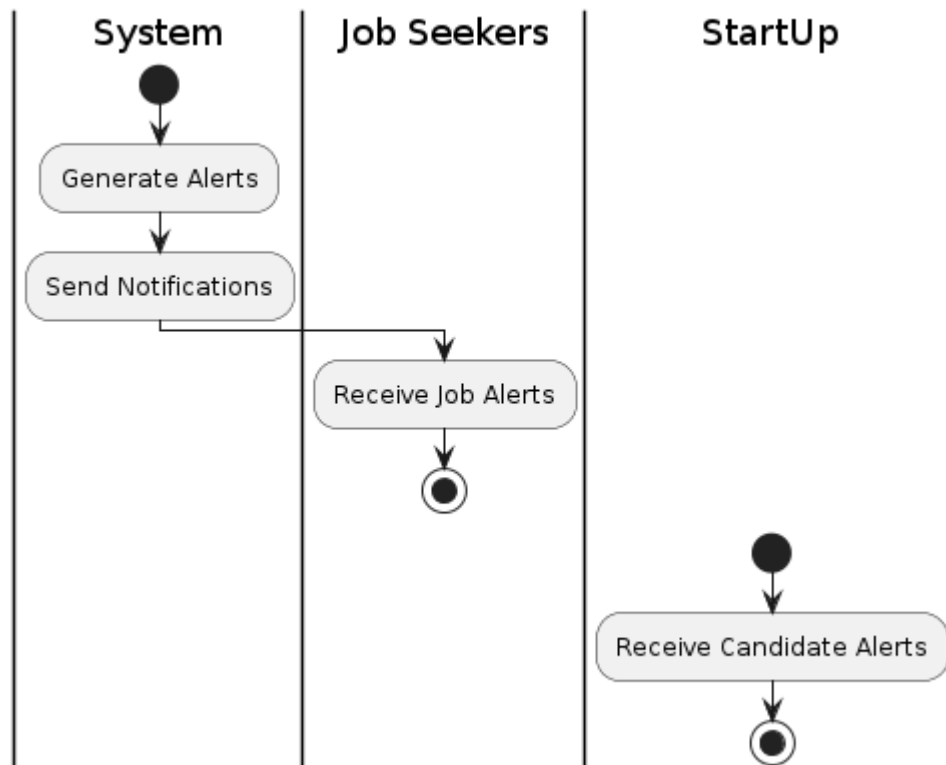


Figure 38: Job Alert &amp; Notifications

## Swim Lane (Confirmation)

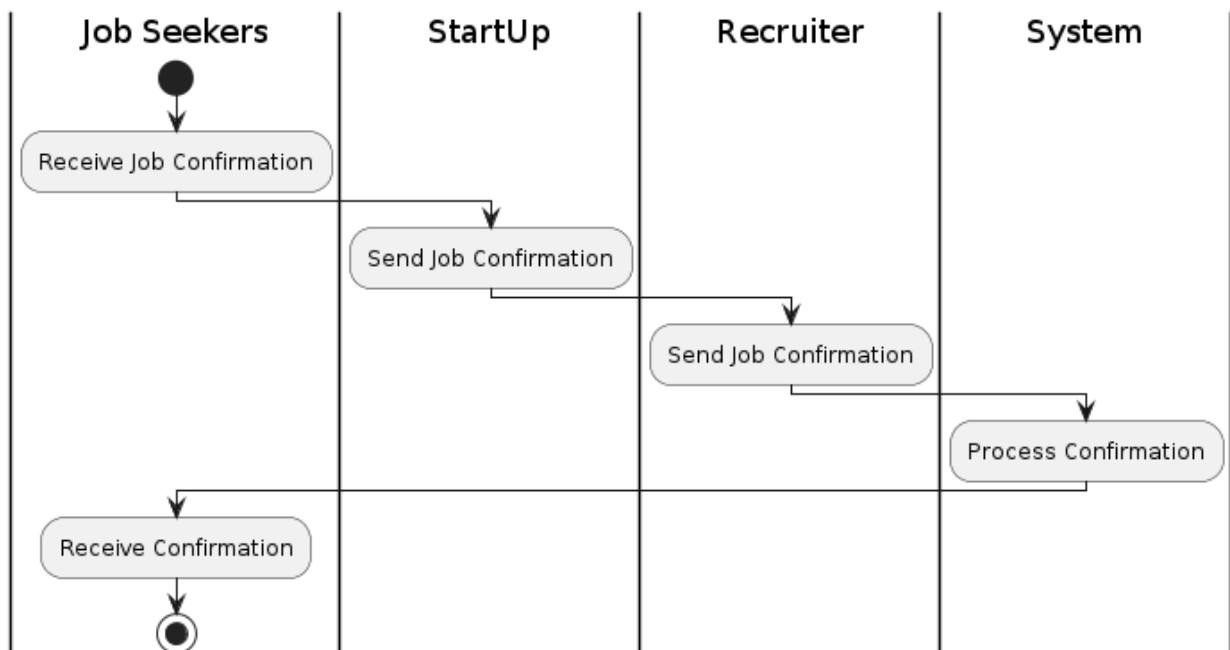


Figure 39: Confirmation