# Ahsanullah University of Science and Technology

Department of Computer Science and Engineering

CSE3104 Database Sessional

Semester : Spring 2023

# Freelancer Job Board

**Group C1-06**

20210104106 : Anamika Saha

20210104109 : Farhana Najnin Mahi

20210104122 : Maliha Akter Miti

Faculty :

Nazmus Sakib

Mohammad Moinul Hoque AND

Md Zahid Hossain

Project Start Date: October 28, 2023

Submitted: February 1, 2024

# Abstract

The "Freelancer Job Board" project aims to create an advanced database system that will help freelancers find work and companies looking to recruit them for their skills.Companies can use this system to post information about the work experience, qualifications, and languages required for the roles they offer and hire.A freelancer can also view all of the job categories they are interested in, verify all of the details of the tasks they desire, and apply for them.Our main goal is to facilitate job searching for freelancers by matching them with positions that align with their expertise.

# Contents

# List of Figures

# List of Tables

# 1 Purpose of the Project

The purpose of the Freelancer Job Board project is to create a centralized online platform that facilitates and enhances the freelance job-seeking process. The project aims to address the needs of freelancers in a world where the gig economy is thriving, providing them with a user-friendly solution to discover relevant job opportunities across various domains. The primary objectives include:

- **Efficient Database Management:**By implementing a robust database management system to organize and present job listings in a comprehensive and accessible manner,the project enables freelancers to quickly find and apply for suitable projects.

- **flexibility and Remote Work:** Freelancer job boards enable both clients and freelancers to work remotely, offering flexibility in terms of location and working hours. This arrangement benefits those who prefer a flexible work schedule or need to work from home.

- **Security and Privacy:** Prioritize the security and privacy of user data, ensuring that the platform provides a safe environment for freelancers and clients to interact and collaborate.

- **Skill Development:** Freelancer job boards expose freelancers to a variety of projects, which can lead to continuous skill development and learning. By working on diverse projects, freelancers can expand their expertise, gain new skills, and stay up-to-date with industry trends.

- **Secure Payment Systems:** Our freelancer job boards often offer secure payment systems, ensuring that freelancers receive timely and fair compensation for their work. This feature provides peace of mind for both clients and freelancers, minimizing the risk of payment disputes.

- **Connecting Clients with Freelancers:** The primary purpose of a freelancer job board is to serve as a platform that connects clients and freelancers. Clients can post job listings or projects, and freelancers can browse through these listings to find suitable opportunities.

- **Offering Support and Resources:** Our freelancer job boards provide additional support and resources to freelancers and clients. This may include tutorials, guides, forums, or communities where freelancers can seek advice, share insights, and learn from others in their industry.

- **Ratings and Reviews:** Many freelancer job boards include rating and review systems that allow both clients and freelancers to build their reputation. Positive feedback and ratings encourage trust and credibility, helping clients make informed decisions and freelancers showcase their skills and reliability.

Overall, freelancer job boards provide a convenient and efficient platform for connecting clients and freelancers, offering numerous benefits such as access to a global talent pool, flexibility, cost-effectiveness, and networking opportunities.

# 2 Project Potential Clients

The "Freelancing job board" project serves a wide spectrum of possible customers, including people and companies looking for freelance help. The following are some possible customers of freelance job boards:

1. **Individual Freelancers:** Freelancers looking for projects in various fields such as writing, graphic design, web development, programming, marketing, and more.

2. **Entrepreneurs:** Individuals starting a new venture may need freelancers for tasks like logo design, website development, content creation, and marketing.

3. **Startups:** Startups often require specialized skills for specific projects but may not have the budget or workload to hire full-time employees. Our Freelancing job boards provide a flexible solution.

4. **Small Businesses:** Small businesses with limited resources may use freelancing job boards to find freelance talent for specific projects, avoiding the need for full-time hires.

5. **Digital Agencies:** Agencies may use freelancing platforms to find additional talent for client projects or to fill skill gaps within their teams

6. **E-commerce Businesses:** Online businesses may hire freelancers for tasks such as product photography, content creation, website development, and digital marketing.

7. **Social Media Influencers:** Influencers looking to enhance their online presence may hire freelancers for content creation, video editing, and social media strategy.

These specific examples highlight the niche areas where freelancing job boards can connect skilled professionals with organizations seeking their expertise. Because of its flexibility and agility, the "Freelancer job board" is a useful tool for clients. As industries continue to evolve, the demand for freelance talent in specialized fields is likely to grow.

# 3 Project Estimated Cost

The successful development and implementation of the "Freelancer job board" project require financial resources to cover various expenses. The estimated costs associated with this project are as follows:

- **Development Phase:** The initial development phase is projected to cost approximately BDT 5,500 to 10,000. This includes expenses related to database design, software development, and user interface design.

- **Infrastructure and Hardware:** The project requires server infrastructure and hardware to host the system. We will face server costs,costs of networking equipment.If project requires additional storage space,the cost of hard drives or other storage solutions should be factored in.In the same way, there may be additional hardware requirements. This could include specialized devices, security equipment, or other components.The cost of server setup and related equipment is estimated to be approximately BDT 10,000 to 13,500.

- **User Training:** Ensuring that users can effectively utilize the system is essential.The cost of user training can vary based on factors such as the complexity of the system, the number of users,training material, the training method chosen, and the duration of the training sessions.Training costs,including materials and training sessions, are estimated at BDT 12,000 .

- **Ongoing Maintenance:** After the system's implementation,database maintenance,technical Support ,security monitoring and ongoing maintenance and support are essential for its smooth operation. Monthly maintenance costs are estimated at BDT 6500.

- **Additional Expenses:** Other potential expenses, such as licensing fees, security enhancements, and scalability upgrades, should be considered as part of the project's overall budget.

It's important to note that the estimated costs provided here are approximate figures and may vary based on specific project requirements and decisions made during development.

# 4   Project Stakeholders

The "Freelancer job board" project involves various stakeholders who play essential roles in its planning, development, and operation. The key project stakeholders are as follows:

1. **Clients (Employers):** Individuals or businesses looking to hire freelancers for various projects. Clients are a fundamental part of "Freelancer Job Board" as they post jobs, review proposals, and pay for freelance services.

2. **Freelancers:** Independent professionals or small businesses offering their skills and services. Freelancers will use Freelancer job board to find clients, submit proposals, and work on projects.

3. **Payment Service Providers:** Companies providing payment processing services. As Freelancer job board facilitates financial transactions between clients and freelancers, payment service providers are crucial stakeholders.

4. **Maintenance and Support Team:** Ongoing maintenance and support of the system are essential. The maintenance team is responsible for ensuring the system's continued performance and resolving any issues that may arise.

5. **Management and Decision-Makers:** Individuals responsible for making strategic decisions regarding the project's implementation, including business owners and executives, are critical stakeholders. Their support and engagement are vital to the project's success.

6. **Marketing and Advertising Agencies:** Agencies responsible for promoting the system. Through various marketing channels, including digital advertising, content marketing, and strategic partnerships.

The collaboration and effective communication among these stakeholders are essential to ensure the project's successful development, implementation, and long-term operation. Their active involvement will contribute to the achievement of project objectives and benefits.

# 5 Project Details

The "Freelancer job board" project comprises several key components that collectively make it a robust and efficient solution for the airline industry. These components include:

- **Database Development:** The project involves designing and implementing a relational database that stores information related to users, jobs, transactions, messages, and other relevant data. This database forms the core of the system.

- **User Interface:** An easily navigable web-based front-end is designed to give freelancers a simple way to look for and apply for jobs, as well as to give companies a simple way to hire freelancers.By offering user-friendly profiles, a job selection option, and a simplified proposal submission process, the freelancer job board interface enables independent contractors by increasing their exposure and accessibility to prospective clients and possibilities.

- **Payment Gateway Integration:** Payment Gateway Integration in a freelancer job board streamlines secure transactions, offering convenience to clients and freelancers while ensuring a reliable and efficient payment process.

- **Reporting and Analytics:** Reporting and analytics in a freelancer job board provide valuable insights, helping administrators and users track project progress, measure performance, and make data-driven decisions for optimal platform efficiency and user success.

The collaborative efforts of the development team and stakeholders ensure that these project components are successfully integrated to create a comprehensive and effective "Freelancer job board."

# 6  Entity Relationship Diagram (ERD)

An Entity-Relationship Diagram (ERD) illustrates the structure of the database used in the "Freelancer job board" It displays the entities, relationships, and attributes within the database. Below is a simplified representation of the ERD:
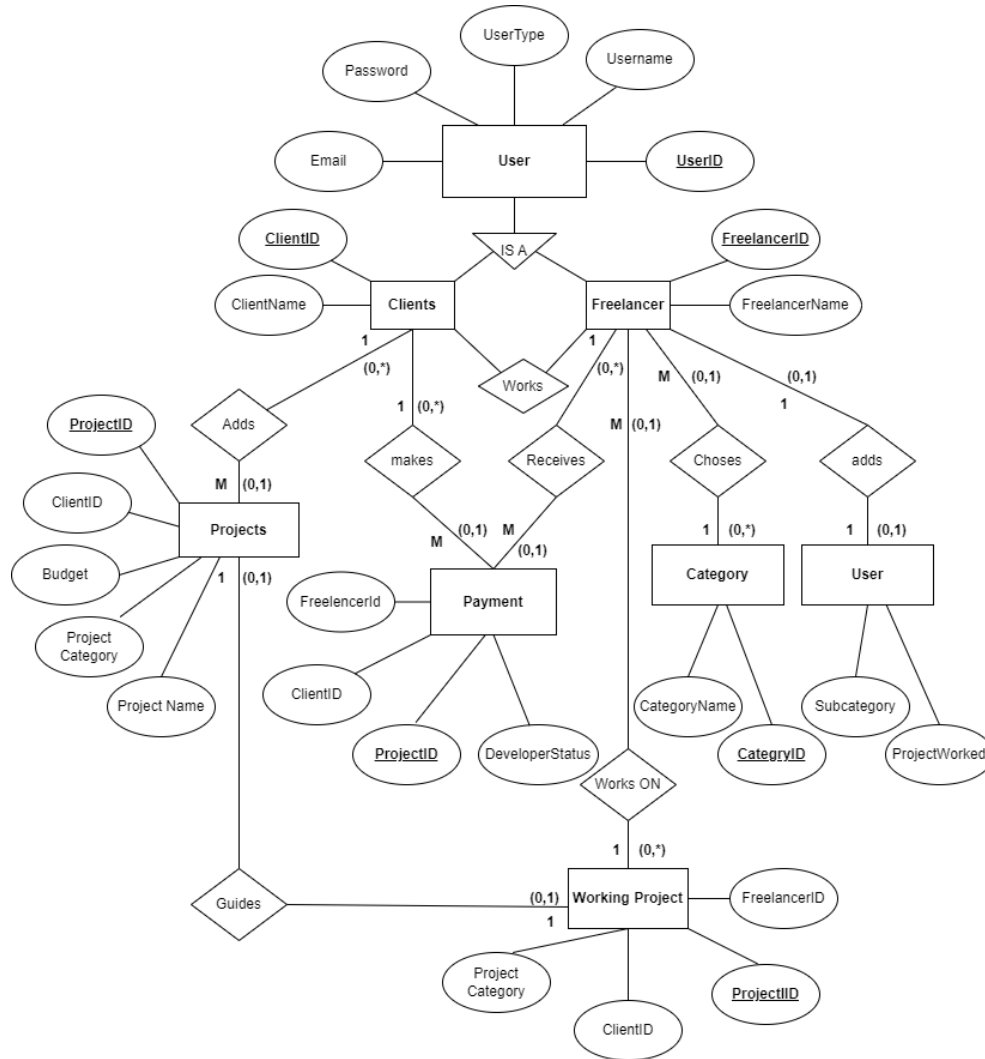


Figure 1: Entity-Relationship Diagram (ERD) for the Freelencer Job Board

# 7 Marketing Analysis

The 'Freelancer Job Board' project differentiates itself through several key features. 'Freelancer Job Board' stands out by offering :

1. **Transparent feedback:** : We implement a transparent feedback system allowing clients to rate freelancers and vice versa. This ensures accountability and helps users make informed decisions when selecting collaborators.

2. **Diverse job categories:**Our platform supports a wide range of job categories, catering to diverse industries and skill sets. This inclusivity broadens the scope of opportunities for both freelancers and clients.

3. **Enhanced User Experience:**We prioritize an intuitive and user-friendly interface, making it seamless for both clients and freelancers to navigate the platform, post or find jobs, and communicate effectively.

4. **Student-Friendly Pricing:** The platform offers discounted or student-friendly pricing models, making it financially accessible for students to use and benefit from the services.

5. **Flexible Work Arrangements:** The platform supports various work arrangements, including remote, part-time, and flexible schedules, catering to the evolving needs of modern freelancers and clients.

6. **Skill Development Programs:** A dedicated section for skill development programs ensures students have access to relevant courses and resources, helping them enhance their skill sets and stay competitive in the freelance market.

By incorporating these student-centric properties, 'Freelancer Job Board' creates a supportive and tailored environment for students looking to explore freelancing opportunities while balancing their academic commitments.

# 8    Identification of Our target customer base

The target customer base for 'Freelancer Job Board' comprises individuals and businesses involved in freelance work, seeking a platform that effectively connects freelancers with relevant opportunities. The primary segments within the target customer base are:

1. **Freelancers:** Students and recent graduates looking for part-time or project-based work to gain experience and build their portfolios.

2. **Small and Medium-sized Enterprises (SMEs):**

   Small businesses looking to hire freelancers for specific projects without the commitment of a full-time employee.

3. **Remote Work Enthusiasts:** Individuals and businesses embracing remote work arrangements, seeking freelancers who can contribute from anywhere in the world.

4. **Educational Institutions:** Universities and colleges looking to connect students with freelance opportunities relevant to their fields of study.

'Freelancer Job Board' targets freelancers, small businesses, entrepreneurs, hiring professionals, educational institutions, creative agencies, and remote work enthusiasts seeking a platform to connect, collaborate, and fulfill their freelance needs.

# 9 An assessment of current market software prices

an assessment of 'Freelancer Job Board's pricing reveals key insights for potential users.

1. **Pricing Models:** The platform employs diverse pricing models, including subscription plans and potential enterprise solutions.

2. **Competitive Analysis:** Comparative analysis with similar platforms assesses 'Freelancer Job Board's competitiveness, considering value, unique features, and service levels.

3. **Transparency and Flexibility:** Clear delineation of features and pricing tiers, coupled with flexibility, contributes to a positive user experience.

4. **Contacting the Vendor:** For accurate pricing, direct communication with the vendor is recommended to inquire about promotions, discounts, or customized pricing.

This concise assessment equips stakeholders with essential information on 'Freelancer Job Board's pricing structure.

# 10    Project Schema

The database schema for the "Freelancer job board" outlines the structure of the database tables and their associated attributes. Below are simplified examples of key tables with sample data presented in tabular form.

## 10.1    Users Table

The "Users" table stores information related to id,Name,E-mail of Users .

| User ID | Username | E-mail | FullName | Password |
|---------|----------|--------|----------|----------|
| 101 | john | john.smith@email.com | John Smith | 123556 |
| 102 | alice | alice.j@email.com | Alice jain | 789@56 |
| 103 | rbrown | rbrown@email.com | Rober Smith | Tangent5690 |

Table 1: Sample Data in the "User" Table

## 10.2    Freelancers Table

The "Freelancers" table stores information related to id,skills,portfolio of freelancer and ratings of his works.

| Freelancer ID | username | E-mail | password | user Id |
|---------------|----------|--------|----------|---------|
| 111 | john | john.smith@email.com | hasing | 101 |
| 112 | alice | alice.j@email.com | hasing | 102 |
| 113 | rbrown | rbrown@email.com | hasing | 103 |

Table 2: Sample Data in the "Freelancer" Table

## 10.3  Clients Table

The "Clients" table stores Clients information about his company ,industry user id location etc.

| Client ID | username | E-mail | password | user Id |
|-----------|----------|--------|----------|---------|
| 111 | john | john.smith@email.com | hasing | 101 |
| 112 | alice | alice.j@email.com | hasing | 102 |
| 113 | rbrown | rbrown@email.com | hasing | 103 |

Table 3: Sample Data in the "Client" Table

## 10.4  Jobs Table

The main goal of the "Jobs" table in a freelancer job board database is to store and manage information about available jobs or projects posted by clients

| Client ID | JobID | Title | Freelancer Id | Skills Required |
|-----------|-------|-------|---------------|-----------------|
| 111 | 209 | Web Development Project | 111 | HTML,JavaScript |
| 123 | 278 | Graphic Design for Logo | 112 | Adobe Illustrator |
| 178 | 340 | SEO Optimization Project | 113 | Content Marketing |

Table 4: Sample Data in the "Jobs" Table

## 10.5  Applied Jobs Table

The main goal of the "Applied Jobs" table in a freelancer job board database is to store and manage information about available jobs or projects posted by clients

| Client ID | JobID | file-resume | Freelancer Id | apply Id |
|-----------|-------|-------------|---------------|----------|
| 111 | 209 | uploads/resume65ba0dda78589pre.pdf | 111 | 0001 |
| 123 | 278 | uploads/resume65ba0dda78589pre.pdf | 112 | 00002 |
| 178 | 340 | uploads/resume65ba0dda78589pre.pdf | 113 | 00003 |

Table 5: Sample Data in the "Applied Jobs" Table

## 10.6   Project Table

The main goal of the " Project" table in a freelancer job board database is to store and manage information about available jobs or projects posted by clients

| Client ID | JobID | project status | Freelancer Id | transaction id |
|-----------|-------|----------------|---------------|----------------|
| 111 | 209 | 102 | yes | 111 |
| 123 | 278 | 103 | yes | 112 |
| 178 | 340 | yes | 104 | 113 |

Table 6: Sample Data in the "project" Table

These tables provide a visual representation of the sample data within the "Freelancer" , "Clients" and "Jobs" tables.

# 11    Searching Design

The "Freelancer job board" offers advanced search capabilities to users, allowing them to find and select freelancing related job based on specific criteria. The design includes the following search options:

- **Category Selection:** When clients post a project or search for freelancers, they can typically choose a specific category that best fits their needs. Categories often include a wide range of services, such as graphic design, web development, writing, marketing, and more.

- **Filtered Results:** After selecting a category, the platform will present filtered results that match the chosen category. This helps clients find freelancers who specialize in the specific type of work they are looking for.

- **Browsing Freelancer Profiles:** Clients can then browse through the profiles of freelancers within the selected category. Freelancer profiles typically showcase their skills, portfolio, past work, reviews, and other relevant information.

- **Project Posting within a Category:** When clients post a project, they usually need to specify the category and subcategory to ensure that their project reaches the right pool of freelancers with the appropriate skills.

- **Skill Tags:** Freelancers often tag their profiles with relevant skills, making it easier for clients to find them through searches. Clients can also use these skill tags to narrow down their search to freelancers with specific expertise.

The searching design ensures that users can easily find the information they need, enhancing a seamless and effective project discovery experience.

# 12 Conclusion and Future Work

## 12.1 Conclusion

The "Freelancer Job Board" project strives to redefine the landscape of freelancing by presenting a holistic solution for connecting clients with talented freelancers. With its intuitive interface, cutting-edge features, and robust reporting and analytics capabilities, the platform aims to streamline the freelance hiring process. The user-centric design ensures a seamless experience for both clients and freelancers, fostering a dynamic and efficient marketplace for diverse skill sets.

The successful execution of this project will significantly enhance operational efficiency, user satisfaction, and overall prosperity for both clients and freelancers. It aims to streamline the freelancing process, offering accessibility and convenience to users while empowering clients with data-driven insights for effective decision-making in their projects. The platform envisions creating a harmonious ecosystem where freelancers and clients can seamlessly connect, collaborate, and thrive in the evolving landscape of remote work.

The partnership between stakeholders, developers, and sustained system support is key to ensuring the Freelancer Job Board's success. This collaborative approach aims to create a dynamic platform that meets the evolving needs of freelancers and clients, fostering seamless connections and successful collaborations.

## 12.2 Limitations and Future Work

Looking ahead, the "Freelancer Job Board" can undergo expansions to introduce additional features and functionalities that will enhance the freelancing experience. Some potential future works include:

- **Ratings and Reviews:** Many freelancer job boards include rating and review systems that allow both clients and freelancers to build their reputation. Positive feedback

and ratings encourage trust and credibility, helping clients make informed decisions and freelancers showcase their skills and reliability.

- **Payment Gateway Integration:** Payment Gateway Integration in a freelancer job board streamlines secure transactions, offering convenience to clients and freelancers while ensuring a reliable and efficient payment process.

These future works aim to solidify the "Freelancer Job Board" as a forward-thinking platform that evolves in tandem with the dynamic landscape of freelancing, offering innovative solutions to meet the diverse needs of both clients and freelancers.