



## **UE22CS352B - Object Oriented Analysis & Design**

### **Mini Project Report**

### **GigUp - A Freelancing Website**

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Semester: VI Section: D

**Suja C M**

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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
FACULTY OF ENGINEERING  
PES UNIVERSITY**

(Established under Karnataka Act No. 16 of 2013)  
100ft Ring Road, Bengaluru – 560 085, Karnataka, India

# Problem Statement

GigUp is a freelancing platform that connects clients with freelancers for project-based work. The main problems it addresses are:

1. Finding a platform for clients to post projects and find skilled freelancers
2. Providing freelancers with opportunities to showcase their skills and bid on projects
3. Managing the bidding process and project lifecycle

## Key Features:

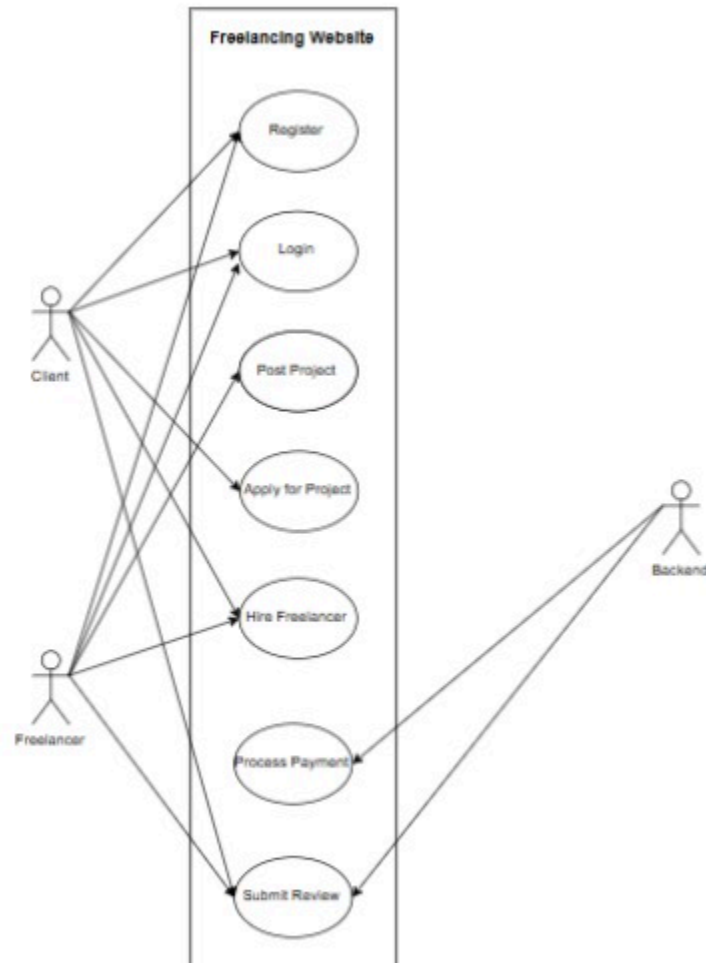
1. User Management
  - Registration and authentication
  - Role-based access control
  - Profile management
2. Project Management
  - Project creation and listing
  - Project status tracking
  - Skill-based project categorization
3. Bidding System
  - Bid placement and management
  - Bid status tracking
  - Budget management

## Technical Stack:

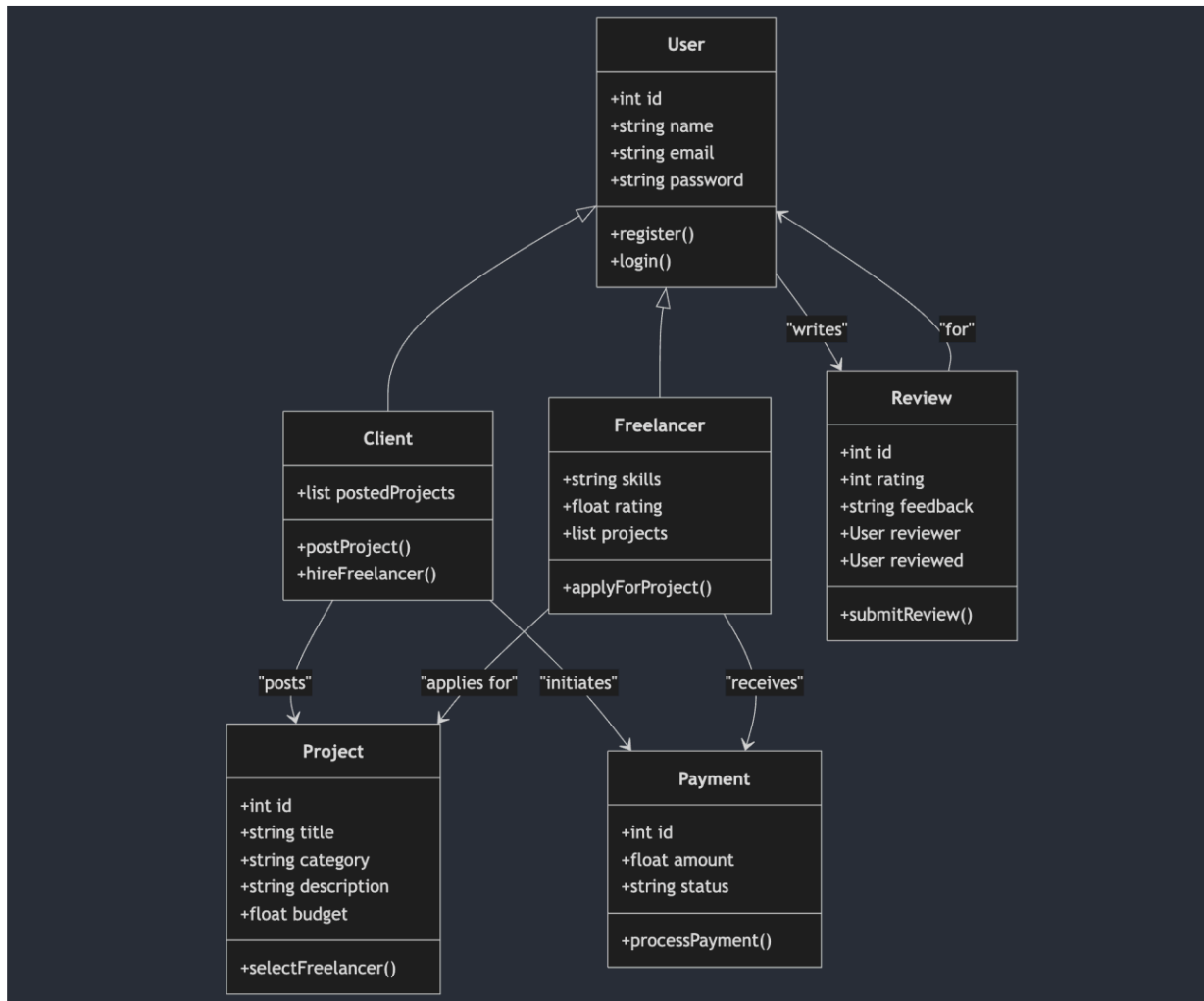
- Backend: Spring Boot, Spring Security, Spring Data JPA
- Frontend: Thymeleaf, Bootstrap, JavaScript
- Database: MySQL
- Build Tool: Maven

## Models:

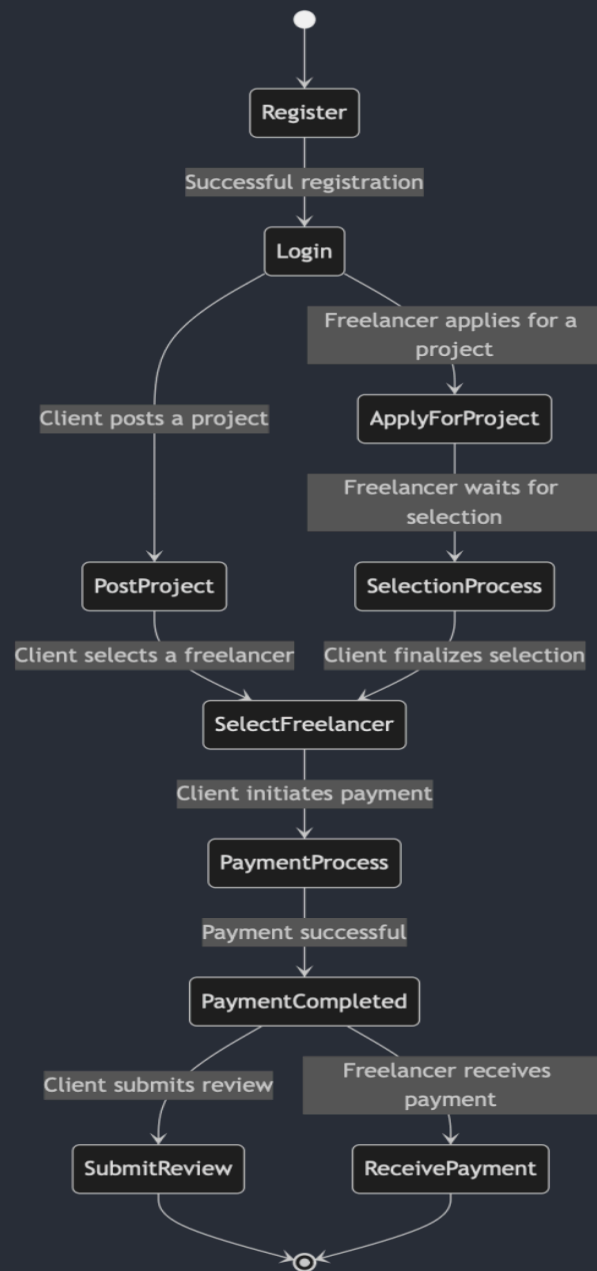
### 1. Use Case Diagram:



## 2. Class Diagram:



### 3. State Diagram:



#### 4. Activity Diagrams:

# Architecture Patterns

## Model – View – Controller Pattern (MVC)

## Design Principles

1. Separation of Concerns (SoC)
  - Clear separation between controllers, services, and repositories
  - Distinct layers for business logic, data access, and presentation
2. Single Responsibility Principle (SRP)
  - Each class has a single responsibility
  - Controllers handle HTTP requests
  - Services contain business logic
  - Repositories handle data access
3. DRY (Don't Repeat Yourself)
  - Reusable components and services
  - Common functionality centralized in service classes
4. Security by Design
  - Spring Security implementation
  - Authentication and authorization
  - Secure password handling with BCrypt

## Design Patterns

1. MVC (Model-View-Controller)
  - Controllers: Handle HTTP requests and responses
  - Models: Represent data entities (User, Project, Bid, etc.)
  - Views: Thymeleaf templates for UI
2. Repository Pattern
  - JPA repositories for data access
  - Abstraction of database operations
  - Consistent data access layer
3. Service Layer Pattern

- Business logic encapsulation
- Transaction management
- Service interfaces and implementations

#### 4. Factory Pattern

- Object creation through constructors
- Lombok annotations for object creation

#### 5. Observer Pattern

- Event handling in Spring
- Notification system for project updates

#### **Github link to the Codebase:**

<https://github.com/Strange-14M605/GigUp>



# OUTPUT SCREENSHOTS

## LOGIN/SIGNUP

A screenshot of a web browser showing the login/signup page for GigUp. The browser's address bar displays 'localhost:8089/login'. The navigation bar includes the GigUp logo, 'Home', 'Browse Projects', and 'Login'/'Sign Up' buttons. The main content area features a central white card with a purple header 'Login to GigUp'. The card contains a 'Username' field with the value 'pooja', a 'Password' field with masked characters, a 'Remember me' checkbox, and a 'Login' button. Below the card, there are links for 'Sign up' and 'Forgot password?'.

## HOME PAGE

A screenshot of the GigUp home page. The browser's address bar shows 'localhost:8089'. The navigation bar includes the GigUp logo, 'Home', 'Browse Projects', 'Dashboard', and a user profile 'janvi'. The main section has a large blue gradient background with the text 'Find Freelance Jobs or Hire Expert Freelancers' and a subtext 'Connect with top talent for your business or find freelance work that matches your skills'. Below this are two buttons: 'Find Work' and 'Post a Project'. The 'Why Choose GigUp?' section follows, featuring three cards: 'Quality Talent' (with a person icon), 'Secure Payments' (with a shield icon), and 'Easy Communication' (with a speech bubble icon). Each card contains a brief description of the service.

### Find Freelance Jobs or Hire Expert Freelancers

Connect with top talent for your business or find freelance work that matches your skills

[Find Work](#) [Post a Project](#)

### Why Choose GigUp?

#### Quality Talent

Access a global network of skilled professionals ready to tackle your projects.

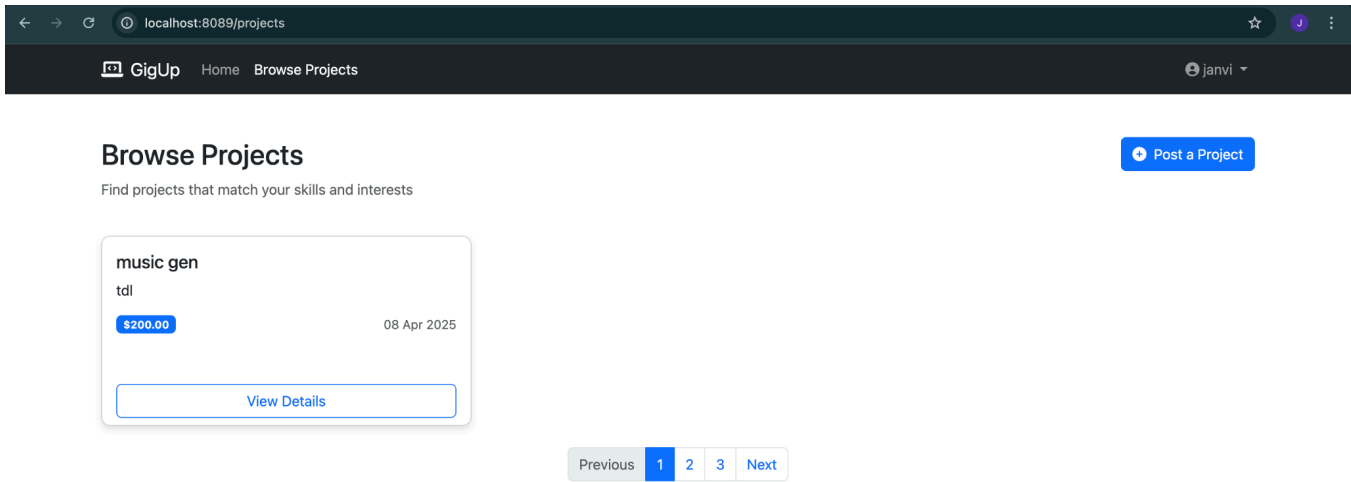
#### Secure Payments

Our secure payment system ensures that both clients and freelancers are protected.

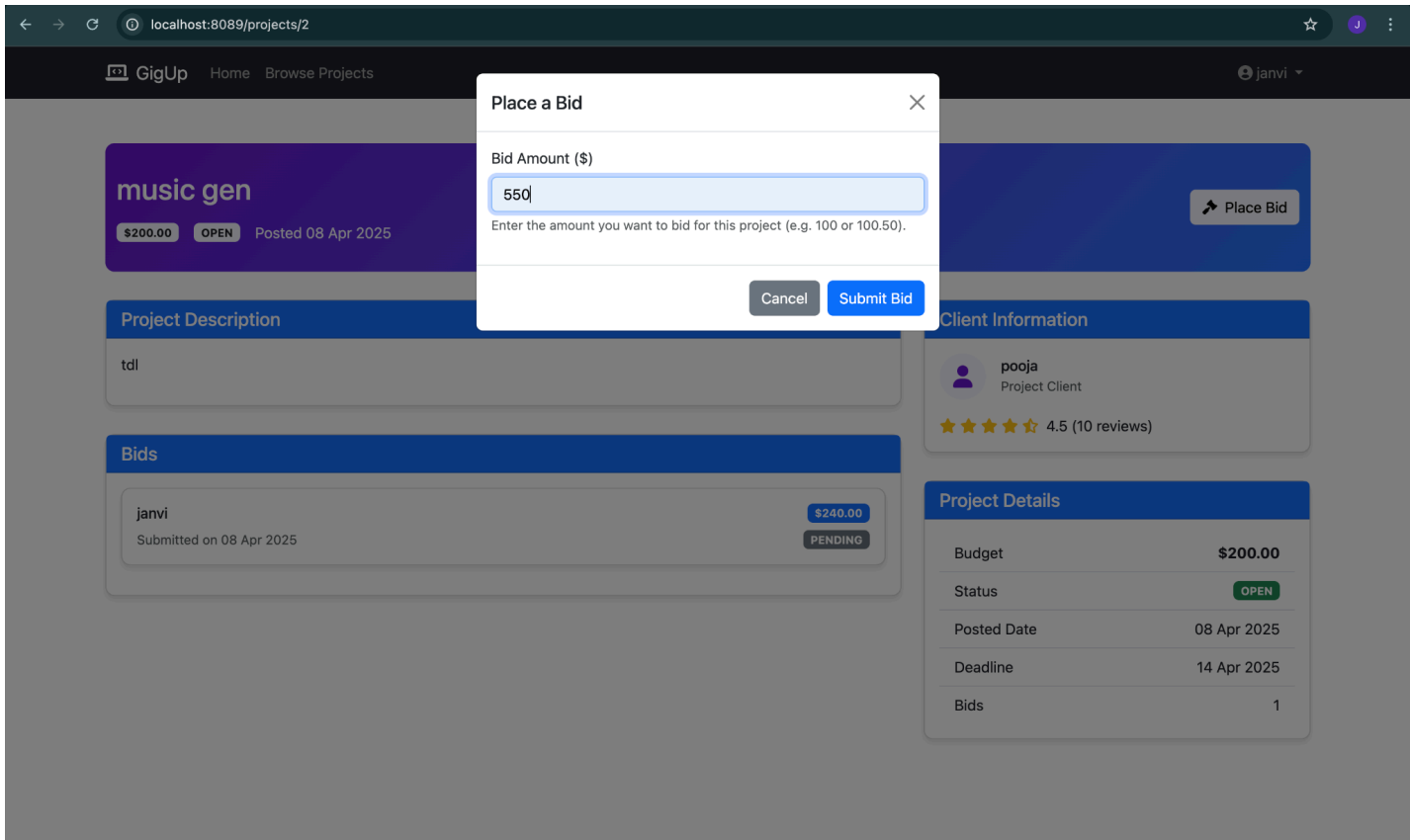
#### Easy Communication

Seamless communication tools to keep your projects on track and successful.

BROWSE PROJECTS



PLACING A BID



PROJECT CREATOR VIEWING BIDS

localhost:8089/projects/2

GigUpHomeBrowse Projects

pooja

music gen

\$200.00OPENPosted 08 Apr 2025

Project Description

tdl

Client Information

pooja

Project Client

★★★★☆4.5 (10 reviews)

Bids

janvi

Submitted on 08 Apr 2025

Accept Bid

\$240.00

PENDING

Project Details

Budget	\$200.00
Status	OPEN
Posted Date	08 Apr 2025
Deadline	14 Apr 2025
Bids	1

PROJECT CREATOR ACCEPTED BID

localhost:8089/projects/2

GigUpHomeBrowse Projects

pooja

Bid accepted successfully

music gen

\$200.00IN\_PROGRESSPosted 08 Apr 2025

Project Description

tdl

Client Information

pooja

Project Client

★★★★☆4.5 (10 reviews)

Bids

janvi

Submitted on 08 Apr 2025

ACCEPTED

\$240.00

Project Details

Budget	\$200.00
Status	IN_PROGRESS
Posted Date	08 Apr 2025
Deadline	14 Apr 2025
Bids	1

CREATING A PROJECT

← → ↺

localhost:8089/projects/create

☆ J ⋮

GigUp

Home Browse Projects

pooja ▾

+

Create a New Project

Project Title

url shortener

Project Description

cc project

Budget (\$)

100

Deadline (Optional)

12/04/2025

📅

Skills Required

Create Project

VIEWING PROJECT CREATED

← → ↺

localhost:8089/projects

☆ J ⋮

GigUp

Home Browse Projects

pooja ▾

Browse Projects

Find projects that match your skills and interests

Post a Project

url shortener

cc project

\$100.00

08 Apr 2025

View Details

Previous

1

2

3

Next

Individual contributions of the team members:

<b>Name</b>	<b>Module worked on</b>
<b>JANVI MUNSHI</b>	BIDDING
<b>JOVA VARGHESE</b>	CREATING PROJECT
<b>JUMANAH MAHEEN</b>	SIGN UP/ LOG IN
<b>GOWRI M B</b>	SIGN UP/ LOG IN