

A Project Report On Freelancing Platform with Q&A

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This Project report has been submitted in fulfillment of the requirements for the Degree of Bachelor of Science in Software Engineering.

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APPROVAL

This project titled on "Freelancing Platform With Q&A", submitted by Rakib Mahbub Khan, ID: 173-35-2263 to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

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DECLARATION

I hereby declare that I have done this project under the supervision of **Khalid Been Badruzzaman Biplob**, Senior Lecturer, Department of Software Engineering, Daffodil International University. I also declare that this project or any part of this is unique and has not been submitted elsewhere for the award of any degree.

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ACKNOWLEDGEMENT

I would like to express my heartfelt gratitude to the almighty Allah who offered upon my family and me kind care throughout this journey until the fulfilment of this project.

Also, I would like to thank my honorable supervisor **Khalid Been Badruzzaman Biplob**, Senior Lecturer, for his proper guidance, help, support, encouragement and co-operation. Without whom the project work would not be complete.

ABSTRACT

Freelancing has become a significant career option today. Not just among adult, people at their old-age, the young students too have started pursuing their career in the field of freelancing. With the rise in the scope of freelancing, the industry is seen growing vastly. The question here arises about what has led to such a massive change? How and why can we say that the future of work lies in freelancing? Here are some viewpoints that prove that freelancing is the future of work!

The youth may engage on a full-time basis for a job. But the new generation people have grown with their smartphones at all time. They have a desperate craving for novelty, connection and immediacy. The expectations of these millennials are so high that they will not like working at a company for a decade and waiting for a decent hike. While they think for their career, they expect much more than their experience. They hold a frustration of slow success. An added reason to why this flexibility exists is the ease of getting a freelancing task. All they need to do is search online, and they will be able to see many freelance jobs posted on several platforms. They end up connecting with the ultimate customer evading the middlemen and earning huge.

Freelancing allows a person to earn as much as they want. Their earnings are entirely based on the time they invest and the output they produce. Unlike a regular job, it is not constant no matter how much more or less they work. Thus, more the efforts you put in, more would be the earnings.

So this project will help all the youth people to get the job which they're skilled for and gain as much as they provide their services and also they person who needs the service, he/she will be benefited too by choosing the perfect candidate for their need.

Also, if any user faces any difficulties during work or any time, the can get help by the other users in Q&A section.

LIST OF FIGURES

Figure	Page No.
Figure 1.4: Proposed System Model	14
Figure 3.1: Agile Model	24
Figure 3.2: Use Case Diagram	25
Figure 3.4.1: Activity Diagram: Register	37
Figure 3.4.2: Activity Diagram: Login	38
Figure 3.4.3: Activity Diagram: Dashboard	39
Figure 3.4.4: Activity Diagram: Post a job	40
Figure 3.4.5: Activity Diagram: Browse Job	41
Figure 3.4.6: Activity Diagram: Send Proposal	42
Figure 3.4.7: Activity Diagram: User Profile	43
Figure 3.4.8: Activity Diagram: Workstream	44
Figure 3.4.9: Activity Diagram: Add Question	45
Figure 3.4.10: Activity Diagram: Answer Question	46
Figure 3.4.11: Activity Diagram: Logout	47
Figure 3.5.1: Sequence Diagram: Register and login	48
Figure 3.5.2: Sequence Diagram: Post a job	49
Figure 3.5.3: Sequence Diagram: Send Proposal	50
Figure 3.5.4: Sequence Diagram: Ask a Question	51
Figure 3.5.5: Sequence Diagram: Answer Question	52
Figure 3.5.6: Sequence Diagram: User Profile	53
Figure 3.5.7: Sequence Diagram: Workstream	54

Figure 3.6: Entity Relationship Diagram	
Figure 4.1: Feature Priority Table	56
Figure 4.2.3: Testing Schedule	57
Figure 4.2.4: Traceability Matrix	62
Figure 5.1: UI: Registration	72
Figure 5.2: UI: Login	73
Figure 5.2: UI: Post a Job	74
Figure 5.2: UI: Browse Jobs	75
Figure 5.2: UI: Send Proposal	76
Figure 5.2: UI: Workstream	77
Figure 5.2: UI: Ask a Question	78
Figure 5.2: UI: Answer Question	79
Figure 5.2: UI: User Profile	80

LIST OF TABLES

Table 4.1: Features Priority Table	
Table 4.2: Testing Schedule	
Table 4.3: Traceability Matrix	

LIST OF CONTENTS

CONTENTS

DECLARATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	v
LIST OF FIGURES	vi
LIST OF TABLES	viii
LIST OF CONTENTS	ix
CHAPTER 1	1
INTRODUCTION	1
1.1 Project Overview	1
1.2 Project Purpose	2
1.3 Stakeholders	3
1.4 Proposed System Model	4
1.5 Modules of This System	5
1.6 Objective	7
CHAPTER 2	8
REQUIREMENT ENGINEERING	8
2.1. Functional Requirement (FR):	8
2.1.1 Registration	8
2.1.2 Login/logout	8
2.1.3 Dashboard	9
2.1.4 Browse Jobs	9
Browse Jobs	9
2.1.5 Post A Job	9
Post A Job	9
2.1.6 Send Proposal	9
Send Proposal	9
2.1.7 Browse Question	10

Browse Question	10
2.1.8 Ask Question	10
Ask Question	10
2.1.9 Answer Question	10
Answer Question	10
2.1.10 Workstream	10
Workstream	10
2.1.10 User Profile	11
User Profile	11
2.2. Non-Functional Requirement (NFR):	12
2.2.1 Performance:	12
2.2.2 Capacity:	12
2.2.3 Reliability:	12
2.2.4 Performance:	13
2.2.5 Capacity:	13
2.2.6 Reliability:	13
CHAPTER 3	14
SYSTEM ANALYSIS DESIGN AND SPECIFICATION	14
3.1 Development Model	14
3.2 Use Case Diagram	15
3.3 Use Case Description	16
3.4 Activity Diagram	27
3.5 Sequence Diagram	38
3.6 Entity Relationship Diagram	45
CHAPTER 4	46
SYSTEM TESTING	46
4.1 Feature Testing	46
4.2 Test Strategies	47
4.3 Testing Environment	51
4.4 Test Cases	52
CHAPTER 5	61
USER MANUAL	61
X	Daffodil International University

5.1 R	egistration	61
5.2 L	ogin	62
5.3 P	ost a Job	63
5.4 B	rowse Job	64
5.5 Se	end Proposal	65
5.6 W	Vorkstream	66
5.7 A	sk a Question	67
5.8 A	nswer Question	68
5.9 U	ser Profile	69
СНАРТЕ	₹6	71
CONCL	LUTION	71
6.1	Project Summary	71
6.2	Limitations	72
6.3	Future Scope	73
REFEREN	NCE	74
PLAGIAR	ISM REPORT	75

CHAPTER 1

INTRODUCTION

1.1 Project Overview

The unemployment problem is one of the greatest problems of our country. At present a large part of the active educated and skilled people in our country are unemployed. In other words, there are fewer jobs and facilities for work than there are people who can work and are ready to work. As a result, many people are unemployed and have to live in utter poverty.

So, my project is designed for those unemployed people to show their skills and provide their services to the other users.

JOBKOI is the open-source platform that will help our youths to gain the achievements that they are skilled for. This platform is also a big support for the knowledge gainers who stuck in a middle of work and couldn't get any supports to complete their tasks. This will work for each buyer, seller and the fresh new commers.

This system will work as a medium for the service provider and the consumer. The consumer will post the services he/she wants and the service provider will serve the service. They will contact each other by private chat/email/phone. The both users can also be a part of the Q&A section, where they can ask anything and other users can answer those questions.

1.2 Project Purpose

JOBKOI will help each and every of its users to make them safe and work remotely form their home. Because we know, the novel corona virus has globally created a big economical problem for every small or big businesses. So that the small countries are running towards to a great disaster.

The spread of the COVID-19 pandemic, the partial lockdown, the disease intensity, weak governance in the healthcare system, insufficient medical facilities, unawareness, and the sharing of misinformation in the mass media has led to people experiencing fear and anxiety. The present study intended to conduct a perception-based analysis to get an idea of people's psychosocial and socioeconomic crisis, and the possible environmental crisis, amidst the COVID-19 pandemic in Bangladesh.

Users also can ask or answer, vote and mark as favorite any kind of questions form the "Ask a question" area. The best solution will be mark as a best answer.

So, by using this platform, people of this country would be beneficial and earn a lot of international currency form home by keeping them safe during this pandemic.

1.2.1 Background

The term "freelance" dates back to the 1800s when a "freelance" referred to a medieval mercenary who would fight for whichever nation or person paid them the most. The term "lance" referred to the long weapon that knights on horseback used to knock opponents off of their horses (think jousting). Over time, the term continued to mean "independent" but left the battlefield to be applied to politics and finally work of any kind.

Freelancing provides a lot of flexibility and control to the individual. Most freelancers choose their own hours, the work that they do, the clients they work with, and may even be able to work remotely.

Freelancing is also a form of entrepreneurship, which means the freelancer has total control of their earning potential. Freelancers aren't locked into a salary, and so they can earn as much as they are able to bill to their clients.

Freelancing provides a lot of variety in the type of work you can do, too. If you are someone with a lot of interests and are drawn to trying new things, freelancing can help you explore all kinds of projects and industries.

Historically, freelancing isn't something people typically do forever. They either hire other freelancers or employees to build a full agency, they build their own products to replace their freelance income, or they go back to working full time.

Freelancing provides the flexibility many people want in order to figure out their next career move.

1.2.2 Benefits & Beneficiaries

- 1. Freedom Of Work.
- 2. Boost up Your Skill Set.
- 3. Various Sources of Income.
- 4. Financial Development.
- 5. The permanent WFH Life.
- 6. Global Exposure.
- 7. Communication with international clients.
- 8. Production of Brilliant Quality Projects.
- 9. Improve your interpersonal skills.
- 10. Get solution for any kind of questions from the experts.
- 11. Competition for sharing knowledge

1.3 Stakeholders

According to project management, project stakeholders "a person, group or organization will be influenced or affected by in a decision, activity or outcome of the project."

This project will have two stakeholders:

- Buyer
- Seller

Buyer will post a job and seller will send a proposal to the buyers post and after having a conversation the buyer will award the job to the seller.

1.3.1 Buyer

Buyer Will normally post a job and find the perfect candidate and award the job to the seller. Buyer also can ask or answer, vote and mark as favorite any kind of questions form the "Ask a question" area.

1.3.2 Seller

Seller will search for the jobs form the "Browse jobs" area make a cover letter, bargain and send proposal to the job post. Sellers can also can ask or answer any kind of questions form the "Ask a question area"

1.4 Proposed System Model

I designed this model to visualize and control the system's architecture.

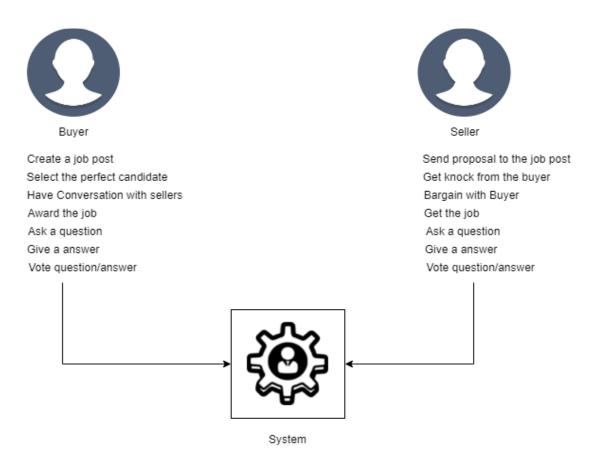


Figure 1.4: Proposed system model

1.5 Modules of This System

• Registration: For user authentication

• Login: For user authentication

• Dashboard: For showing the user dashboard

• About Page: For knowing about the platform system

• Browse Job: For showing all the posted jobs

• Job Posting: For posting a job

• Sending Proposal: For sending the posts porposal

• Show Questions: For showing all the questions

• Ask a Question: For create a new question

• Answer a Question: For answer a question

• Live Chat: Live chat for both buyer and seller

• User Profile: For showing user's profile

1.5.1 Focused Modules

• Registration:

The user will register by giving Name, Email, Password, Mobile number, Birth Date and User role.

Every data will be stored in database

• Login:

After providing the correct username and password, the user logs in to the system homepage. If the user enters a wrong username or password, then he cannot enter into the system.

• Dashboard:

The dashboard is the first landing page for the platform. It is mainly created to show users current status.

Browse Job:

All the jobs will be showed in descending order so that the sellers can view all the latest posted jobs.

• Job Posting:

The buyers will create a job form this page. Buyer can attach their necessary documents through this page.

• Sending Proposal:

Sellers can send proposal to the buyer's post, and the buyer can only see the proposals. No sellers would be able to see the sending proposals

Browse Questions:

All the questions will be showed in descending order so that the users can view all the latest posted jobs.

• Ask a Question:

The buyers will create a question form this page. Buyer can attach their necessary documents through this page.

Answer a Question:

In this module the question details will be showed and the other users can answer, vote and mark as a favorite answer. The asker will be able to mark the best answer in this module.

Workstream:

This module is for connecting both buyer and seller for their project as a conversation. Users can knock bargain and award the job though this workstream module.

• User Profile:

This Module is to show user profile, their hourly charges user rating and other stuffs. Users can also edit and update their profile.

1.6 Objective

"Freelancing Platform" is a web application, where buyers can work with different seller for their necessary needs and seller can help/sell their services to the buyers. Generally, the buyer will post a job and the seller will send proposal through the post. The buyer will contact with the seller from the bidder list by viewing his profile. Also, if any user faces any difficulties during work or any time, they can get help by the other users in Q&A section.

CHAPTER 2

REQUIREMENT ENGINEERING

2.1. Functional Requirement (FR):

Functional requirement defines a function of a system, where a function is described as a specification of behavior. The functional requirement can be a calculation, data manipulation, business process, user interaction, or any other specific functionality which defines what function a system is likely to perform. Now, I am showing functional requirements associating with this project:

2.1.1 Registration

FR 1	Registration
Description	Users must be registration for login to the system.
Stakeholders	Buyer, Seller

2.1.2 Login/logout

FR 2	Login / logout
-	Login is compulsory for this system. Users must login before using the system.
Stakeholders	Buyer, Seller

2.1.3 Dashboard

FR 3	Dashboard
Description	The dashboard is the first landing page for the platform. It is mainly created to show users current status.
Stakeholders	Buyer, Seller

2.1.4 Browse Jobs

FR 4	Browse Jobs
1	All the jobs will be showed in descending order so that the sellers can view all the latest posted jobs.
Stakeholders	Seller

2.1.5 Post A Job

FR 5	Post A Job
1 1	The buyers will create a job form this page. Buyer can attach their necessary documents through this page.
Stakeholders	Buyer

2.1.6 Send Proposal

FR 6	Send Proposal
Description	Sellers can send proposal to the buyer's post, and the buyer can only see the proposals. No sellers would be able to see the sending proposals
Stakeholders	Seller

2.1.7 Browse Question

FR 7	Browse Question
1 1	All the questions will be showed in descending order so that the users can view all the latest posted jobs.
Stakeholders	Seller

2.1.8 Ask Question

FR 8	Ask Question
Description	The buyers will create a question form this page. Buyer can attach their necessary documents through this page.
Stakeholders	Seller, Buyer

2.1.9 Answer Question

FR 9	Answer Question
Description	In this module the question details will be showed and the other users can answer, vote and mark as a favorite answer. The asker will be able to mark the best answer in this module
Stakeholders	Seller, Buyer

2.1.10 Workstream

FR 10	Workstream
Description	In this module the question details will be showed and the other users can answer, vote and mark as a favorite answer. The asker will be able to mark the best answer in this module
Stakeholders	Seller, Buyer

2.1.10 User Profile

FR 11	User Profile
Description	Connect both buyer and seller for their project as a conversation. Both can knock bargain and award the job though this workstream module.
Stakeholders	Seller, Buyer

2.2. Non-Functional Requirement (NFR):

Non-Functional Requirement (NFR) specifies the quality attribute of a software system. They judge the software system based on Responsiveness, Usability, Security, Portability and other non-functional standards that are critical to the success of the software system. Now, I am showing non-functional requirements associating with this project:

2.2.1 Performance:

NFR 1	All services will be provided without interruption by the system
Description	When users browse to perform a particular job and then this outcome appears must be faster.
Stakeholders	Buyer, Seller

2.2.2 Capacity:

NFR 2	System will able to record up to 10000 profiles.
Description	The information of this System will be stored in the database.
Stakeholders	Buyer, Seller

2.2.3 Reliability:

NFR 3	The system should be able to fulfill all of its functions flawlessly.
Description	The system should complete the required tasks efficiently, when some important actions are performed, the completion has to be done by confirmation. The System update is necessary and regularly.
Stakeholders	Buyer, Seller

2.2.4 Performance:

NFR 4	All services will be provided without interruption by the system
Description	When users browse to perform a particular job and then this outcome appears must be faster.
Stakeholders	Buyer, Seller

2.2.5 Capacity:

NFR 5	System will able to record up to 10000 profiles.
Description	All the information of this System will be stored in the database.
Stakeholders	Buyer, Seller

2.2.6 Reliability:

NFR 6	The system should be able to fulfill all of its functions flawlessly.
	The system should complete the required tasks efficiently, when some important actions are performed, the completion has to be done by confirmation. The System update is necessary and regularly.
Stakeholders	Buyer, Seller

CHAPTER 3

SYSTEM ANALYSIS DESIGN AND SPECIFICATION

3.1 Development Model

Because of this project is a freelancing based application, I had to check various sides to make the application flawless and run the system smoothly. So, I choose agile model due to its dexterity. This model helped me a lot to fix bugs and resolve the issues. This project is primarily designed for flexible use. So that the system can be updated efficiently without major changes Part of my project. The Agile model gets us the chance to create a system that can be easily updated, frequently tested for efficiency, quality products, and in short development time.

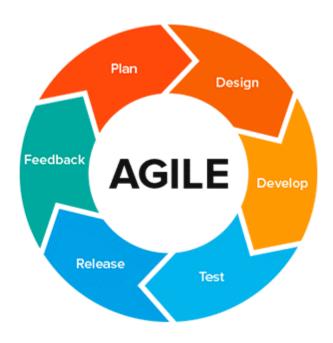


Figure 3.1: Agile Model

3.2 Use Case Diagram Register Login extends extends Forgot Password Logout Dashboard Post a Job), ``. includeextends Add title include Add budget Publish Add description Add attachment Browse jobs extends Delete Edit Seller Buyer Send proposal Project details ; extends Send Add cover letter Add budget User profile extends Edit profile extends Delete account Logout from other devices (Check availability) include Workstream Highlight unread messages Ask a question Add descriptio Add title Answer question include Answer Question details Add answer

Figure 3.2: Use Case Diagram

3.3 Use Case Description

3.3.1 Register

Users must register by his/her valid information to get access to use the platform.

Use case ID	UC-01		
Use Case Name	Register		
Goal	To creat	e a new user profile in the system.	
Preconditions	The use	r must have an email address.	
Primary Actor	Buyer, Seller		
Secondary Actor			
Trigger	Button		
Description / Main	Step	Action	
Success Scenario	1	To enter into the system	
	2	To create a new user profile	
Post Condition	Users can Log In.		
Alternative Flow	N/A		

3.3.2 Login

All the users have to login to enter the platforms dashboard. If they're already logged in, they will be direct redirected to the dashboard without login.

Use case ID	UC-02			
Use Case Name	Login	Login		
Goal	Login	to the System		
Preconditions	User m	nust be Register with the valid information		
Primary Actor	Buyer,	Buyer, Seller		
Secondary Actor				
Trigger	Button	Button		
Description / Main	Step	Step Action		
Success Scenario	1	To enter into the system.		
	2	To access all features available for a user.		
Post Condition	Users	can Log Out anytime.		
Alternative Flow	Sign Up			

3.3.3 Dashboard

Dashboard will be the main / first page of this platform. Users will get general information form this section

Use case ID	UC-03	UC-03		
Use Case Name	Dashb	Dashboard		
Goal	To Ent	er the main page		
Preconditions	User m	nust be Login with email and password.		
Primary Actor	Buyer,	Buyer, Seller		
Secondary Actor				
Trigger	Button	Button		
Description / Main	Step	Action		
	1	Entering to the first page.		
	2	To view the user current status.		
Post Condition	N/A	N/A		
Alternative Flow	N/A	N/A		

3.3.4 Post a Job

After registering as a buyer, the buyer will be logged in, then in the "Post A Job" menu, there is a form, where the buyer will post the job that contains the valid information about what services they need or which work the need to get done.

Use case ID	UC-04			
Use Case Name	Post a	Post a Job		
Goal	Posting	a new job with tittle, description and budget		
Preconditions	Buyer n	Buyer must be post a job with valid information.		
Primary Actor	Buyer	Buyer		
Secondary Actor				
Trigger	Button	Button		
Description / Main	Step	Action		
	1	To create / post a new job.		
Post Condition	N/A			
Alternative Flow	N/A	N/A		

3.3.5 Browse Jobs

After posting the job, the post will be directed to the "Browse Jobs" section, where the sellers will browse the jobs, that they are skilled to.

Use case ID	UC-05			
Use Case Name	Brows	Browse Jobs		
Goal	Brows	e all jobs		
Preconditions	N/A			
Primary Actor	Seller	Seller		
Secondary Actor				
Trigger	Post tit	Post title		
Description / Main	Step	Action		
	1	To browse all the jobs.		
	2	To view all the job description.		
Post Condition	N/A			
Alternative Flow	N/A	N/A		

3.3.6 Send proposal

After the buyer posts a job, the seller will browse job. If the seller finds any jobs they are interested to, they can send a proposal by writing a cover letter and the budget for the project.

Use case ID	UC-06			
Use Case Name	Send proposal			
Goal	Send p	roposal for the interested posts.		
Preconditions	N/A	N/A		
Primary Actor	Seller	Seller		
Secondary Actor				
Trigger	Button			
Description / Main	Step	Action		
	1	To make a proposal with the buyer		
	2	The proposal will be shown to the buyer's view.		
Post Condition	N/A			
Alternative Flow	N/A			

3.3.7 User Profile

Every user's will have a profile, where they can add their works, edit the information, change the profile picture, Logout from multiple devices and also delete account

Use case ID	UC-07			
Use Case Name	User P	User Profile		
Goal	View t	he user's profile		
Preconditions	N/A			
Primary Actor	Seller,	Seller, Buyer		
Secondary Actor				
Trigger	Button	Button		
Description / Main	Step	Action		
	1	To view the user's profile.		
	2	To edit, update and delete the user's account.		
Post Condition	N/A	N/A		
Alternative Flow	User's	User's name		

3.3.8 Workstream

Workstream is the place where the buyer and the seller both connects. Here Buyer and seller will have a conversation about their work. Also they can bargain if they want.

Use case ID	UC-08			
Use Case Name	Works	Workstream		
Goal	To con	nect between buyer and seller		
Preconditions	N/A			
Primary Actor	Seller,	Seller, Buyer		
Secondary Actor				
Trigger	Button			
Description / Main	Step	Action		
	1	To have a chat between buyer and seller		
	2	The buyer and seller will have conversation about their project		
Post Condition	N/A	N/A		
Alternative Flow	User's profile			

3.3.9 Ask a Question

Ask a question is a unique section for the freelancing platform. Here every user can take the advantages by the experts by asking a question by any topics they want. This section can be a big relief for the fresher and the students.

Use case ID	UC-09			
Use Case Name	Ask a	Ask a Question		
Goal	To get	the solution where users stuck		
Preconditions	N/A			
Primary Actor	Seller,	Buyer		
Secondary Actor				
Trigger	Button			
Description / Main	Step	Action		
	1	To ask a question about any kind of problems		
	2	Vote and mark favorite the question		
Post Condition	N/A	N/A		
Alternative Flow	N/A			

3.3.10 Answer Question

25

Answer question will be the section, where user will view the question details, vote the question and see the other answers. Also, the best answer will be marked as "

"."

Use case ID	UC-10			
Use Case Name	Answe	Answer Question		
Goal	To get	the answers from experts.		
Preconditions	N/A			
Primary Actor	Seller,	Seller, Buyer		
Secondary Actor				
Trigger	Questi	Question title		
Description / Main	Step	Action		
	1	To get the answer of the question.		
	2	Vote the answer		
Post Condition	N/A	N/A		
Alternative Flow	N/A			

3.3.11 Logout

User (Contributor & Student) should log out from the system click on logout button.

Use case ID	UC-11					
Use Case Name	Log Out					
Goal	To termi	nate the session from the system.				
Preconditions	User mus	st be Logged In with username and password.				
Primary Actor	Buyer, S	eller				
Secondary Actor						
Trigger	Button					
Description / Main	Step	Action				
Success Scenario						
	1	To log out from the system				
	2 To finish user session					
Post Condition	Users can Log In anytime.					
Alternative Flow	Close W	indow.				

3.4 Activity Diagram

3.4.1 Register

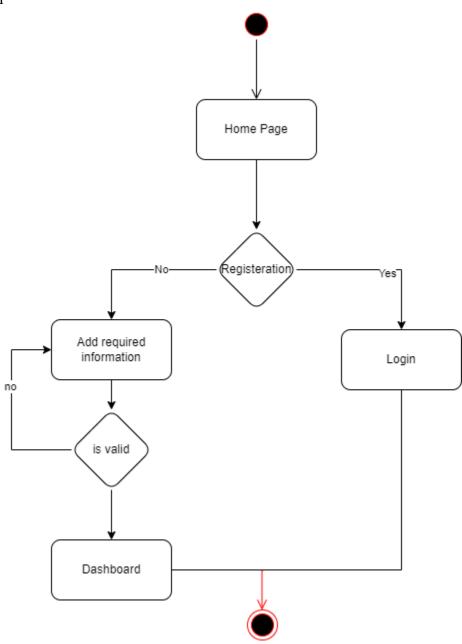


Figure 3.4.1: Activity Diagram: Register

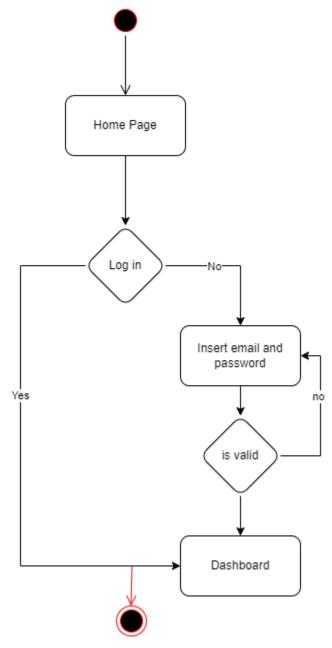


Figure 3.4.2: Activity Diagram: Login

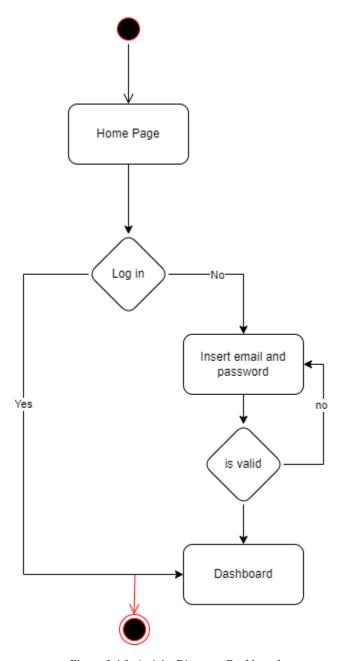


Figure 3.4.3: Activity Diagram: Dashboard

3.4.4 Post a Job

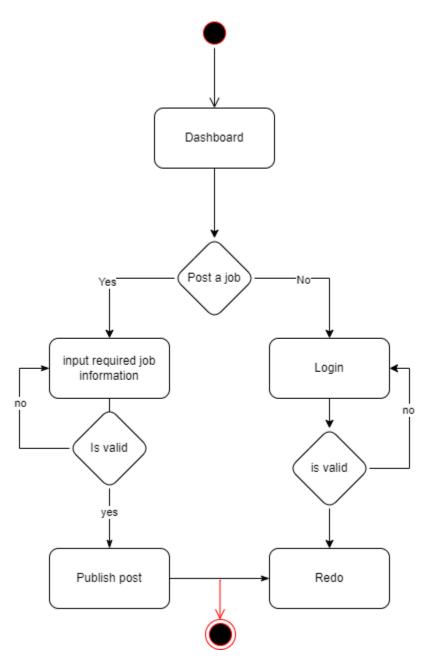


Figure 3.4.4: Activity Diagram: Post a job

3.4.5 Browse Jobs

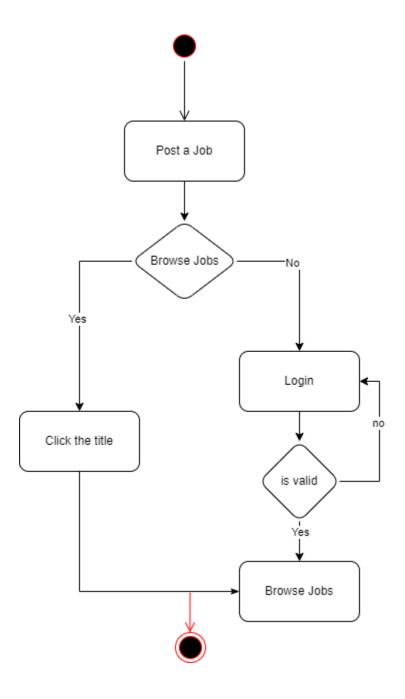


Figure 3.4.5: Activity Diagram: Browse Jobs

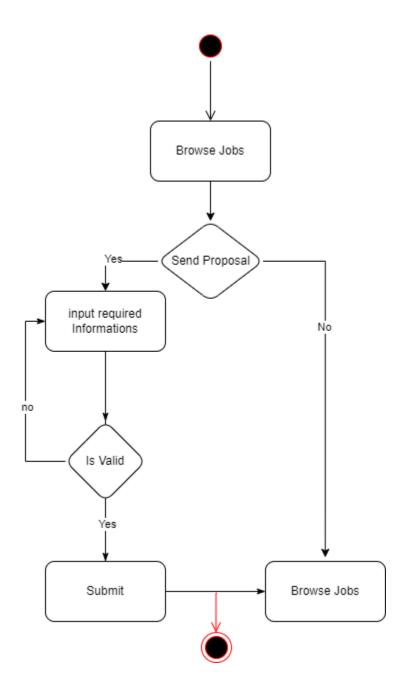


Figure 3.4.6: Activity Diagram: Send Proposal

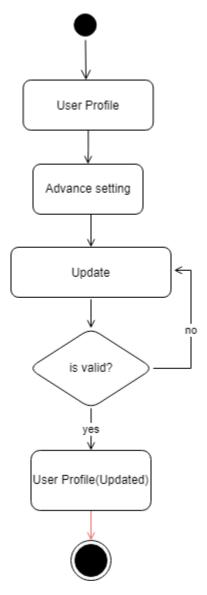


Figure 3.4.7: Activity Diagram: User Profile

3.4.8 Workstream

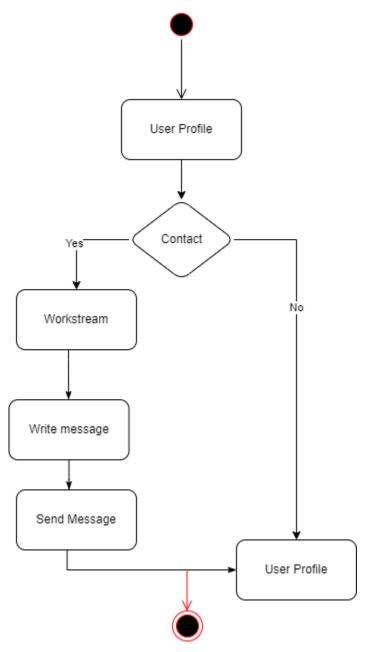


Figure 3.4.8: Activity Diagram: Workstream

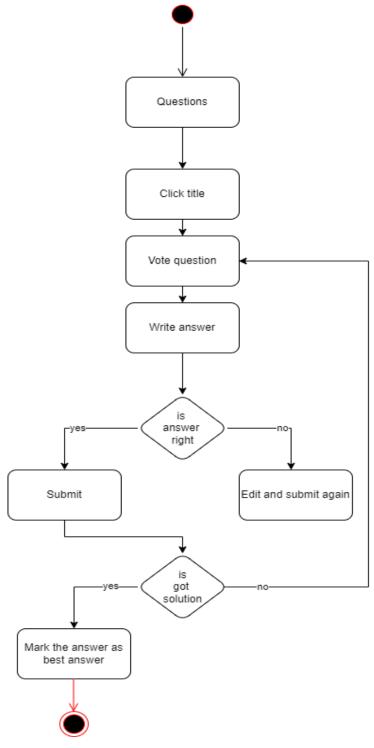


Figure 3.4.9: Activity Diagram: Ask a Question

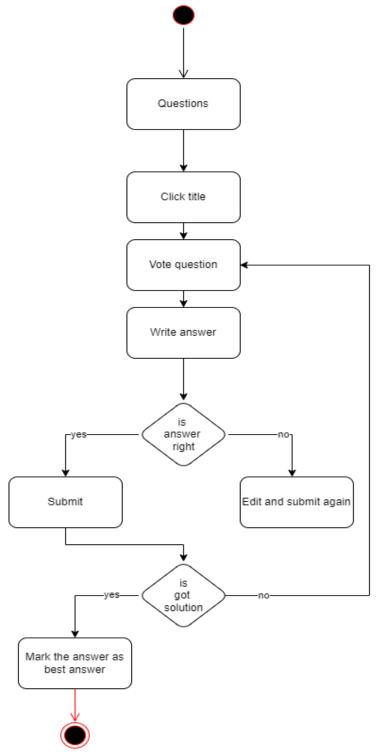


Figure 3.4.10: Activity Diagram: Answer Question

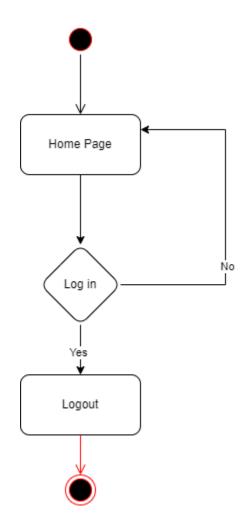


Figure 3.4.11: Activity Diagram: Answer Question

3.5 Sequence Diagram

3.5.1 Register and Login

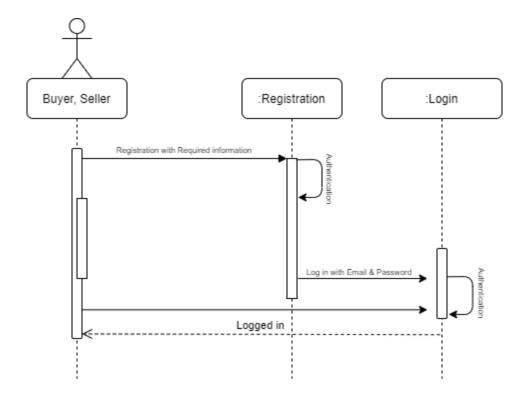


Figure 3.5.1: Sequence Diagram: Register and login

3.5.2 Post A Job

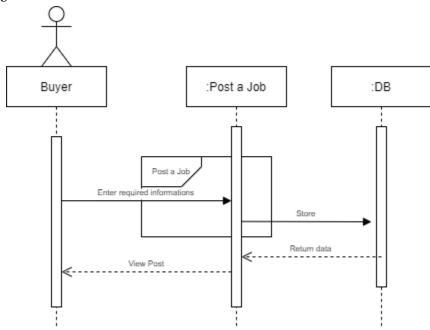


Figure 3.5.2: Sequence Diagram: Post A Job

3.5.3 Send Proposal

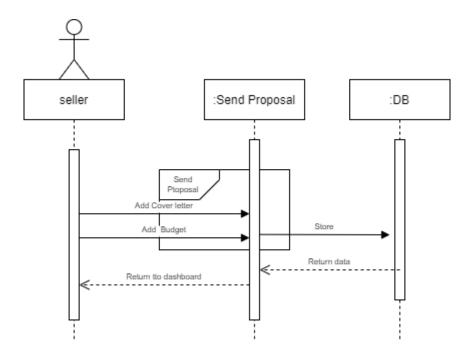


Figure 3.5.3: Sequence Diagram: Send Proposal

3.5.4 Ask a Question

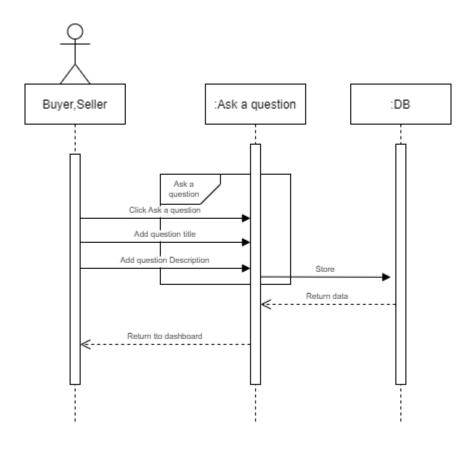


Figure 3.5.4: Sequence Diagram: Ask a Question

3.5.5 Answer Question

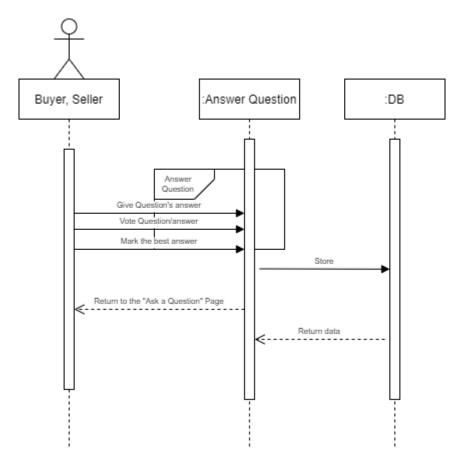


Figure 3.5.5: Sequence Diagram: Answer Question

3.5.6 User Profile

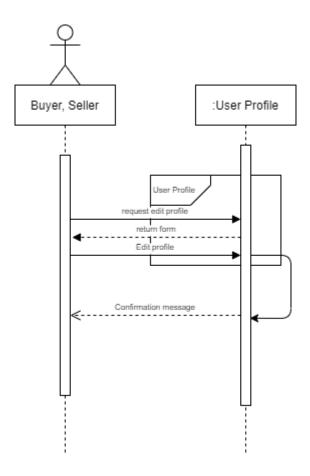


Figure 3.5.6: Sequence Diagram: User Profile

3.5.7 Workstream

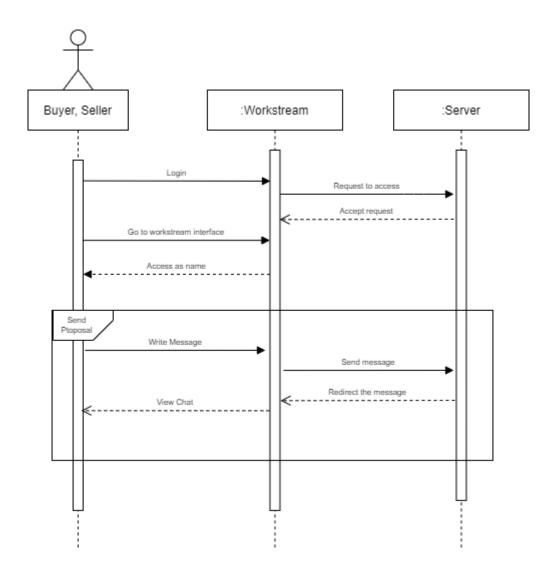


Figure 3.5.7: Sequence Diagram: Workstream

3.6 Entity Relationship Diagram

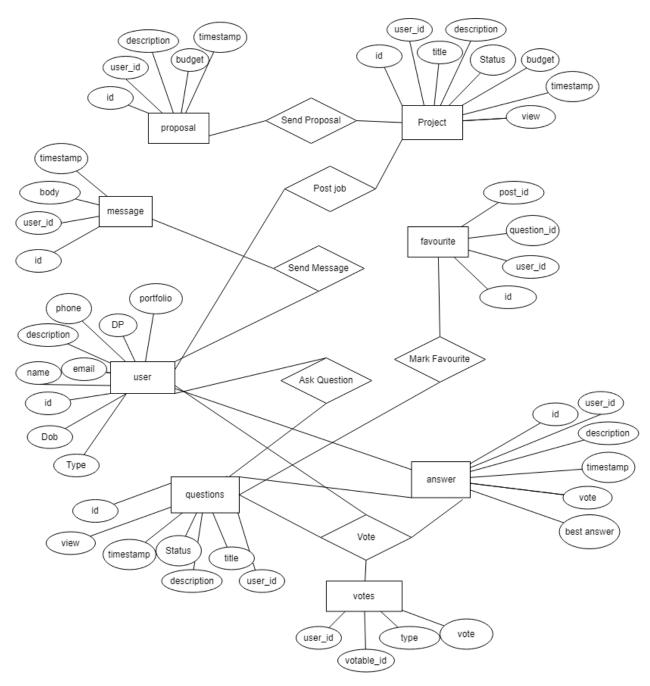


Figure 3.6: Entity Relationship Diagram

CHAPTER 4 SYSTEM TESTING

4.1 Feature Testing

Feature testing is done when a new feature is added to the software or a change is made to an existing feature. Added or modified features are designed to be useful, attractive and effective. Testing for improved or modified features is very important because any problems found in existing functionality due to new features can create many problems. It is expected that this test will be performed correctly, with the regression test when needed.

4.1.1 Feature To Be Tested

Features	Priority	Description			
Registration	1	User information must be saved.			
Log In	1	The user must be authenticated by the login.			
Log Out	2	The session must be finished after logout.			
Post A Job	1	Post a job for the sellers to get jobs done.			
View Job Details	1	Job details will be showed.			
Send Proposal	1	Sending proposal for the job post.			
Ask a Question	1	Asking question if stuck anywhere.			
View Question	1	Question details will be showed.			
Answer Question	2	Users will answer the questions.			
User Profile	2	Users individual profile will be shown.			
Update Profile	3	Users can update their profile.			
Workstream	2	User can connect to each other.			
Here, 1=High Priority, 2=Medium Priority, 3=Low Priority					

Figure 4.1: Feature Priority Table

4.2 Test Strategies

4.2.1 Test Approach

For ensure the quality of my system, I have used two different types of testing. I focused on functional testing and structural testing mainly.

- Black Box testing is used to test the functionality of the system. Functionality is tested based on inputs and the outputs respected to the inputs. This type of testing ignores internal mechanism of the system. Results ensures if the functionality fulfills the specifications and requirements.
- White box testing is used to verify the structure, mechanism and architecture of internal system. Flow of input and output is tested to ensure standard design, security and user-friendly experience. Code of the system is tested directly.

4.2.2 Pass/Fail Criteria

For unit testing, I set some pass or fail criteria. I prepare the pass / fail criteria based on which input data are worked and which are not working. Data that are worked well is considered as pass criteria. There are some pass / fail criteria below:

- System crash is considered as a failure case.
- If any criteria pass 100% of testing, then it will be considered as pass criteria only.
- Which data can't be displayed to the system properly, then it is also to be considered as fail criteria?

4.2.3 Testing Schedule

Test Phase	Time
Testing plan create	2 Week
Unit testing	During development time
Component test	During development time
Integration testing	1 Week
Testing user interfaces	1 Week
Load testing	1 Week
Performance testing	1 Week
Accessibility testing	1 Week

Table 4.2.3: Testing Schedule

4.2.4 Traceability Matrix

Project Manage	er	Business Analyst Lead		
	QA Le	ad	Target Implemen	tation Date
BR#	Functionality/ Activity	Requirement Description	Test Case Reference	Comments
BR1	Functional	Register	Test Case 4.4.1	
BR1	Functional	Log In	Test Case 4.4.2	
BR1	Functional	Post a Job	Test Case 4.4.3	
BR1	Functional	Send Proposal	Test Case 4.4.4	
BR1	Functional	Workstream	Test Case 4.4.5	
BR1	Functional	Ask a question	Test Case 4.4.6	
BR1	Functional	Answer Question	Test Case 4.4.7	
BR1	Functional	User Profile	Test Case 4.4.8	
BR1	Functional	Log Out	Test Case 4.4.9	

 $Table\ 4.2.4:\ Traceability\ Matrix$

4.3 Testing Environment

Making a testing environment with hardware and software so that testers may execute test cases is what it means. For testing purpose, i used a few important regions. They are given below:

- Fake Data
- Local server
- Database server
- Frontend environment
- Backend environment
- Internet
- Browser
- Text Editor
- Git bash

4.4 Test Cases

Test case refers to a set of rules and regulations that can be used to determine whether a system can operate well under test scenarios. Every system, as we all know, has the potential to produce a mistake. This is a pretty regular occurrence in the software development industry. Moreover, Software testing methodologies are used to overcome these issues.

However, if we do not address these difficulties, the entire system development process may fail. As a result, proper testing is required during the development phase. For testing my system application, I have made ready some test cases. Now, I am going to discuss my test cases:

4.4.1 Registration

Test case #01	Test case name: Registration
System: JOBKOI	Subsystem: N/A
Designed By: Rakib Mahbub Khan	Designed Date: 07-Sept-2021
Executed by: Rakib Mahbub Khan	Executed Date:

Short description: System will save new user information.

Pre-conditions:

• User must have a Valid Name, Email & Password.

Rakib Mahbub (@gmail.com Khan	Serial	Name	Email	Password	Expected result	Pass/Fail	Comment
Added Added email field is required Hasan Hossain Rakib Mahbub Khan Mahbub Khan Added Password Wer successfully signed up to the application and redirected to the	1	Mahbub		wordpass		fail	
Hossain Rakib rakibmahbubkhan Mahbub (@gmail.com) Khan Password User successfully pass signed up to the application and redirected to the	2		Not Added	wordpass	email field is	fail	
Mahbub Khan @gmail.com signed up to the application and redirected to the	3		Not Added		The name is invalid	fail	
	4	Mahbub		Password	signed up to the application and redirected to the	pass	

Post-conditions: User can now login to the application

4.4.2 Login

Test case #02	Test case name: Login
System: JOBKOI	Subsystem: N/A
Designed By: Rakib Mahbub Khan	Designed Date: 10-Sept-2021
Executed by: Rakib Mahbub Khan	Executed Date:

Short description: System will save new user information.

Pre-conditions:

• User must have a Valid Name, Email & Password.

Serial	Name	Email	Password	Expected result	Pass/Fail	Comment
	Rakib Mahbub Khan	rakibmahbubkhan @gmail.com	wordpass	Credential doesn't match	fail	
2		Not Added	wordpass	The name, the email field is required	fail	
	Hasan Hossain			The name is invalid	fail	
	Rakib Mahbub Khan	rakibmahbubkhan@ gmail.com	Password	User successfully signed up to the application and redirected to the login page	pass	
D 4	1040	TT 1 .	1 1:			

Post-conditions: User can now login to the application

4.4.3 Post a Job

Test ca	Test case #03 System: JOBKOI			Test case name: Post a Job Subsystem: N/A			
System							
Design	ed By: Raki	b Mahbub Khan		Designed D	ate: 15-Sept-	2021	
Execut	ed by: Raki	b Mahbub Khan		Executed D	ate:		
Serial	Job Title	Job description	Attachment	Budget	Pass/Fail	Comment	
1	Digital Marketing	Description	Not added	250	fail		
2	Not Added	Not Added	Not Added	250	fail		
3	Not Added	Description	photo	250	fail		
4	Digital Marketing	Description	Description	250	pass		

4.4.4 Send Proposal

				Test case name: Send Proposal Subsystem: N/A			
Execut	ed by: Rakib Mahbub I	Khan		Execu	ted Date:		
Serial	Cover letter	Budget	Pass/	Fail	Comment		
1	Not Added	250	fai	il			
2	I can do it	250	pas	SS			

4.4.5 Ask a Question

Test ca	nse #05		Test case name: Ask a Question Subsystem: N/A			
Systen	n: JOBKOI					
Design	ed By: Rakib Mal	nbub Khan	Designed Date: 25	-Sept-2021		
Execut	t ed by: Rakib Mal	nbub Khan	Executed Date:			
Serial	Question Title	Question description	Pass/Fail	Comment		
1	Question	Not Added	fail			
2	Not Added	Description	fail			
3	Question	Description	pass			

4.4.6 Answer Question

Test ca	Test case #06			Test case name: Answer Question		
System: JOBKOI			Subsystem: N/A			
Design	Designed By: Rakib Mahbub Khan Designe			Date: 30-Sept-2021		
Executed by: Rakib Mahbub Khan			Executed Date:			
Serial	Answer	Pass/Fail		Comment		
1	Not Added	fail				
2	This is the answer	pass				

4.4.7 Workstream

Test case #07 System: JOBKOI			Test case name: Workstream Subsystem: N/A		
Executed by: Rakib Mahbub Khan			Executed Date:		
Serial	Authentication	Input	Pass/Fail	Comment	
1	Not Added	Hello	fail		
2	Yes	Hello	pass		

4.4.8 Logout

Test case #08 System: JOBKOI Designed By: Rakib Mahbub Khan		Test case name: Log Out Subsystem: N/A Designed Date: 19-Sept-2021											
							Executed by:		Executed Date:				
							Short o	description: The system will	close the user session				
• Serial	nditions: Users must be logged in before the control of the contr	-	1										
eriai	Action	Response	Pass/Fail	Comment									
1	Hit Log Out Button	Session ended.	Pass/Fail pass	Comment									

CHAPTER 5 USER MANUAL

5.1 Registration

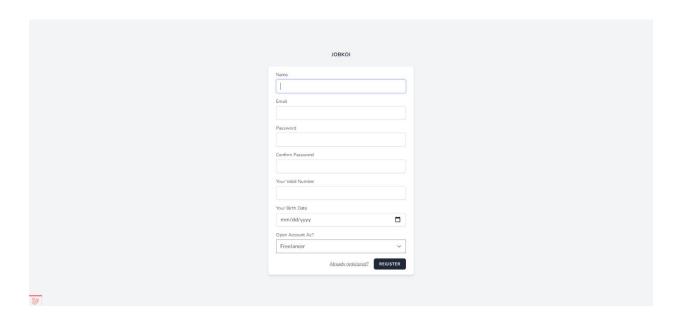


Figure 5.1: Registration

5.2 Login

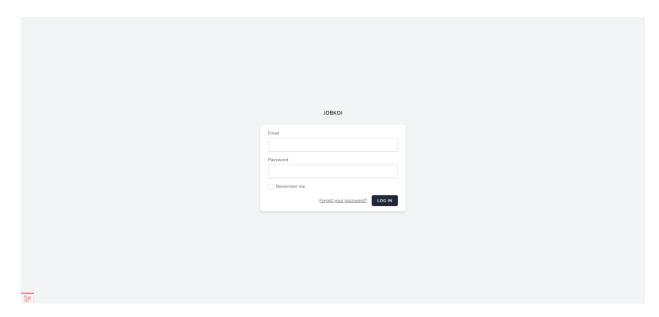


Figure 5.1: Login

5.3 Post a Job

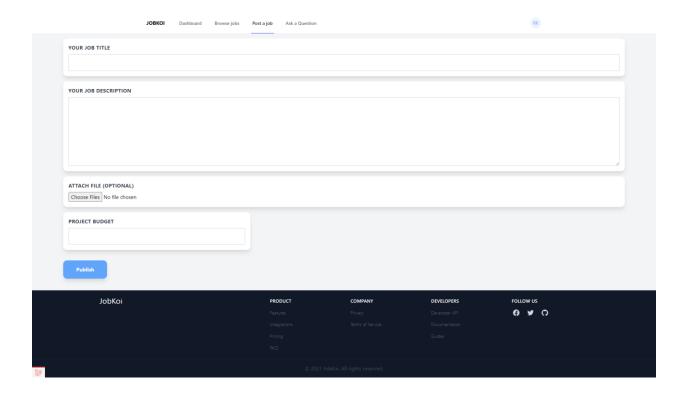


Figure 5.3: post a Job

5.4 Browse Job

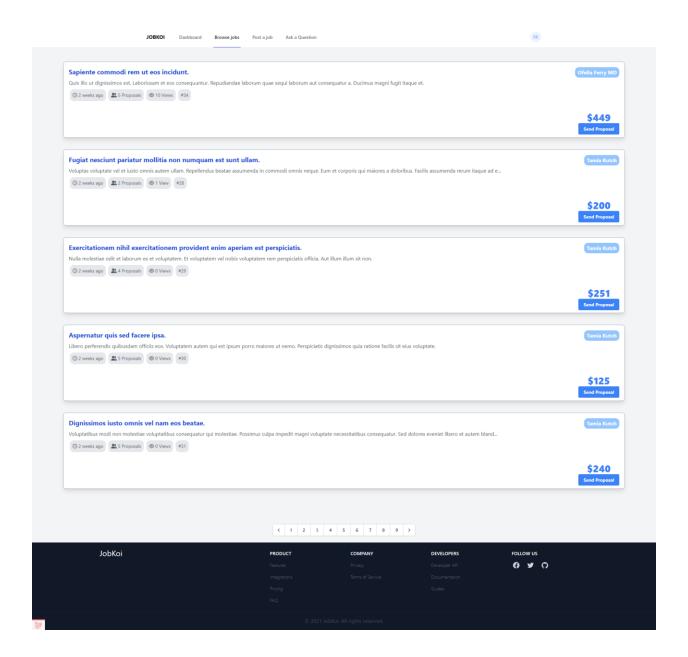


Figure 5.4: Browse Jobs

5.5 Send Proposal

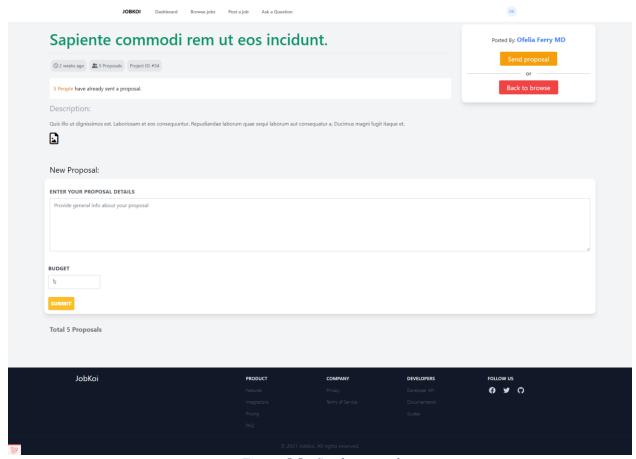


Figure 5.5: Send proposal

5.6 Workstream

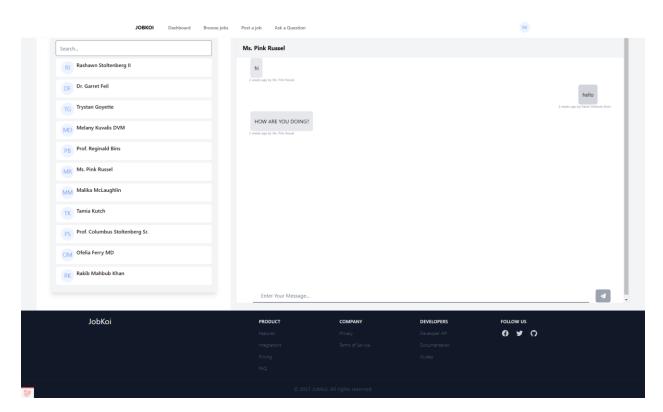


Figure 5.8: Workstation

5.7 Ask a Question

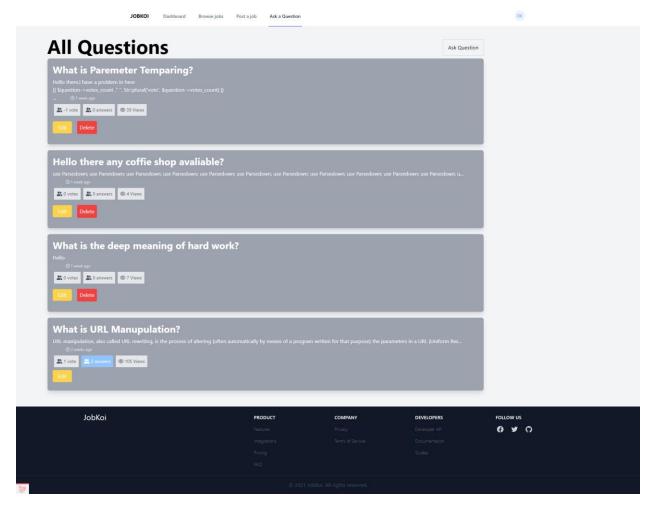


Figure 5.7: Ask a question

5.8 Answer Question

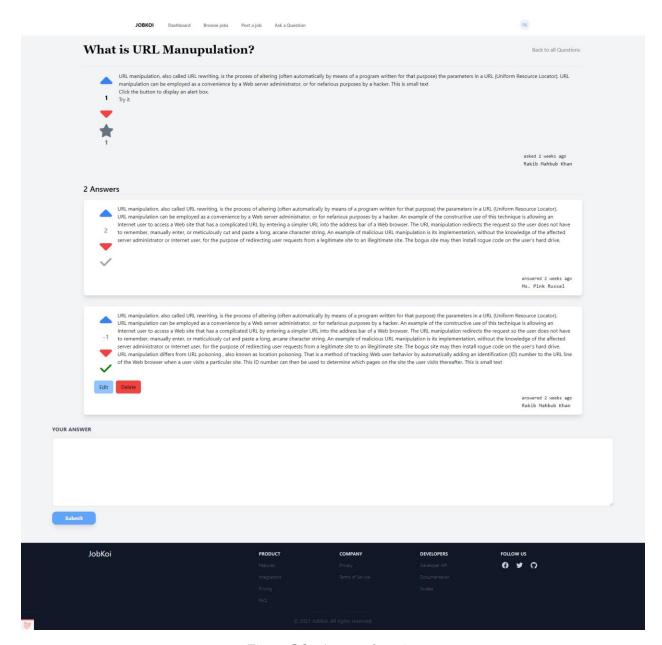


Figure 5.8: Answer Question

5.9 User Profile

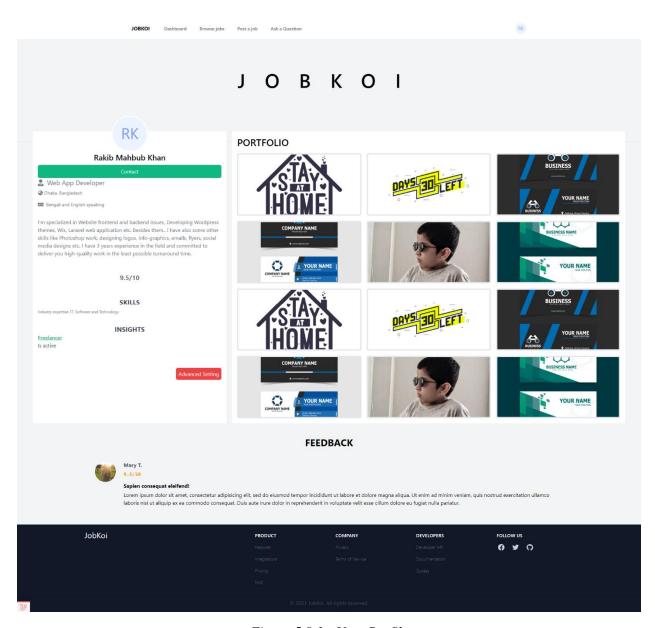


Figure 5.9.1: User Profile

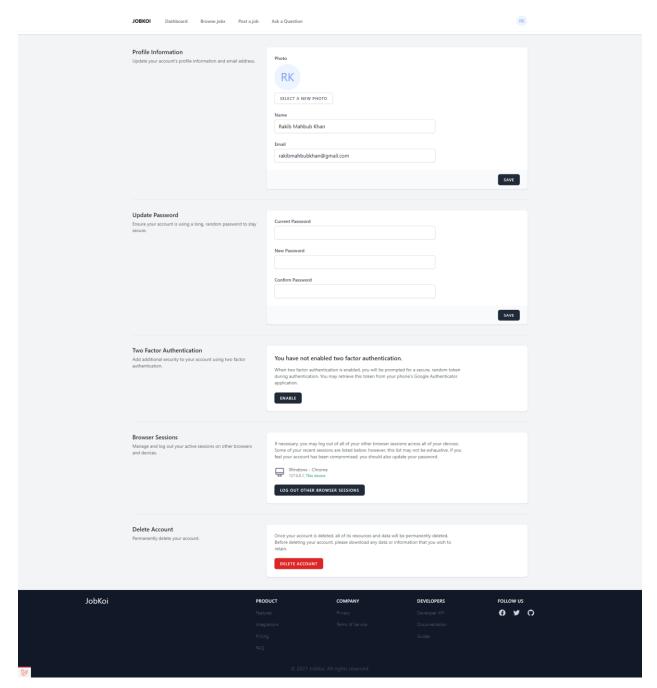


Figure 5.9.2: User profile

CHAPTER 6

CONCLUTION

6.1 Project Summary

JOBKOI is the open-source platform that will help our youths to gain the achievements that they are skilled for. This platform is also a big support for the knowledge gainers who stuck in a middle of work and couldn't get any supports to complete their tasks. This will work for each buyer, seller and the fresh new commers. This system will work as a medium for the service provider and the consumer. The consumer will post the services he/she wants and the service provider will serve the service. They will contact each other by private chat/email/phone. The both users can also be a part of the Q&A section, where they can ask anything and other users can answer those questions. Using this system, the users will have a flexible experience in their freelancing career.

6.2 Limitations

In my project, there are some limitations. That is:

- It is only now a web-based system application; no mobile application or desktop application is not developed yet.
- This system doesn't have any payment gateway.
- This system is still under development, so many features can run inappropriately.

6.3 Future Scope

In this system, many features can be added in the future. These are:

- A mobile application can be developed.
- Payment Gateway will be added.
- A lot of new updates will be shown for user's flexibility.

REFERENCE

- DESIGN AND IMPLEMENTATION OF A COLLABORATIVE FREELANCERS' SOURCING PLATFORM BY: ANTONY MWATHI FACULTY OF INFORMATION TECHNOLOGY, STRATHMORE UNIVERSITY (Page 179-182)
- https://www.youtube.com/watch?v=_6otf3BimvE
- https://laracasts.com
- https://stackoverflow.com/questions/54355506/how-do-i-get-the-profile-url-of-a-user

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