

# Software Requirement Specification Document

## EarnSync- Freelance Portal Deliverable 02 (Part A)

### **Team Members:**

Muhammad Bilal Khawar (22i-0786)

Saffi M.Hashir (22i-1293)

Hamza Ahmed Siddique (22i-1339)

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# **1. Introduction**

## **1.1 Purpose:**

The purpose of this SRS document is to define the functional, non-functional, organizational, and external requirements for a Freelance Job Platform that connects freelancers and employers. It outlines system features, user roles, use cases, and architectural considerations to guide development and validation.

## **1.2 Scope:**

This platform provides capabilities for freelancers to create profiles, search/apply for jobs, and manage projects. Employers can post jobs, hire freelancers, and manage payments. The system includes secure payment processing, communication, dispute resolution, reviews, and administrative controls.

## **1.3 Overview:**

This document is structured into functional requirements, non-functional requirements, use cases, diagrams (UML), and system models to support the development of a modular and scalable platform.

# **2. Overall Description**

## **2.1 Product Perspective:**

The system is a standalone web application that provides a range of features including user management, job listing, application management, messaging, payment processing, and administrative controls. These features work together to deliver a seamless experience for users to interact, post and apply for jobs, communicate efficiently, and manage transactions securely.

## **2.2 Product Functions:**

- User registration/login with role-based access
- Profile management for freelancers and employers
- Job posting, search, application, and selection
- Messaging and notification system
- Escrow payment and milestone tracking
- Admin panel for moderation and dispute handling
- Review and rating system

### **2.3 User Classes and Characteristics:**

- **Freelancer** – Skill-based professionals seeking jobs
- **Employer** – Individuals/Companies hiring freelancers
- **Admin** – Platform moderator and operations manager

## **3. Functional Requirements**

### **3.1 User Management:**

- The system shall allow freelancers to register and create profiles.
- The system shall allow employers to register and create company/individual profiles.
- The system shall implement role-based access control (freelancer, employer, admin).
- The system shall allow users to reset passwords via email verification.
- The system shall support profile deactivation and deletion.

### **3.2 Freelancer Capabilities:**

- The system shall allow freelancers to create detailed profiles with:
  - Personal information (name, contact details)
  - Professional skills and expertise
  - Portfolio of previous work
  - Educational background
  - Work experience
  - Hourly rate or compensation expectations
  - Availability status
- The system shall allow freelancers to upload profile pictures and portfolio samples.
- The system shall enable freelancers to browse, search, and filter job listings by:
  - Category/field
  - Skills required
  - Project type (hourly, fixed price)
  - Budget range
  - Project duration
  - Posting date
- The system shall allow freelancers to save favorite job listings.
- The system shall allow freelancers to apply to jobs with cover letters.

### **3.3 Employer Capabilities:**

- The system shall allow employers to post job listings with:
  - Job title and description
  - Required skills and experience
  - Project type (hourly, fixed price)
  - Budget range or hourly rate
  - Timeline/deadline
  - Attachments (if needed)
- The system shall allow employers to edit or remove job postings.
- The system shall allow employers to search and filter freelancer profiles by:
  - Skills
  - Experience level
  - Rating
  - Availability
  - Hourly rate
- The system shall allow employers to shortlist freelancers for consideration.
- The system shall enable employers to review applications and select freelancers.
- The system shall allow employers to create milestones for projects.
- The system shall enable employers to release payments upon:
  - Milestone completion
  - Project completion
  - Approved hourly work logs

### **3.4 Payment System:**

- The system shall integrate with secure payment gateways to facilitate transactions.
- The system shall support escrow functionality to hold payments until work is approved.
- The system shall calculate and deduct platform fees from transactions.
- The system shall generate invoices for completed payments.
- The system shall maintain transaction history for all users.

### **3.5 Administration:**

- The system shall allow admins to monitor platform activity.
- The system shall provide admins with tools to:
  - Verify user identities when required
  - Review reported content or users
  - Resolve disputes between freelancers and employers

- Moderate job postings and profiles
- The system shall enable admins to suspend or ban users for violations.
- The system shall generate reports on platform usage and transactions.

### **3.6 Rating and Reviews:**

- The system shall allow employers to rate and review freelancers after project completion.
- The system shall allow freelancers to rate and review employers after project completion.
- The system shall display average ratings on user profiles.

### **3.7 Communication:**

- The system shall provide a messaging system for freelancers and employers to communicate.
- The system shall support file attachments in messages.
- The system shall notify users of new messages via email or in-app notifications.
- The system shall maintain message history for the duration of the project and a defined period after completion.

## **4. Non-Functional Requirements**

### **4.1 Product Requirements:**

#### **A. Performance:**

- The system shall support at least 10,000 concurrent users.
- The system shall provide response times of less than 2 seconds for common operations.
- The system shall be available 99.5% of the time (excluding scheduled maintenance).

#### **B. Security:**

- The system shall encrypt all sensitive data at rest and in transit.
- The system shall implement multi-factor authentication for account access.
- The system shall implement protection against common web vulnerabilities (XSS, CSRF, SQL injection).
- The system shall maintain audit logs for security-relevant events.

**C. Reliability:**

- The system shall perform daily backups of all data.
- The system shall implement disaster recovery procedures with a recovery time objective of 4 hours.
- The system shall gracefully degrade functionality during peak loads rather than crash.

**D. Usability:**

- The system shall be accessible on desktop and mobile devices.
- The system shall comply with WCAG 2.1 level AA accessibility guidelines.
- The system shall support internationalization and localization for at least 3 languages.
- The system shall provide intuitive navigation with no more than 3 clicks to reach any major function.

**E. Maintainability:**

- The system shall follow a modular design to facilitate future enhancements.
- The system shall include comprehensive documentation for maintenance and support.
- The system shall support updates and patches without extended downtime.

**F. Scalability:**

- The system shall be designed to scale horizontally to accommodate growth.
- The system shall handle a 300% increase in users without significant performance degradation.

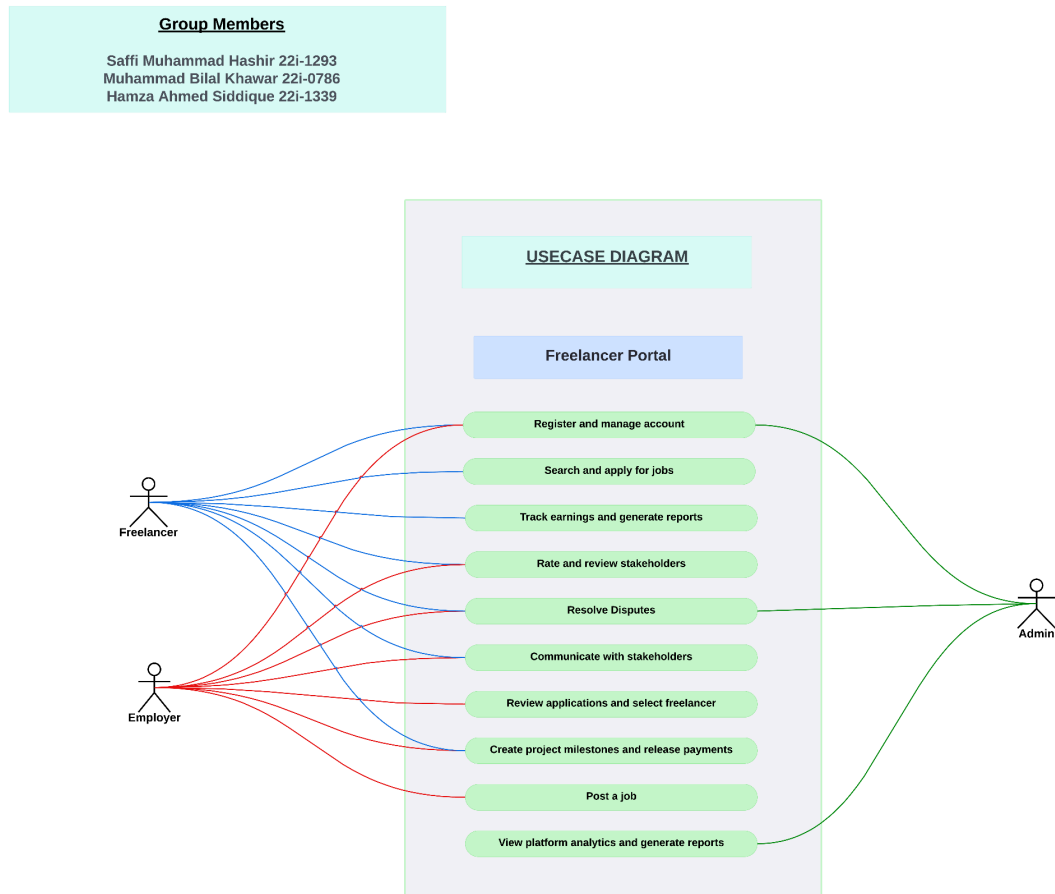
## **4.2 Organizational Requirements:**

- The system shall follow a modular design to facilitate future enhancements.
- The system shall include comprehensive documentation for maintenance and support.
- The system shall support updates and patches without extended downtime.

## **4.3 External Requirements:**

- The system shall ensure adherence to applicable data protection and privacy standards.
- The system shall be designed with inclusive and accessible user experiences in mind.
- The system shall support integration with external communication channels for user notifications.

## 5. Use Case Diagram



## 6. User Stories with Pre and Post Conditions

1. **As a Freelancer, I want to search and apply for jobs**, so that I can find work opportunities that match my skills and earn income.
  - **Pre-conditions:** Freelancer is registered and logged in; job postings are available on the platform.
  - **Post-conditions:** Freelancer views job listings and successfully submits applications.



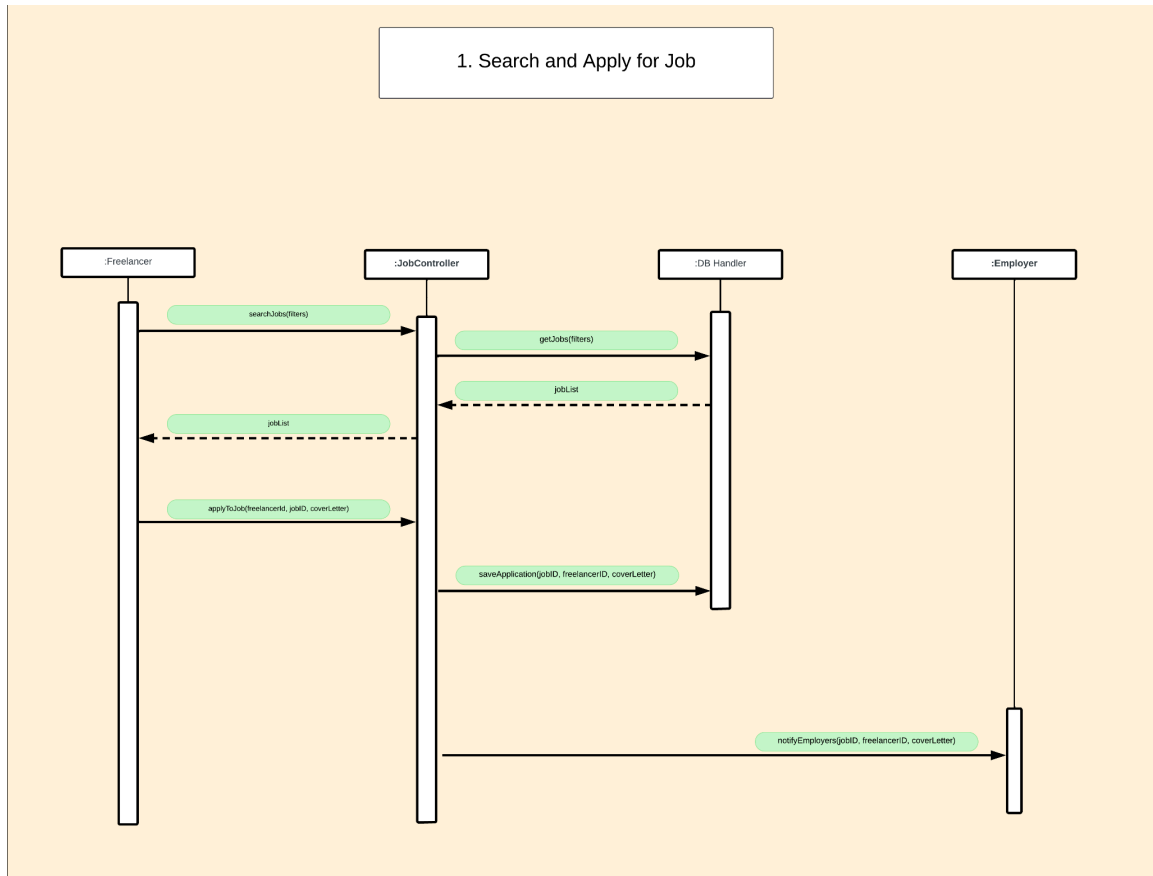
2. **As a Freelancer, I want to communicate with employers and admins**, so that I can collaborate effectively and resolve any project-related queries or issues.
  - **Pre-conditions:** Freelancer is logged in; a project or job-related conversation thread exists or can be initiated.
  - **Post-conditions:** Messages are sent and stored in the system; employer/admin can view and respond.
  
3. **As an Employer, I want to communicate with freelancers and admins**, so that I can manage project progress and clarify job requirements or concerns.
  - **Pre-conditions:** Employer is logged in; freelancer or admin is available for communication.
  - **Post-conditions:** Communication is recorded; queries are addressed.
  
4. **As an Admin, I want to communicate with freelancers and employers**, so that I can support users and resolve platform-related issues.
  - **Pre-conditions:** Admin is logged in; a user has initiated a support request or conversation.
  - **Post-conditions:** Support is provided; issues are resolved or escalated.
  
5. **As a Freelancer, I want to track my earnings and generate financial reports**, so that I can monitor my income and manage my finances.
  - **Pre-conditions:** Freelancer is logged in; freelancer has completed paid tasks or projects.
  - **Post-conditions:** Reports are generated and displayed or downloaded by the user.
  
6. **As a Freelancer, I want to raise disputes**, so that I can ensure fair treatment and project integrity when conflicts arise.
  - **Pre-conditions:** Freelancer is logged in; a project is in dispute or a conflict has occurred.
  - **Post-conditions:** Dispute ticket is created and under review by Admin.
  
7. **As an Employer, I want to raise disputes**, so that I can address conflicts with freelancers and ensure project success.
  - **Pre-conditions:** Employer is logged in; conflict with a freelancer has occurred.
  - **Post-conditions:** Dispute is logged and forwarded to Admin for resolution.

8. **As an Admin, I want to intervene in disputes**, so that I can mediate and ensure a fair resolution for both parties.
  - **Pre-conditions:** Admin is logged in; a dispute ticket exists in the system.
  - **Post-conditions:** Resolution is provided and case status is updated.
9. **As a Freelancer, I want to rate and review employers**, so that other freelancers can make informed decisions about job offers.
  - **Pre-conditions:** Freelancer has completed a project with an employer.
  - **Post-conditions:** Rating and review are submitted and published on employer's profile.
10. **As an Employer, I want to rate and review freelancers**, so that I can share feedback and help others hire reliable professionals.
  - **Pre-conditions:** Employer has completed a project with a freelancer.
  - **Post-conditions:** Rating and review are saved and visible on freelancer's profile.
11. **As a Freelancer, I want to register and manage my account**, so that I can maintain my personal information and access job opportunities.
  - **Pre-conditions:** Freelancer accesses registration page or profile settings.
  - **Post-conditions:** Account is created/updated and profile is saved.
12. **As an Employer, I want to register and manage my account**, so that I can post jobs and manage my hiring activities.
  - **Pre-conditions:** Employer accesses registration or account settings page.
  - **Post-conditions:** Employer account is created/updated successfully.
13. **As an Admin, I want to register and manage user accounts**, so that I can maintain platform integrity and user support.
  - **Pre-conditions:** Admin is logged in.
  - **Post-conditions:** User accounts are created, updated, suspended, or deleted as needed.
14. **As an Employer, I want to post a job**, so that I can hire freelancers for specific tasks or projects.
  - **Pre-conditions:** Employer is logged in; employer account is verified.
  - **Post-conditions:** Job post is published and visible to freelancers.

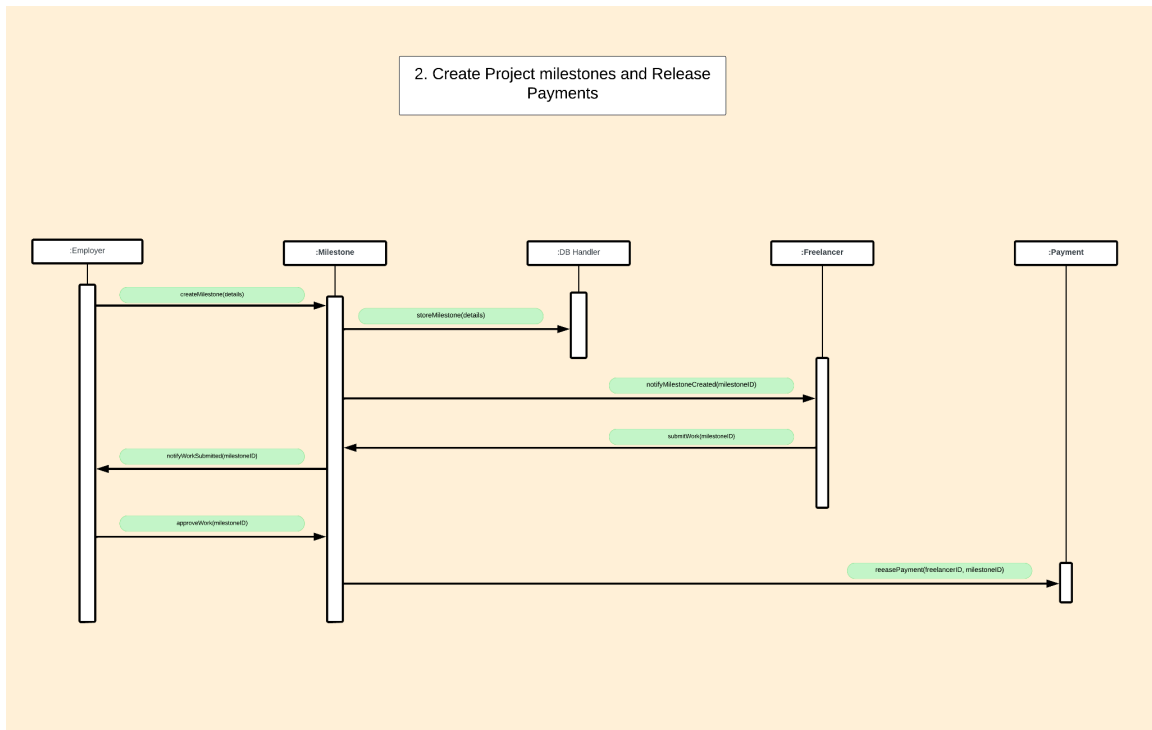
15. **As an Employer, I want to review applications and select freelancers**, so that I can choose the best candidate for my job requirement.
- **Pre-conditions:** Employer is logged in; applications for the job post are available.
  - **Post-conditions:** Freelancer is selected and assigned to the project.
16. **As an Employer, I want to create project milestones and release payments**, so that I can manage progress and ensure timely payments.
- **Pre-conditions:** Project is in progress; employer is logged in and has linked payment details.
  - **Post-conditions:** Milestones are created; payments are released accordingly.
17. **As a Freelancer, I want to receive payments based on completed milestones**, so that I am compensated fairly and on time for my work.
- **Pre-conditions:** Freelancer has completed the milestone task.
  - **Post-conditions:** Payment is received and reflected in the earnings dashboard.
18. **As an Admin, I want to view platform analytics and generate reports**, so that I can monitor system performance and user activity to make data-driven decisions.
- **Pre-conditions:** Admin is logged in; data is available in the system.
  - **Post-conditions:** Reports and analytics dashboards are generated and displayed/exported

## 7. Sequence Diagrams

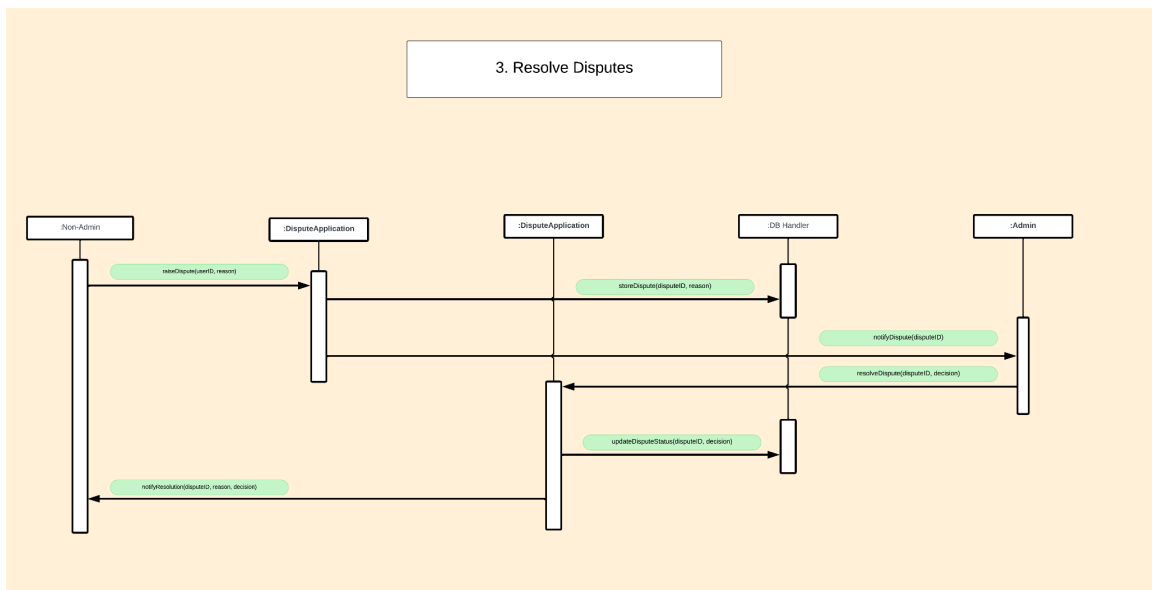
### 7.1. Search and Apply for Jobs:



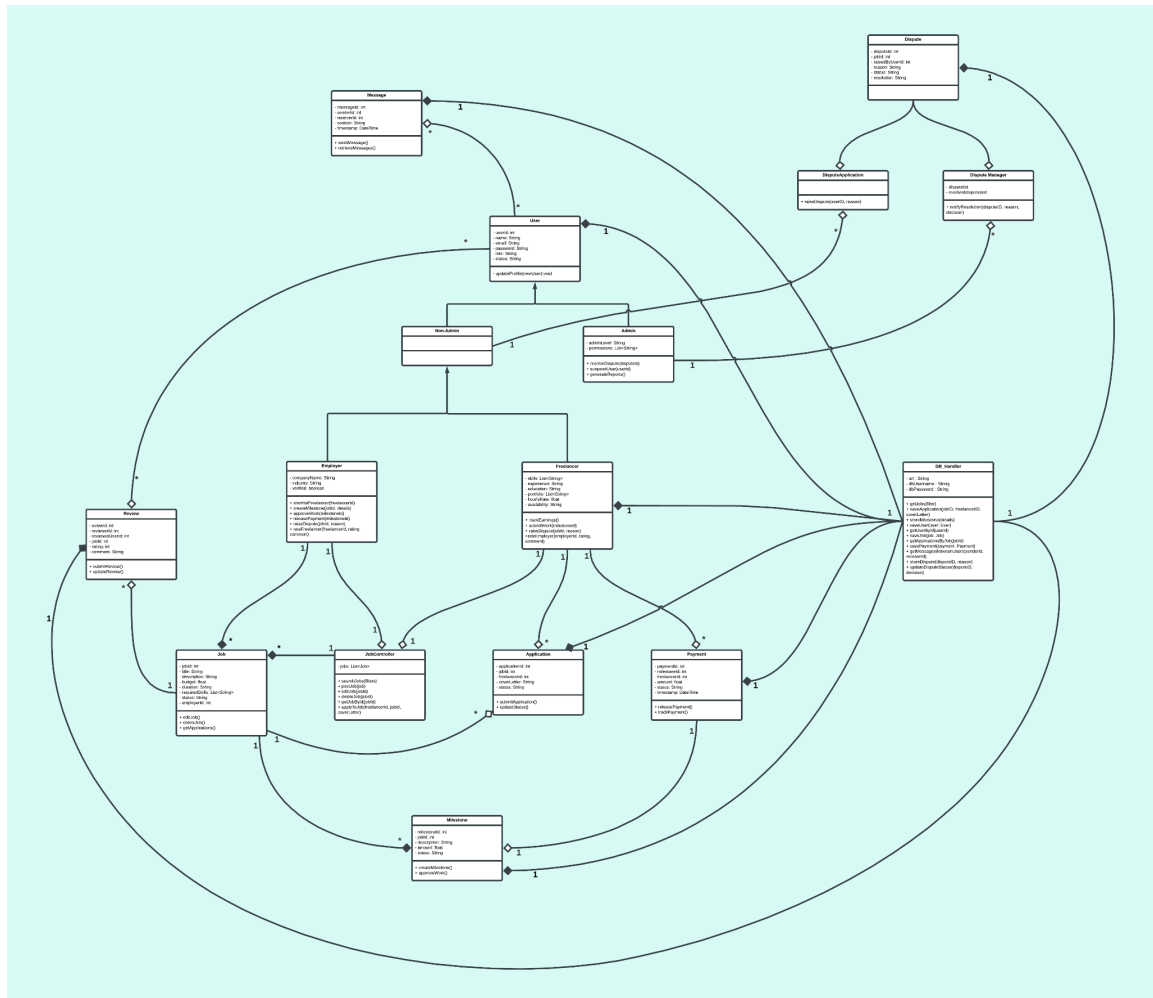
## 7.2. Create Milestones and Release Payments:



## 7.3. Resolve Disputes:



## 8. Class Diagram



## 9. Conclusion

This requirements specification document provides a comprehensive outline of the functional and non-functional requirements for the freelance platform. It serves as a foundation for the development team to design and implement a system that meets the needs of freelancers, employers, and administrators.

## 10. References

- IEEE 830 Standard