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**Vellore Institute of Technology**  
(Deemed to be University under section 3 of UGC Act, 1956)

# **TITLE : FREELANCING PROJECT STUDENT**

**Reg.No:23MIC0055**

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## **FREELANCING PROJECT.**

### **Description of the project:**

#### **2.1 Product Perspective**

This freelancing application is designed to address the limitations of existing platforms by:

1. Focusing on showcasing freelancer work without integrating payment systems.
2. Providing a secure communication platform for collaboration and trust-building.
3. Supporting scalability for adding features such as reviews, advanced analytics, and collaboration tools.

The application will operate on both web and mobile platforms, ensuring accessibility and convenience for users.

#### **2.2 Product Features**

1. User Registration: Freelancers and clients can register using email addresses or social media accounts. A simple onboarding process ensures ease of use.
2. User Profiles: Freelancers can display their skills, experience, work samples, and contact information. Clients can provide details about their company, job requirements, and preferences.

3. Job Posting: Clients can create detailed job listings, specifying required skills, deadlines, and project budgets.
4. Search Functionality: Users can filter search results based on location, skills, experience, or project requirements.
5. Chat System: A secure and intuitive chat feature for discussing project details and timelines.
6. Contact Exchange: Once a client and freelancer agree on project terms, they can exchange contact information.

## 2.3 Operating Environment Platforms:

Available as a web application and mobile app (iOS and Android). Technologies: Frontend: ReactJS for web; Flutter for mobile. Backend: Node.js with Express for scalable server-side development. Database: MongoDB for data storage and management.

## 2.4 Constraints:

No payment system will be integrated into the application. The system must support thousands of concurrent users. Compliance with local data protection laws for user privacy and security.

## Scope of the project:

- The freelancing application has the following primary functionalities:
- Freelancers can create profiles to showcase their expertise, portfolios, and past work.
- Clients can post job requirements with clear descriptions, deadlines, and required skills.
- A secure chat system allows direct communication between freelancers and clients.
- Search and filter functionalities help users easily find the right freelancer or job opportunity.
- Users can exchange contact details after initial discussions to proceed outside the platform.
- This application will cater to individuals and organizations looking to hire freelancers for short-term or project-based work. It will serve as a versatile and scalable solution for connecting skilled professionals with clients.

# Impact of the developing project:

## Impact of Developing This Freelancing Website

Developing this freelancing platform will have significant technological, economic, and social impacts. Below is a breakdown of its key effects:

### 1. Economic Impact

**Job Creation:** Provides work opportunities for freelancers worldwide.

**Cost-Effective Hiring:** Businesses can hire talent flexibly without long-term commitments.

**Global Reach:** Clients can connect with freelancers across different countries, reducing geographical hiring limitations.

### 2. Social Impact

**Work Flexibility:** Freelancers can work from anywhere, promoting a better work-life balance.

**Diversity & Inclusion:** Encourages opportunities for individuals from different backgrounds to showcase their skills.

**Career Growth:** Helps freelancers build their portfolio and gain experience without traditional employment barriers.

### 3. Technological Impact

**User Authentication & Security:** Ensures safe and verified interactions between clients and freelancers.

**Search & Filter System:** Improves efficiency in job searching and freelancer hiring.

**Scalability:** The platform can be expanded in the future with AI-driven job recommendations, automated proposal matching, and payment integration.

### 4. Market & Industry Impact

**Competitive Edge:** Offers a new alternative to existing freelancing platforms like Upwork and Fiverr with potentially lower fees and better user experience.

**Encourages Digital Transformation:** Pushes traditional businesses to embrace online hiring for short-term projects.

## 5. Future Growth & Expansion

Integration with AI: AI-based job matching can enhance freelancer-client connections.

Mobile App Development: Extending the platform to mobile users for better accessibility.

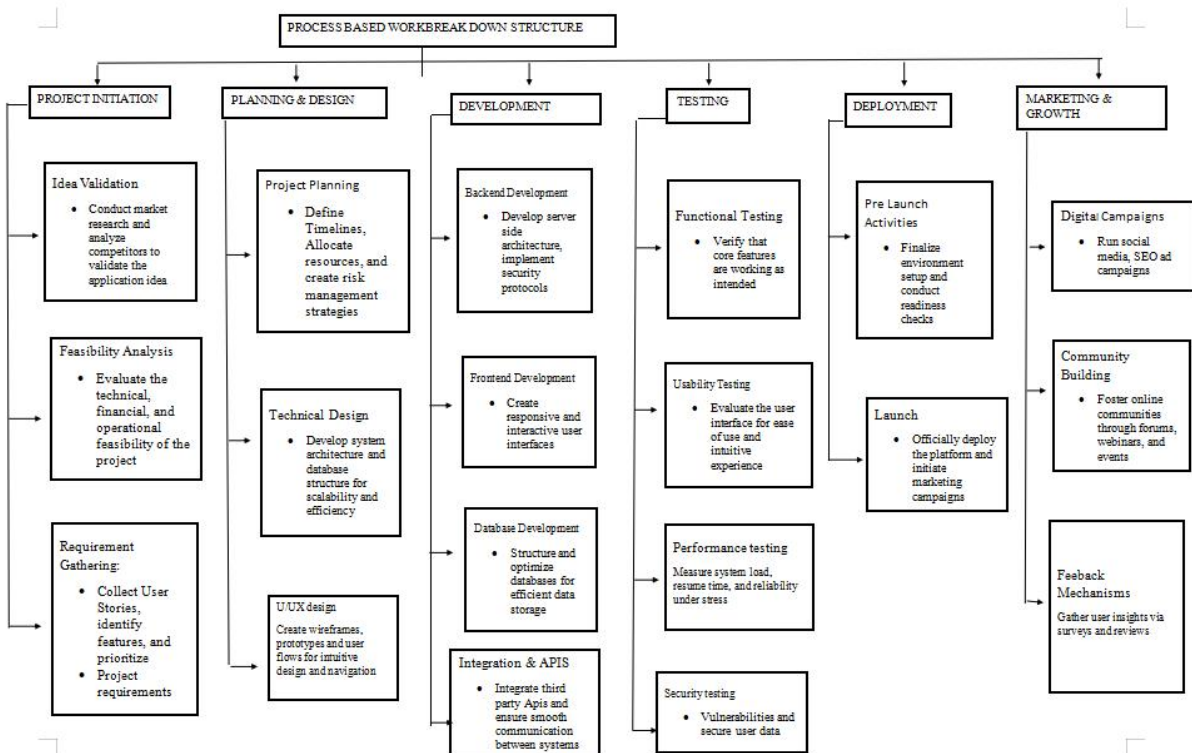
E-Learning & Certification: Freelancers can upskill with integrated training and certification features.

## Conclusion

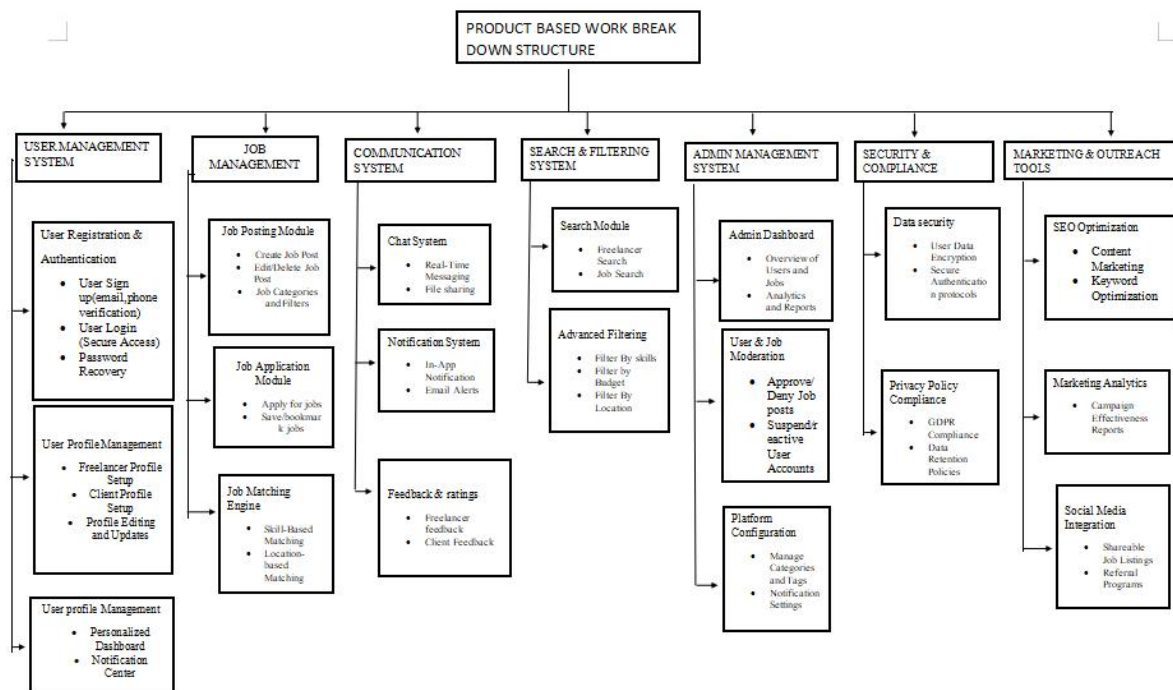
This freelancing platform will empower individuals, drive economic growth, and contribute to the digital economy by providing a seamless way for clients and freelancers to collaborate efficiently.

# Work Breakdown Structure

## • Process-Based Work Breakdown Structure



## Product-Based Work Breakdown Structure:



# SRS Document

## Functional Requirements:

### 3.1 User Registration & Authentication

Users must register with valid email addresses or social media accounts. Login must be secured with password encryption and authentication tokens.

### 3.2 Profile Management

Freelancers can update their portfolios, skills, and availability. Clients can edit their company details and job preferences.

### 3.3 Job Posting and Browsing

Clients can create job postings with detailed descriptions and timelines. Freelancers can search for jobs that match their expertise.

### 3.4 Search and Filters

Allow filtering based on skills, experience, and geographic location.

### 3.5 Communication Platform

Real-time chat system for secure communication between users. Support for sharing files (e.g., project documents).

### 3.6 Notifications

Real-time notifications for new messages, job applications, and profile views.

# Non-Functional Requirements

## 4.1. Performance Requirements System Scalability:

The application must support up to 10,000 concurrent users during the initial phase and be scalable to accommodate a growing user base without significant performance degradation.

### Response Time:

The system should respond to user actions (e.g., opening profiles, sending messages) within 2 seconds under normal load and within 5 seconds under peak load.

### Throughput:

The system should handle at least 500 job postings per hour and allow 1,000 chat messages per minute without downtime.

### Availability:

Ensure 99.9% uptime annually, limiting downtime to less than 9 hours/year.

## 4.2. Security Requirements

### Data Encryption:

All sensitive data (e.g., login credentials, chat messages) must be encrypted using AES256 encryption during transmission and at rest.

**Authentication:** Implement multi-factor authentication (MFA) for user accounts to prevent unauthorized access.

**Access Control:** Role-based access control (RBAC) must be in place to restrict sensitive actions to authorized users (e.g., admins vs. regular users).

### Data Privacy Compliance:

The application must comply with data protection laws such as GDPR and CCPA to safeguard user information.

### Audit Trails:

Maintain logs of critical user activities (e.g., login, data modifications) for at least 6 months for auditing purposes.

## 4.3. Usability Requirements

### Intuitive Design:

The interface must be user-friendly and intuitive for both freelancers and clients, with minimal learning curves.

#### Accessibility:

Ensure compliance with WCAG 2.1 standards to make the application accessible to users with disabilities, including screen reader compatibility and high-contrast modes.

#### Localization:

The application should support multiple languages, starting with English, Spanish, and French.

#### Cross-Platform Compatibility:

The platform must function seamlessly on web browsers (Chrome, Safari, Firefox) and mobile devices (iOS, Android).

#### Onboarding:

Provide interactive tutorials and tooltips to guide new users through the application's key features.

### 4.4. Scalability Requirements Horizontal Scaling:

Enable horizontal scaling to add more servers as user demand increases.

#### Database Partitioning:

Partition the database by user type (e.g., freelancers, clients) or regions to improve query performance.

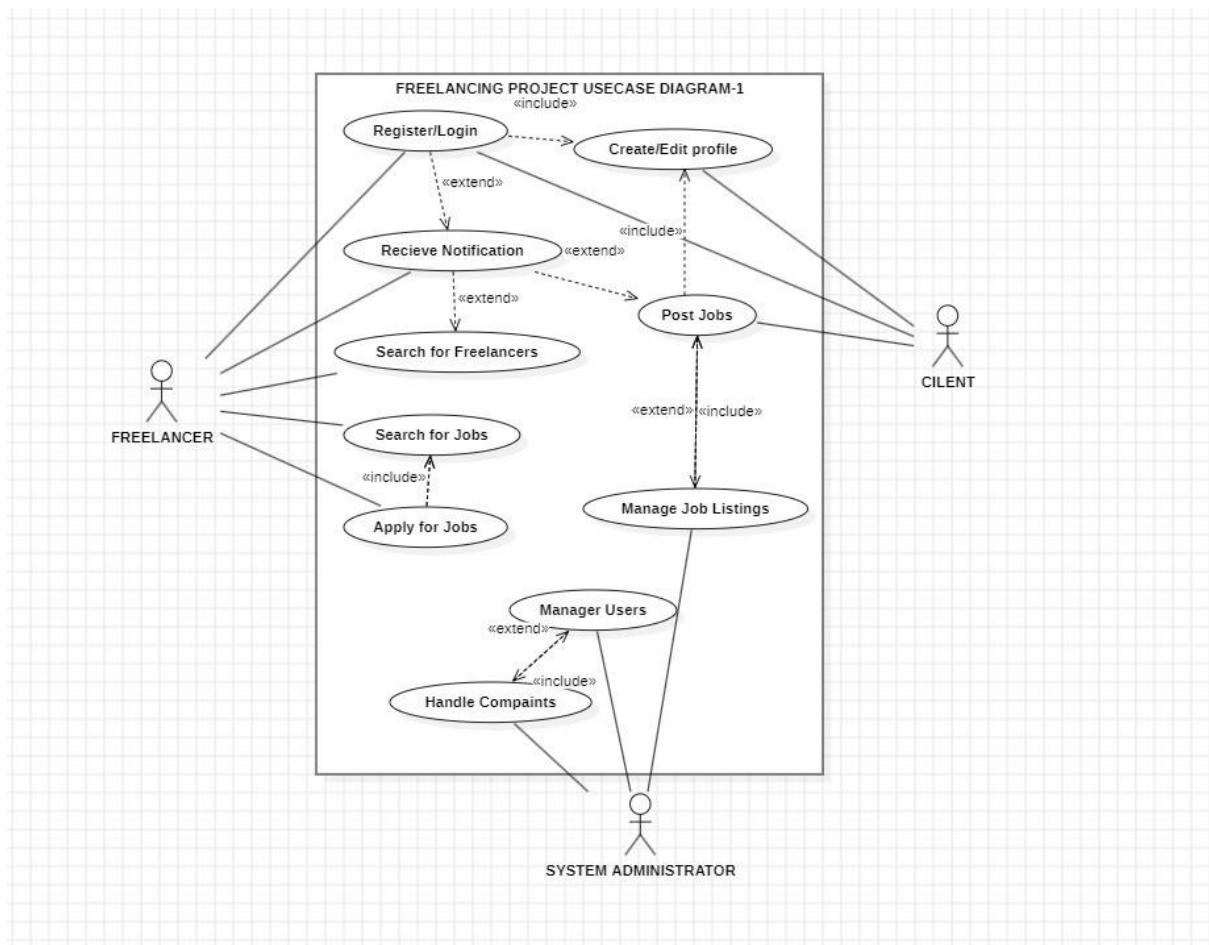
#### Cloud Deployment:

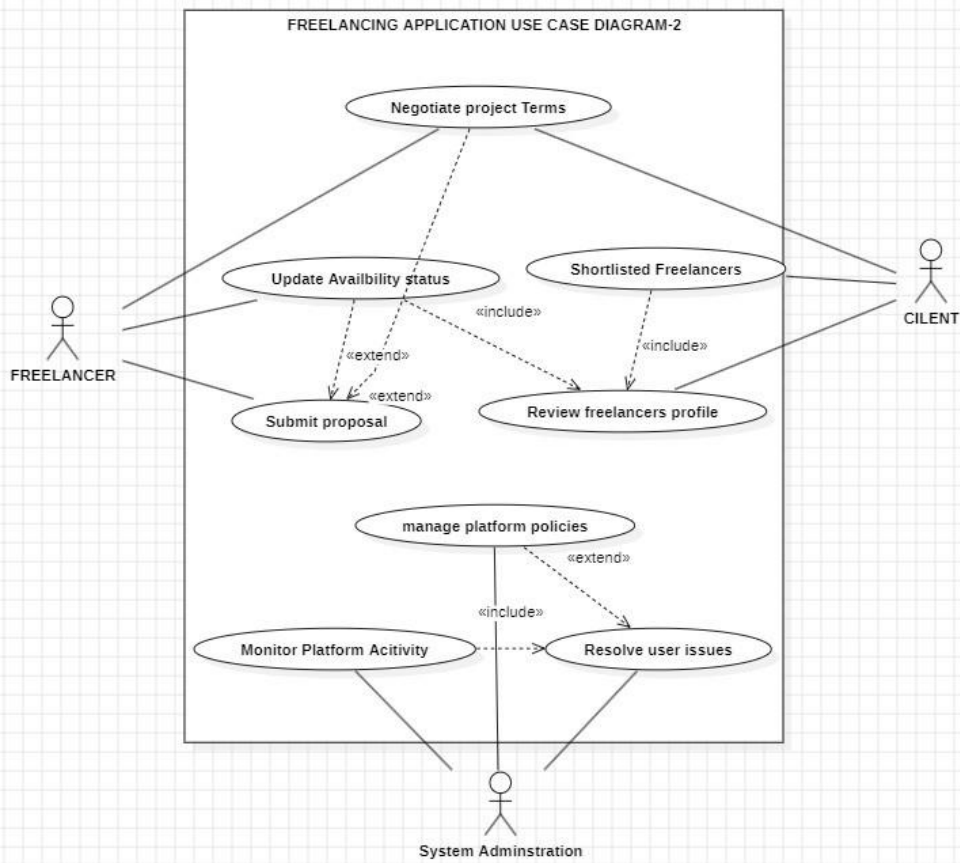
Deploy the system on a cloud platform (e.g., AWS, Azure) to allow scaling on-demand during peak traffic.

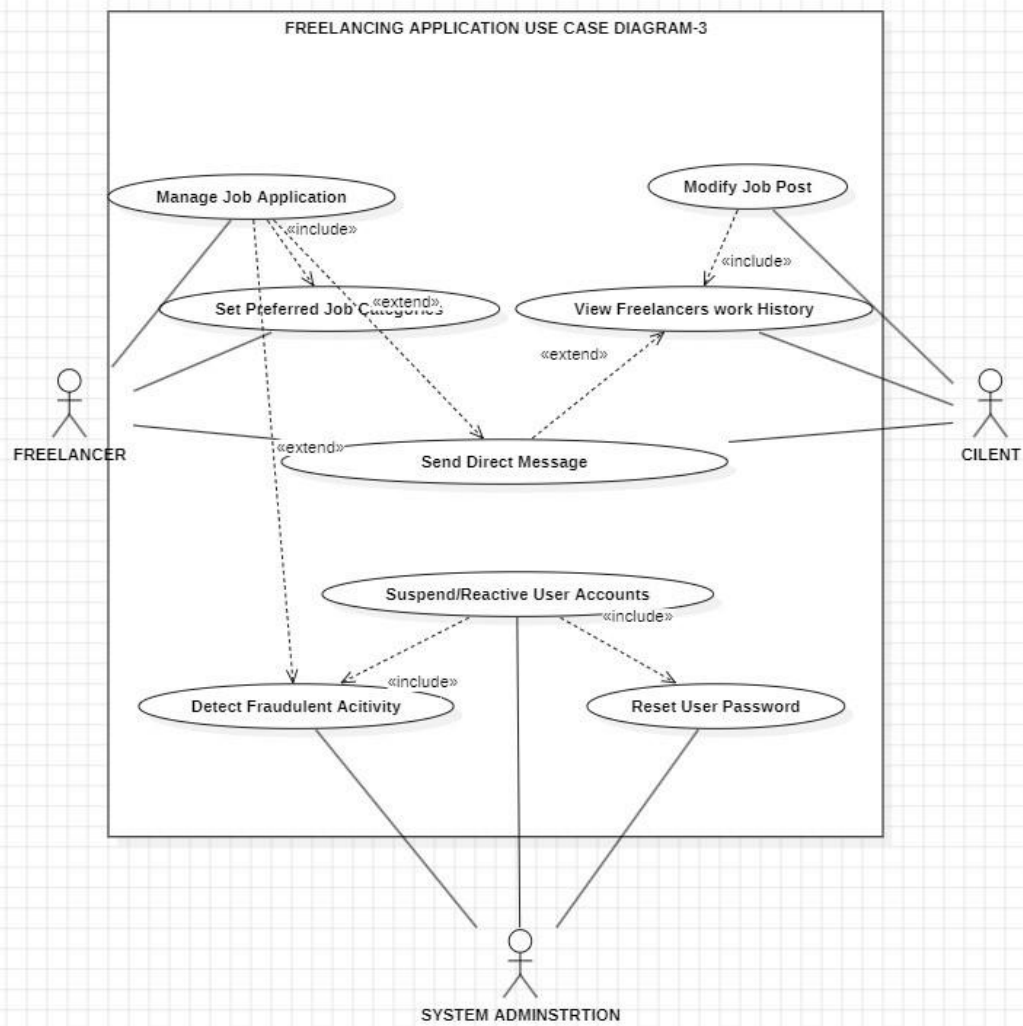


# UML DIAGRAM

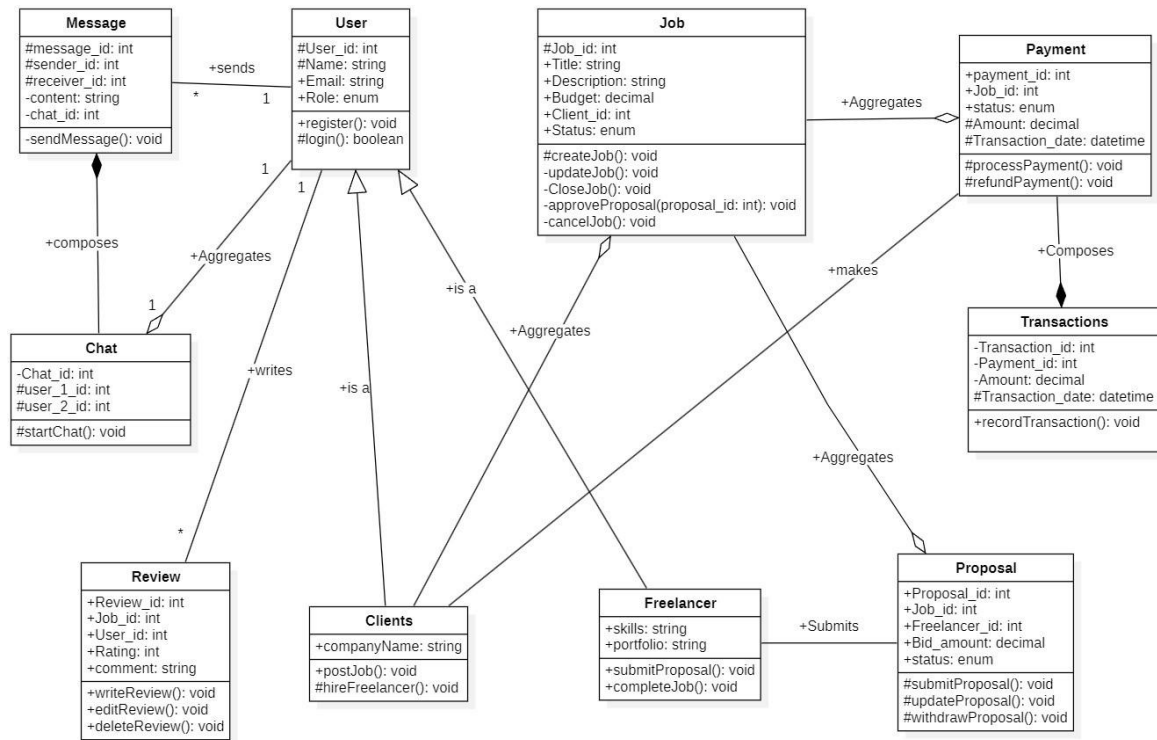
## USE CASE DIAGRAM:-







## CLASS DIAGRAM:-

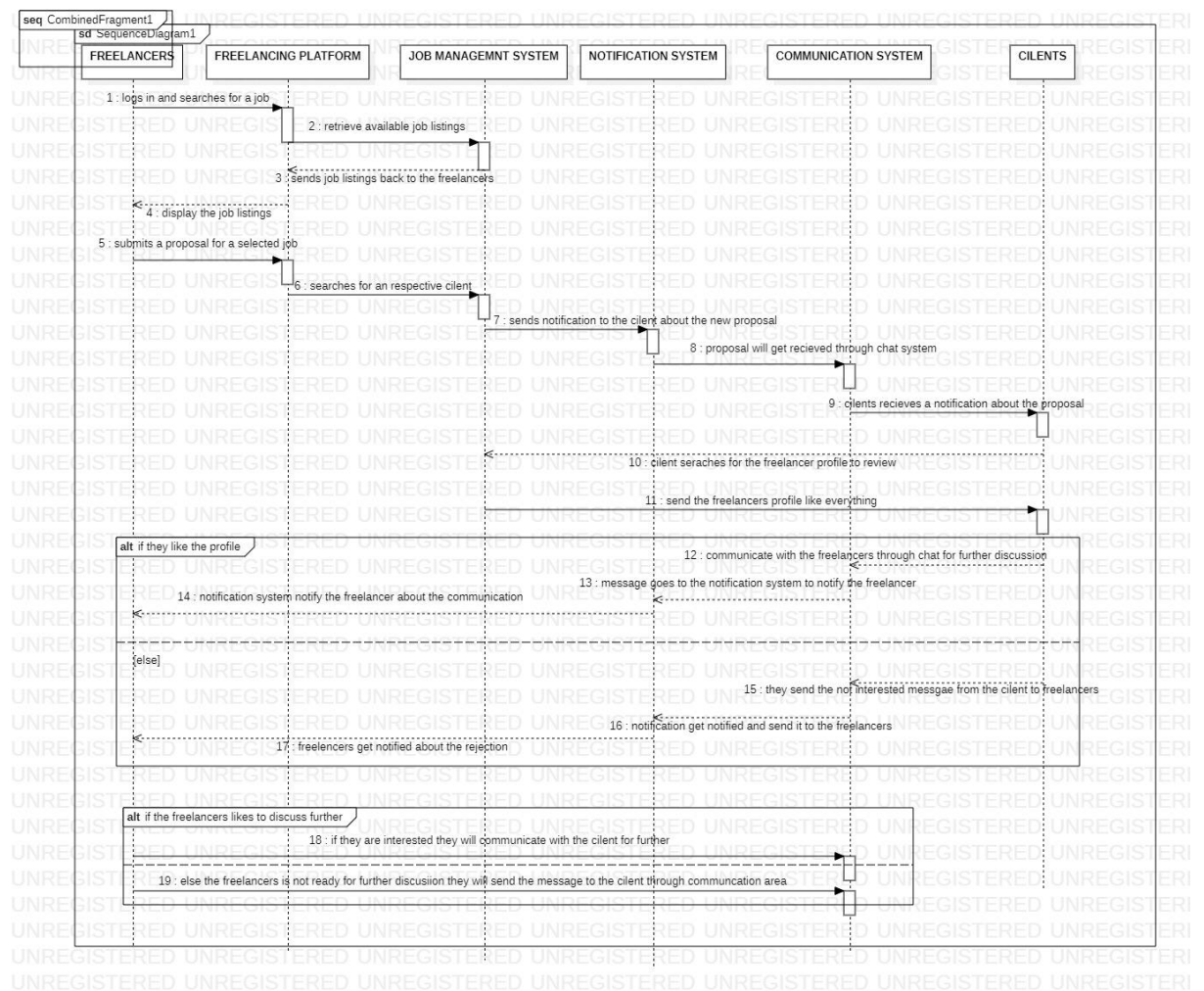


# TESTCASE AND SEQUENCE DIAGRAM:

## 1. Draw sequence diagrams to visualize the interactions within your project for 2 scenarios.

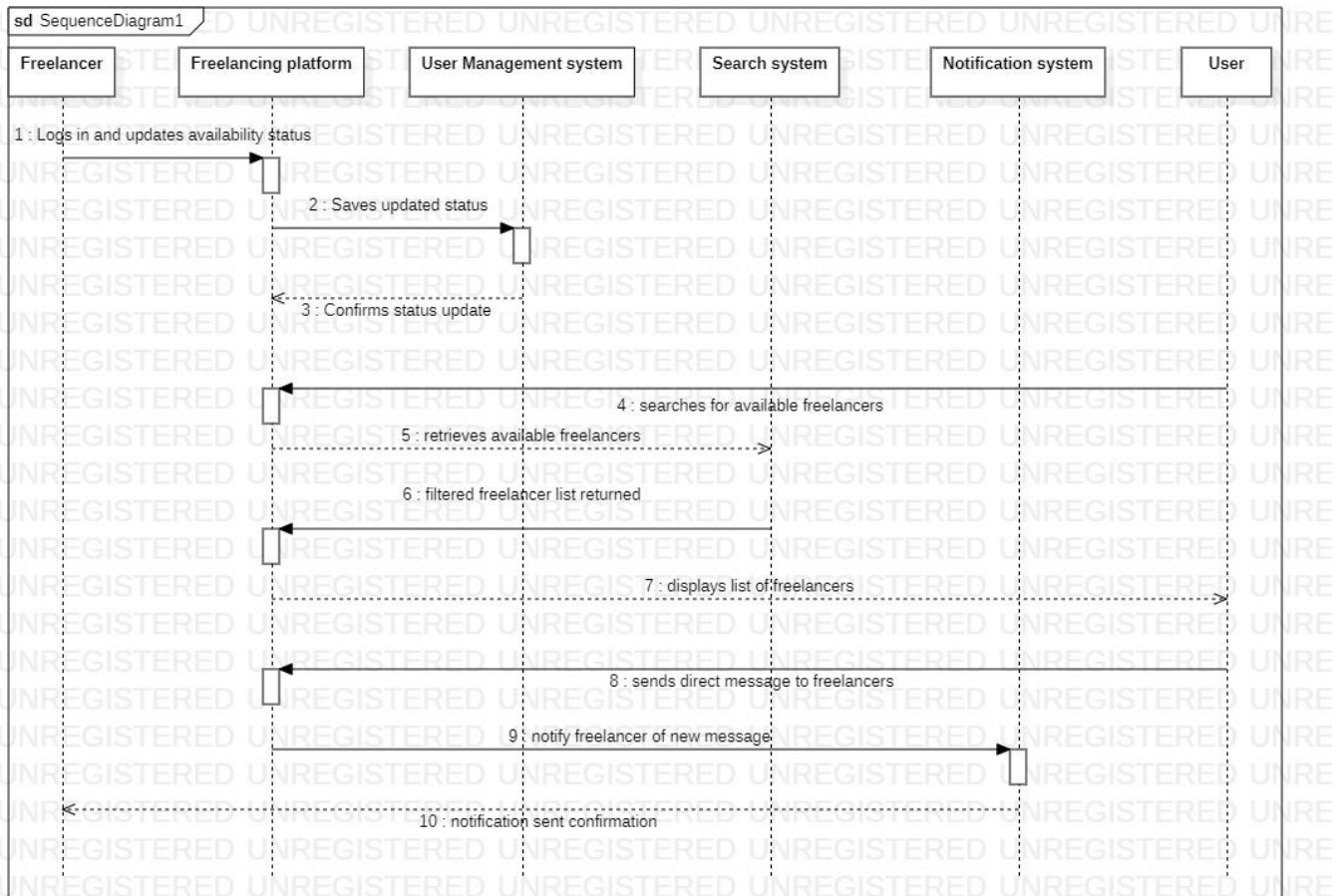
### SCENARIO-1:

### Freelancer Submits a Proposal and Client Reviews it.



## SCENARIO-2:

**Freelancer updates availability status and user searches for freelancers.**



## 2.Create comprehensive test cases for 2 key scenarios in your project

### **Test Case 1: User Registration**

**Test Case ID:** TC001

**Test Scenario:** New user registration

**Test Case Description:** Verify that a new user can successfully register on the platform.

**Test Steps:**

1. Open the freelancing application.
2. Click on the Sign Up button.
3. Enter valid details (name, email, password).
4. Click the Register button.
5. Check for the success message.

**Test Data:**

Name: John Doe

Email: john@example.com

Password: Test@123

**Expected Result:** The system should display a success message: "Registration Successful. Please log in."

**Actual Result:** The system displayed the message: "Registration Successful. Please log in."

**Pass/Fail:** Pass

## **Test Case 2: Client Posts a Job**

**Test Case ID:** TC002

**Test Scenario:** Job posting by a client

**Test Description:** Verify that a client can post a new job.

### **Test Steps:**

1. Log in as a client.
2. Click on Post a Job.
3. Enter job details (title, description, budget).
4. Click Submit.

### **Test Data:**

**Title:** Graphic Designer Needed

**Description:** Design a company logo and social media banners.

**Budget:** \$200

**Expected Result:** Job should be listed successfully with a confirmation message.

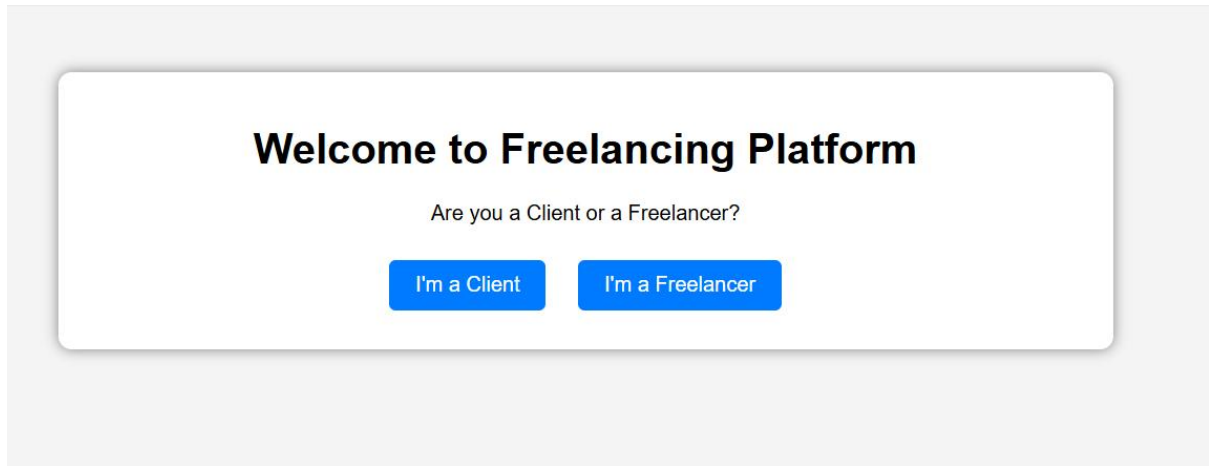
**Actual Result:** The system displayed: "Job posted successfully."

**Pass/Fail:** Pass



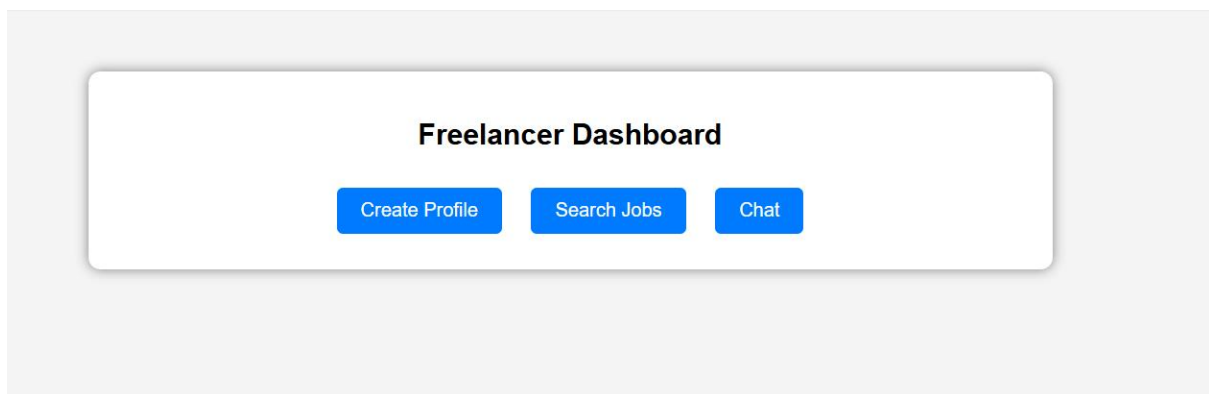
# Project – UI Screenshots

## 1.COMMON HOMEPAGE:-



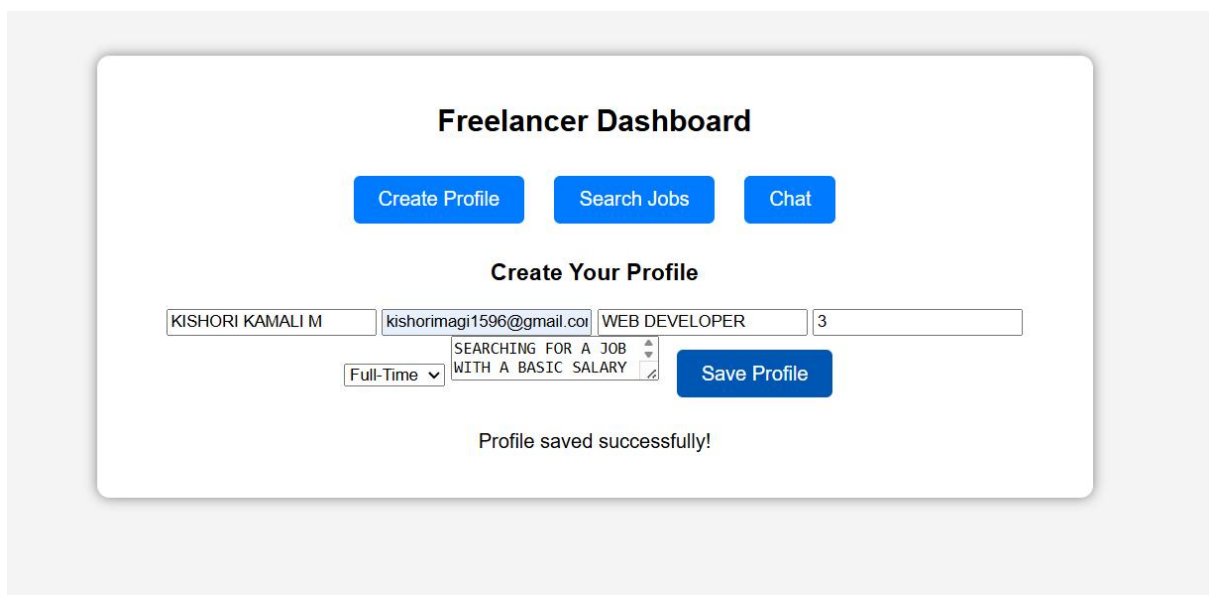
A screenshot of a common homepage for a freelancing platform. It features a white rounded rectangle centered on a light gray background. Inside the rectangle, the text "Welcome to Freelancing Platform" is displayed in a bold, black font. Below this, the question "Are you a Client or a Freelancer?" is shown in a smaller, regular black font. At the bottom of the rectangle, there are two blue buttons with white text: "I'm a Client" and "I'm a Freelancer".

## 2.FREELANCER DASHBOARD:-



A screenshot of a freelancer dashboard. It shows a white rounded rectangle centered on a light gray background. The title "Freelancer Dashboard" is at the top in a bold, black font. Below the title, there are three blue buttons with white text: "Create Profile", "Search Jobs", and "Chat".

## 3.PROFILE CREATION:-



A screenshot of a profile creation form within a freelancer dashboard. The form is contained within a white rounded rectangle on a light gray background. At the top, the title "Freelancer Dashboard" is displayed. Below it are three blue buttons: "Create Profile", "Search Jobs", and "Chat". The main section is titled "Create Your Profile" in bold. It contains several input fields: a text field with "KISHORI KAMALI M", an email field with "kishorimagi1596@gmail.coi", a text field with "WEB DEVELOPER", and a number field with "3". Below these, there is a dropdown menu showing "Full-Time" and a text area containing "SEARCHING FOR A JOB WITH A BASIC SALARY". A blue "Save Profile" button is positioned to the right of the text area. At the bottom of the form, a message states "Profile saved successfully!".

#### 4.SEARCHING FOR A JOB:-

### Freelancer Dashboard

[Create Profile](#)[Search Jobs](#)[Chat](#)

#### Available Jobs

- 
- 
- 

Web Development  
Graphic Design  
Content Writing

#### 5.CHAT BOX:-

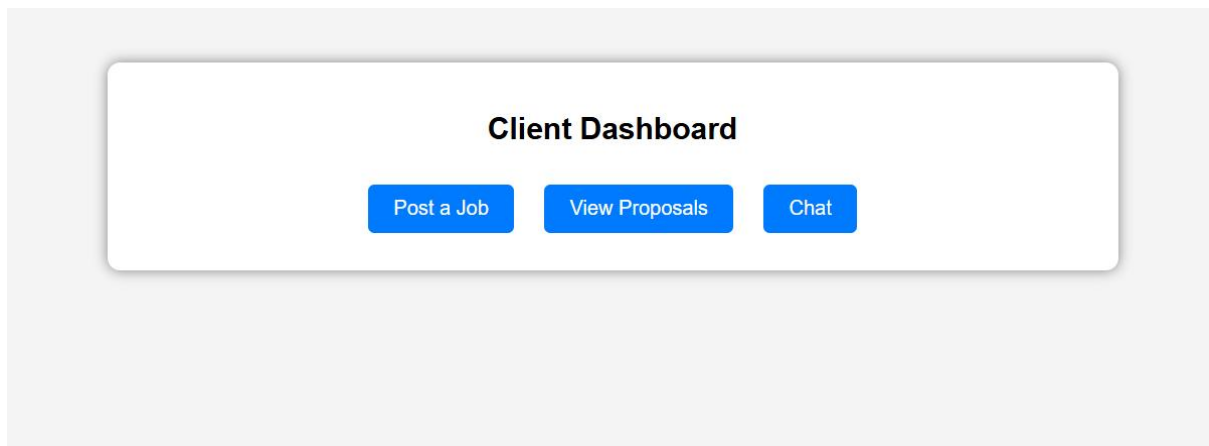
### Freelancer Dashboard

[Create Profile](#)[Search Jobs](#)[Chat](#)

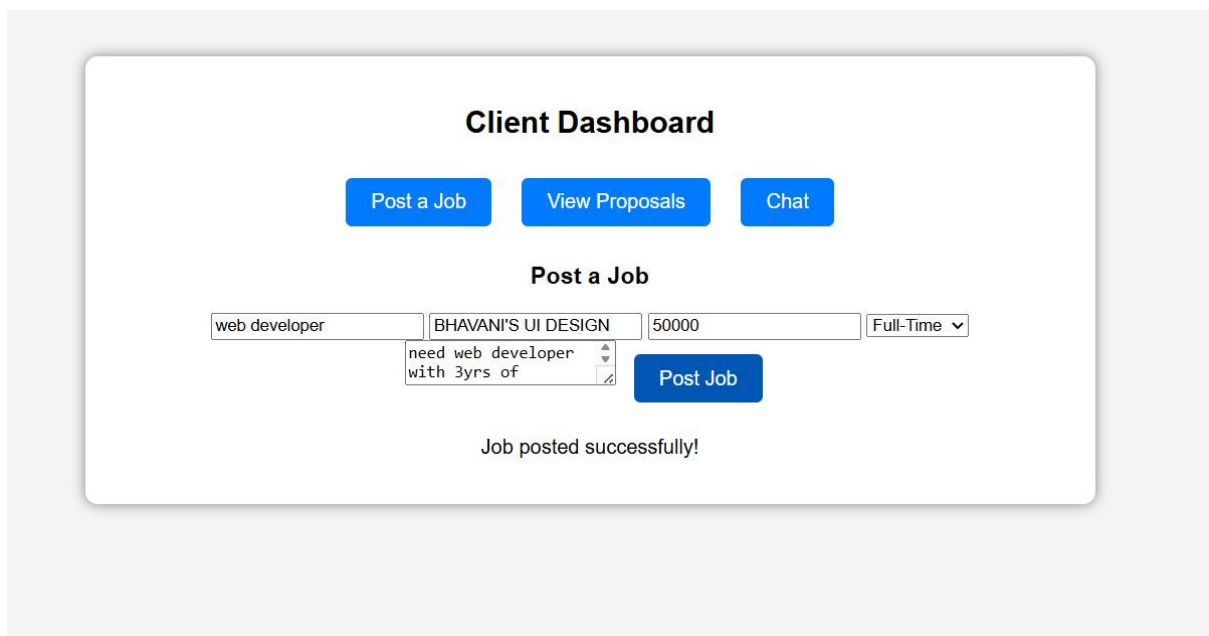
#### Chatbox

[Send](#)

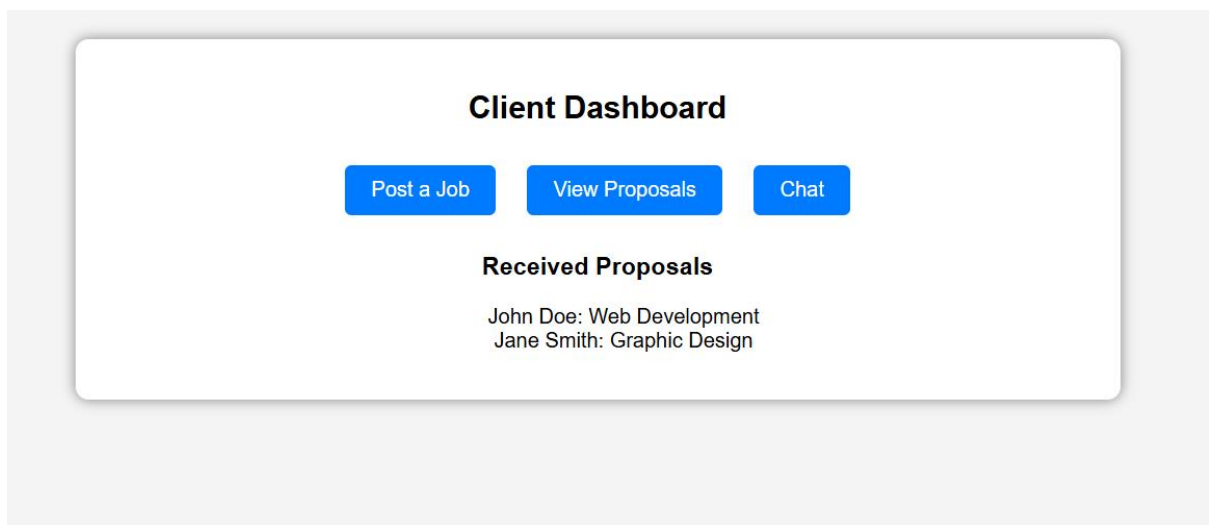
## 6.CLIENT DASHBOARD



## 7.JOB POSTING



## 8.VIEW PROPOSALS



## 9.CHAT BOX

### Client Dashboard

Post a Job

View Proposals

Chat

### Chatbox

HII I AM BHAVANI

Send