

Final Year Project Report

A report submitted in the partial fulfillment of degree of BSE

Capture Space



Bahria University, Islamabad

Jun 2023

Supervisor

Engr. M Waleed khan

Group Members

Govind Raj

01-131192-007

Aizaz Zaheen

01-131192-045

Software Engineering Department

Capture Space



Group Members

Govind Raj (01-131192-007)

Aizaz Zaheen (01-13112-045)

Supervisor: Engr. M Waleed Khan

A Final Year Project submitted to the Department of Software Engineering,
Faculty of Engineering Sciences, Bahria University, Islamabad in the partial
fulfillment for the award of degree in Bachelor of Software Engineering

Jun 2023

THESIS COMPLETION CERTIFICATE

Student Name: Govind Raj Enrolment No: 01-131192-007

Student Name: Aizaz Zaheen Enrolment No: 01-131192-045

Program of Study: Bachelor of Software Engineering

Project Title: Capture Space

It is to certify that the above students' project has been completed to my satisfaction and to my belief, its standard is appropriate for submission for evaluation. I have also conducted a plagiarism test of this thesis using HEC prescribed software and found similarity index at **11%** that is within the permissible limit set by the HEC. I have also found the thesis in a format recognized by the department.

Supervisor's Signature:  _____

Date: 01/06/2023 Name: Engr. M Waleed Khan

CERTIFICATE OF ORIGINALITY

This is certifying that the intellectual contents of the project Capture Space are the product of my/our own work except, as cited properly and accurately in the acknowledgements and references, the material taken from such sources as research journals, books, internet, etc. solely to support, elaborate, compare, extend and/or implement the earlier work. Further, this work has not been submitted by me/us previously for any degree, nor it shall be submitted by me/us in the future for obtaining any degree from this University, or any other university or institution. The incorrectness of this information, if proved at any stage, shall authorities the University to cancel my/our degree.

Name of the Student: Govind Raj

Signature: Govind

Date: 01/06/2023

Name of the Student: Aizaz Zaheen

Signature: Aizaz

Date: 01/06/2023

Capture Space Sustainable Development Goals

SDG No	Description of SDG	SDG No	Description of SDG
SDG 1	No Poverty	SDG 9	Industry, Innovation, and Infrastructure ✓
SDG 2	Zero Hunger	SDG 10	Reduced Inequalities
SDG 3	Good Health and Well Being	SDG 11	Sustainable Cities and Communities
SDG 4	Quality Education	SDG 12	Responsible Consumption and Production
SDG 5	Gender Equality	SDG 13	Climate Change
SDG 6	Clean Water and Sanitation	SDG 14	Life Below Water
SDG 7	Affordable and Clean Energy	SDG 15	Life on Land
SDG 8	Decent Work and Economic Growth ✓	SDG 16	Peace, Justice and Strong Institutions
		SDG 17	Partnerships for the Goals



Range of Complex Problem Solving			
	Attribute	Complex Problem	
1	Range of conflicting requirements	Involve wide-ranging or conflicting technical, engineering and other issues.	
2	Depth of analysis required	Have no obvious solution and require abstract thinking, originality in analysis to formulate suitable models.	✓
3	Depth of knowledge required	Requires research-based knowledge much of which is at, or informed by, the forefront of the professional discipline and which allows a fundamentals-based, first principles analytical approach.	
4	Familiarity of issues	Involve infrequently encountered issues	
5	Extent of applicable codes	Are outside problems encompassed by standards and codes of practice for professional engineering.	
6	Extent of stakeholder involvement and level of conflicting requirements	Involve diverse groups of stakeholders with widely varying needs.	✓
7	Consequences	Have significant consequences in a range of contexts.	
8	Interdependence	Are high level problems including many component parts or sub-problems	
Range of Complex Problem Activities			
	Attribute	Complex Activities	
1	Range of resources	Involve the use of diverse resources (and for this purpose, resources include people, money, equipment, materials, information and technologies).	✓
2	Level of interaction	Require resolution of significant problems arising from interactions between wide ranging and conflicting technical, engineering or other issues.	
3	Innovation	Involve creative use of engineering principles and research-based knowledge in novel ways.	
4	Consequences to society and the environment	Have significant consequences in a range of contexts, characterized by difficulty of prediction and mitigation.	
5	Familiarity	Can extend beyond previous experiences by applying principles-based approaches.	

Abstract

Capture Space is a web-based marketplace that tackles the challenges faced by content creators in finding employment and clients in finding dependable content creators for event coverage. This platform serves as a marketplace connecting clients with verified content creators, streamlining the event booking and management process. With features like Content Studio, gigs, Hire Talent, Find Work, make a team, filtration and search, chat, and bidding, Capture Space provides flexibility and customization options for both clients and content creators. Clients can choose from a wide selection of verified content creators, coverage packages, and event dates/times to tailor their experience to their unique requirements. By fostering a sense of community and collaboration, Capture Space promotes networking and learning opportunities among content creators and clients, driving quality and innovation in the market. The platform aims to establish trust and quality by providing a reliable and efficient experience that meets the specific needs of both parties. Capture Space revolutionizes the event coverage market by offering a seamless and convenient way for clients to connect with verified content creators. With its user-friendly interface, secure system, and emphasis on quality and flexibility, it becomes the go-to platform for hiring professionals for various events.

Keywords: Marketplace, Challenges, Content creators, Employment, Clients, Dependable, Event coverage, Verified, booking, Content Studio, gigs, community, collaboration

Dedication

To our parents for their love and support

Acknowledgments

All praises to **Allah Almighty** whose blessings enabled us to complete this Final Year Project. Praise to **Prophet Muhammad (PBUH)** a mentor for all knowledge seekers and the humanity.

We feel a deep sense of gratitude to our dignified supervisor **Engr Waleed M Khan**, for his supervision, constant support, guidance, useful suggestions, consistent encouragement, and dynamic supervision which enabled us to complete this FYP successfully. It is an honor to be his student.

We would like to express our gratitude towards our parents and friends who were our source of encouragement in the completion of this project.

Table of Contents

1.	Introduction.....	2
1.1	Motivation.....	2
1.2	Problem statement.....	2
1.3	Objectives.....	2
1.4	Main contributions.....	3
1.5	Report organization.....	3
2.	Background/Literature Review.....	6
2.1	Related Work:.....	6
2.2	Project Background and Scope:.....	7
	SYSTEM REQUIREMENTS.....	12
3.	System Requirements.....	13
3.1	Product Functions.....	13
3.2	Functional Requirements:.....	13
3.2.1	Client:.....	13
3.2.2	Content Creators:.....	13
3.2.3	Content Creators Team:.....	14
3.2.4	Admin:.....	14
3.3	Use Cases.....	15
3.3.1	System Level Use Case Diagram.....	15
3.4	System Features.....	21
3.4.1	Hire Talent.....	21
3.4.2	Find Work.....	21
3.4.3	Client.....	22
3.4.4	Content Creator.....	25
3.4.5	Content Creator Team.....	29
3.4.6	Admin.....	33
3.5	Non-Functional Requirements.....	36
3.5.1	Performance Requirements.....	36
3.5.2	Security Requirements.....	36
3.5.3	Availability Requirements.....	36
3.5.4	Compatibility Requirements.....	36
3.5.5	Business Rules.....	36
3.5.6	Scalability Requirements:.....	37
3.6	Interface Requirements.....	37
3.6.1	Hardware Interfaces.....	37
3.6.2	Software Interfaces.....	37

3.6.3	Communications Interfaces	37
3.7	Database Requirements	37
3.8	Project Feasibility.....	37
3.8.1	Technical Feasibility	37
3.8.2	Operational Feasibility.....	38
3.8.3	Legal and Ethical Feasibility	38
3.9	Conclusion.....	38
4.	System Design	40
4.1	Logical View	40
4.2	Dynamic View.....	41
4.2.1	Hire Talent as client / content creator / content creator team	41
4.2.2	Find Work as client / content creator / content creator team	41
4.2.3	Users	42
4.2.4	Admin:	47
4.3	Deployment View	49
4.4	Development View.....	50
4.5	Component Diagram	50
4.6	Data Model.....	51
4.7	User Interfaces.....	52
4.8	Conclusion.....	57
5.	System Implementation	59
5.1	Strategy.....	59
5.2	Tools & Technology Used	59
5.3	Issues during Implementation & Production Phase	59
5.3.1	Stripe Implementation:.....	59
5.3.2	Tokenization:	60
5.4	Methodologies.....	60
5.5	System Architecture	60
6.	System Testing.....	63
6.1	Test Strategy.....	63
6.2	Unit Testing.....	63
6.3	Component Testing	63
6.4	Integration Testing	64
6.5	System Testing	64
6.6	Test Cases.....	65
6.6.1	Register as client / content creator / content creator team Test Cases ...	65
6.6.2	Login as client / content creator / content creator team Test Cases.....	66

6.6.3	Edit Profile as client / content creator / content creator team Test Cases	68
6.6.4	Post a gig as content creator / content creator team Test Cases.....	69
6.6.5	Chat as client / content creator / content creator team with vice versa Test Cases	70
6.6.6	Content Studio Test Cases	72
6.6.7	Track Payment	74
7.	Conclusion	76
7.1	Contributions.....	76
7.2	Reflections:.....	76
7.3	Challenges:	77
7.3.1	Stripe Implementation:.....	77
7.3.2	Tokenization:	77
7.4	Future Work	78
7.5	REFERNCES	79
7.6	APPENDIX	80
7.6.1	Stripe Payment Gateway:.....	80
7.7	GLOSSARY	81
8.	Plagiarism and Similarity Index report:	82

List of Figures

Figure 1 Objectives Of Capture Space	8
Figure 2 Capture Space Detailed Use Case Diagram	15
Figure 3 Admin Use Case Diagram	16
Figure 4 Chat Use Case Diagram	16
Figure 5 Edit Profile Use Case Diagram	17
Figure 6 Login Use Case Diagram	17
Figure 7 Post A Gig Use Case Diagram.....	18
Figure 8 Register Use Case Diagram	18
Figure 9 Review Use Case Diagram	19
Figure 10 Search Use Case Diagram	19
Figure 11 Content Studio Use Case Diagram.....	20
Figure 12 Capture Space Class Diagram	40
Figure 13 Hire Talent Sequence Diagram	41
Figure 14 Find Work Sequence Diagram	41
Figure 15 Register Sequence Diagram.....	42
Figure 16 Login Sequence Diagram	42
Figure 17 Edit Profile Sequence Diagram	43
Figure 18 Search Sequence Diagram	43
Figure 19 Chat Sequence Diagram	44
Figure 20 Reviews Sequence Diagram.....	44
Figure 21 Logout Sequence Diagram.....	45
Figure 22 Track Payment Sequence Diagram	45
Figure 23 Post A Gig Sequence Diagram	46
Figure 24 Content Studio Sequence Diagram.....	46
Figure 25 Login Sequence Diagram	47
Figure 26 Logout Sequence Diagram.....	47
Figure 27 Dashboard Access Sequence Diagram.....	48
Figure 28 Customers Services Sequence Diagram.....	48
Figure 29 User Management Sequence Diagram.....	49
Figure 30 Capture Space Deployment Diagram	49
Figure 31 Development View Of Capture Space	50
Figure 32 Capture Space Component Diagram	50
Figure 33 Capture Space Data Model Diagram	51
Figure 34 Mvc Block Diagram	61
Figure 35 Stripe Payment Interface.....	80
Figure 36capture Space Plagiarism And Similarity Index Report	82

List of Tables

Table 1 Referenced And Related Work List.....7
Table 2 Capture Space Glossary81

CHAPTER-1

INTRODUCTION

1. Introduction

- The objective is to Create web-based marketplace for event coverage by content creators.
- Marketplace to search for content creators or teams for events.
- Bid on content creator gig for event coverage package details.

1.1 Motivation

There was a need to address the challenges faced by both content creators and clients in the event coverage market. Content creators much of the time fight to search for profitable business and may go up against inconveniences in getting their work seen, while clients could find it attempting to find trustworthy content creator for their event coverage needs. By making a business community that interfaces clients with affirmed content creators, Capture Space hopes to give a phase that enhances the event consideration booking and management process, offering a reliable and efficient experience for both clients and content creators. The platform accentuation on trust and quality, close by its straightforward place of connection and features, for instance, Content Studio, Filter, and search Option, make a Team, Chat, Bidding, Hire Talent, Find Work, hopes to address the hardships looked by the two players, giving a new and innovative technique for contracting specialists for weddings, parties, and various events

1.2 Problem statement

The advancement of technology has created a situation where content makers are struggling for recognition and a profitable work, while clients are battling to find reliable content makers for their occasion thought necessities, and there is also a shortage of a platform for content makers to show their work and sell their photos.

1.3 Objectives

Capture Space is a web-based application with following objectives

- Connect clients with content creators.
- Focus on trust and quality.
- User-friendly platform with innovation.
- Revolutionize event coverage market.
- Self-Branding

1.4 Main contributions

- Providing a new approach to event coverage booking and management by creating a web-based marketplace that connects clients with verified content creators.
- Addressing the challenges faced by content creators in showcasing their work and finding new opportunities for work by providing a platform to sell their photographs and collaborate with other creators.
- Developing innovative features such as Content Studio, Filter Option, make a Team, Chat, and Bidding to enhance the user experience for both clients and content creators.
- Offering a reliable and efficient platform that ensures trust and quality, enabling clients to find trustworthy content creators for their event coverage needs.
- Contributing to the advancement of the event coverage industry by revolutionizing the market with a seamless and convenient way to contract professionals for weddings, parties, and other events.

1.5 Report organization

The structure of the report is discussed below:

- **Chapter 1:** This chapter is of introduction. First, we discussed what is project about, the motivation, problem statement, objectives, and main contributions
- **Chapter 2:** Chapter 2 is about Literature Review in which we will discuss the background and previous work done related to our project. We will also discuss short comings of previous projects and how our system incorporates those short comings
- **Chapter 3:** In this chapter we will discuss the specifications of the system. These include the system requirements like functional, non-functional, interface, database, and use -cases etc.
- **Chapter 4:** In this chapter we will discuss system design. This chapter includes system architecture, design approaches, class diagram, sequence diagrams, deployment diagram, and database schema
- **Chapter 5:** This chapter is about system implementation. We will discuss the approaches and methodologies used in system development. We will also discuss the issues encountered

- **Chapter 6:** This chapter is about testing. Which testing techniques were applied, what were the testing techniques that were used, how unit, integration, and system testing was carried out. Discussion related to test cases
- **Chapter 7:** Chapter 7 is about the conclusion, contribution, reflections, and future work of the project.

CHAPTER-2

**BACKGROUND /LITERATURE
REVIEW**

2. Background/Literature Review

2.1 Related Work:

The related work section of this project provides a comprehensive overview of the existing research and projects related to the subject matter. It presents a thorough analysis of previous studies, methodologies, and approaches that have been explored in the field. By examining the work of other researchers and practitioners, this section aims to identify the gaps and limitations in the current knowledge and propose a novel contribution to the field. The related work section serves as a foundation for the project, providing a context for the research and demonstrating the relevance and significance of the proposed approach

Application Name	Description	Difference
A team	A Team is a members-only network that empowers the world's top engineering, product, design, and marketing builders to team up and build things that matter for the world's most exciting companies [1] B. Goldhacker et al., Build your dream team, https://www.a.team/ (accessed May 30, 2023).	Just A team making website for any task. You can belong to any group and can have a group of any category and work.
People per Hour	Access global talent on the freelance website trusted by over 1 million businesses worldwide. [1] "Hire Freelancers Online & Find freelance work," PeoplePerHour.com - Hire Freelancers Online & Find Freelance Work, https://www.peopleperhour.com/ (accessed May 31, 2023).	Still founder owned and led and the longest running freelance service in the UK only

Shutter Stock	<p>Shutterstock is a leading global provider of high-quality licensed images, videos, and music. Shutterstock helps professionals by providing diverse content to businesses, marketing agencies and media organizations around the world.</p> <p>[1] “Stock images, photos, vectors, video, and music,” Shutterstock, https://www.shutterstock.com/ (accessed May 31, 2023).</p>	<p>The detailed results of individuals students are only available in paid version. There is no feature which can display the individual duration of questions. No rubric can be attached with a Free Text question.</p>
Upwork	<p>Creating economic opportunities so people have better lives has taken us so much further. As a result, we’ve become the world’s work marketplace where everyday businesses of all sizes and independent talent from around the globe meet here to accomplish incredible things</p> <p>[1] Upwork, https://www.upwork.com/ (accessed May 30, 2023).</p>	<p>Individuals can look for a short- or long-term job with a per hour rate.</p>

Table 1 Referenced and related work list

2.2 Project Background and Scope:

There was a need to address the challenges faced by both content creators and clients in the event coverage market. Content creators much of the time fight to search for profitable business and may go up against inconveniences in getting their work seen, while clients could find it attempting to find trustworthy content creator for their event coverage needs. By making a business community that interfaces clients with affirmed content creators, Capture Space hopes to give a phase that enhances the event consideration booking and management process, offering a reliable and efficient experience for both clients and content creators. The platform accentuation on trust and

quality, close by its straightforward place of connection and features, for instance, Content Studio, Filter, and search Option, make a Team, Chat, Hire Talent, Find Work, and Bidding, hopes to address the hardships looked by the two players, giving a new and innovative technique for contracting specialists for weddings, parties, and various events

Given below are the objectives of our system:

- Make a Team.
- Focus on trust and quality.
- Monetize your content.
- Revolutionize event coverage market.
- Self-Branding



Figure 1 Objectives of Capture Space

1. **Make a Team:**

“The "Make a team" functionality offered by Capture Space is a powerful feature that enables clients to curate and assemble a team of content creators for their event coverage needs. This functionality allows clients to handpick content creators based on their specific skills, expertise, and style, ensuring a tailored and cohesive approach to capturing their event. Clients can browse through verified content creators' profiles, review their portfolios, and select individuals who align with their vision and requirements. The "Make a team" functionality fosters collaboration and synergy among the selected content creators, enhancing the overall quality and cohesiveness of the event coverage. Whether it's a wedding, party, or any other occasion, Capture Space empowers clients to create a dream team of content creators to capture their special moments with professionalism and creativity.

2. **Focus on trust and quality:**

Capture Space intends to give a stage that clients can trust to track down dependable and excellent substance makers for their occasions. To accomplish this, the stage requires content makers to go through a check interaction before they can offer their administrations to clients. This assists with guaranteeing that main dependable and gifted content makers are accessible on the platform. To further improve trust and quality, Catch Space likewise gives a solid installment framework that safeguards the two clients and content makers. This guarantees that clients just compensation for the administrations they get, and content makers get installment for their work.

3. **Monetize your Content:**

The "Monetize your Content" functionality offered by Capture Space is a game-changer for content creators looking to earn revenue from their work. This feature provides content creators with the opportunity to monetize their content through Content Studio. Capture Space offers a seamless and intuitive interface that allows creators to set their own prices, choose the monetization methods that best suit their content, and track their earnings in real-time. By providing this functionality, Capture Space empowers content creators to turn their

passion into a profitable venture, while also providing clients with a diverse range of monetized content options to choose from. Whether it's photographers, videographers, the "Monetize your Content" functionality revolutionizes the way content creators can generate income and further enhances the value proposition of Capture Space as a comprehensive marketplace for content creation and consumption.

4. Revamp event coverage market:

Capture Space means to upset the conventional market for occasion inclusion by giving a cutting edge and imaginative arrangement that offers huge benefits to the two clients and content makers.

By offering a web-based marketplace for event coverage, Capture Space makes it simple for clients to find and book confided in satisfied makers for their occasions, while likewise giving content creators a stage to feature their work and extend their span. This dispenses with a considerable lot of the hindrances that have generally existed in the occasion inclusion market, for example, trouble finding and reviewing dependable substance makers.

Likewise, Capture Space's imaginative elements like the offering framework, group creation, and secure installment framework offer added benefit to the two clients and content makers, making the stage much more appealing and advantageous to utilize.

5. Self-Branding:

Capture Space offers content creators the capacity to grandstand their work, fabricate their image, and extend their compass. The stage permits content makers to make a profile that features their past work, insight, and skill. By giving a platform that permits content makers to exhibit their work and acquire openness, Catch Space assists content makers with building their image and lay down a good foundation for themselves as specialists in their field.

As well as permitting content makers to grandstand their work, Capture Space additionally gives apparatuses to assist with satisfying makers market themselves to likely clients. For instance, the offering framework permits content makers to offer on gigs and exhibit their mastery and experience to

likely clients. The informing framework likewise empowers content makers to discuss straightforwardly with clients, assisting them with building connections and lay out trust.

Generally, by giving content creators a stage to exhibit their work and fabricate their image, Catch Space assists content makers with acquiring openness and grow their scope, which can prompt more business to open doors and achievement.

CHAPTER-3

SYSTEM REQUIREMENTS

3. System Requirements

3.1 Product Functions

Following are the different functions that the system will perform:

- Content Studio
- Hire Talent
- Find Work
- Filter Option
- Make a team
- Chat
- Bidding and Quoting
- Gigs

3.2 Functional Requirements:

3.2.1 Client:

- Registration / Login / Logout.
- Edit Profile
- Search and Filtration for Gig
- Communication System (Chat)
- Bid system
- Track Payment
- Review and rating system:

3.2.2 Content Creators:

- Registration / Login / Logout
- Edit Profile.
- Gig creation.
- Communication System (Chat)
- Quote system:
- Setup Content Studio.
- Track Payments
- Show Gears
- Review and rating system:

3.2.3 Content Creators Team:

- Registration / Login / Logout
- Edit Profile.
- Gig creation.
- Communication System (Team Chat)
- Quote system:
- Setup Content Studio.
- Show Gears
- Add Members
- Track Payments
- Review and rating system.

3.2.4 Admin:

- Login /Logout
- Dashboard Access.
- User management.
- Customers Service
- Content review and Moderation
- Analytics and reporting

3.3 Use Cases

3.3.1 System Level Use Case Diagram

3.3.1.1 Detailed Diagram:

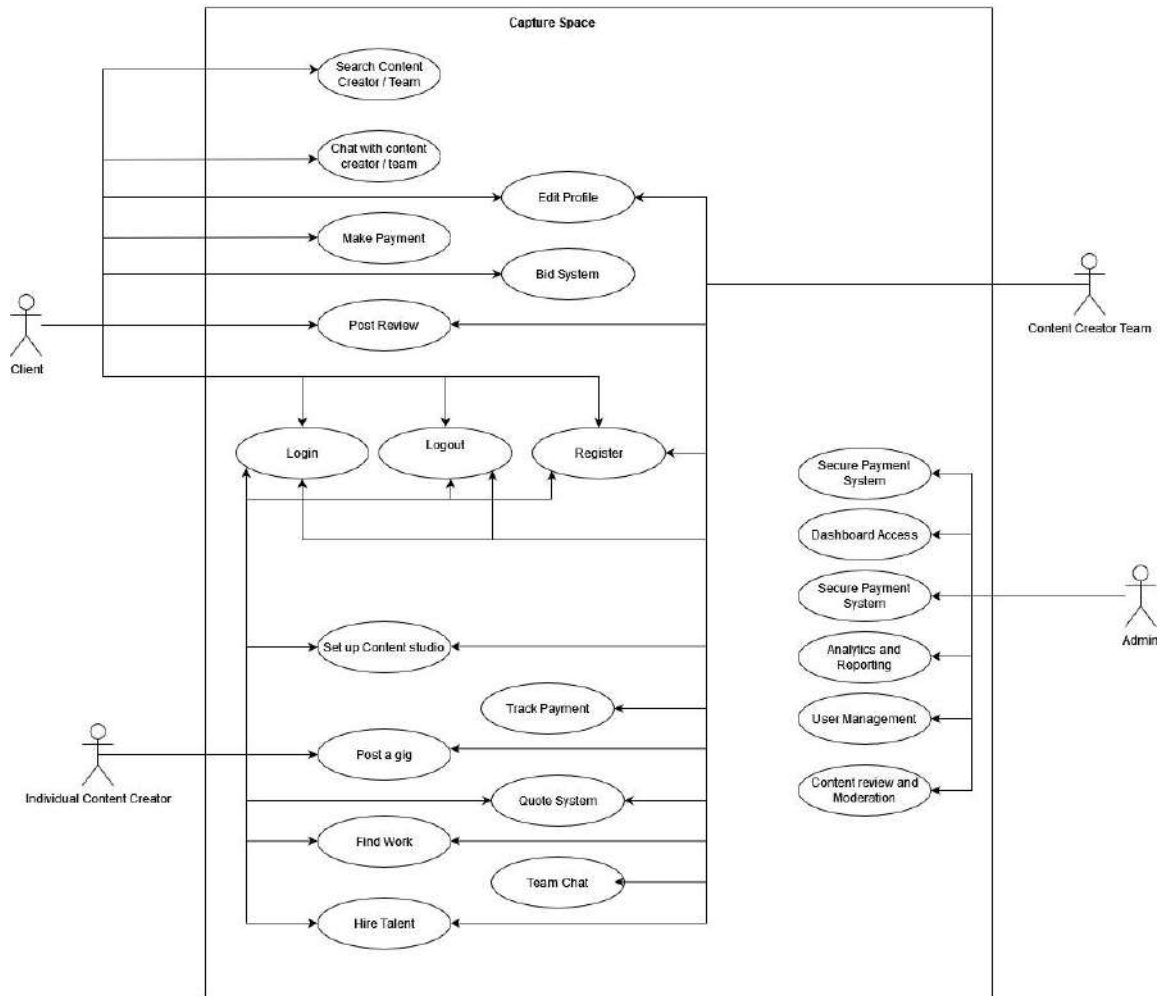


Figure 2 Capture Space Detailed use case Diagram

3.3.1.2 Admin:

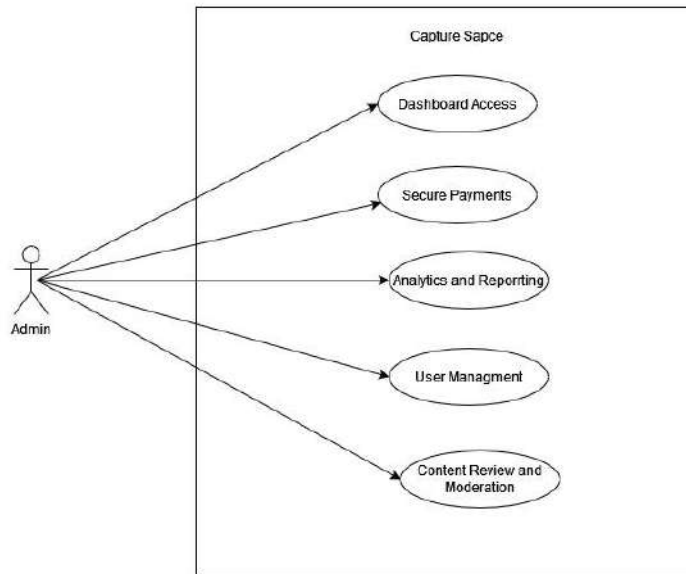


Figure 3 Admin use case Diagram

3.3.1.3 Chat

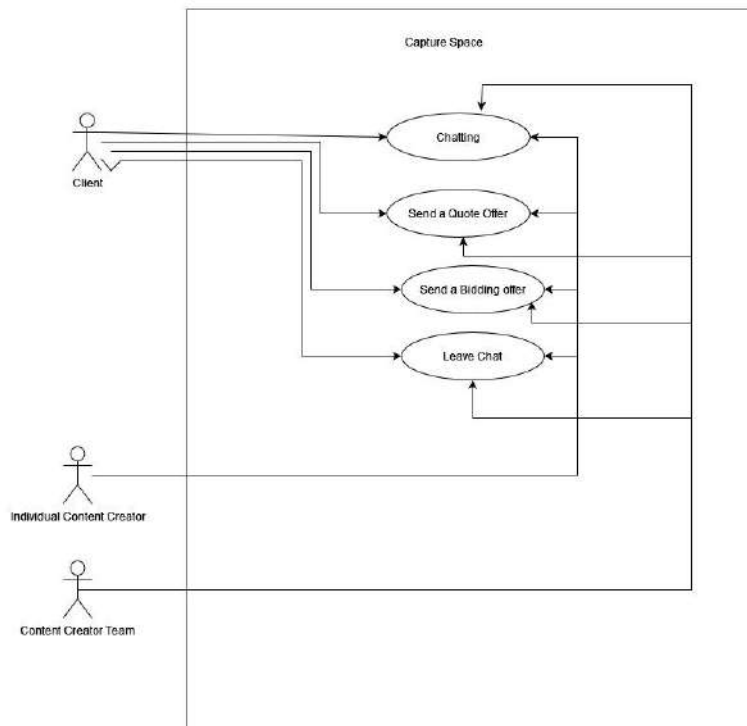


Figure 4 Chat use case Diagram

3.3.1.4 Edit Profile

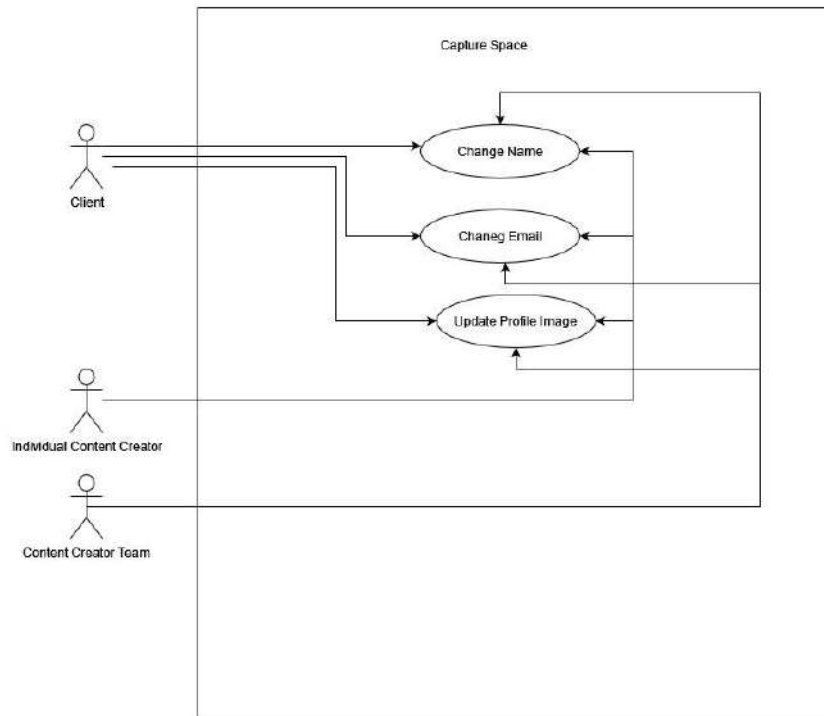


Figure 5 Edit Profile use case Diagram

3.3.1.5 Login:

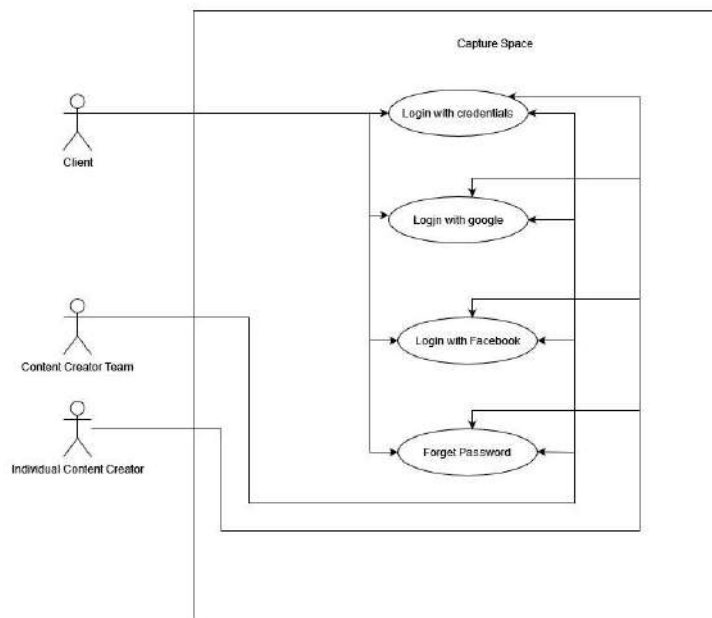


Figure 6 Login use case Diagram

3.3.1.6 Post a Gig:

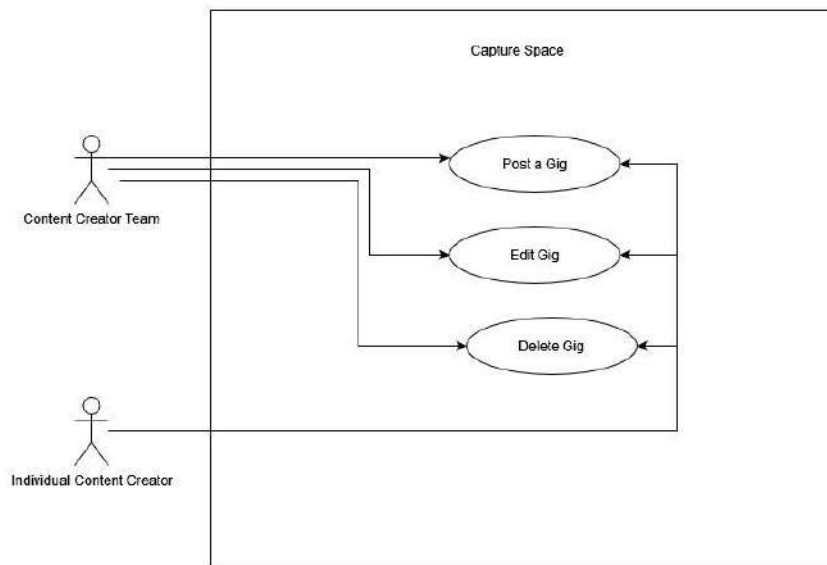


Figure 7 Post a Gig use case Diagram

3.3.1.7 Register:

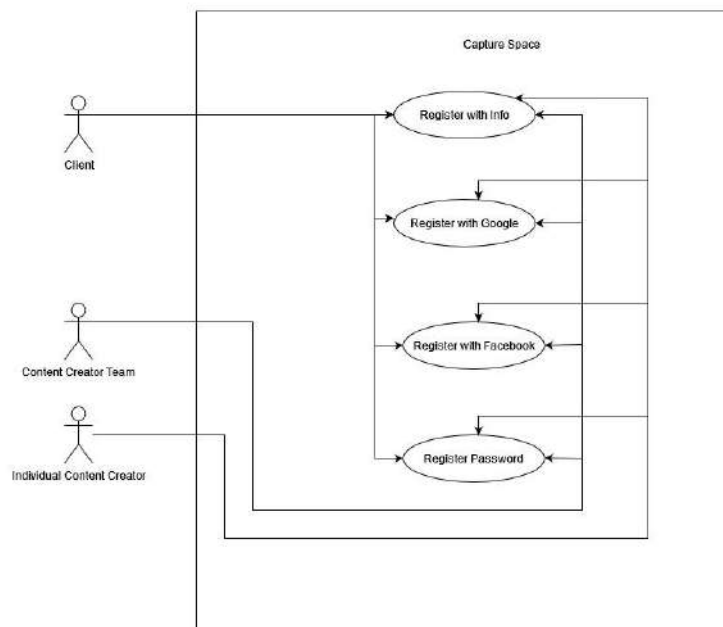


Figure 8 Register use case Diagram

3.3.1.8 Reviews:

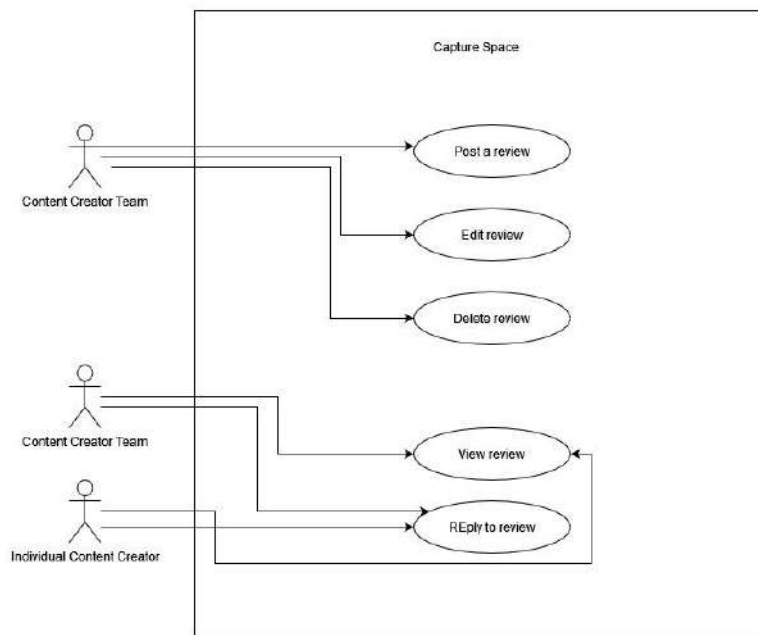


Figure 9 Review use case Diagram

3.3.1.9 Search

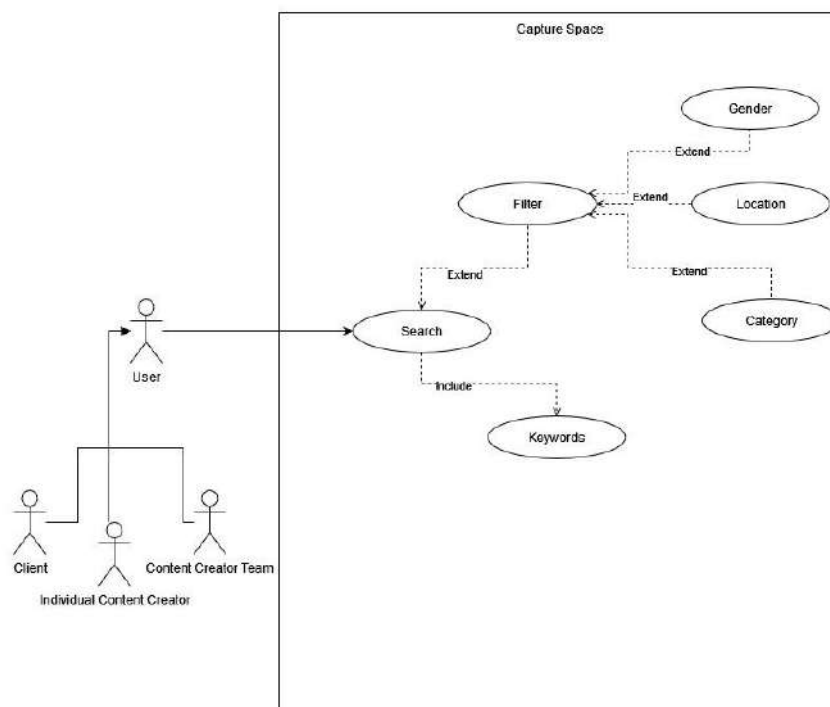


Figure 10 Search use case Diagram

3.3.1.10 Content Studio:

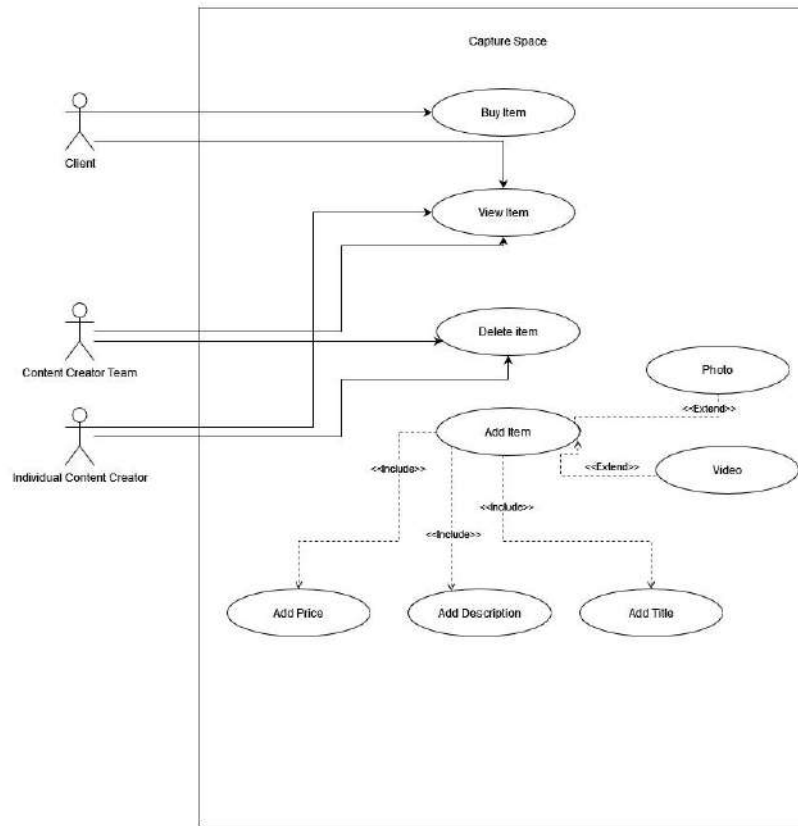


Figure 11 Content Studio use case Diagram

3.4 System Features

3.4.1 Hire Talent

Use case ID:	UC-US-01	
Use case Name:	Hire Talent	
Actor(s):	Client /content creator / content creators' team as User	
Basic Flow:	User clicks on hire talent from navbar.	
Actor Actions	System Response	
1. User navigates to Hire Talent link and clicks on it	System opens the interface containing the relevant form and list of gigs	
2. Users select the required information and clicks on hire talent button	The system notifies the gig owner about the work and further add chat between client and gig owner.	
Alternate Course of Action:		
Actor Actions	System Response	

3.4.2 Find Work

Use case ID:	UC-U-0	
Use case Name:	Find Work	
Actor(s):	Client /content creator / content creators' team as User	
Basic Flow:	User clicks on Find work from navbar.	
Actor Actions	System Response	
1. User navigates to Find work link and clicks on it	System opens the interface containing the relevant form and list of jobs posted there by organizations	
2. Users select any job and click on add CV button to add CV	The system open Model to add CV in allowed format.	
Alternate Course of Action:		
Actor Actions	System Response	
Users select any job and click on add CV button	Toast Appear with message (“Cannot add CV in the format”).	

3.4.3 Client

3.4.3.1 Register

Use case ID:	UC-CL-01	
Use case Name:	Register	
Actor(s):	Client	
Basic Flow:	Client clicks on register button for registration	
Actor Actions	System Response	
3. User navigates to Register link and clicks on it	System opens the interface containing the relevant form	
4. User enters the required information and clicks on register button	System checks the provided credentials and register user into the system	
Alternate Course of Action:		
Actor Actions	System Response	
	2.a. If provided credentials are incorrect, an error message is displayed on screen for the respective error	

3.4.3.2 Login

Use case ID:	UC-CL-02	
Use case Name:	Login	
Actor(s):	Client	
Basic Flow:	Client clicks on login link to login	
Actor Actions	System Response	
1. User navigates to login link and enter credentials	System checks the provided credentials and log in user into the system	
Alternate Course of Action:		
Actor Actions	System Response	
	2.a. If provided credentials are incorrect, an error message is displayed on screen for the respective error	

3.4.3.3 Edit Profile

Use case ID:	UC- CL -03	
Use case Name:	Edit Profile	
Actor(s):	Client	
Basic Flow:	Client Edit his profile	
Actor Actions	System Response	
1. User Click on Edit Profile Button	System opens the interface containing the relevant form for Editing Profile and save changes While saving changes user enter wrong password and system reject changes to user profile.	
Alternate Course of Action:		
Actor Actions	System Response	
	1.a. While saving changes user enter wrong password and system reject changes to user profile.	

3.4.3.4 Search

Use case ID:	UC- CL -04	
Use case Name:	Search for content creator or team	
Actor(s):	Client	
Basic Flow:	Client search for content creator or team in using search functionality	
Actor Actions	System Response	
1. User type for the required type of content creator or team in a search bar	List of content creators or content creators team appears.	
Alternate Course of Action:		
Actor Actions	System Response	
	1.a. If no content creator or team are in database system return error with “No such Content creator or team could be found”.	

3.4.3.5 Chat

Use case ID:	UC- CL -05	
Use case Name:	Chat with Content creator or team	
Actor(s):	Client	
Basic Flow:	Client started chat with desired content creator or content creator team	
Actor Actions	System Response	
1. User navigates to Chat button	System opens the interface containing the chat interface between client and content creator or content creator team.	

3.4.3.6 Reviews

Use case ID:	UC-TE-06	
Use case Name:	Reviews	
Actor(s):	Client	
Basic Flow:	Client should be able to post reviews on content creator team or individuals	
Actor Actions	System Response	
1. User navigates to content creator team or individual account and click on post review link and clicks on it	System opens the interface containing the relevant form	
2. Users click on post button	System displays the reviews in Reviews section of the Content Creator or team.	

3.4.3.7 Track Payments

Use case ID:	UC- CL -07	
Use case Name:	Client tracks his payments	
Actor(s):	Client	
Basic Flow:	Client tracks his all payments made till date.	
Actor Actions	System Response	
1. User navigates to Track Payments link and clicks on it	System opens the interface containing the relevant form containing all the payments records log of user till date.	

3.4.3.8 Logout

Use case ID:	UC- CL -08	
Use case Name:	Logout	
Actor(s):	Client	
Basic Flow:	Client logout of his account.	
Actor Actions	System Response	
1.User navigates to Logout link and clicks on it	System logout the current user form system and end his session.	

3.4.4 Content Creator

3.4.4.1 Register

Use case ID:	UC- CC-01	
Use case Name:	Register	
Actor(s):	Content Creator	
Basic Flow:	Content Creator clicks on register button for registration	
Actor Actions	System Response	
1 User navigates to Register link and clicks on it	System opens the interface containing the relevant form	
2. User enters the required information and clicks on register button	System checks the provided credentials and register user into the system	
Alternate Course of Action:		
Actor Actions	System Response	
	2.a. If provided credentials are incorrect, an error message is displayed on screen for the respective error	

3.4.4.2 Login

Use case ID:	UC- CC -02	
Use case Name:	Login	
Actor(s):	Content Creator	
Basic Flow:	Content Creator clicks on login link to login	
Actor Actions	System Response	
1. User navigates to login link and enter credentials	System checks the provided credentials and log in user into the system	
Alternate Course of Action:		
Actor Actions	System Response	
	2.a. If provided credentials are incorrect, an error message is displayed on screen for the respective error	

3.4.4.3 Edit Profile

Use case ID:	UC- CC -03	
Use case Name:	Edit Profile	
Actor(s):	Content Creator	
Basic Flow:	Content Creator Edit his profile	
Actor Actions	System Response	
1. User Click on Edit Profile Button	System opens the interface containing the relevant form for Editing Profile and save changes While saving changes user enter wrong password and system reject changes to user profile.	
Alternate Course of Action:		
Actor Actions	System Response	
	1.a. While saving changes user enter wrong password and system reject changes to user profile.	

3.4.4.4 Post a Gig

Use case ID:	UC- CC -04	
Use case Name:	Post a Gig	
Actor(s):	Content Creator	
Basic Flow:	Content Creator post his gig	
Actor Actions	System Response	
1. User navigate to post a gig link and Post and click on the Post Button.	System Post user gig to relevant clients	
Alternate Course of Action:		
Actor Actions	System Response	
	1.a. Error Message “Too Lengthy”	
	2.b Error Message “User Account Restricted” can post for “no of days”	

3.4.4.5 Chat

Use case ID:	UC- CC -05	
Use case Name:	Chat with Client	
Actor(s):	Content Creator	
Basic Flow:	Content Creator started chat client	
Actor Actions	System Response	
2. Once Chat received from Client	System opens the interface containing the chat interface between client and content creator.	

3.4.4.6 Content Studio

Use case ID:	UC- CC -06	
Use case Name:	Sell Your best Product	
Actor(s):	Content Creator	
Basic Flow:	Content Creator should be able to setup studio	
Actor Actions	System Response	
1.User navigates to “Sell your Best Product” link.	System opens the interface containing the relevant form	
Alternate Course of Action:		
Actor Actions	System Response	
	1.an If not setup already allow user to create one by Asking for name of the Studio and category.	

3.4.4.7 Track Payment

Use case ID:	UC- CC -07	
Use case Name:	Payments History	
Actor(s):	Content Creator	
Basic Flow:	Content Creator tracks his all payments made till date.	
Actor Actions	System Response	
1. User navigates to Track Payments link and clicks on it	System opens the interface containing the relevant form containing all the payments records log of user till date.	

3.4.4.8 Logout

Use case ID:	UC- CC -08	
Use case Name:	Logout	
Actor(s):	Content Creator	
Basic Flow:	Content Creator logout of his account.	
Actor Actions	System Response	
1. User navigates to Logout link and clicks on it	System logout the current user form system and end his session.	

3.4.5 Content Creator Team

3.4.5.1 Register

Use case ID:	UC- CCT-01	
Use case Name:	Register	
Actor(s):	Content Creator Team	
Basic Flow:	Content Creator Team clicks on register button for registration	
Actor Actions	System Response	
2 User navigates to Register link and clicks on it	System opens the interface containing the relevant form	
3. User enters the required information and clicks on register button	System checks the provided credentials and register user into the system	
Alternate Course of Action:		
Actor Actions	System Response	
	2.a. If provided credentials are incorrect, an error message is displayed on screen for the respective error	

3.4.5.2 Login

Use case ID:	UC- CCT -02	
Use case Name:	Login	
Actor(s):	Content Creator Team	
Basic Flow:	Content Creator Team clicks on login link to login	
Actor Actions	System Response	
1. User navigates to login link and enter credentials	System checks the provided credentials and log in user into the system	
Alternate Course of Action:		
Actor Actions	System Response	
	2.a. If provided credentials are incorrect, an error message is displayed on screen for the respective error	

3.4.5.3 Edit Profile

Use case ID:	UC- CCT-03	
Use case Name:	Edit Profile	
Actor(s):	Content Creator Team	
Basic Flow:	Content Creator Team Edit his profile	
Actor Actions	System Response	
1. User Click on Edit Profile Button	System opens the interface containing the relevant form for Editing Profile and save changes While saving changes user enter wrong password and system reject changes to user profile.	
Alternate Course of Action:		
Actor Actions	System Response	
	1.a. While saving changes user enter wrong password and system reject changes to user profile.	

3.4.5.4 Post a Gig

Use case ID:	UC- CCT -04	
Use case Name:	Post a Gig	
Actor(s):	Content Creator Team	
Basic Flow:	Content Creator Team post about their teamwork	
Actor Actions	System Response	
1. User navigate to post a gig link and Post and click on the Post Button.	System Post user gig to relevant clients	
Alternate Course of Action:		
Actor Actions	System Response	
	1.a. Error Message “Too Lengthy”	
	2.b Error Message “User Account Restricted” can post for “no of days”	

3.4.5.5 Chat

Use case ID:	UC- CCT -05	
Use case Name:	Group Chat with Client	
Actor(s):	Content Creator Team	
Basic Flow:	Content Creator Team started chat client	
Actor Actions	System Response	
3. Once Chat received from Client	System opens the interface containing the chat interface between client and content creator.	

3.4.5.6 Content Studio

Use case ID:	UC- CCT -06	
Use case Name:	Sell Your best Product	
Actor(s):	Content Creator	
Basic Flow:	Content Creator should be able to setup studio	
Actor Actions	System Response	
1.User navigates to “Sell your Best Product” link.	System opens the interface containing the relevant form	
Alternate Course of Action:		
Actor Actions	System Response	
	1.an If not setup already allow user to create one by Asking for name of the Studio and category.	

3.4.5.7 Track Payments

Use case ID:	UC- CCT -07	
Use case Name:	Payments History	
Actor(s):	Content Creator	
Basic Flow:	Content Creator tracks his all payments made till date.	
Actor Actions	System Response	
2. User navigates to Track Payments link and clicks on it	System opens the interface containing the relevant form containing all the payments records log of user till date.	

3.4.5.8 Logout

Use case ID:	UC- CCT -08	
Use case Name:	Logout	
Actor(s):	Content Creator	
Basic Flow:	Content Creator logout of his account.	
Actor Actions	System Response	
1. User navigates to Logout link and clicks on it	System logout the current user form system and end his session.	

3.4.6 Admin

3.4.6.1 Login

Use case ID:	UC-AD-01	
Use case Name:	Login	
Actor(s):	Admin	
Basic Flow:	Admin clicks on type link.	
Actor Actions	System Response	
1. User navigates to login link and enter credentials	System checks the provided credentials and log in user into the system	
Alternate Course of Action:		
Actor Actions	System Response	
	2.a. If provided credentials are incorrect, an error message is displayed on screen for the respective error	

3.4.6.2 Dashboard Access

Use case ID:	UC- AD -02	
Use case Name:	Dashboard Access	
Actor(s):	Admin	
Basic Flow:	Admin click on dashboard UI	
Actor Actions	System Response	
1. Users click on Dashboard	System should display all the relevant Admin activities to the user	

3.4.6.3 Payments Controls

Use case ID:	UC- AD -03	
Use case Name:	Payments Controls	
Actor(s):	Admin	
Basic Flow:	Admin view Payments Controls.	
Actor Actions	System Response	
1. User navigates to Payments Control 2. For every transaction cut the products percentage.	System forward remaining amount to content creator or team.	

3.4.6.4 Customers Services

Use case ID:	UC- AD -04	
Use case Name:	Customer Services	
Actor(s):	Admin	
Basic Flow:	Admin view Customer Service	
Actor Actions	System Response	
1. User navigates to Customer Services	System forward remaining reports of users.	
2. Navigate to reports.	Reports of fraud or any technical problem displayed.	

3.4.6.5 Content Review and moderation

Use case ID:	UC- AD -05	
Use case Name:	Content Review and Moderation	
Actor(s):	Admin	
Basic Flow:	Admin click Content Review and Moderation	
Actor Actions	System Response	
1. User navigates to Content Review and Moderation	System forward remaining reports of users.	
2. Navigate to reports.	Reports of fraud or any technical problem displayed.	

3.4.6.6 User Management

Use case ID:	UC- AD -06	
Use case Name:	Customer Services	
Actor(s):	Admin	
Basic Flow:	Admin view User Management	
Actor Actions	System Response	
1. User navigates to User Management	System displays all reported users.	
2. Navigate to reports.	Reports of fraud or any technical problem displayed.	

3.4.6.7 Analytics and Reporting

Use case ID:	UC- AD -07	
Use case Name:	Customer Services	
Actor(s):	Admin	
Basic Flow:	Admin view Analytics and Reporting	
Actor Actions	System Response	
3. User navigates to Customer Services	System displays all users list	
4. Navigate to analytics.	Reports of daily usage, new accounts, total reports, total earring displayed.	
5. Navigate to reports.	Reports of fraud or any technical problem displayed.	

3.4.6.8 Logout

Use case ID:	UC- AD -08	
Use case Name:	Logout	
Actor(s):	Admin	
Basic Flow:	Admin logout of his account.	
Actor Actions	System Response	
1. User navigates to Logout link and clicks on it	System logout the current user form system and end his session.	

3.5 Non-Functional Requirements

3.5.1 Performance Requirements

- The system should accommodate 300 users at a time.
- Average response time of system is 3 seconds.
- The system response time should not be later than 10 seconds.

3.5.2 Security Requirements

- Authorized access for each user (log-in)
- System will be protected against session theft and malware attacks (SSL, TLP, TLS)
- Authorized access for each user
- Two / multiple Factor authentication.
- Payments will be made through SSL for extra security.
-

3.5.3 Availability Requirements

- The system should be available 90% of the time.

3.5.4 Compatibility Requirements

- The system is compatible with all modern browsers.
- Interoperability.
- Portability.
- Compliance.

3.5.5 Business Rules

- Client can only initiate chat.
- Teams will sign up as teams.
- 10 % per transaction as Application Fees.
- No direct Communication between client and content creator only through our platform.

3.5.6 Scalability Requirements:

- Initially we should be able to accommodate up to 300 users, but in future will make it more scalable.

3.6 Interface Requirements

3.6.1 Hardware Interfaces

There is no specific hardware used in the system.

3.6.2 Software Interfaces

Using MVC architecture following tools and libraries which will be used in development of system are:

- React (View)
- Mongo DB(Model)
- Node Js (Controller)

3.6.3 Communications Interfaces

- HTTP
- TCP/IP

3.7 Database Requirements

We used Mongo Db for the database.

3.8 Project Feasibility

The feasibility of our project is dependent on problem statement. We incorporate the shortcomings of previous freelancing markets. We have classified feasibility into sub-categories; Technical, Operational, and ethical feasibility.

3.8.1 Technical Feasibility

This system is a web-based application that has been developed utilizing the Model View Controller (MVC) architecture. By adopting this architecture, we ensure scalability, separation of logic implementation, and ease of maintenance and upgrades. Throughout the development process, we have carefully considered the system requirements, identified risks, and addressed security concerns. Currently, the system is designed to accommodate up to 300 users, but our future includes enhancing its scalability to handle even larger user volumes.

3.8.2 Operational Feasibility

This system effectively addresses the concerns of operational feasibility and can function as a standalone solution. Although currently in the proof-of-concept stage, we are dedicated to adhering to transaction and business rules stipulated by regulatory bodies such as the Federal Board of Revenue (FBR), Pakistan Computerized Accounting Bureau (PCAB), and other relevant security exchange commissions. By incorporating these standards and regulations, our objective is to establish a secure and dependable platform that allows content creators to monetize their work and clients to enhance their event coverage, all while ensuring compliance with applicable laws and regulations. Furthermore, we aim to promote our system and require funding for promotional activities.

3.8.3 Legal and Ethical Feasibility

Currently, our "Capture Space" web app is in the proof-of-concept stage. However, once we make it publicly available, we are committed to ensuring that our system fully complies with all legal and ethical aspects. We will incorporate the payment processing standards of Pakistan as provided by the State Bank of Pakistan. Additionally, we will adhere to transaction and business rules set forth by regulatory bodies such as the Federal Board of Revenue (FBR), Pakistan Computerized Accounting Bureau (PCAB), and other relevant security exchange commissions. By incorporating these standards and regulations, we aim to provide a secure and trustworthy platform for content creators to monetize their work while maintaining compliance with all applicable laws and regulations.

3.9 Conclusion

This chapter is related to the system requirements of our project. We follow the Software Development Life Cycle (SDLC) for implementation. The development approach that we used was Agile. We started by first identifying the requirements, then followed by use-cases, functional, non-functional, design, and then development. If there was any change in requirements, the steps of Agile methodology were repeated.

CHAPTER-4

SYSTEM DESIGN

4. System Design

4.1 Logical View

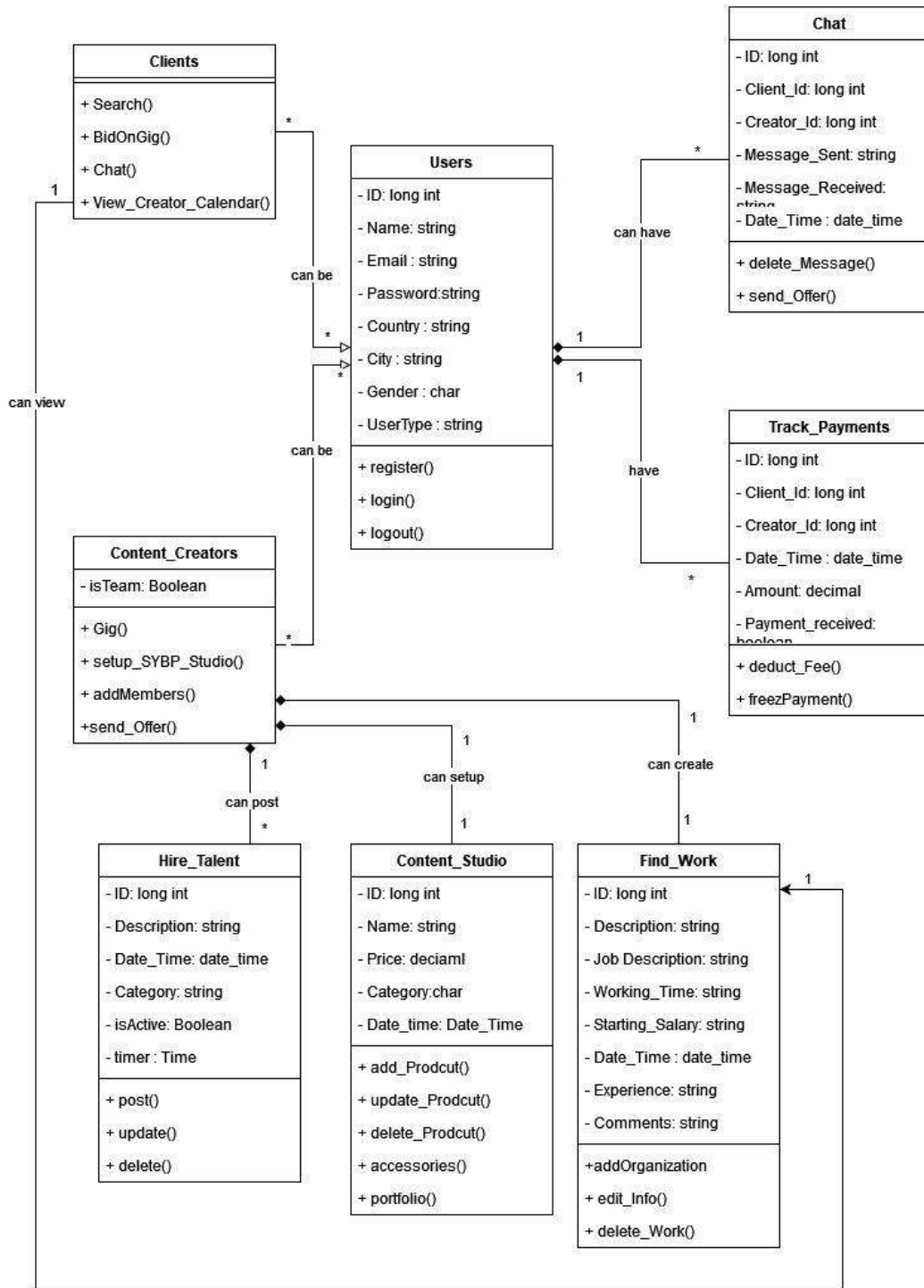


Figure 12 Capture Space class Diagram

4.2 Dynamic View

Sequence Diagrams of the system

4.2.1 Hire Talent as client / content creator / content creator team

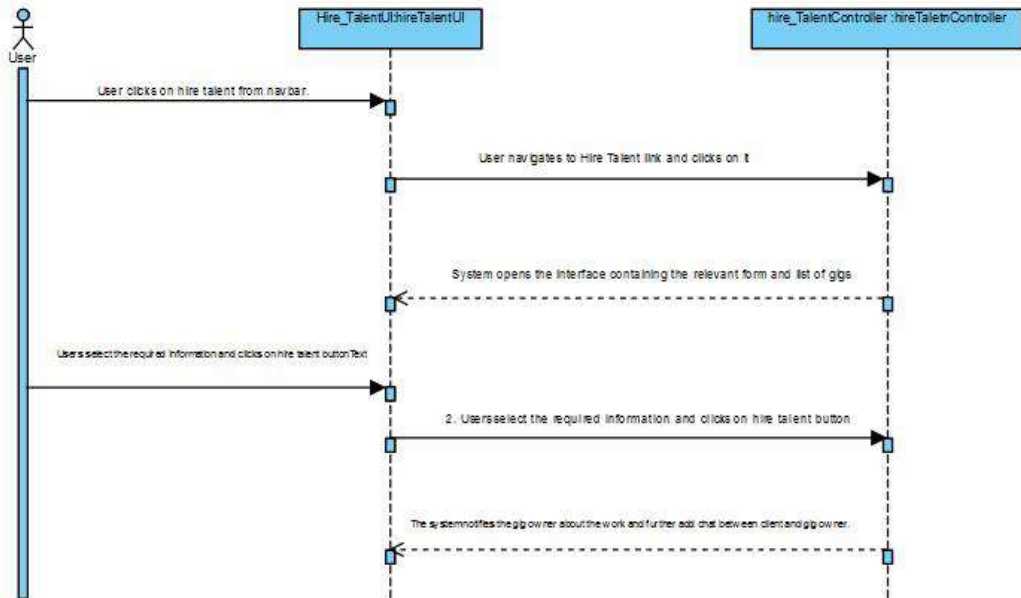


Figure 13 Hire Talent sequence diagram

4.2.2 Find Work as client / content creator / content creator team

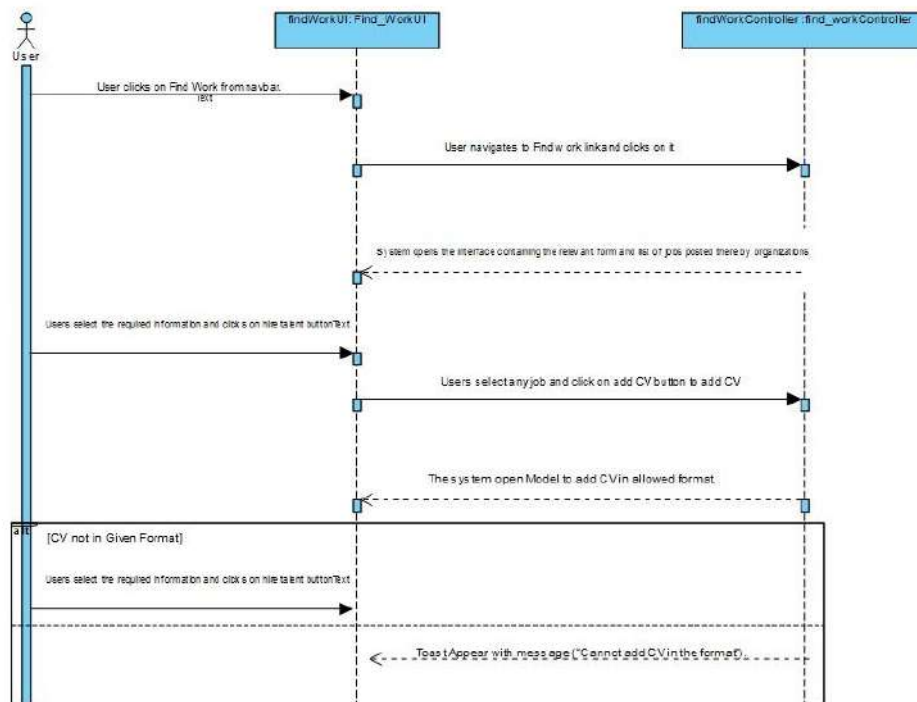


Figure 14 Find Work sequence diagram

4.2.3 Users

4.2.3.1 Register as client / content creator / content creator team

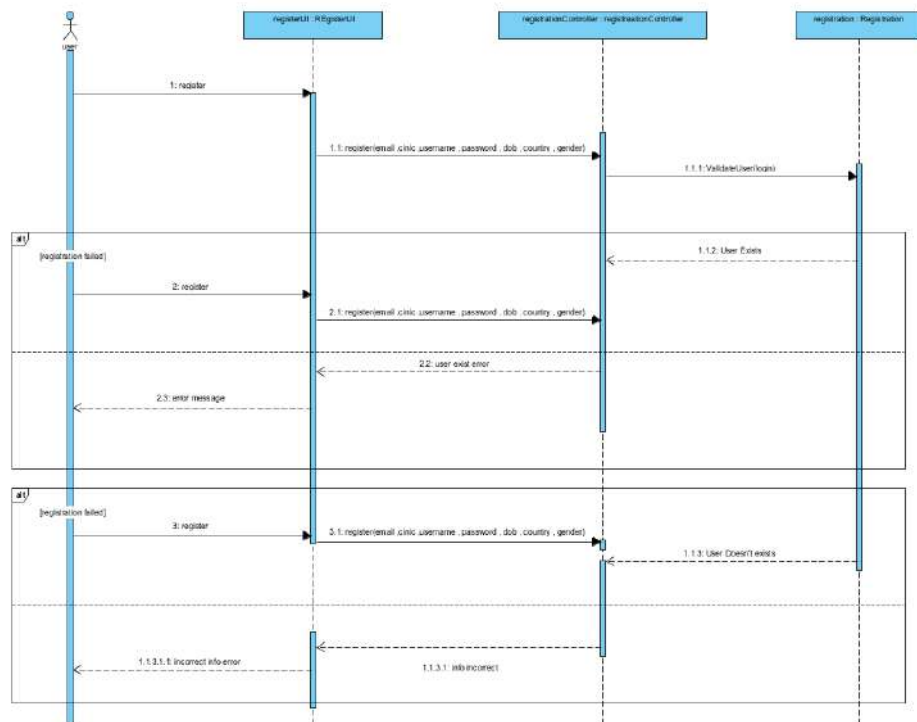


Figure 15 Register sequence diagram

4.2.3.2 Login as client / content creator / content creator team

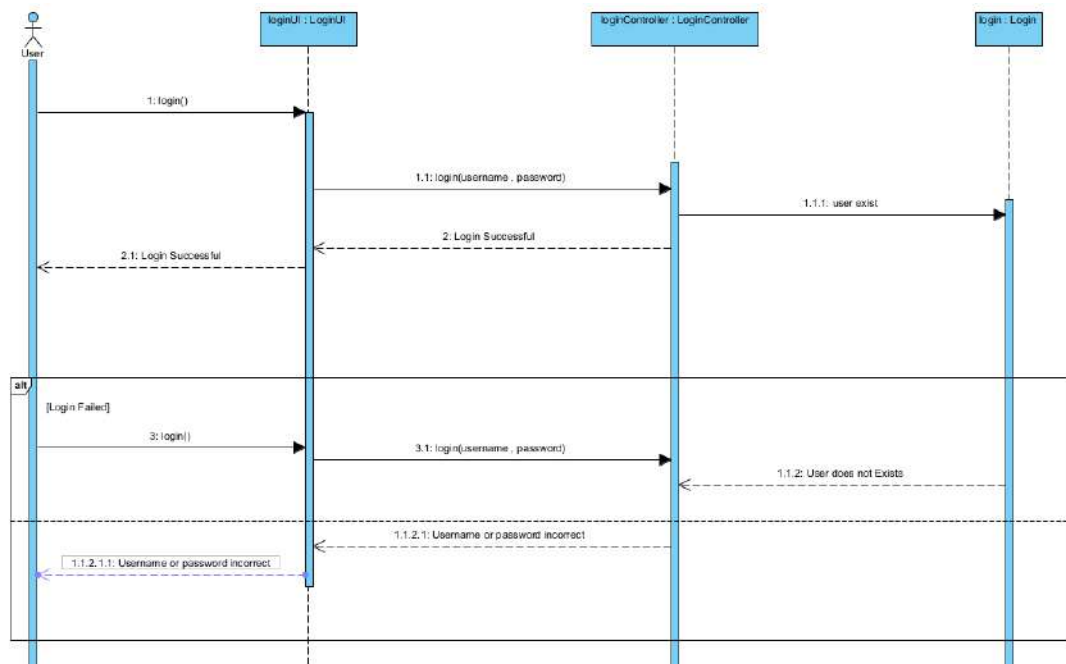


Figure 16 Login sequence diagram

4.2.3.3 Edit Profile as client / content creator / content creator team

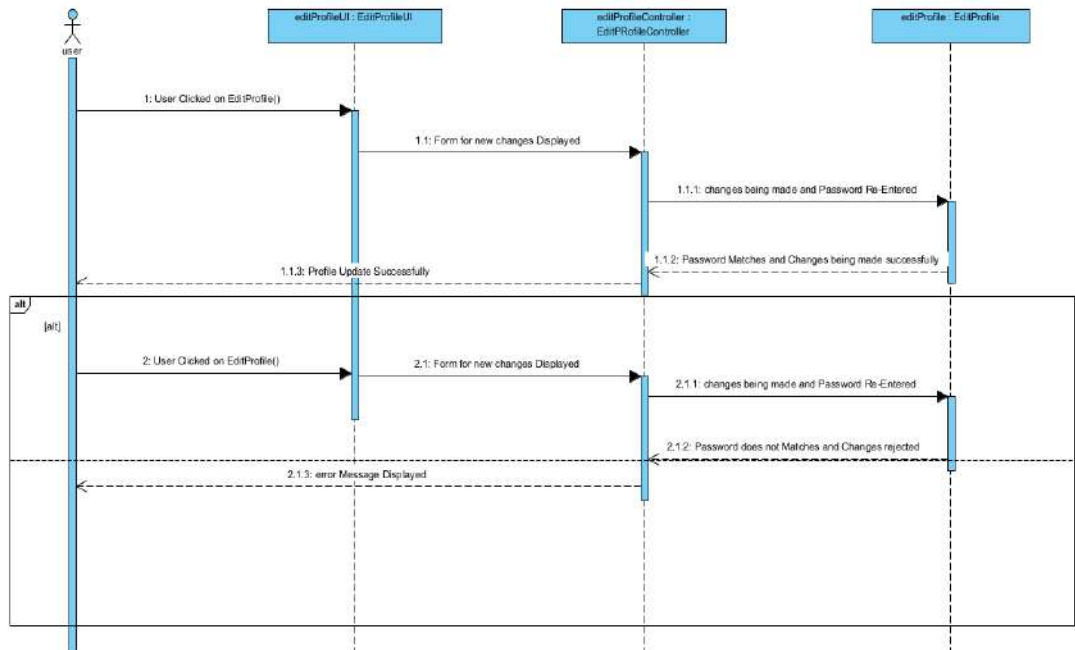


Figure 17 Edit Profile sequence diagram

4.2.3.4 Search for content creator / content creator team as client

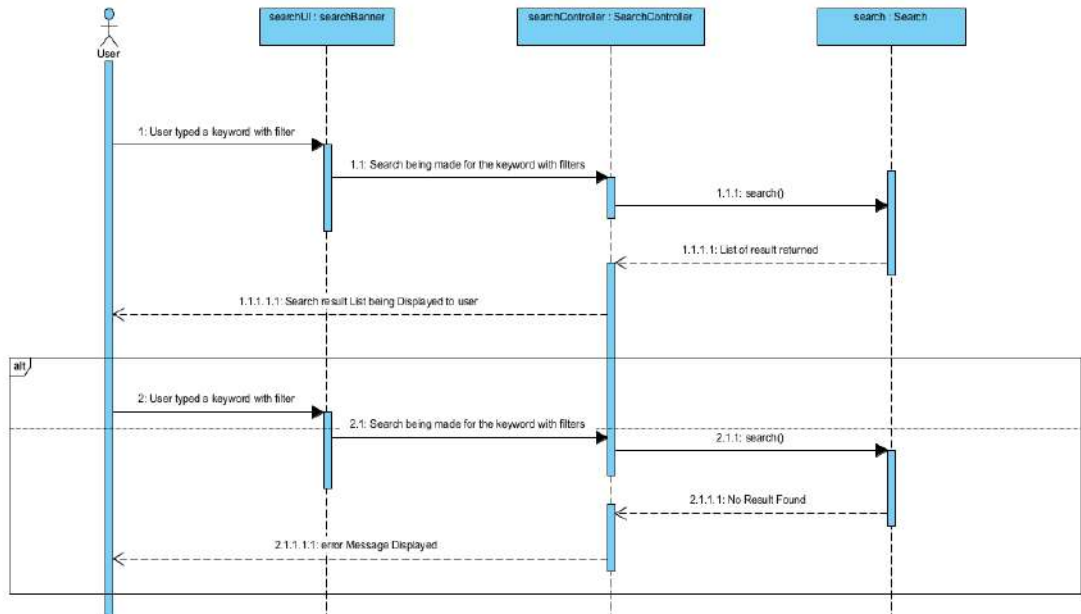


Figure 18 Search sequence diagram

4.2.3.5 Chat as client with content creator / content creator team

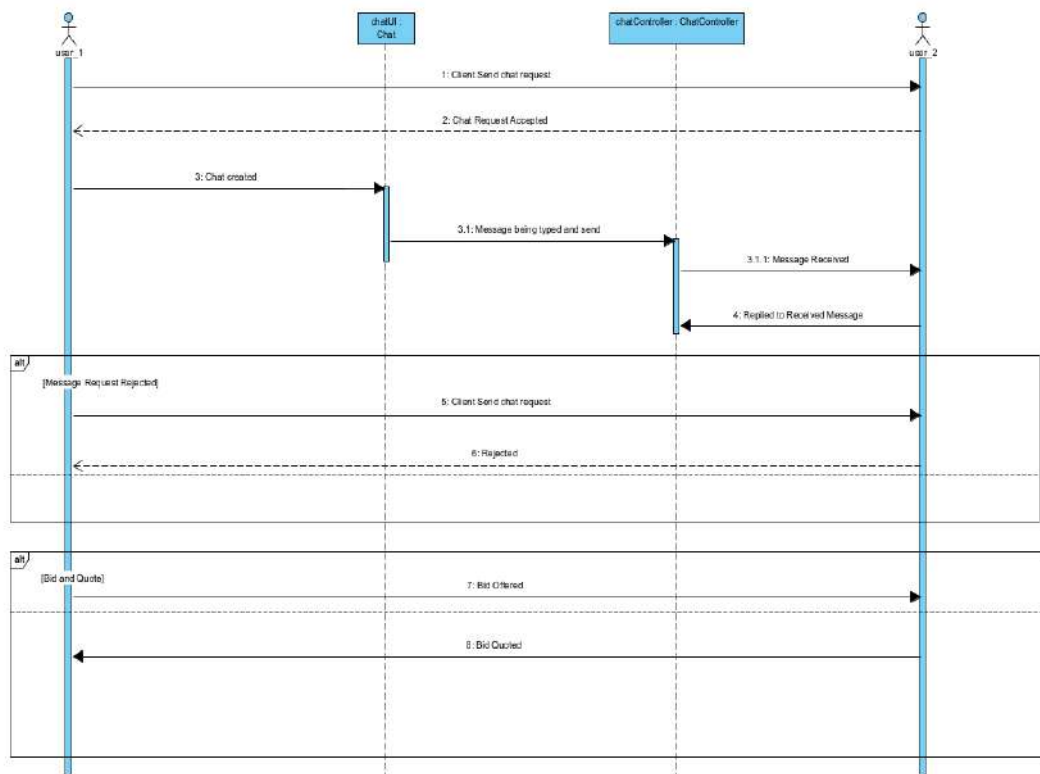


Figure 19 Chat sequence diagram

4.2.3.6 Reviews from client

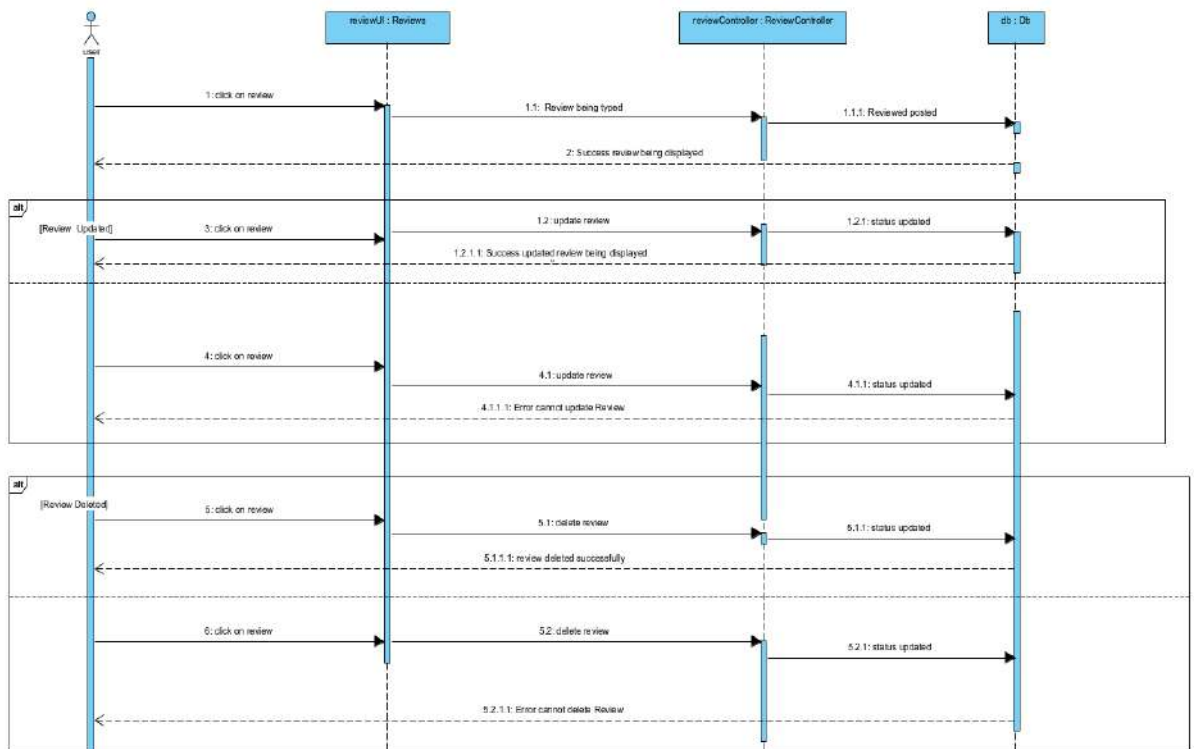


Figure 20 Reviews sequence diagram

4.2.3.7 Logout as client / content creator / content creator team

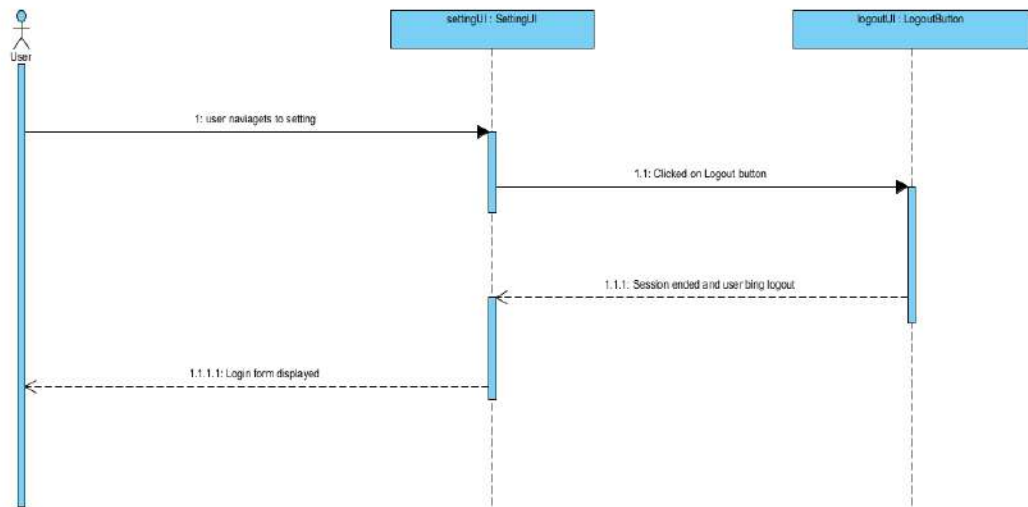


Figure 21 Logout sequence diagram

4.2.3.8 Track Payments as client / content creator / content creator team

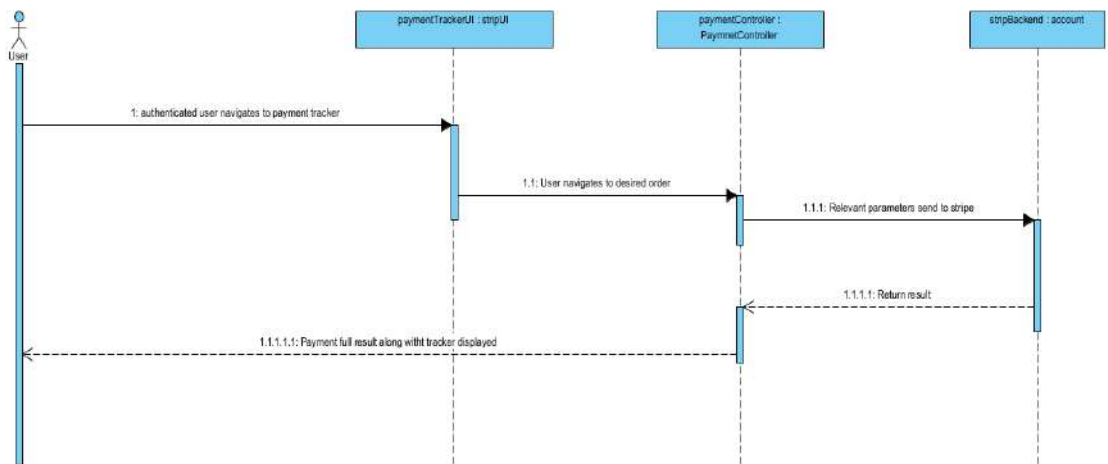


Figure 22 Track Payment sequence diagram

4.2.3.9 Post a gig as content creator / content creator team

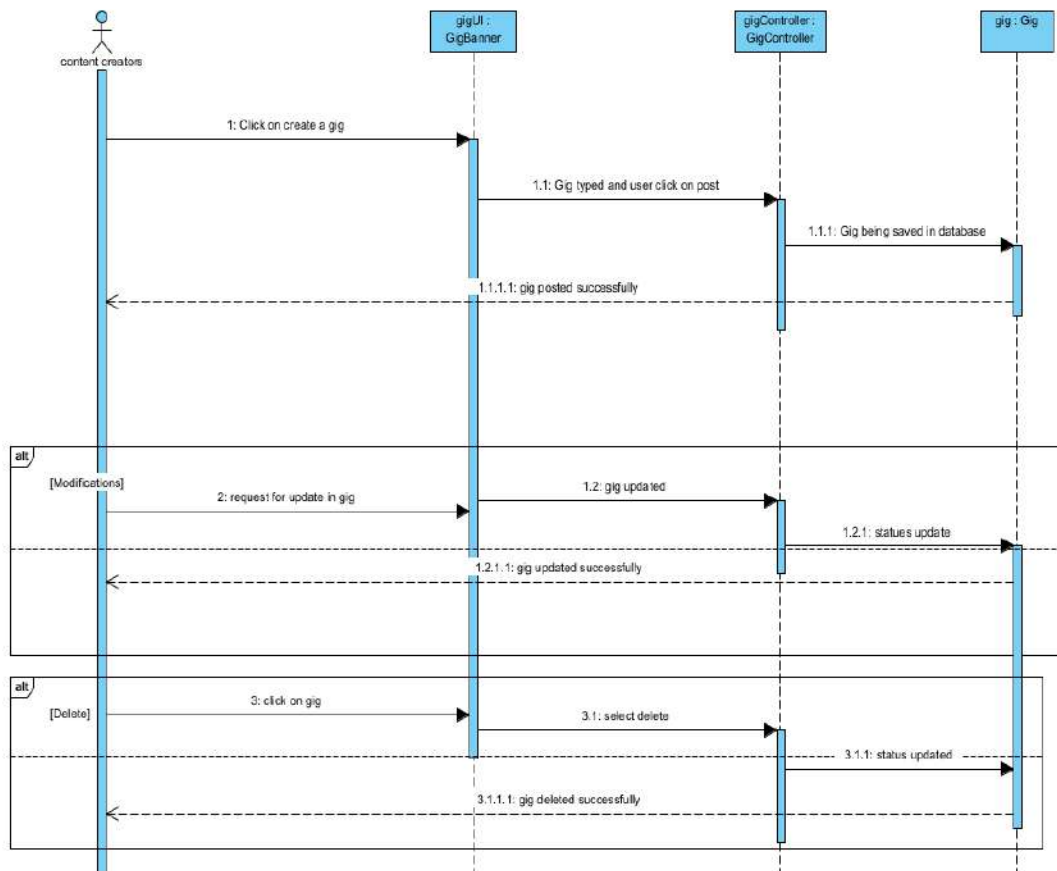


Figure 23 Post a gig sequence diagram

4.2.3.10 Content Studio as content creator / content creator team

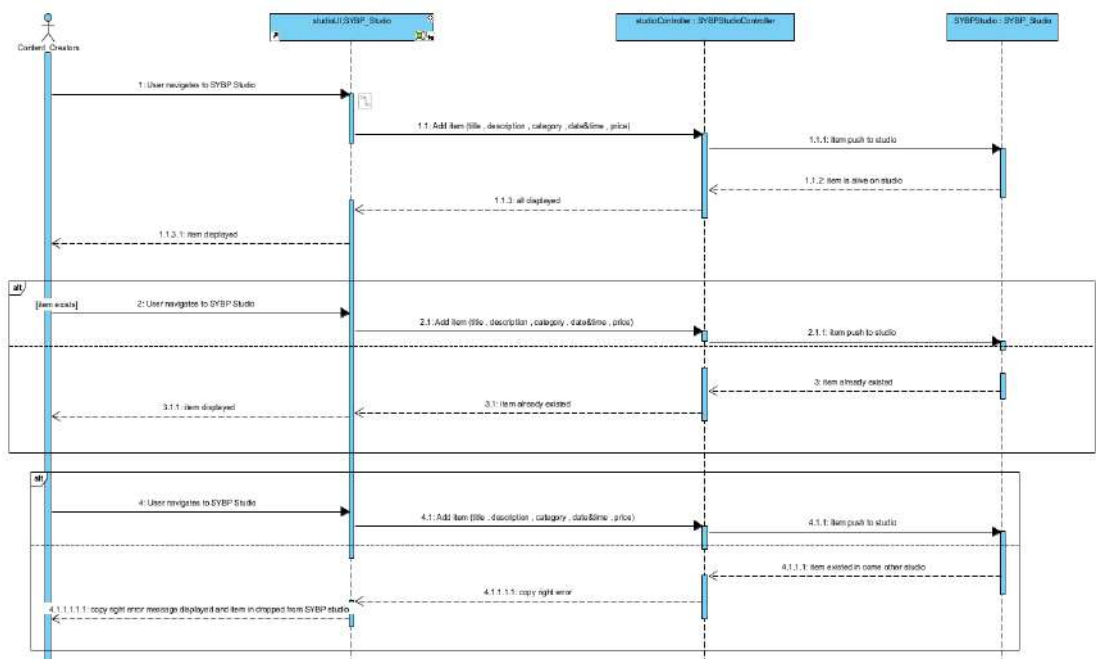


Figure 24 Content Studio sequence diagram

4.2.4 Admin:

4.2.4.1 Login

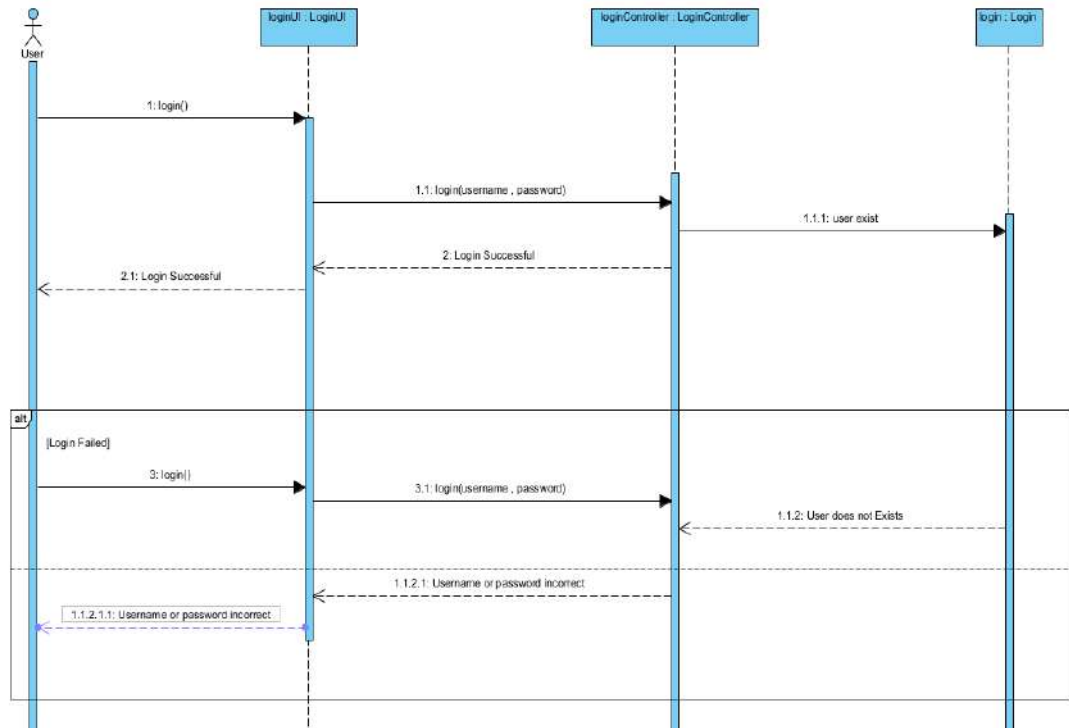


Figure 25 Login sequence diagram

4.2.4.2 Logout

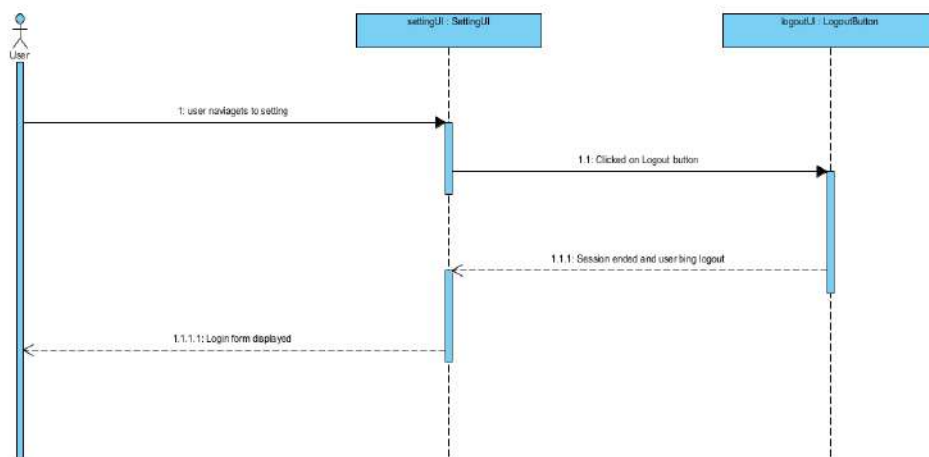


Figure 26 Logout sequence diagram

4.2.4.3 Dashboard Access /Analytics and Reporting

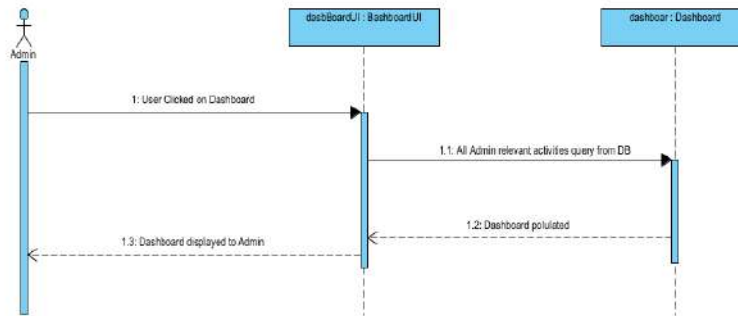


Figure 27 Dashboard access sequence diagram

4.2.4.4 Customers Service / Content Review and Moderation

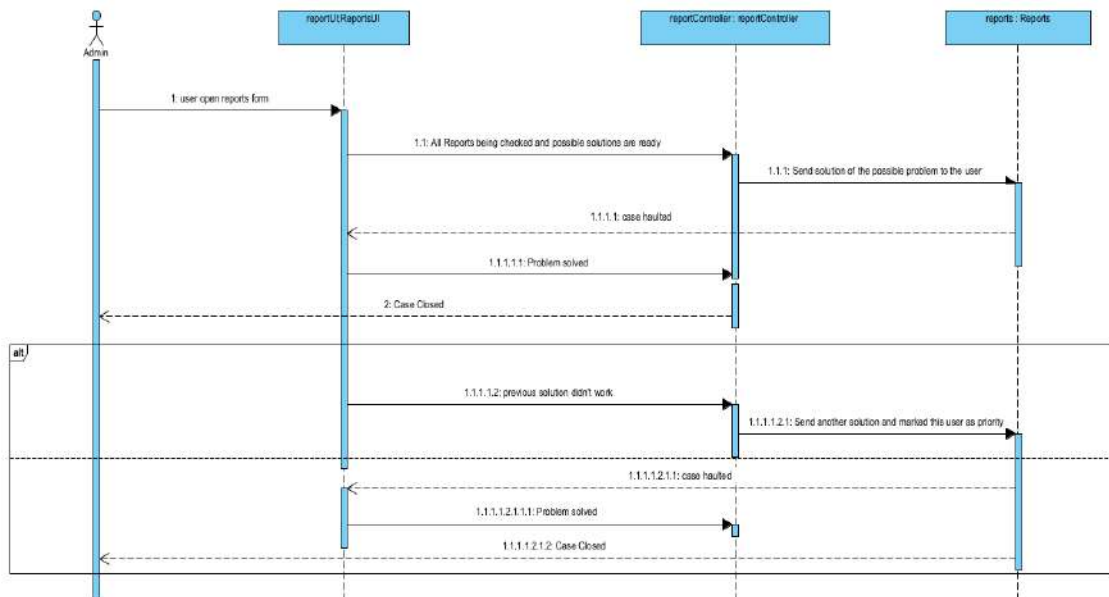


Figure 28 Customers services sequence diagram

4.2.4.5 User management

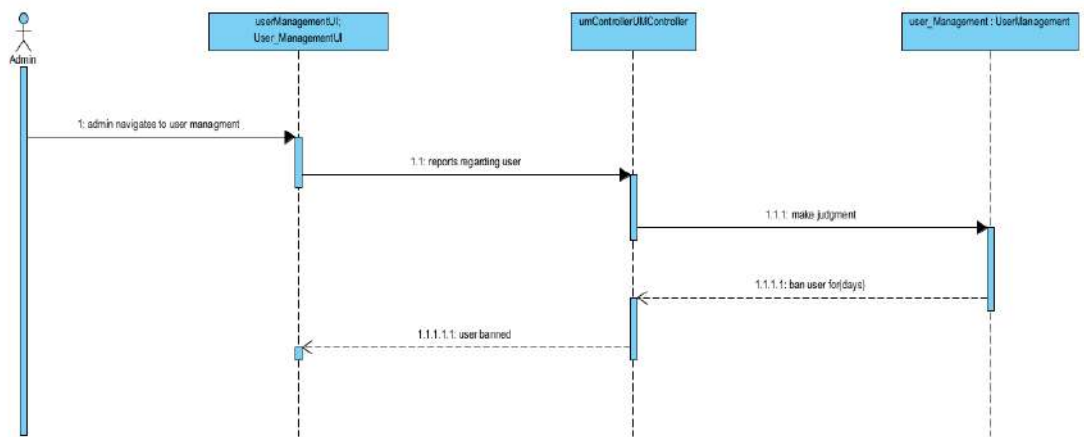


Figure 29 User management sequence diagram

4.3 Deployment View

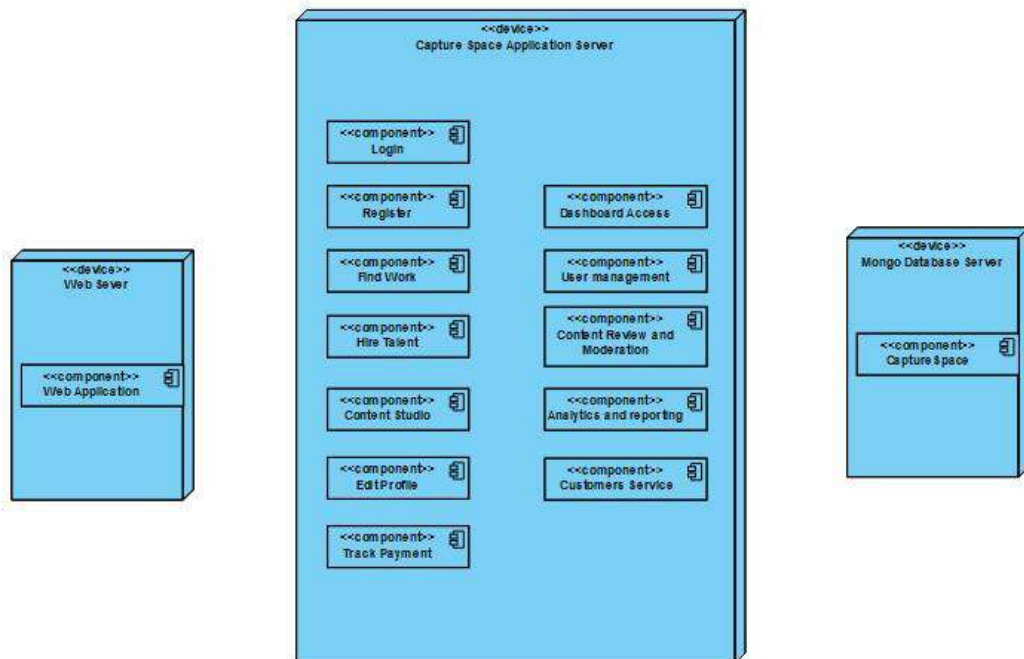


Figure 30 Capture Space deployment diagram

4.4 Development View

	Task Name	Work	Duration	Start	Finish
1	Capture Space (FYP)		888 hrs 111 days	Mon 8/1/22	Sat 12/31/22
2	1 Software Requirements Specification(SRS)		88 hrs 11 days	Mon 8/1/22	Mon 8/15/22
3	1.1 Gather Requirments		0 hrs 3 days	Mon 8/1/22	Wed 8/3/22
4	1.2 Requirement Analysis		0 hrs 2 days	Thu 8/4/22	Fri 8/5/22
5	1.3 Submit SRS		0 hrs 1 day	Mon 8/8/22	Mon 8/8/22
6	1.4 Approved SRS		0 hrs 1 day	Tue 8/9/22	Tue 8/9/22
7	1.5 Prepare Development Document		0 hrs 3 days	Thu 8/11/22	Mon 8/15/22
8	2 Software Design Specifications (SDS)		96 hrs 12 days	Tue 8/16/22	Wed 8/31/22
9	2.1 Analysis SRS		16 hrs 2 days	Tue 8/16/22	Wed 8/17/22
10	2.2 Submit Design Document		16 hrs 2 days	Thu 8/18/22	Fri 8/19/22
11	2.3 Approve Design Document		16 hrs 2 days	Mon 8/22/22	Tue 8/23/22
12	2.4 Approve Specifications Document		16 hrs 2 days	Wed 8/24/22	Thu 8/25/22
13	2.5 Software Architecture		32 hrs 4 days	Fri 8/26/22	Wed 8/31/22
14	3 Prototype		88 hrs 11 days	Thu 9/1/22	Thu 9/15/22
15	3.1 Low Fidelity Prototype		40 hrs 5 days	Thu 9/1/22	Wed 9/7/22
16	3.2 High Fidelity Prototype		40 hrs 6 days	Mon 8/8/22	Mon 8/15/22
17	4 Implementation		352 hrs 44 days	Fri 9/16/22	Wed 11/16/22
18	4.1 Analysis Design Document		32 hrs 4 days	Fri 9/16/22	Wed 9/21/22
19	4.2 Front End Development		120 hrs 15 days	Thu 9/22/22	Wed 10/12/22
20	4.3 Back End Development		160 hrs 20 days	Thu 10/13/22	Wed 11/9/22
21	4.4 Database		40 hrs 5 days	Wed 11/9/22	Tue 11/15/22
22	5 Testing		176 hrs 22 days	Thu 11/17/22	Fri 12/16/22
23	5.1 Creating Test Scenrio		24 hrs 3 days	Thu 11/17/22	Mon 11/21/22
24	5.2 Unit Testing		40 hrs 5 days	Mon 11/21/22	Fri 11/25/22
25	5.3 Integration Testing		40 hrs 5 days	Fri 11/25/22	Thu 12/1/22
26	5.4 System Testing		40 hrs 5 days	Thu 12/1/22	Wed 12/7/22
27	5.5 User Acceptance Testing		32 hrs 4 days	Thu 12/8/22	Tue 12/13/22
28	6 Project Signoff		96 hrs 12 days	Sat 12/17/22	Sat 12/31/22
29	6.1 Gaining Formal Acceptance		48 hrs 6 days	Sat 12/17/22	Fri 12/23/22
30	6.2 Deployment		48 hrs 6 days	Fri 12/23/22	Fri 12/30/22

Figure 31 Development view of Capture Space

4.5 Component Diagram

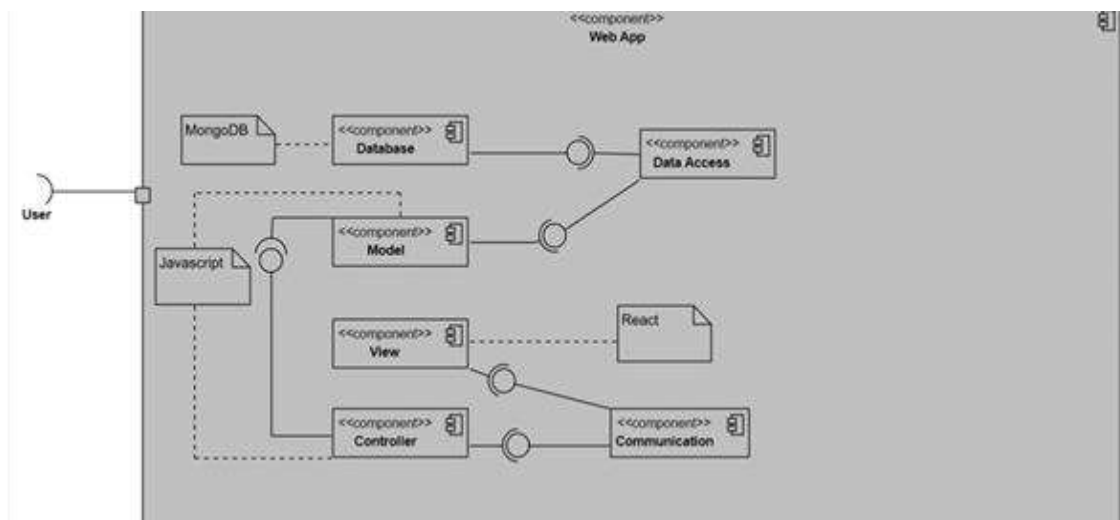


Figure 32 Capture Space component diagram

4.6 Data Model

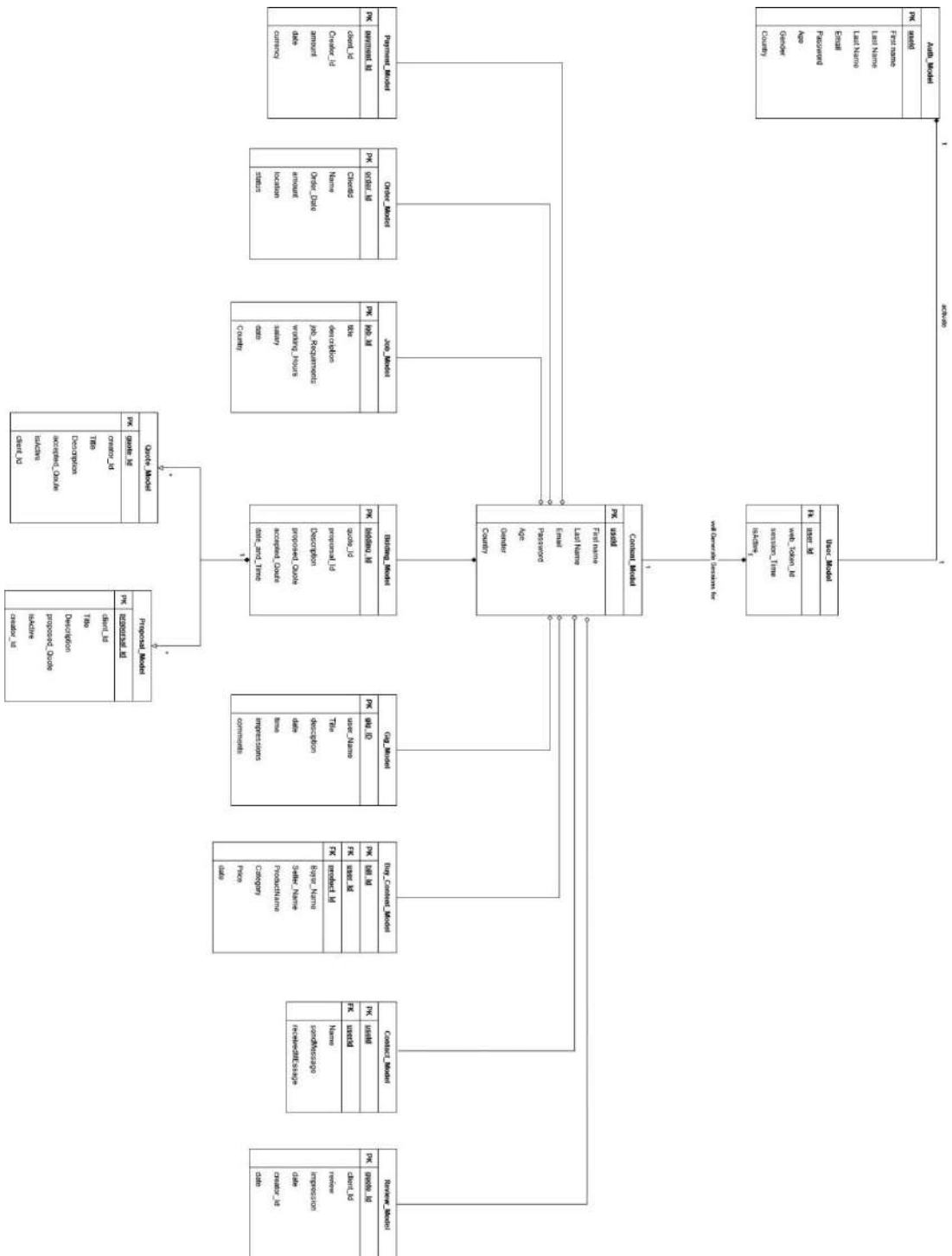
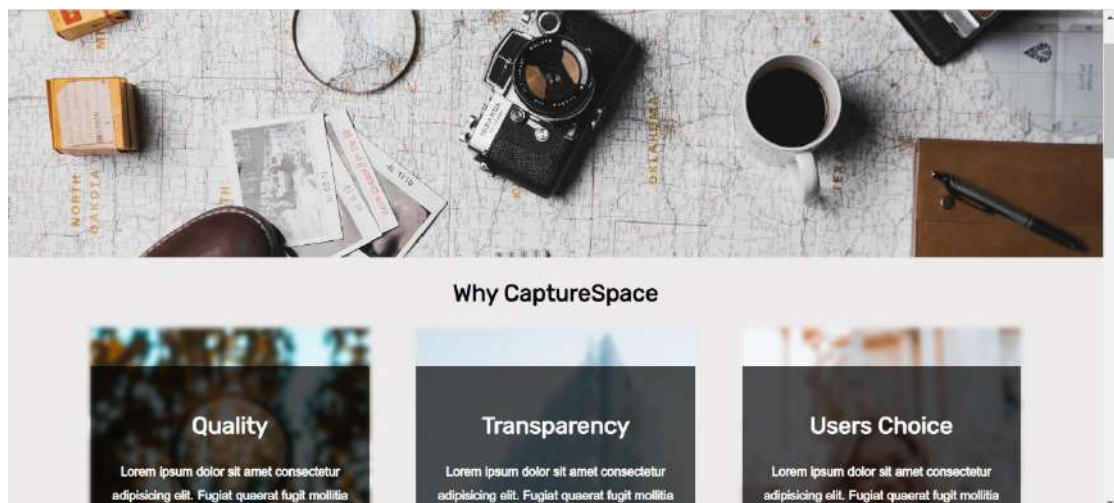
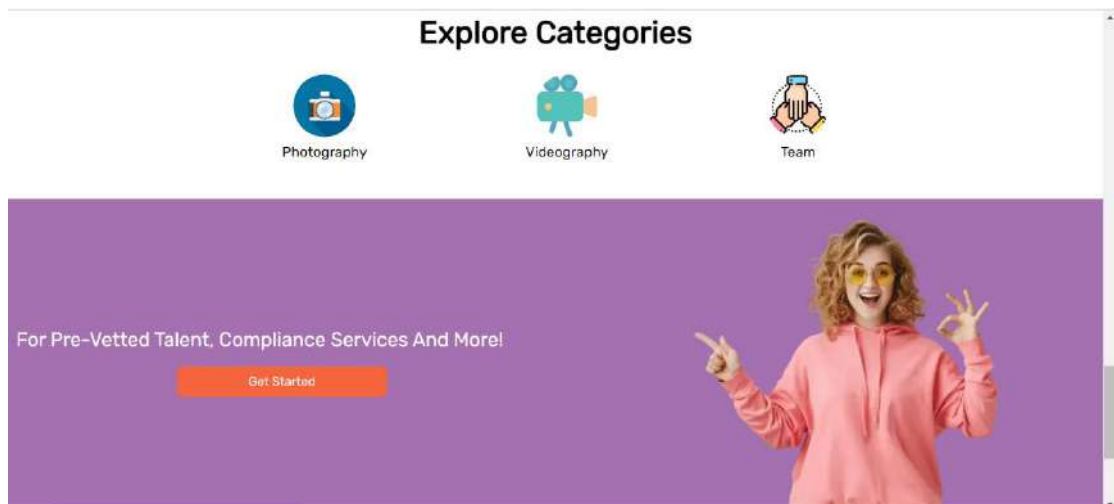
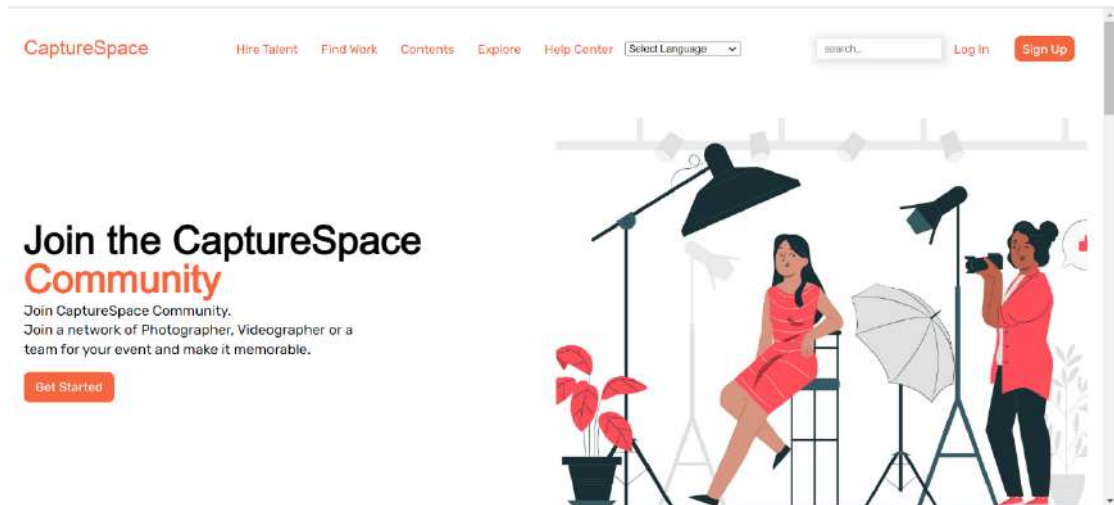


Figure 33 Capture Space Data model diagram

4.7 User Interfaces



Our Vision

Satisfaction

Lorem ipsum dolor sit amet consectetur
adipiscing elit. Fugiat quaeerat fugit mollitia
aspematur laboriosam est eveniet qui natus iure
labore!

Trust

Lorem ipsum dolor sit amet consectetur
adipiscing elit. Fugiat quaeerat fugit mollitia
aspematur laboriosam est eveniet qui natus iure
labore!

Uniqueness

Lorem ipsum dolor sit amet consectetur
adipiscing elit. Fugiat quaeerat fugit mollitia
aspematur laboriosam est eveniet qui natus iure
labore!

Our Services



Event Team

Lorem ipsum dolor sit amet consectetur adipiscing elit.
Fugiat quaeerat fugit mollitia aspematur laboriosam est
eveniet qui natus iure labore!

Faq

How Can I Start?

×

How Is The Negative Impact?

×

How Can I Make Purchase?

×



Browse Help Categories

Search Articles



Seller Buyer

Browse Help Categories

Search Articles



Seller Buyer



Get Started

Lorem ipsum, dolor sit amet consectetur adipiscing elit. Labore, accusamus.



Get Started

Lorem ipsum, dolor sit amet consectetur adipiscing elit. Labore, accusamus.



Get Started

Lorem ipsum, dolor sit amet consectetur adipiscing elit. Labore, accusamus.



Get Started

Lorem ipsum, dolor sit amet consectetur adipiscing elit. Labore, accusamus.



Get Started

Lorem ipsum, dolor sit amet consectetur adipiscing elit. Labore, accusamus.



Get Started

Lorem ipsum, dolor sit amet consectetur adipiscing elit. Labore, accusamus.

A Few Recommended Topics For You



Stay Safe Online 2

Lorem ipsum dolor sit amet consectetur adipiscing elit. Recusandae, necessitatibus.

How May We Help You? Drop Your Message

Send Us A Message

First name

Last name

Name@email.com

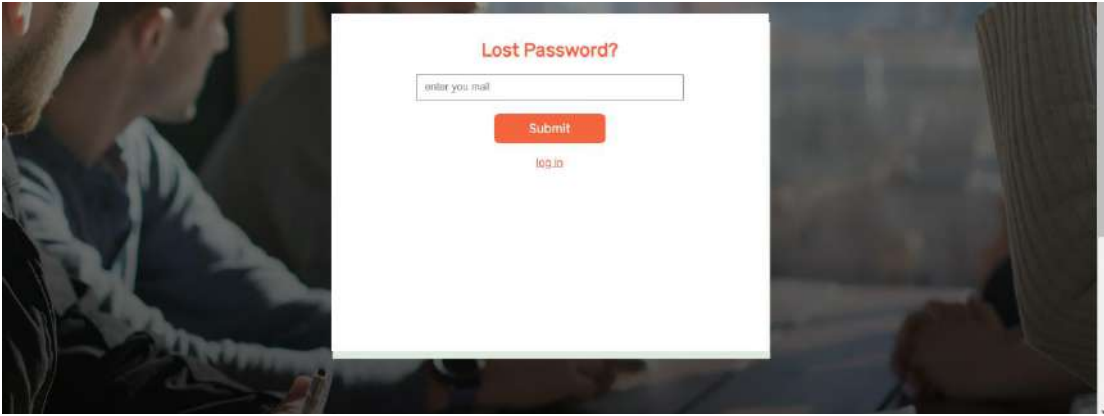
Login

example@gmail.com

password

Submit

don't have an account? [sign up](#)
just password?



Individual Sign Up

full name

username

example@gmail.com

password

confirm password

country

city

phone number

Male Female Other

Submit

already have an account? [log in](#)

Team Sign Up

company name

username

example@gmail.com

password

confirm password

country

city

Female Team Male Team Mixed Team

Submit

already have an account? [log in](#)



GOVIND RAJ

Umerkot



Total Earnings	0
Transactions Completed	0
Total Gigs	1
Total Quotes	0
Total Orders	0
Total Job Proposals	0

Contact Me

Account

Security

FULL NAME

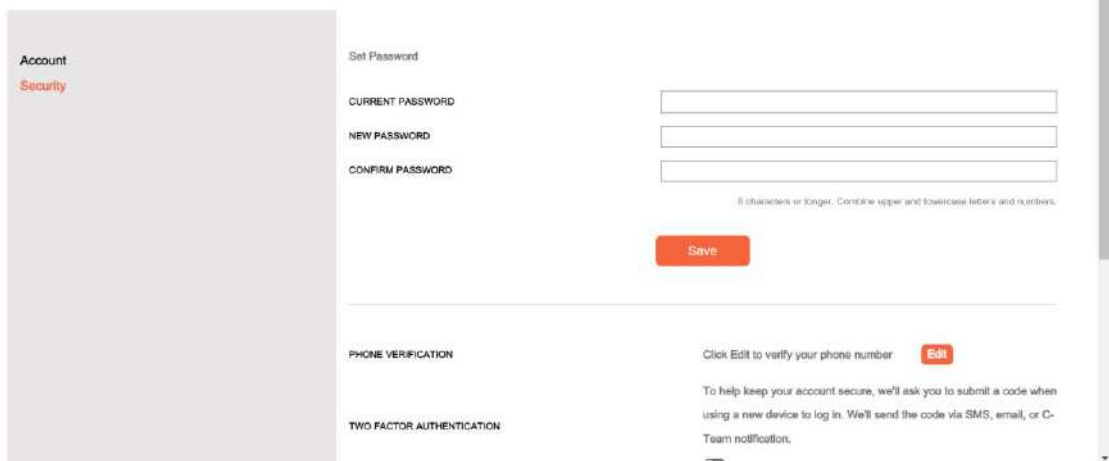
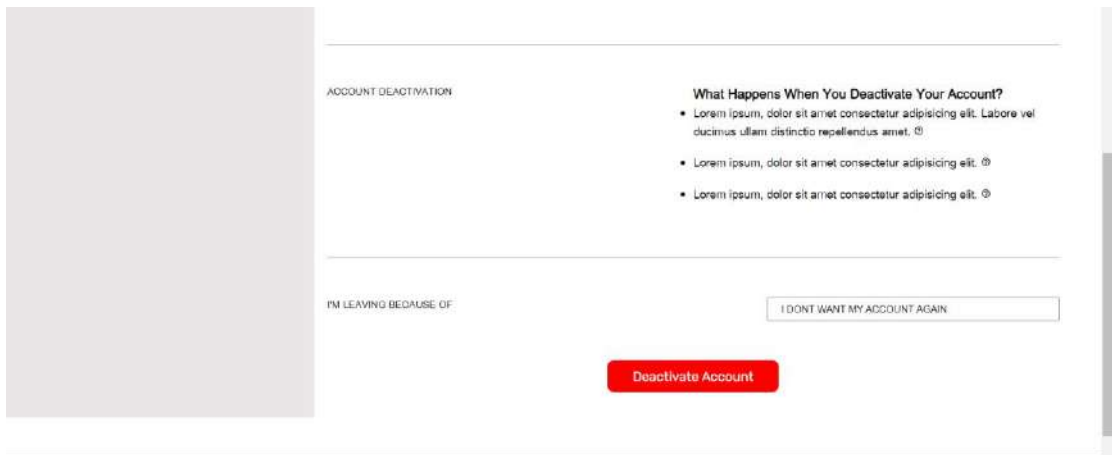
EMAIL

CHANGE PHOTO No file chosen

ACCOUNT DEACTIVATION

What Happens When You Deactivate Your Account?

- Lorem ipsum, dolor sit amet consectetur adipiscing elit. Labore vel ducimus ullam distinctio repellendus amet. ☹
- Lorem ipsum, dolor sit amet consectetur adipiscing elit. ☹
- Lorem ipsum, dolor sit amet consectetur adipiscing elit. ☹



4.8 Conclusion

This chapter is about the design document of project. This chapter contains all the diagrams/figures related to the dynamic view of the system including class, sequence, deployment, and system prototypes. An Agile SDLC was followed here in which the change requests are first referred to in the Software Requirements Specification (SRS) document, and then the changes are incorporated in the dynamic structure of the project.

CHAPTER-5

SYSTEM IMPLEMENTATION

5. System Implementation

5.1 Strategy

Our strategy to complete the project is based on our project's objectives. Our application is web-based. We used Model View Controller (MVC) architectural pattern. Based on our project objectives, our project was divided into three different dimensions/components.

5.2 Tools & Technology Used

The technologies that we used for our project are:

- Nodejs (Backend)
- React (Front-end)
- Mongo DB (database)

The tools that we used throughout our project are:

- Visual Studio
- Visual Studio Code
- Mongo Compass
- Postman
- GitHub
- Visual Paradigm
- Draw.io

5.3 Issues during Implementation & Production Phase

5.3.1 Stripe Implementation:

5.3.1.1 Localization and internationalization:

Our application supports multiple languages or currencies, you'll need to handle localization and internationalization in your payment flow. Stripe provides options for configuring localization settings, such as setting the currency and language for checkout pages.

5.3.1.2 Subscription management:

We are implementing recurring payments or subscription-based services, you'll need to handle subscription management, including creating, updating, and canceling

subscriptions. Refer to Stripe's documentation on subscription management to understand the concepts and implement the necessary functionality.

5.3.2 Tokenization:

5.3.2.1 Security considerations:

Tokenization is designed to enhance security by replacing sensitive payment information with tokens. However, it's essential to handle and store tokens securely on your server. Properly implementing tokenization and adhering to security best practices is crucial to prevent unauthorized access to sensitive data.

5.3.2.2 Limited payment processor support:

While Google Pay offers tokenization, not all payment processors or gateways may support it. You need to ensure that your chosen payment processor integrates with Google Pay and supports tokenization to utilize this feature effectively.

5.3.2.3 Compliance requirements:

Depending on your industry and location, you may need to comply with specific regulations and standards, such as PCI DSS (Payment Card Industry Data Security Standard). It's important to ensure that your tokenization implementation aligns with the necessary compliance requirements to protect user data and avoid legal issues.

5.4 Methodologies

The system was developed using iterative development. The focus was to build and test smaller modules and then move onto integration and system implementation. Performance was the key outcome along each stage/phase.

5.5 System Architecture

The system architecture used is Model-View-Controller (MVC). MVC supports rapid and parallel development. MVC architecture allows user to have separate layers of concerns like View for UI, Model for data, and Controller for application logic. One major advantage of using this architecture pattern is improved performance, code readability and scalability.

Model:

The Model component corresponds to all the data-related logic that the user works with. This can represent either the data that is being transferred between the View and Controller components or any other business logic-related data.

View:

The View component is used for all the UI logic of the application.

Controller:

Controllers act as an interface between Model and View components to process all the business logic and incoming requests, manipulate data using the Model component and interact with the Views to render the final output. E

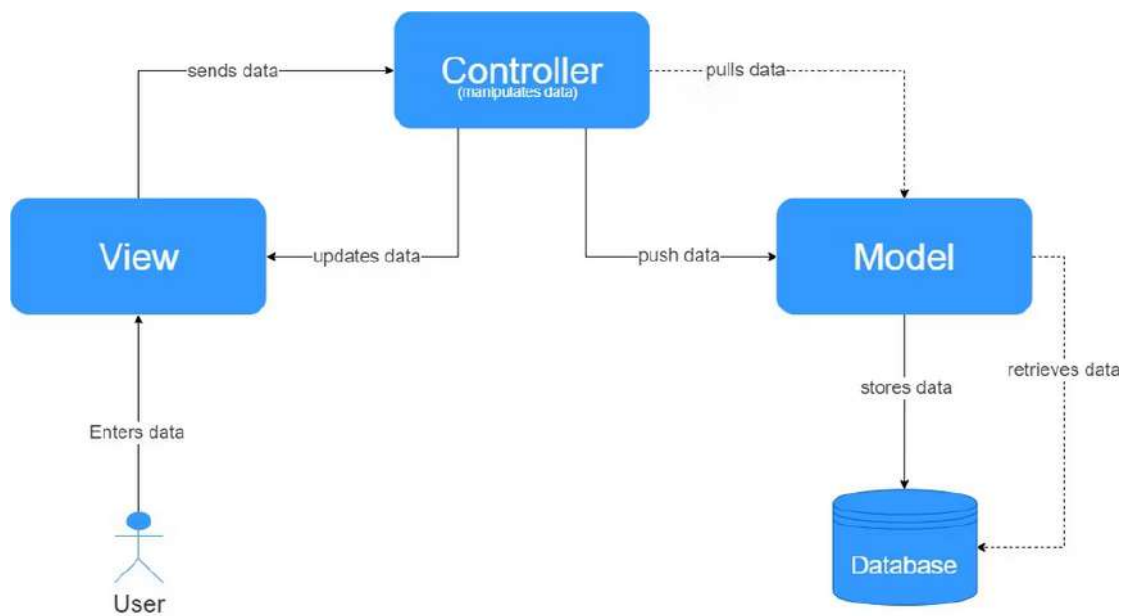


Figure 34 MVC block diagram

CHAPTER-6

SYSTEM TESTING

6. System Testing

6.1 Test Strategy

Testing is an important phase of the software development life cycle. The purpose of testing is to ensure that the system feature matches the requirements. Testing objectives include bug identification and resolution and identification of missing requirements in contrast to actual requirements.

Test strategy of this system include:

- Test Schedule (WBS for testing)
- Test Development (test case preparation)
- Test Execution
- Defect Management
- Delivery

6.2 Unit Testing

Unit testing is focused on the smallest unit of the system. The smallest unit can be a function or any other smaller unit. Unit testing is carried out by programmers to ensure that the smaller module or function works fine and is free from any logical error.

6.3 Component Testing

Component testing is also known as module testing. Component testing is performed after unit testing. In component testing instead of targeting a smaller module, a separate class, object, or module is tested which may consist of many smaller units.

6.4 Integration Testing

Integration testing is performed to ensure that when smaller units are combined, it works fine. In integration testing individual classes or modules are merged and tested. The purpose is to check the system program structure.

Integration with stripe is tested by making dummy transition in test mode.

Use Case ID	IT-STRIP-01
Test Case ID	TC-01
Scenario ID	1-1
Scenario/Condition	Successfully payment
Action	Client clicks on payment, enter card information, select card type, add pin, add amount, and click on proceed.
Input	Card no, card type, pin, amount
Pre-Condition	Client must be registered
Expected Output	Transaction Successful.
Post-Condition	Return to home screen.
Pass/Fail Criteria	Transaction being made.
Remarks	Positive test case

6.5 System Testing

System testing is performed to ensure that the system works fine as a whole. In system testing we check functionality, security, and portability. Blackbox testing technique is used for system testing.

6.6 Test Cases

6.6.1 Register as client / content creator / content creator team Test Cases

Use Case ID	UC-TE-01
Test Case ID	TC-01
Scenario ID	1-1
Scenario/Condition	Successfully Register
Action	Clicks on the sign-up link
Input	Username (govind), Email (govind@...), Password (Ali123@)
Pre-Condition	None
Expected Output	Registration successful
Post-Condition	Toast message appears (User Registered Successfully)
Pass/Fail Criteria	Account successfully created and user can sign in with these credentials
Remark	Positive test case

Use Case ID	UC-TE-01
Test Case ID	TC-01
Scenario ID	1-2
Scenario/Condition	User Already exists, sign up failed
Action	Clicks on the sign-up link
Input	Username (govind), Email (govind@...), Password (govind123@)

Pre-Condition	None
Expected Output	User already exists
Post-Condition	Toast message appears (User already exist)
Pass/Fail Criteria	Does not allow the user to sign up and user can try with different username
Remarks	Negative test case

6.6.2 Login as client / content creator / content creator team Test Cases

Use Case ID	UC-TE-02
Test Case ID	TC-02
Scenario ID	2-1
Scenario/Condition	Successful Log in
Action	Enter user credentials and clicks on log in button
Input	Username (aizaz), Password (aizaz123@)
Pre-Condition	User must be registered
Expected Output	Log in Successful
Post-Condition	Display the system home screen
Pass/Fail Criteria	User successfully able to log into the system
Remarks	Positive test case

Use Case ID	UC-TE-02
Test Case ID	TC-02

Scenario ID	2-2
Scenario/Condition	Log In failed
Action	Enter incorrect username and clicks on log in button
Input	Username (aizazzaheen), Password (aizaz123@)
Pre-Condition	User must be registered
Expected Output	Log in failed
Post-Condition	Toast message appears (Username or password is incorrect)
Pass/Fail Criteria	Account successfully created and user can sign in with these credentials
Remarks	Negative test case

Use Case ID	UC-TE-02
Test Case ID	TC-02
Scenario ID	2-3
Scenario/Condition	Log In failed
Action	Enter incorrect username, password and clicks on log in button
Input	Username (aizazzaheen), Password (aizaz123456)
Pre-Condition	User must be registered
Expected Output	Log in failed
Post-Condition	Toast message appears (Username or password is incorrect)

Pass/Fail Criteria	Account successfully created and user can sign in with these credentials
Remarks	Negative test case

6.6.3 Edit Profile as client / content creator / content creator team Test Cases

Use Case ID	UC-TE-03
Test Case ID	TC-03
Scenario ID	3-1
Scenario/Condition	Successful Edit Profile
Action	User change name, email and contact info and verify password clicks on save changes in button
Input	Aizazzaheen, aizazkhan093@gmail.com , 32211122334, aizaz123
Pre-Condition	User must be registered
Expected Output	Profile Edited successfully.
Post-Condition	Display the system home screen
Pass/Fail Criteria	User successfully able to edit system
Remarks	Positive test case

Use Case ID	UC-TE-03
Test Case ID	TC-03
Scenario ID	3-2

Scenario/Condition	Edit profile failed
Action	User change name, email and contact info and enter wrong password and clicks on save changes in button
Input	Aizazzaheen, aizazkhan093@gmail.com , 32211122334, aizaz123
Pre-Condition	User must be registered
Expected Output	Edit profile failed
Post-Condition	Toast message appears (password is incorrect)
Pass/Fail Criteria	User successfully able to edit system
Remarks	Negative test case

6.6.4 Post a gig as content creator / content creator team Test Cases

Use Case ID	UC-TE-04
Test Case ID	TC-04
Scenario ID	4-1
Scenario/Condition	Successful posted a gig
Action	Content creator or content creator team click on gig creation, add details, and click on post gig
Input	Info, new arrival, gigs details.
Pre-Condition	User must be registered
Expected Output	Gig posted successfully.
Post-Condition	Display the gig which is posted

Pass/Fail Criteria	Content creator or content creator team successfully able to post a gig
Remarks	Positive test case

Use Case ID	UC-TE-04
Test Case ID	TC-04
Scenario ID	4-2
Scenario/Condition	Unsuccessful post of gig
Action	Content creator or content creator team click on gig creation, add details, and click on post gig
Input	Info, new arrival, missed gig details
Pre-Condition	User must be registered
Expected Output	Failed to post a gig
Post-Condition	Toast message appears (Gig details missing)
Pass/Fail Criteria	Content creator or content creator team should be able to post a gig
Remarks	Negative test case

6.6.5 Chat as client / content creator / content creator team with vice versa Test Cases

Use Case ID	UC-TE-05
Test Case ID	TC-05
Scenario ID	5-1

Scenario/Condition	Successfully have chat with other use
Action	User or Content creator or content creator team click on chat button, write a message, and click on send message
Input	message
Pre-Condition	User must be registered
Expected Output	Message send successfully
Post-Condition	Chat between users
Pass/Fail Criteria	User should be able to message each other unless blocked
Remarks	Positive test case

Use Case ID	UC-TE-05
Test Case ID	TC-05
Scenario ID	5-2
Scenario/Condition	Unsuccessful post of gig
Action	User or Content creator or content creator team click on chat button, write a message, and click on send message
Input	Message
Pre-Condition	User must be registered
Expected Output	Failed to send message
Post-Condition	Toast message appears (“cannot send message to user”)

Pass/Fail Criteria	User should be able to message each other unless blocked
Remarks	Negative test case

6.6.6 Content Studio Test Cases

Use Case ID	UC-TE-06
Test Case ID	TC-06
Scenario ID	6-1
Scenario/Condition	Successfully posted photo in content creator studio
Action	Content creator or content creator team click on content studio, click on photo, click on add photo, add captions and category, pricing and click on post photo,
Input	Image source, captions, category, pricing
Pre-Condition	Content creator or content creator team must be registered
Expected Output	Photo added successfully
Post-Condition	Photo added and displayed on Content Studio
Pass/Fail Criteria	Content creator or content creator team should be able to post photo on the studio
Remarks	Positive test case

Use Case ID	UC-TE-06
--------------------	-----------------

Test Case ID	TC-06
Scenario ID	6-2
Scenario/Condition	Successfully posted video in content creator studio
Action	Content creator or content creator team click on content studio, click on video, click on add video, add captions and category, pricing and click on post photo,
Input	Image source, captions, category, pricing
Pre-Condition	Content creator or content creator team must be registered
Expected Output	Video added successfully
Post-Condition	Video added and displayed on Content Studio
Pass/Fail Criteria	Content creator or content creator team should be able to post photo on the studio
Remarks	Positive test case

Use Case ID	UC-TE-06
Test Case ID	TC-05
Scenario ID	6-3
Scenario/Condition	Unsuccessful posting of content-on-content studio
Action	Content creator or content creator team click on content studio, click on photo /video, click on add video / add video, add captions and category, pricing and click on post photo / video,
Input	Photo /video, caption, category, pricing

Pre-Condition	Photo / Video added successfully
Expected Output	Toast Appeared with message “Unable to add photo/video”
Post-Condition	Back to Content studio main page.
Pass/Fail Criteria	Content creator or content creator team should be able to post photo on the studio
Remarks	Negative test case

6.6.7 Track Payment

Use Case ID	UC-TE-07
Test Case ID	TC-07
Scenario ID	7-1
Scenario/Condition	Successfully tracked payment
Action	User or Content creator or content creator team click on track payment and graphical data represent where the current payment resides.
Input	Card, amount
Pre-Condition	Client or Content creator or content creator team must be registered
Expected Output	Payment tracking using graphical data
Post-Condition	A screen consisting of graphical data and where the current payment is displayed to user
Pass/Fail Criteria	Graphical data with payment information.
Remarks	Positive test case/

CHAPTER-7
CONCLUSION

7. Conclusion

Capture Moments and Create Memories!

Capture Space is a web-based marketplace that changes how content makers and clients associate in the event coverage industry. With its intuitive interface, robust infrastructure, and emphasis on trust and quality, Capture Space gives a consistent stage to clients to find, and recruit verified content creators, while enabling creators to grandstand their skills and monetize their work and collaborate with other content creators to work on bigger projects. The easy-to-use interface offers simple routes and natural hunt choices, guaranteeing a consistent client experience. Capture Space upgrades occasion booking and management, cultivates local area coordinated effort, and guarantees a safe and dependable stage for all users.

7.1 Contributions

All the requirements related to technical and non-technical constraints are covered in this project report. This web application tries to for content creators and clients regarding event coverage.

7.2 Reflections:

This Capture Space web application is a stand-alone system. The general approach we used for project implementation was related to SDLC. We basically developed a Work Breakdown Structure (WBS) for our project. Each phase of the project development was assigned a duration. Connecting theoretical knowledge to practical implementation is always a bit tedious part. We were naïve to web technologies. We were able to firm our grip on technologies along with problem translation into practical implementation. We were successful in practical implementation of work. Assessing the project outcome, our development approach was very good. We make sure that the project requirements and objectives are met.

7.3 Challenges:

7.3.1 Stripe Implementation:

7.3.1.1 Localization and internationalization:

Our application supports multiple languages or currencies, you'll need to handle localization and internationalization in your payment flow. Stripe provides options for configuring localization settings, such as setting the currency and language for checkout pages.

7.3.1.2 Subscription management:

We are implementing recurring payments or subscription-based services, you'll need to handle subscription management, including creating, updating, and canceling subscriptions. Refer to Stripe's documentation on subscription management to understand the concepts and implement the necessary functionality.

7.3.2 Tokenization:

7.3.2.1 Security considerations:

Tokenization is designed to enhance security by replacing sensitive payment information with tokens. However, it's essential to handle and store tokens securely on your server. Properly implementing tokenization and adhering to security best practices is crucial to prevent unauthorized access to sensitive data.

7.3.2.2 Limited payment processor support:

While Google Pay offers tokenization, not all payment processors or gateways may support it. You need to ensure that your chosen payment processor integrates with Google Pay and supports tokenization to utilize this feature effectively.

7.3.2.3 Compliance requirements:

Depending on your industry and location, you may need to comply with specific regulations and standards, such as PCI DSS (Payment Card Industry Data Security Standard). It's important to ensure that your tokenization implementation aligns with the necessary compliance requirements to protect user data and avoid legal issues.

7.4 Future Work

The system has room for improvements in future. The system was developed on MVC architecture pattern for a reason that the system should be easily scalable in future.

The future work includes

Photo and video Editing Studio

NFT marketplace

7.5 REFERENCES

- [1] Upwork, <https://www.upwork.com/> (accessed May 30, 2023).
- [2] B. Goldhacker et al., Build your dream team, <https://www.a.team/> (accessed May 30, 2023).
- [3] “Stock images, photos, vectors, video, and music,” Shutterstock, <https://www.shutterstock.com/> (accessed May 31, 2023).
- [4] “Hire Freelancers Online & Find freelance work,” PeoplePerHour.com - Hire Freelancers Online & Find Freelance Work, <https://www.peopleperhour.com/> (accessed May 31, 2023).

7.6 APPENDIX

7.6.1 Stripe Payment Gateway:

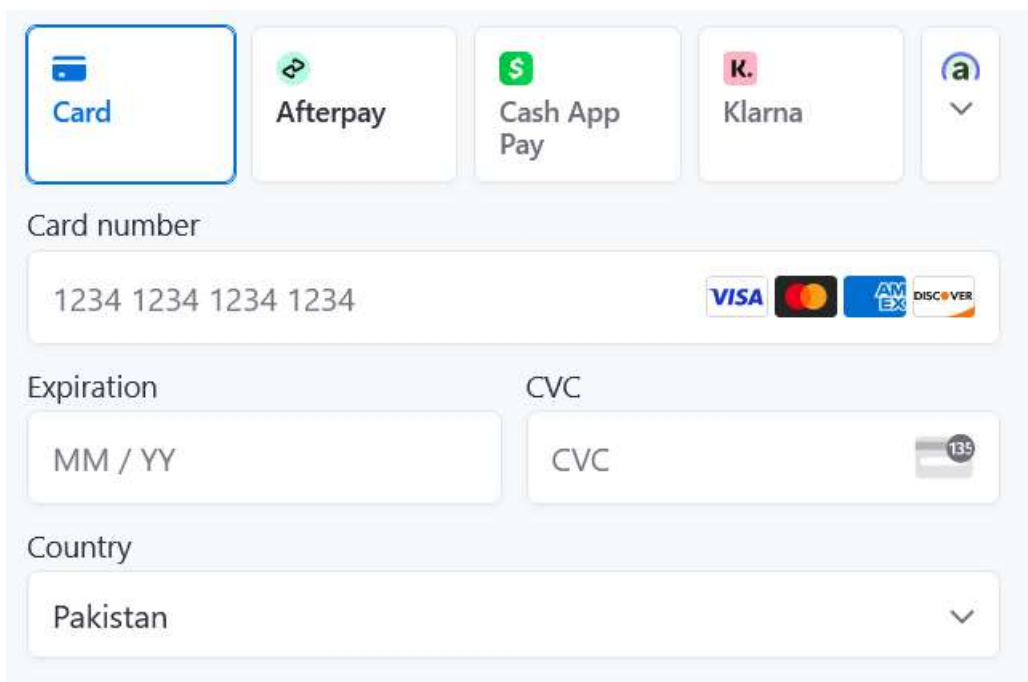
Stripe is a payment service which provides worldwide payment services and offers multiple solutions catering to the needs of users.

7.6.1.1 Stripe Checkout:

Stripe Checkout is one of the services that Stripe offers. The Stripe Checkout service allows the user to pay instantly for the billboard without going through a long process of entering details. Simply in the checkout service the user is shown the total amount. The user just enters the card number, date, security code and process the transaction.

7.6.1.2 Stripe Checkout Integration:

To integrate stripe checkout stripe has provided an easy code few lines code to integrate the stripe checkout option on the webpage.



The image shows the Stripe payment interface. At the top, there are five payment method buttons: 'Card' (highlighted with a blue border), 'Afterpay', 'Cash App Pay', 'Klarna', and a dropdown menu with a downward arrow. Below these buttons is a 'Card number' input field containing '1234 1234 1234 1234'. To the right of the input field are logos for VISA, Mastercard, AMEX, and DISCOVER. Below the card number field are two input fields: 'Expiration' with the placeholder 'MM / YY' and 'CVC' with the placeholder 'CVC'. To the right of the CVC field is a small icon of a card with the number '135'. Below the expiration and CVC fields is a 'Country' dropdown menu with 'Pakistan' selected and a downward arrow.

Figure 35 Stripe payment Interface

7.7 GLOSSARY

Word	Abbreviation
US	User
CC	Content Creator
CCT	Content Creators Team
TC	Test Case
IT	Integration Test
AD	Admin

Table 2 Capture Space Glossary

8. Plagiarism and Similarity Index report:

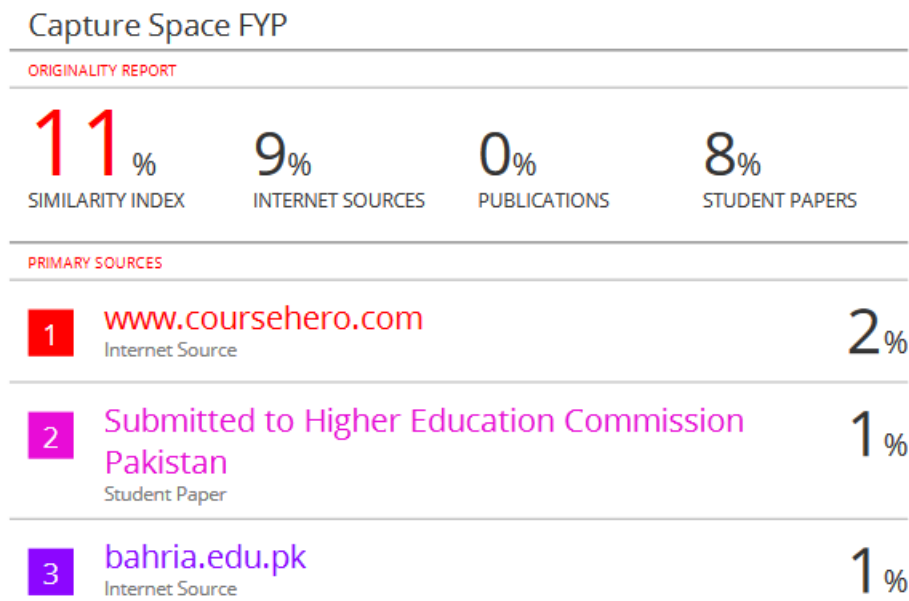


Figure 36 Capture Space Plagiarism and Similarity Index Report

End of Project Report
