
SOFTWARE REQUIREMENTS SPECIFICATION

for

TASK LINK

Deliverable 2

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Lecturer**

March 23, 2025

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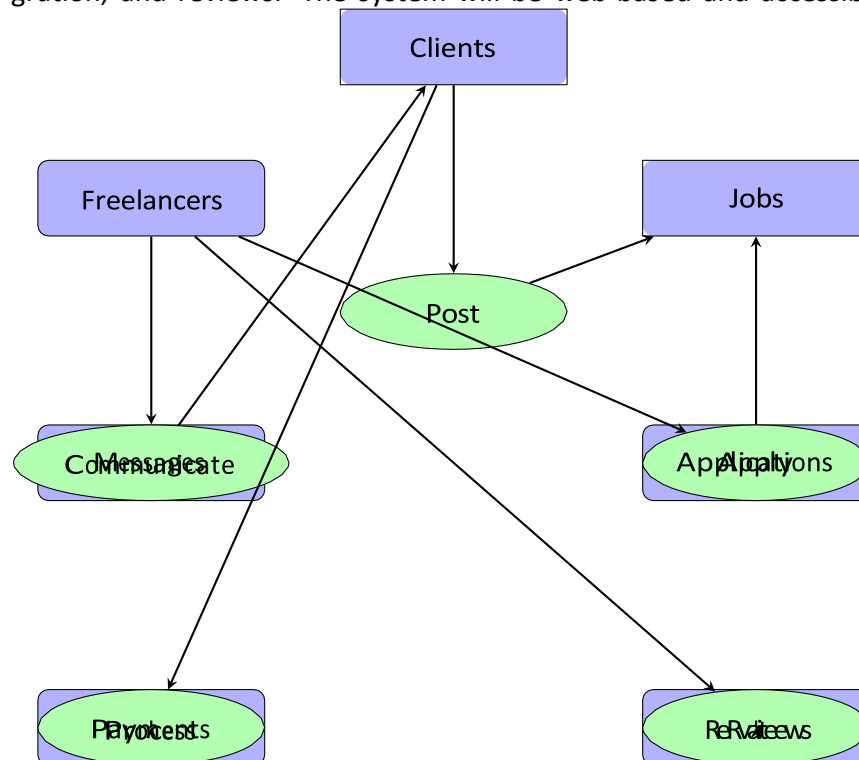
1 Introduction

1.1 Purpose

The purpose of this document is to define the functional and non-functional requirements, one big use case diagram, user stories, sequence diagram and class diagram for the Freelance Job Portal, a platform where clients can post jobs and freelancers can search and apply for jobs. This document will serve as a guide for developers, testers, and stakeholders to ensure the system meets its intended functionality and quality standards.

1.2 Project Scope

The Freelance Job Portal will provide a platform for clients to post jobs and freelancers to find and apply for jobs. The system will include features such as user registration, job posting, job search, application management, messaging, payment integration, and reviews. The system will be web-based and accessible to users globally.



1.3 Definitions, Acronyms, and Abbreviations

- **Client:** A user who posts jobs on the platform.
- **Freelancer:** A user who applies for jobs on the platform.
- **Admin:** A user with administrative privileges to manage the platform.
- **SRS:** Software Requirements Specification.
- **IEEE:** Institute of Electrical and Electronics Engineers.

1.4 References

- IEEE Std 830-1998, IEEE Recommended Practice for Software Requirements Specifications.
- Upwork.com as a reference for similar functionality.

1.5 Overview

This document is organized into sections that describe the functional and non-functional requirements, one big use case diagram, user stories, sequence diagram and class diagram of the Freelance Job Portal. Each requirement is uniquely identified and described in detail.

2 Functional Requirements

- FR-1 The system shall allow users to register as either a client or a freelancer.
- FR-2 The system shall authenticate users using a unique email address and password.
- FR-3 The system shall allow clients to post jobs with details such as title, description, budget, category, and deadline.
- FR-4 The system shall allow freelancers to search for jobs by keywords, category, budget range, and deadline.
- FR-5 The system shall allow freelancers to view detailed information about a job, including the client's profile and job requirements.
- FR-6 The system shall allow freelancers to apply to a job by submitting a proposal, including a cover letter and estimated timeline.
- FR-7 The system shall allow freelancers to track the status of their applications (e.g., pending, accepted, rejected).
- FR-8 The system shall notify freelancers when their application is accepted or rejected.
- FR-9 The system shall allow users to create and update their profile, including personal information, skills, portfolio, and work history.
- FR-10 The system shall provide a messaging feature for clients and freelancers to communicate about job details.
- FR-11 The system shall allow clients to rate and review freelancers after job completion.
- FR-12 The system shall allow freelancers to rate and review clients after job completion.
- FR-13 The system shall display average ratings and reviews on user profiles.
- FR-14 The system shall integrate a payment gateway to facilitate secure transactions between clients and freelancers.
- FR-15 The system shall allow clients to release payment to freelancers upon job completion.
- FR-16 The system shall provide an admin dashboard to view and manage all users, jobs, and transactions.

- FR-17 The system shall allow clients to mark a job as completed once the freelancer delivers the work.
- FR-18 The system shall allow freelancers to upload and showcase their previous work samples in their profile.
- FR-19 The system shall display the freelancer's portfolio to clients when viewing their profile.
- FR-20 The system shall allow clients and freelancers to track the status of a job (e.g., open, in progress, completed).

3 Non-Functional Requirements

3.1 Product Requirements

NFR-1 The system shall support at least 500 concurrent users.

NFR-2 The system shall have a response time of less than 2 seconds for 95% of requests.

NFR-3 The system shall be available 99.9% of the time.

NFR-4 The system shall have a user-friendly interface with a consistent design across all pages.

3.2 Organizational Requirements

NFR-1 The system shall be developed using Agile methodology with bi-weekly sprints.

NFR-2 The system shall be documented thoroughly, including user manuals and technical documentation.

3.3 External Requirements

NFR-1 The system shall integrate with third-party payment gateways (e.g., PayPal, Stripe) for secure transactions.

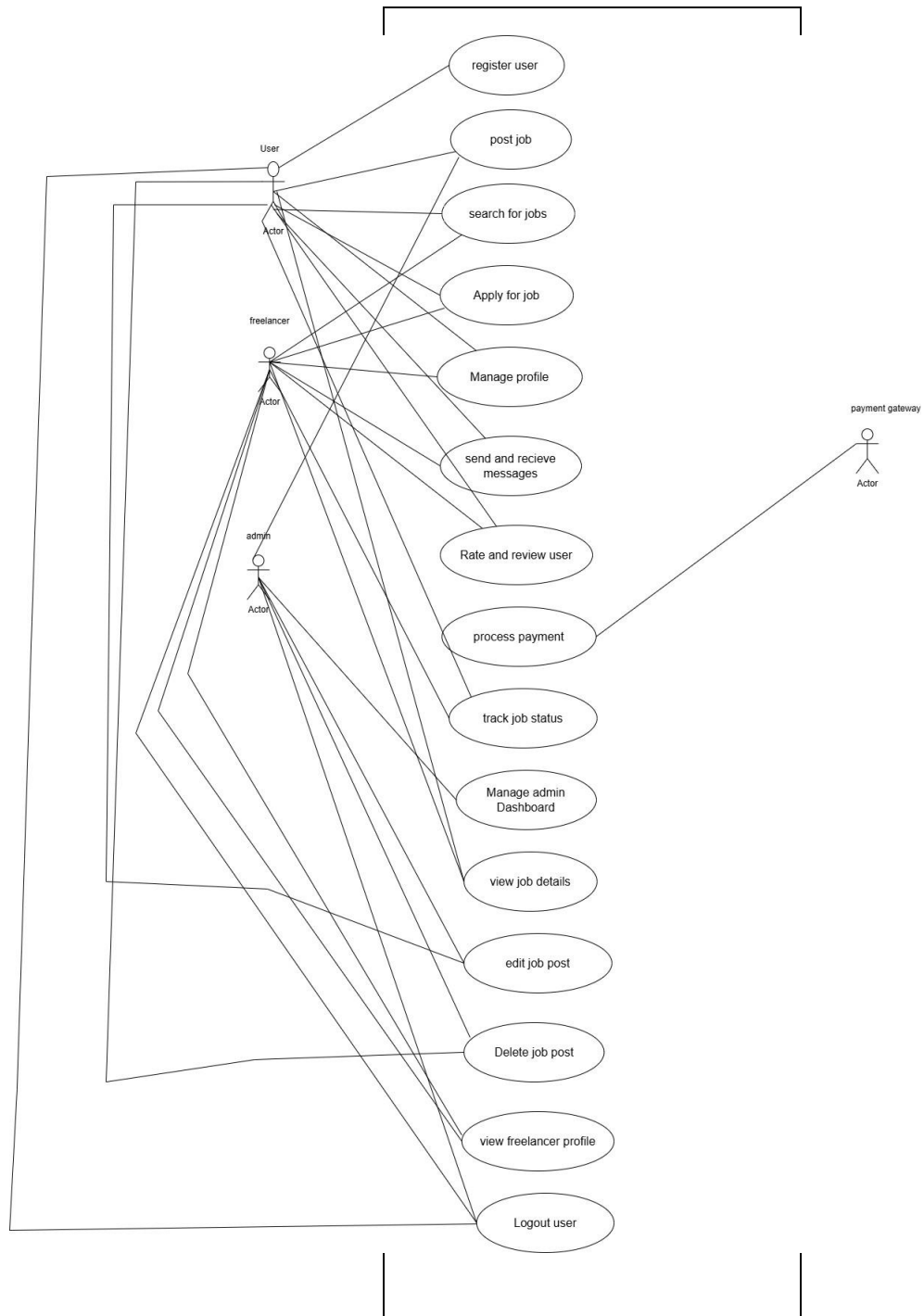
NFR-2 The system shall be compatible with major web browsers (e.g., Chrome).

NFR-3 The system shall use HTTP for secure communication between the client and server.

4 List of All Use Cases

1. Register User
2. Post Job
3. Search for Jobs
4. Apply for Job
5. Manage Profile
6. Send and Receive Messages
7. Rate and Review User
8. Process Payment
9. Track Job Status
10. Manage Admin Dashboard
11. View Job Details
12. Edit Job Post
13. Delete Job Post
14. View Freelancer Profile
15. Logout User

5 Use Case Diagram



6 User Stories

6.1 Register User

- **As a freelancer**, I want to create a profile so that I can showcase my skills.
- **Pre-condition**: User must register.
- **Flow**: User enters details, uploads a profile picture.
- **Post-condition**: Profile saved in the database.

6.2 Post Job

- **As an employer**, I want to post jobs so that freelancers can apply.
- **Pre-condition**: The employer must register.
- **Flow**: The employer fills in the details of the job, sets a budget, and posts the job.
- **Post-condition**: Job is visible to freelancers.

6.3 Search for Jobs

- **As a freelancer**, I want to search for jobs so that I can apply for relevant opportunities.
- **Pre-condition**: Freelancer must be registered and logged in.
- **Flow**: Freelancer searches for jobs using filters and applies to selected jobs.
- **Post-condition**: Application is submitted to the employer.

6.4 Apply for Job

- **As a freelancer**, I want to apply for a job so that I can be considered for the opportunity.
- **Pre-condition**: Freelancer must be registered, logged in, and have a complete profile.

- **Flow:** Freelancer submits a proposal (cover letter, bid amount, timeline) for the selected job.
- **Post-condition:** Application is sent to the employer and saved in the database.

6.5 Manage Profile

- **As a user,** I want to manage my profile so that I can keep my information up-to-date.
- **Pre-condition:** User must be registered and logged in.
- **Flow:** User edits profile details (e.g., skills, portfolio, work history) and saves changes.
- **Post-condition:** Updated profile is saved in the database.

6.6 Send and Receive Messages

- **As a user,** I want to send and receive messages so that I can communicate with employers or freelancers.
- **Pre-condition:** User must be registered and logged in.
- **Flow:** User sends a message to another user and receives replies.
- **Post-condition:** Messages are stored and displayed in the chat history.

6.7 Rate and Review User

- **As an employer,** I want to review freelancer profiles so that I can hire the best candidate.
- **Pre-condition:** Employer must be registered and logged in.
- **Flow:** Employer browses freelancer profiles, views ratings and reviews.
- **Post-condition:** Employers can shortlist or contact freelancers for further discussion.

6.8 Process Payment

- **As an employer,** I want to process payments securely so that freelancers receive their earnings.
- **Pre-condition:** Employer must have a job marked as completed.

- **Flow:** Employer initiates payment through the integrated payment gateway.
- **Post-condition:** Payment is processed, and freelancer receives the amount.

6.9 Track Job Status

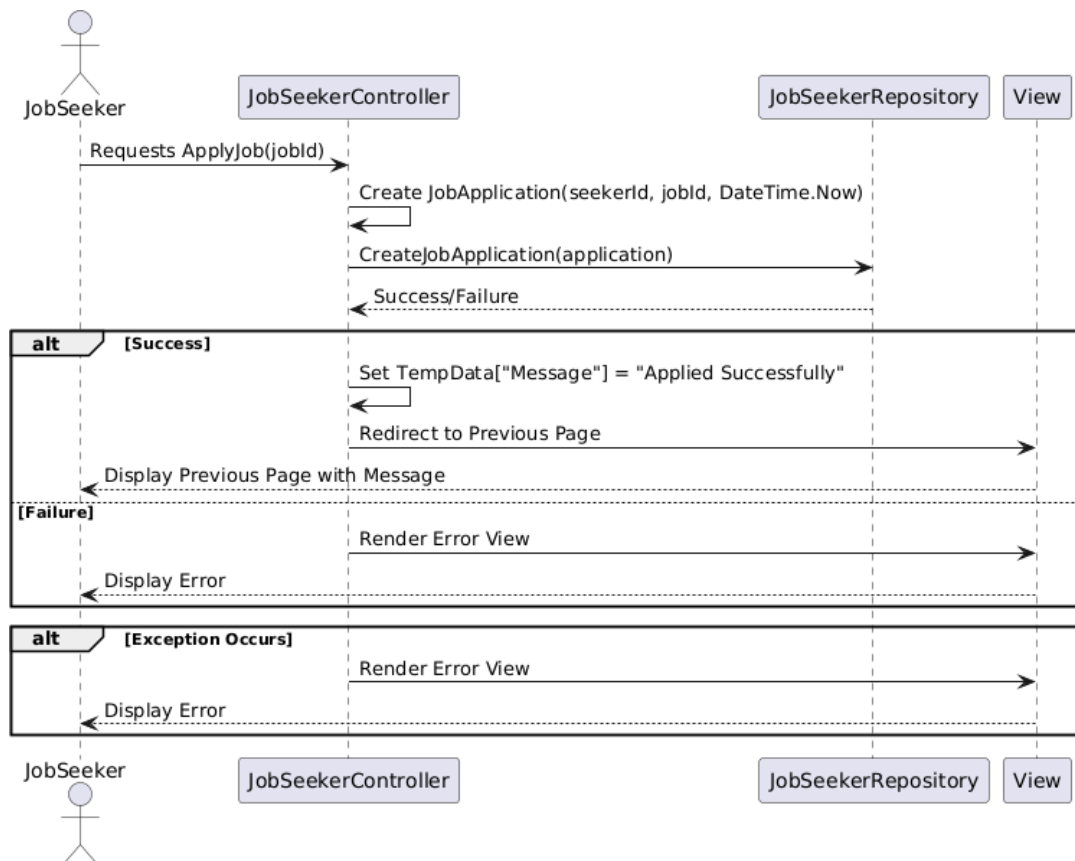
- **As a user,** I want to track the status of a job so that I can stay updated on its progress.
- **Pre-condition:** User must be registered, logged in, and have an active job.
- **Flow:** User views the job status (e.g., open, in progress, completed) in their dashboard.
- **Post-condition:** Job status is displayed to the user.

6.10 Manage Admin Dashboard

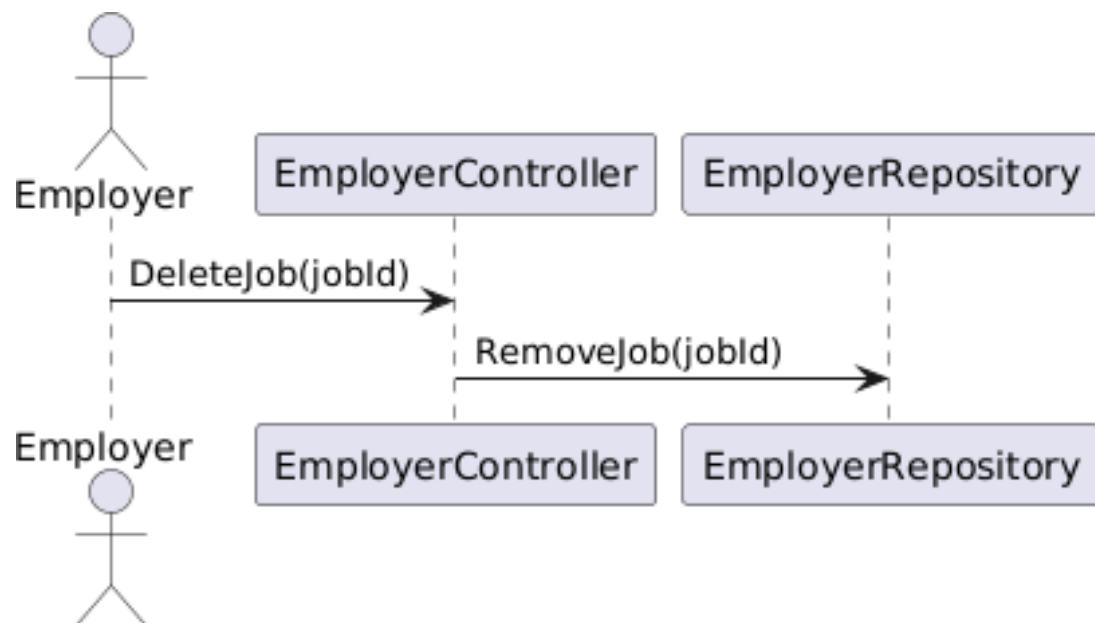
- **As an admin,** I want to manage users, jobs, and disputes so that I can maintain the platform's integrity.
- **Pre-condition:** Admin must be logged in.
- **Flow:** Admin views and manages user accounts, jobs, and disputes.
- **Post-condition:** Platform data is updated and maintained.

7 Sequence Diagrams

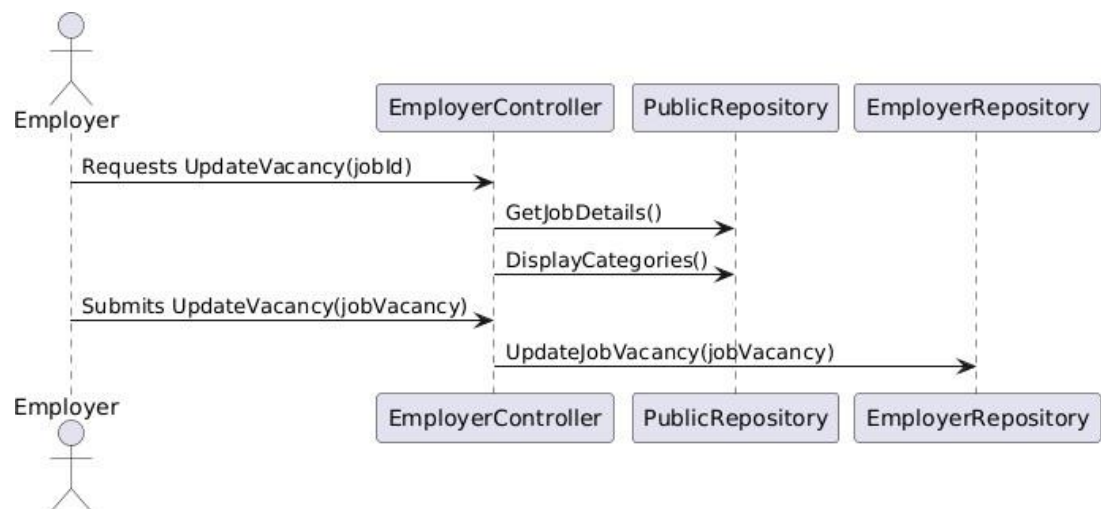
7.1 Apply Job



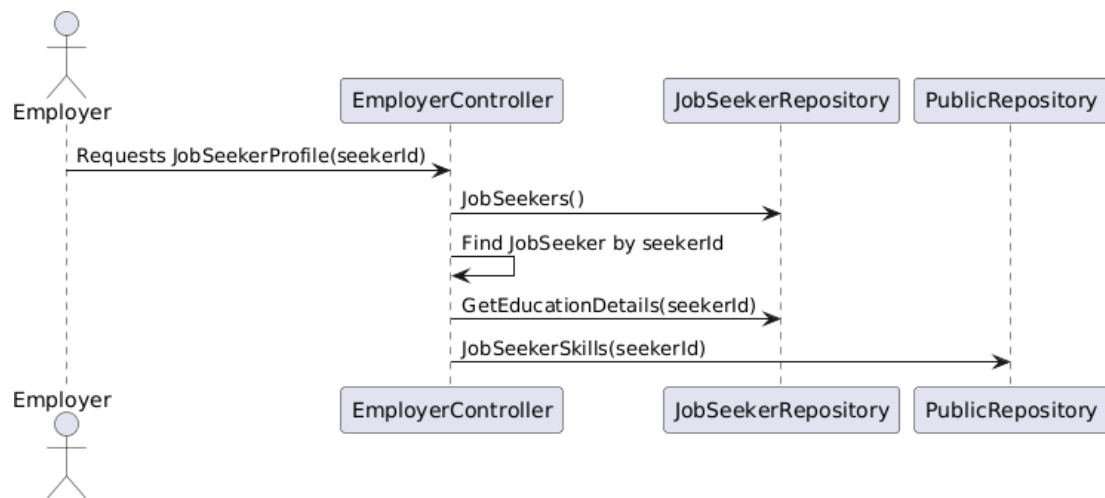
7.2 Delete Job Post



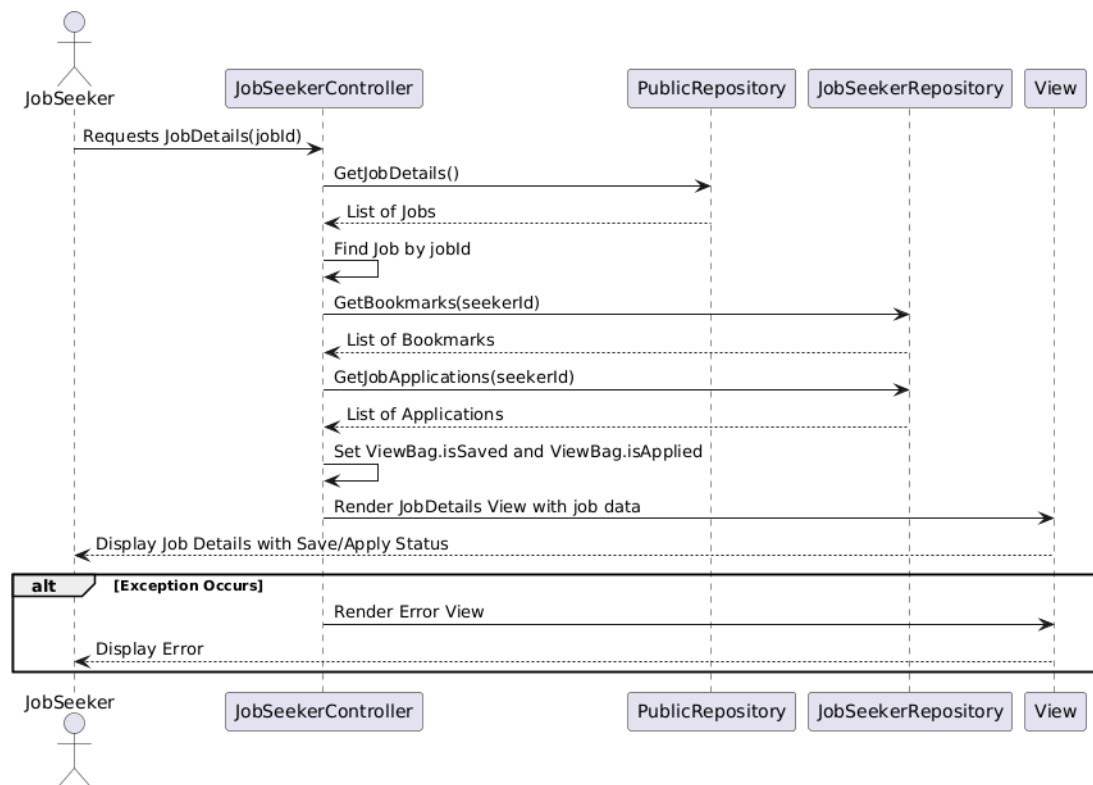
7.3 Edit Job Post



7.4 Freelancer Profile



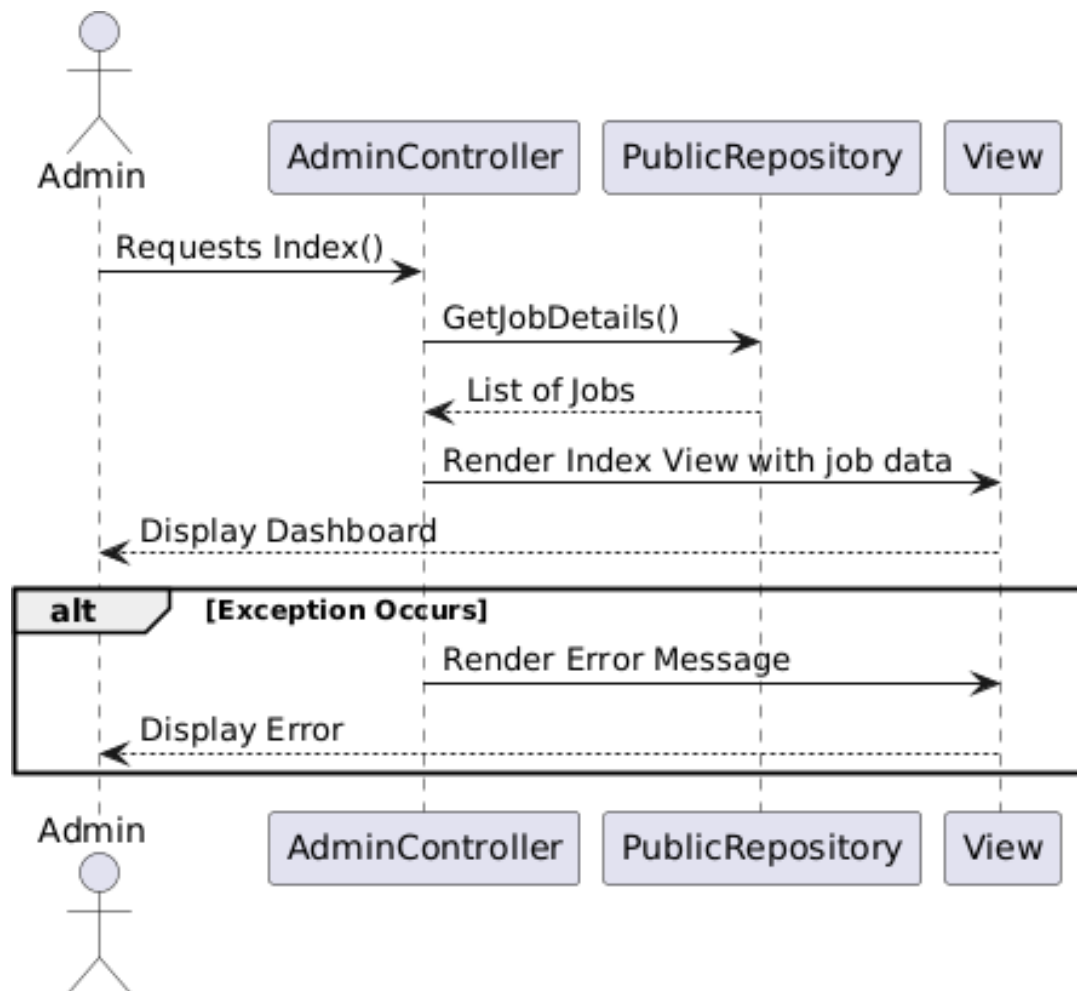
7.5 Job Details



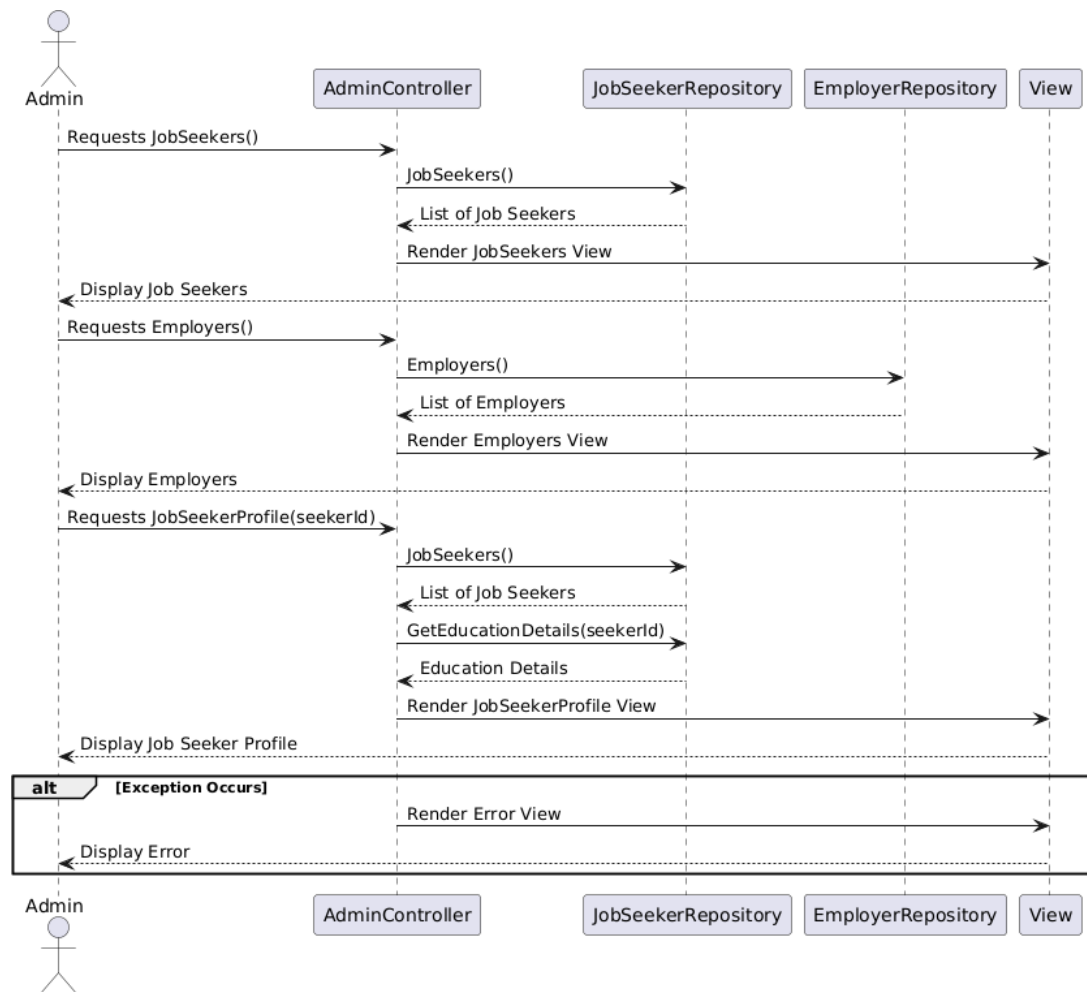
7.6 Logout User



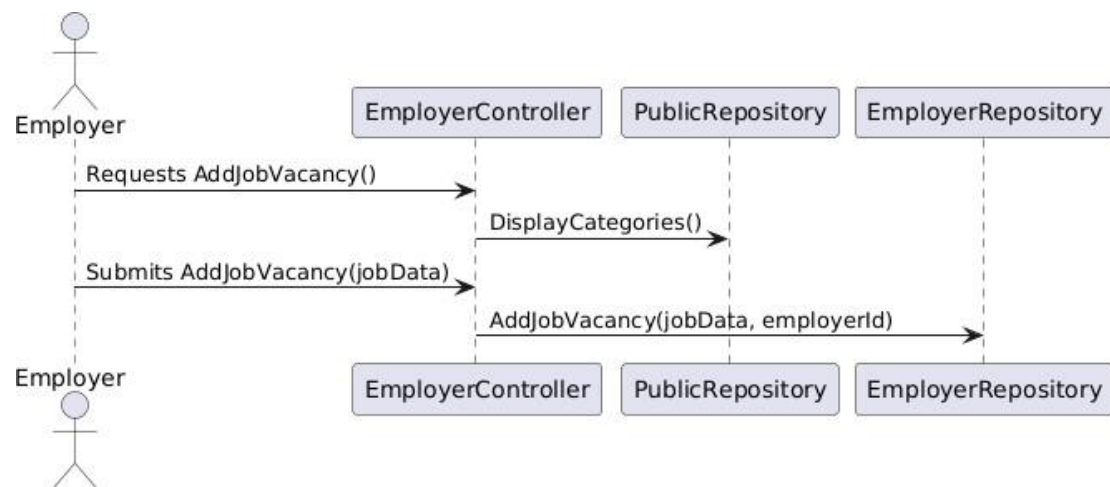
7.7 Manage Admin Dashboard



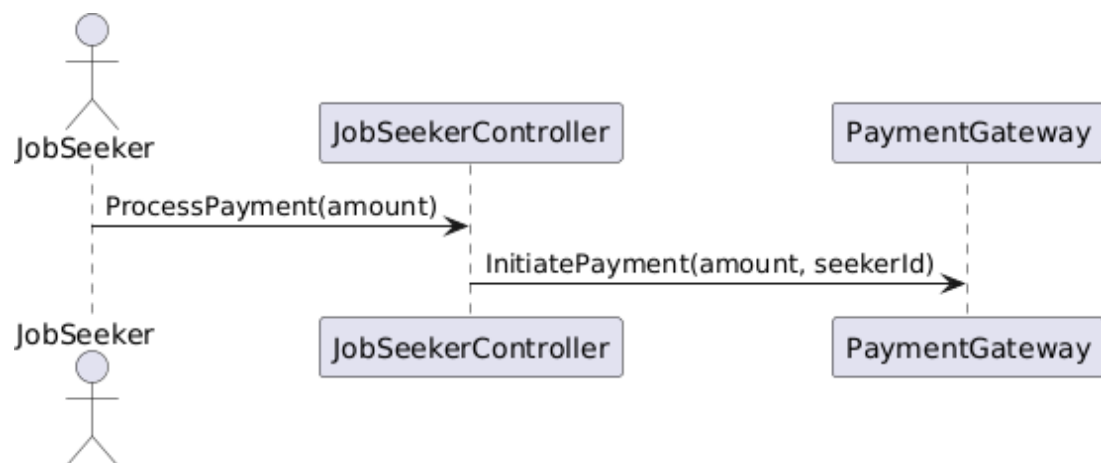
7.8 Manage Profiles



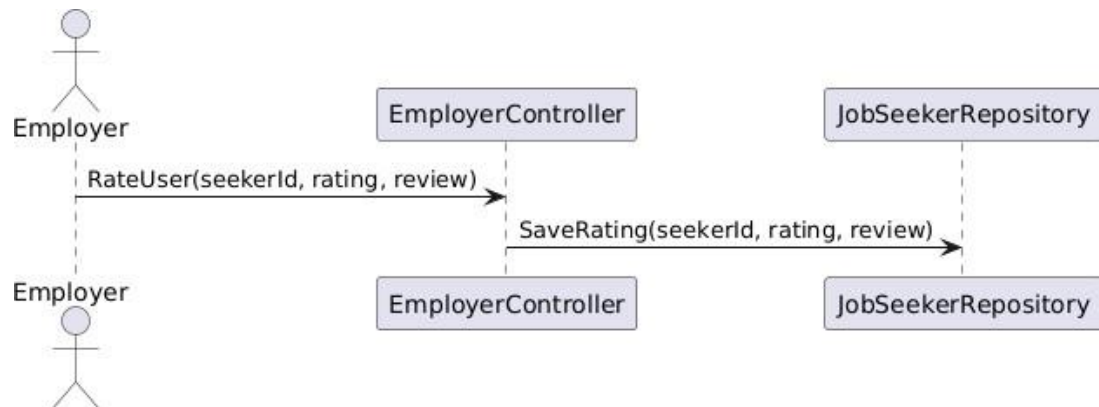
7.9 Post Job



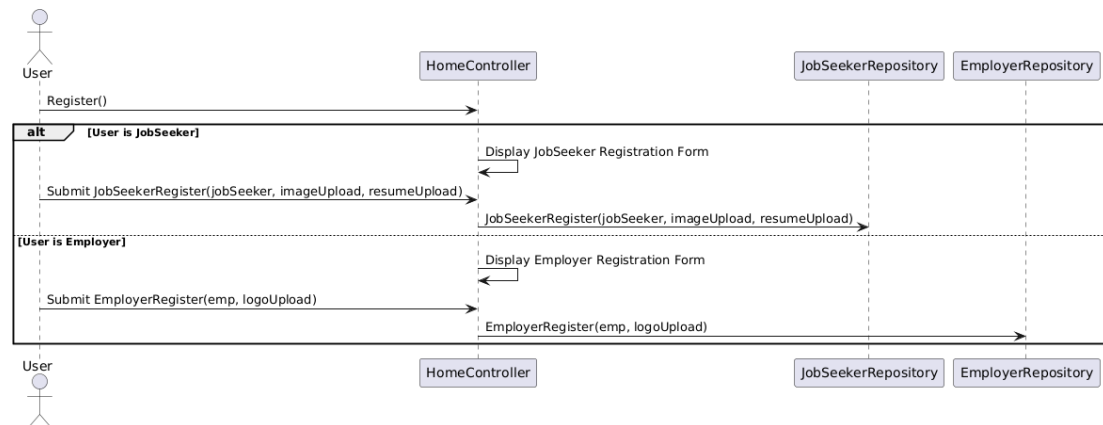
7.10 Process Payment



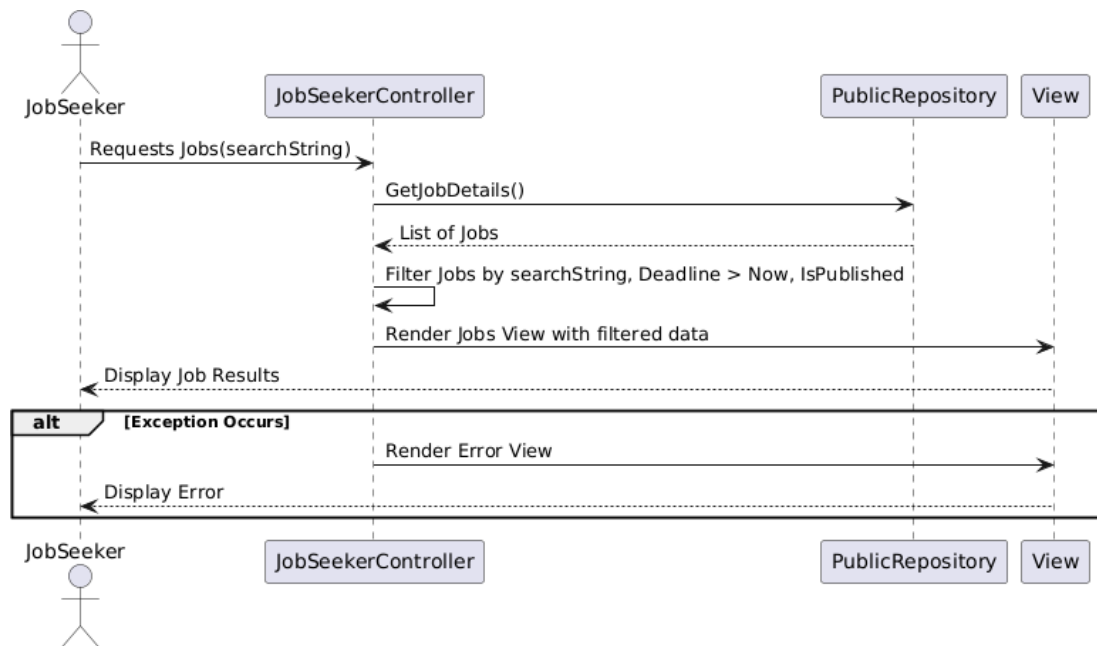
7.11 Rate and Review User



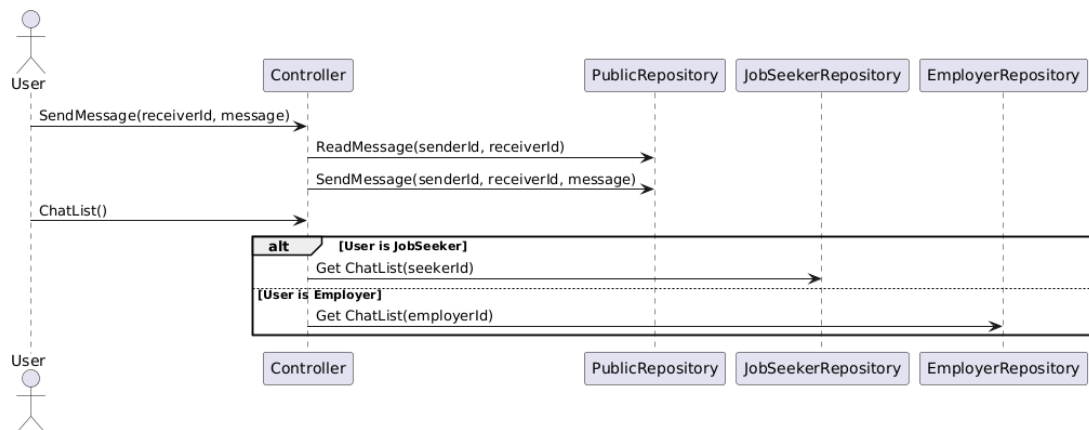
7.12 Register User



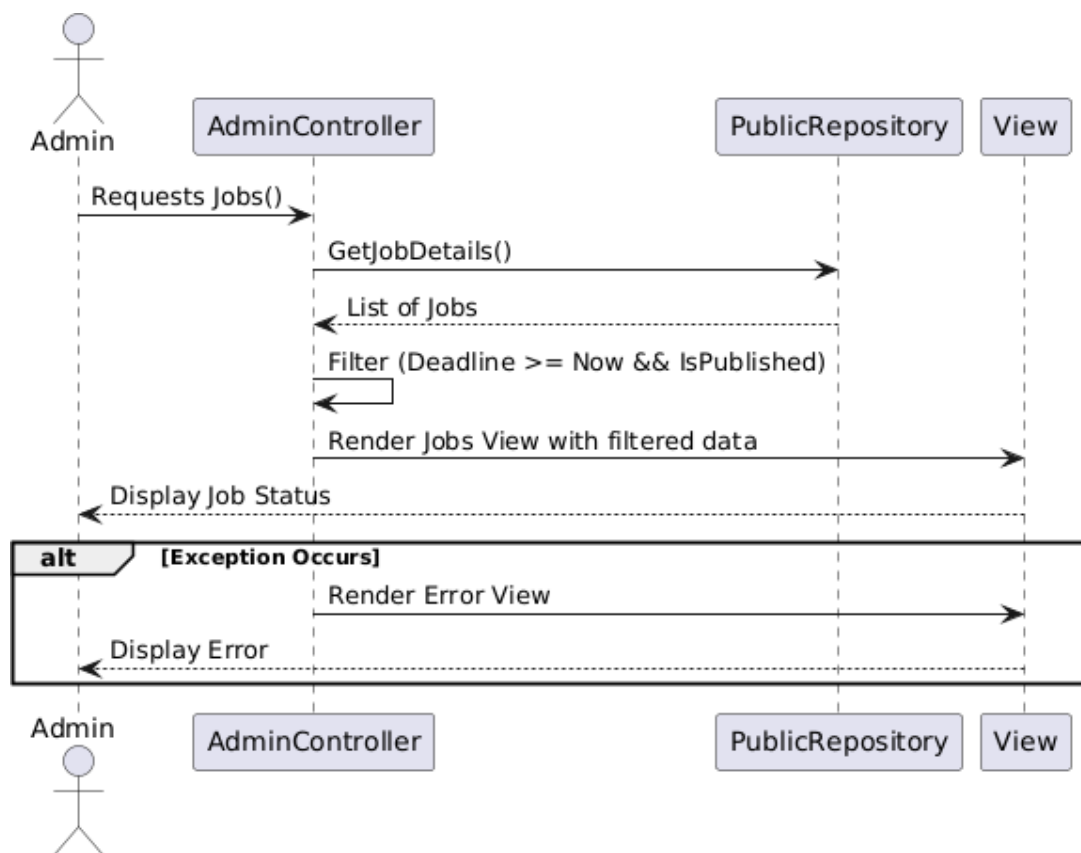
7.13 Search for Job



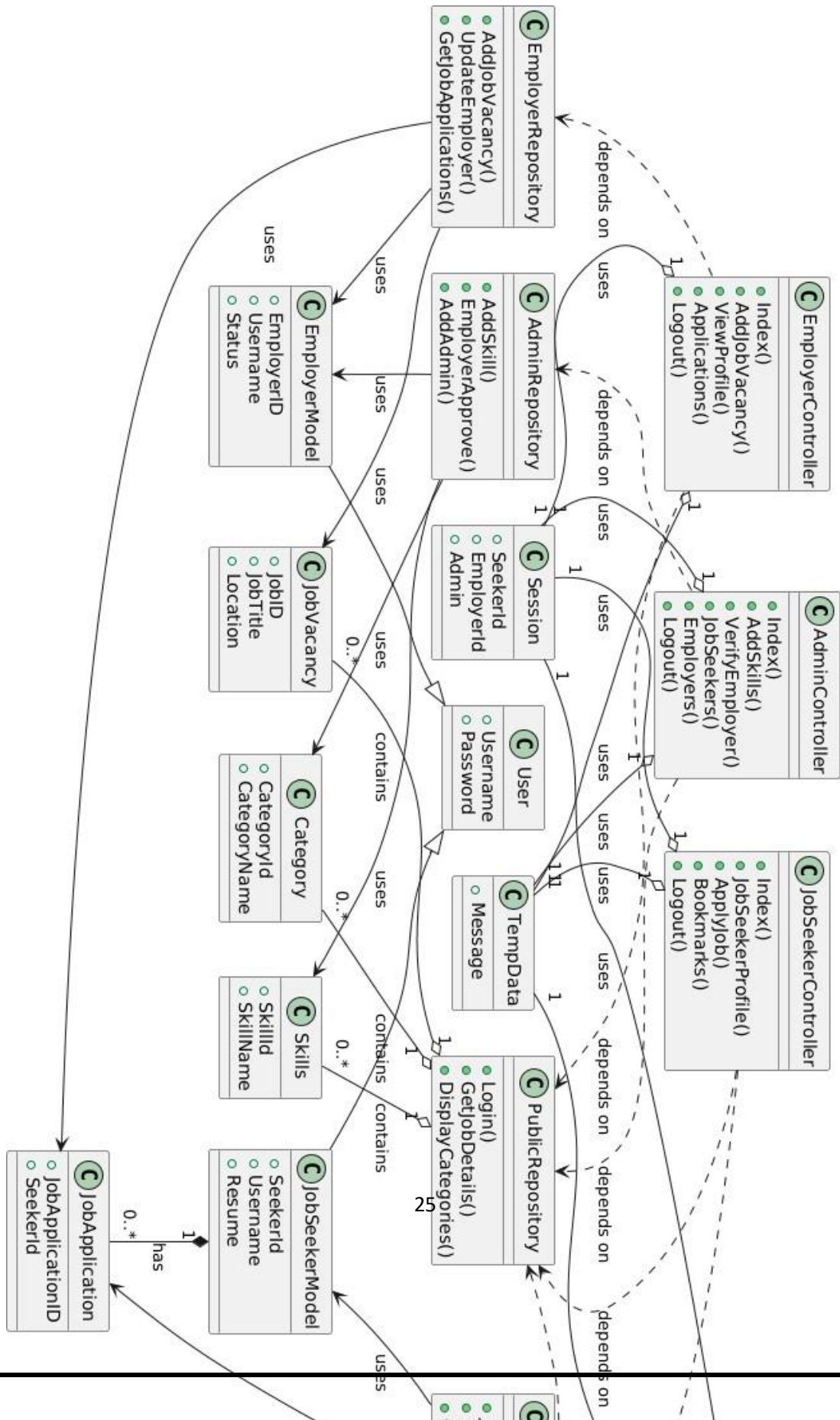
7.14 Send and Receive Messages



7.15 Track Job Status



8 Class Diagrams



9 Sprint Backlog

9.1 Sprint 01

ID	User Story	Tasks	Assigned to	Status	Estimated Effort (Hours)	Day 1	Day 2	Day 3
1.1	As a User, I want to register as a freelancer so that I can apply for jobs.	Create a Freelancer Table in the database	Shayan	Completed	1	1	0	0
1.2		Develop Freelancer Registration UI	Waseem	Completed	3	1	2	0
1.3		Implement backend logic for freelancer registration	Waseem	Completed	1	0.5	0	0.5
2.1	As a User, I want to register as a client so that I can post jobs.	Create a Client Table in the database	Laiba	Completed	2	1	1	0
2.2		Develop Client Registration UI	Laiba	Completed	2	0	1	1
3.1	As a User, I want to log in so that I can access my account.	Develop Login UI	Shayan	Completed	7	4	3	0
3.2		Implement authentication backend	Waseem	Completed	7	3	3	1
3.3		Design Job Posting UI	Shayan	Completed	7	2	3	2

9.2 Sprint 02

Sprint 2 Backlog

ID	User Story	Tasks	Assigned to	Status	Hours	Day 1	Day 2	Day 3
4.1	Apply for Job	Implement Proposal UI	Waseem	Completed	3	2	1	0
4.2		Develop Backend for Proposal	Laiba	Completed	4	0	2	2
5.1	Manage Profile	Create Profile Edit Page	Shayan	Completed	3	1	2	0
5.2		Backend for Profile Updates	Waseem	Completed	4	2	2	0
6.1	Messaging Feature	Design Messaging UI	Laiba	Completed	3	1	1	1
6.2		Backend for Messaging	Shayan	Completed	5	1	2	2
7.1	Review Freelancer	Develop Rating UI	Waseem	Completed	3	2	1	0
7.2		Backend for Ratings	Laiba	Completed	4	0	2	2
8.1	Process Payment	Integrate Payment Gateway	Shayan	Completed	6	2	2	2
8.2		Backend for Payment Processing	Waseem	Completed	5	1	2	2

Table 1: Sprint 2 Backlog

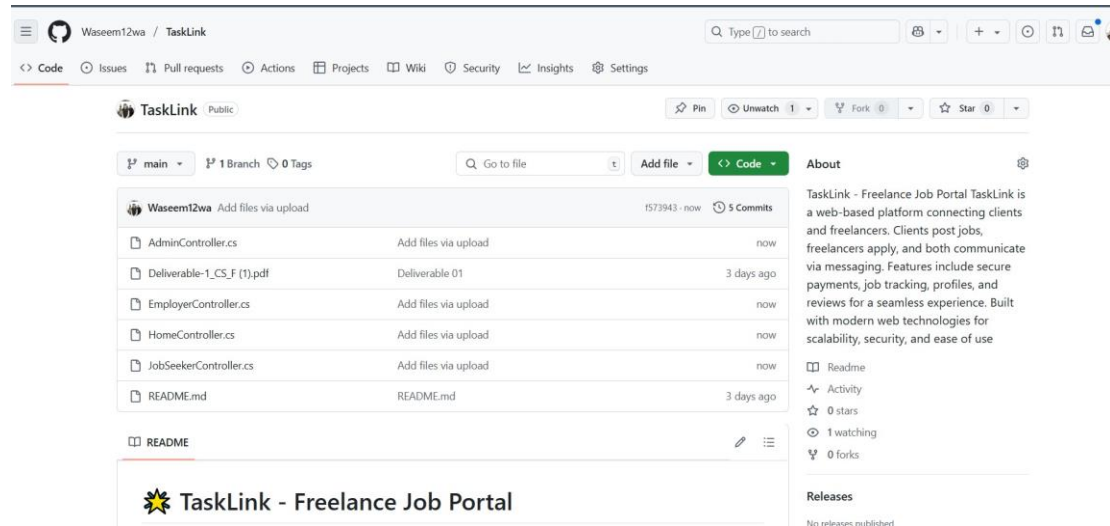
10 Product Backlog

Product Backlog

ID	User Story	Priority	Estimated Hours	Status
6.1	Register User	High	4	Completed
6.2	Post Job	High	5	Completed
6.3	Search for Jobs	Medium	4	Completed
6.4	Apply for Job	High	6	Completed
6.5	Manage Profile	Medium	4	Completed
6.6	Send and Receive Messages	Medium	4	Completed
6.7	Rate and Review User	Low	3	Completed
6.8	Process Payment	High	5	Completed
6.9	Track Job Status	Medium	4	Completed
6.10	Manage Admin Dashboard	High	6	Completed

Table 1: Product Backlog

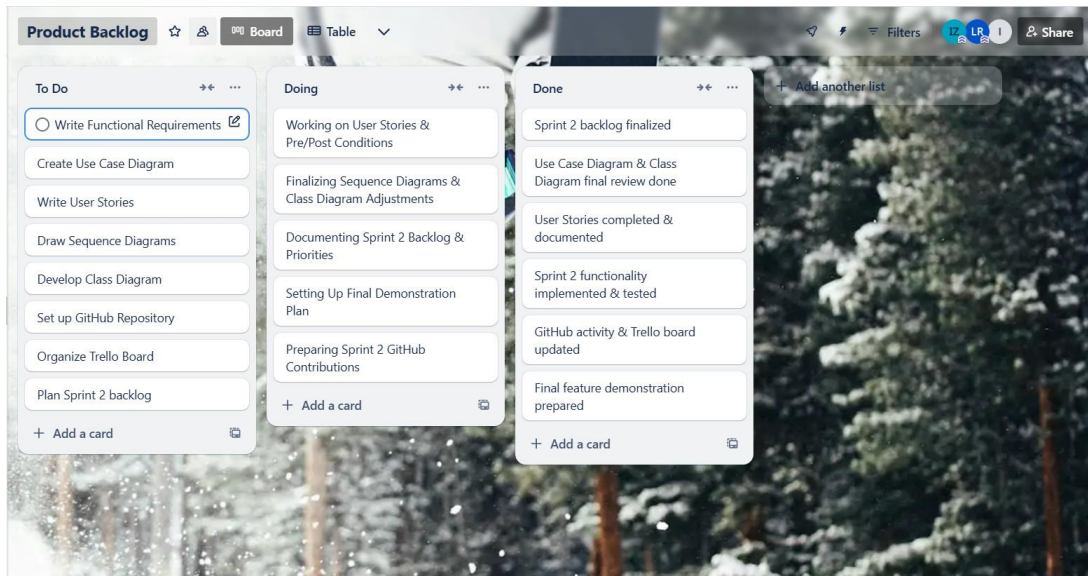
11 Version Control



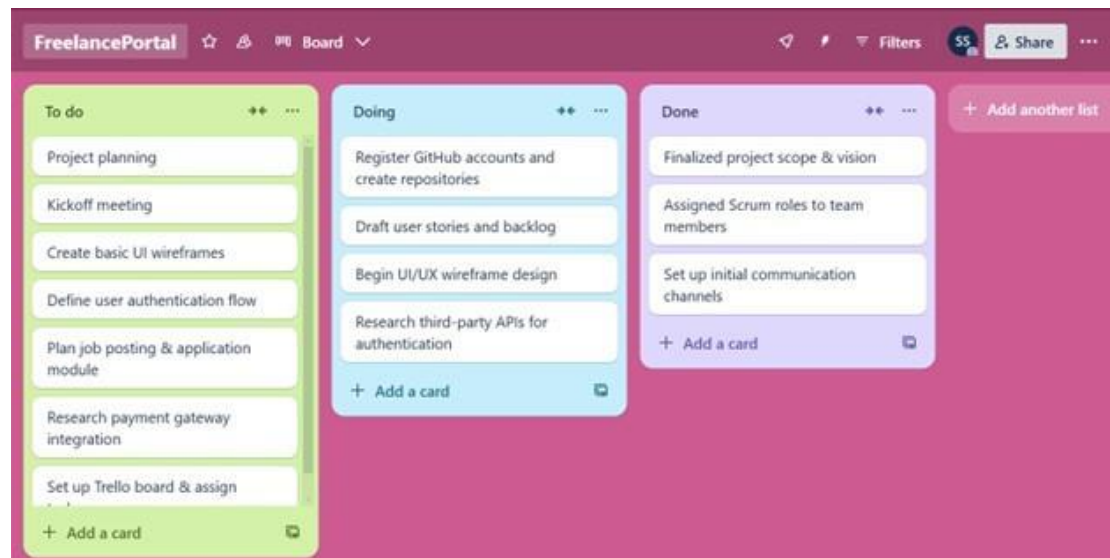
You can access the GitHub repository here: [GitHub Repository: TaskLink](#)

12 Trello Board

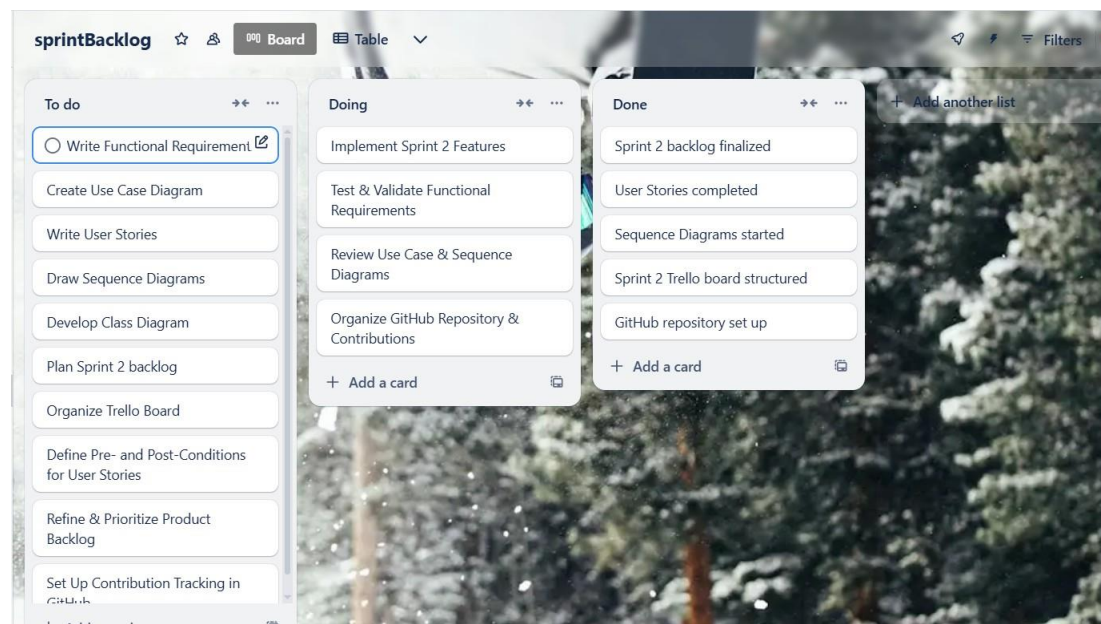
12.1 Product



12.2 Sprint 01

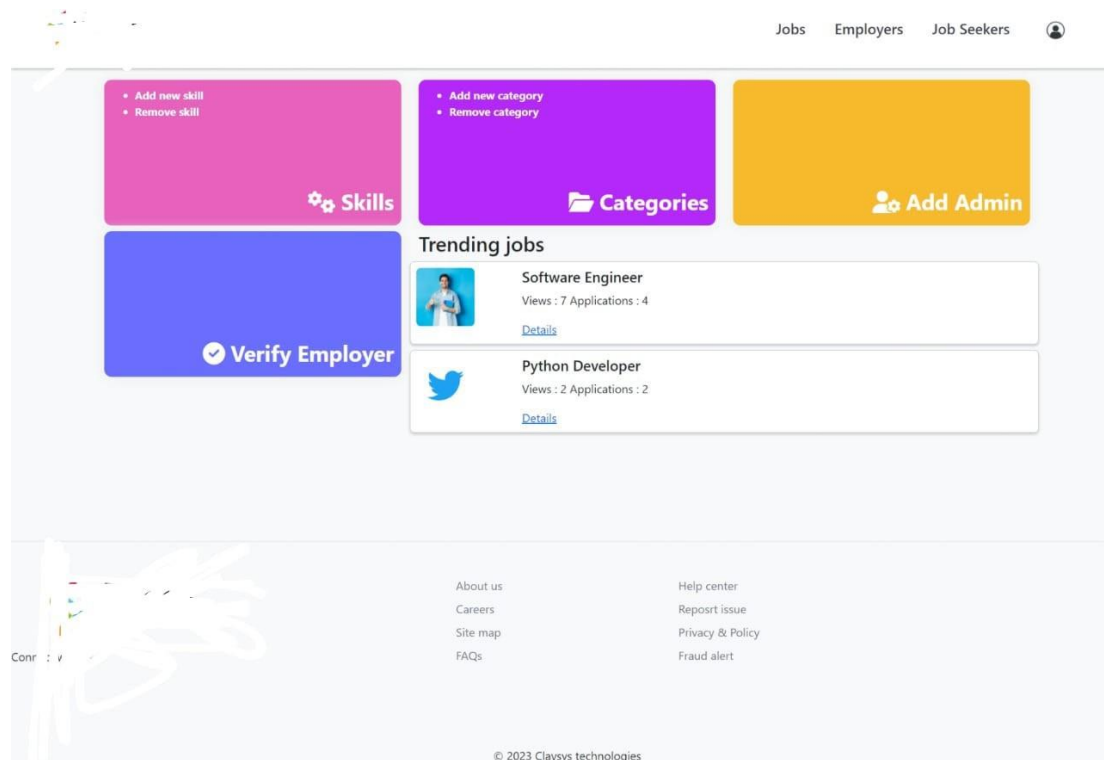


12.3 Sprint 02





13 Sprint 01 and Sprint 02 Implementation

13.1 Admin





13.2 Job Details



Jobs 

Job details

 Views
7

 Applicants
4

Job Title
Software Engineer

Description
our Role and Responsibilities

The Db2 Ecosystem team is seeking a candidate to join our Build Infrastructure team in our Kochi software lab. This is your opportunity to dive into the world of coding and automation. You'll be part of a team of Software Developers working on leading edge technology that is solving some of the world's most complex problems and supporting the whole Db2 Development organization.

You will be tasked with applying new emerging technology skills related to DevOps - the critical set of practices that supports our efforts to build and deliver quality code into production. You'll be involved in writing and maintaining automated systems in support of key functions, such as pipelines for building our products, providing services to our internal and external customers. In particular, we are looking for someone with experience and expertise on automation to support building our products on various operating systems.

Required Technical and Professional Expertise

Passion for technology.
Ability to learn quickly.
Self-reliant and collaborative.
Familiarity with programming concepts.
Familiarity with relational database concepts, working knowledge of SQL.
Experience with various Linux and Windows operation systems.

Preferred Technical And Professional Expertise

Experience with Perl, Python or an equivalent programming language and JSON.
Experience with any of the following : Jenkins, Ansible, Artifactory, GitHub, Docker, Kubernetes.
Bonus
Experience with C/C++ Programming and Java.
Experience with compilation and link processes.


Category
Software Development

Location
Kochi

Salary
45000.00

Employment type
Full time

Last date
12-10-2023 12:00:00 AM


Google


Official Email
ajay@gmail.com

Website
a.com

Employer name
Ajay, HR

Contact Email
ajay@gmail.com

Phone number
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13.4 Employer

Jobs 




Announce a job vacancy




Vacancies announced

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Software Engineer


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 Applicants : 4

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Technical Support

 Views : 1

 Applicants : 1

[Applications](#)

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13.5 Home

