



Daffodil
International
University

A News Site for media publication

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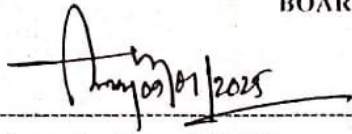
Daffodil International University

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

APPROVAL

This Project titled on "A News Site For Media Publication", submitted by **Rafratin Chowdhury Arnob (ID: 183-35-2607)** 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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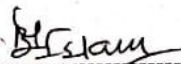
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STUDENT'S DECLARATION

I hereby declare that the work in this project is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Daffodil International University or any other institution.

A handwritten signature in cursive script, appearing to read "Rafratin", is centered within a light gray rectangular box.

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SUPERVISOR'S DECLARATION

I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Science.



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First of all, I am really grateful to The Almighty Allah for making me eligible to complete this Project.

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I take this opportunity to record our sincere thanks to all the faculty members of the Department of Software Engineering, Special thanks to Toma Ma’am, She helps & guides me a lot.

Last I want to promise myself that I will keep these learning experience in my mind for my future success just like an example that I finished my project work successfully.

DEDICATION

I therefore declare that I have done this project under the oversight of “**Dr. Md. Maruf Hasan**”, “**Associate Professor**”, Department of Software Engineering, Daffodil International University. Also declare that neither entire record nor any portion of this record has been submitted somewhere else for my degree.

ABSTRACT

In order to provide real-time news and multimedia material in a variety of areas, such as politics, technology, sports, entertainment, and more, the News Site Project seeks to create a cutting-edge and intuitive online platform. With features like search capabilities, personalized content suggestions, breaking news alerts, and social network integration and comments, the website will offer an engaging experience. With its responsive design, the website will work flawlessly on PCs, tablets and smartphones, giving consumers a consistent experience across all platforms. The project aims to improve audience engagement, boost web traffic, and make money through premium content subscriptions and ads by providing a trustworthy, current information source. Establishing the news website as a reliable digital media source will help with the continuous transition from traditional print to online news consumption.

TABLE OF CONTENT

TITLE PAGE	
APPROVAL	ii
DECLARATION	iii-iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
ABSTRACT	vii
TABLE OF CONTENT	viii
LIST OF TABLES	ix
LIST OF FIGURES	x-xi
CHAPTER 1 INTRODUCTION	
1.1 Introduction.....	1
1.2 Project Planning & Initiation.....	1-4
1.3 Target user Profile	4-6
1.4 System Requirements.....	6
CHAPTER 2 DESIGN AND IMPLEMENTATION	
2.1 Introduction.....	7
2.2 Functional Requirement.....	7-9
2.3 Non-Functional Requirement.....	9-10
2.4 System Design.....	11-52
CHAPTER 3 SOFTWARE TESTING	
3.1 Introduction.....	53
3.2 System Testing.....	54-65
CHAPTER 4 DEPLOYMENT AND MAINTENANCE	
4.1 Introduction.....	66
4.2 Deployment and Maintenance Plan.....	66-67
CHAPTER 5 USER MANUAL	
5.1 Introduction.....	68
5.2 Project Functionalities.....	69-74
CHAPTER 6 PROJECT SUMMARY	
6.1 Introduction.....	75
6.2 Future work.....	75
6.3 Conclusion.....	75
REFERENCES	76

LIST OF TABLES

Table 2.1: Functional Requirement	8
Table 2.2: Login	11
Table 2.3: Password Recovery	12
Table 2.4: Add Post	13
Table 2.5: View Post	14
Table 2.6: Delete Post	15
Table 2.7: Edit Post	16
Table 2.8: Add Category	17
Table 2.9: Add User	18
Table 2.10: Update Site Info	19
Table 2.11: Logout	20
Table 2.12: Add Comment	21
Table 2.13: Apply For Job	22
Table 3.1: Login	54
Table 3.2: Password Recovery	55
Table 3.3: Add Post	56
Table 3.4: Delete Post	57
Table 3.5: View Post	58
Table 3.6: Edit Post	59
Table 3.7: Add User	60
Table 3.8: Add Comments	61
Table 3.9: Update Site Info	62
Table 3.10: Add Category	63
Table 3.11: Apply For Job	64
Table 3.12: Logout	65

LIST OF FIGURES

Figure 2.1: Use Case Diagram	10
Figure 2.2: Activity diagram of ‘login’ use case	24
Figure 2.3: Activity diagram of ‘Password recovery’ use case	25
Figure 2.4: Activity diagram of ‘Add post’ use case	26
Figure 2.5: Activity diagram of ‘edit post’ use case	27
Figure 2.6: Activity diagram of ‘delete post’ use case	28
Figure 2.7: Activity diagram of ‘add category’ use case	29
Figure 2.8: activity diagram of ‘view post’ use case	30
Figure 2.9: Activity diagram of ‘Add comments’ use case	31
Figure 2.10: Activity diagram of ‘apply for job’	32
Figure 2.11: Activity diagram of ‘add users’ use case	33
Figure 2.12: Activity diagram of ‘update site info’ use case	34
Figure 2.13: Activity diagram of ‘logout’ use case	35
Figure 2.14: Sequence diagram for ‘Login’	36
Figure 2.15: Sequence diagram for ‘Password Recovery’	37
Figure 2.16: Sequence diagram for ‘view post’	38
Figure 2.17: Sequence diagram for ‘Add post’	39
Figure 2.18: Sequence diagram for ‘Edit post’	40
Figure 2.19: Sequence diagram for ‘Delete post’	41
Figure 2.20: Sequence diagram for ‘Add Category’	41
Figure 2.21: Sequence diagram for ‘Add user’	42
Figure 2.22: Sequence diagram for ‘Update site info’	43
Figure 2.23: Sequence diagram for ‘logout’	44
Figure 2.24: Sequence diagram for ‘Add comment’	45
Figure 2.25: Sequence diagram for ‘Apply for Job’	46
Figure 2.26: Class Diagram	47
Figure 2.27: ER Diagram	51
Figure 5.1: Login	69

Figure 5.2: Password Recovery	69
Figure 5.3: Add Post	70
Figure 5.4: Delete Post	70
Figure 5.5: Add Users	71
Figure 5.6: Edit Post	71
Figure 5.7: View Post	72
Figure 5.8: Add Category	72
Figure 5.9: Update Site Info	73
Figure 5.10: Add Comments	73
Figure 5.11: Logout	74
Figure 5.12: Apply for Job	74

CHAPTER 1 INTRODUCTION

1.1 Introduction

It is more important than ever to have access to timely and trustworthy news in the fast-paced digital world of today. This project introduces NewsFeedBD, an all-inclusive online news platform made to meet the changing demands of contemporary readers.

The project's goal is to produce a cutting-edge digital publication that empowers and engages its readers in addition to providing information. NewsFeedBD will cover a wide range of issues, such as current events, technology, culture, and lifestyle, with a focus on accuracy, honesty, and various perspectives. The project will also concentrate on putting into practice efficient content management techniques, making sure that data is arranged and easily accessible. With the use of cutting-edge web technology, NewsFeedBD aims to establish a new benchmark for digital journalism.

1.2 Project Planning and Initiation

Feasibility Study:

Phase 1: Preliminary Analysis

A Preliminary Analysis for a news website project involves evaluating the essential aspects required to develop the platform, identifying key objectives, understanding user needs, and assessing technical and functional requirements. Below is a framework for performing a preliminary analysis of my news site:

Objective:

Deliver Timely and Relevant News: Make sure users are informed with the most recent information by offering precise, current news material in a variety of areas, including politics, sports, entertainment, and technology.

Boost User Engagement: To encourage active user participation and interaction, incorporate tools like social media sharing, commenting platforms, and tailored news feeds.

Journalist Job Application: Include a special job application part on the website where

prospective journalists can apply for jobs at the company, establishing a platform for hiring and developing talent.

Make Money: Using monetization techniques like display adverts and subscription models.

Provide Analytics and Insights: Make educated decisions for content optimization and strategic planning, including journalist recruitment initiatives, by using data analytics tools to monitor user activity, content engagement, and ad performance.

Stakeholders

- 1. Site Owner/Admin:** The entity responsible for managing the website, developing, ensuring content quality, and monetization.
- 2. Journalist:** Contributors who provide articles, reports, and other media content.
- 3. Reader:** General users who access the site to read and interact with news content.

Project Scope :

The news site project's scope includes developing a responsive, dynamic, and user-friendly platform for managing and publishing real-time news information. The project's goal is to provide accurate and fast information in a number of areas, including technology, politics, sports, and entertainment. To enable smooth article creation, editing, and multimedia integration, it will have a powerful content management system (CMS). Through social network sharing, commenting features, tailored news feeds, and breaking news alerts, the website will place a high priority on user participation. The user experience will be improved by sophisticated search features and simple navigation, while money creation will be guaranteed by monetization techniques like sponsored content, subscriptions, and ads. In order to manage large traffic volumes and safeguard user data, the platform will be developed with scalability and security in mind, including secure hosting, HTTPS protocols, and frequent updates. Furthermore, insights into user behavior, traffic patterns, and ad performance will be obtained through the integration of analytics tools. In order to provide a

scalable basis for future expansion and improvements, the project will concentrate on providing a dependable and captivating experience for both users and the editorial staff.

Phase 2: Market Feasibility Analysis

A market feasibility analysis for a news site involves assessing the viability of launching or expanding a news platform in the current media landscape. Here's a structured approach to conducting this analysis in the news site:

Industry Trends: Analyze current trends in the news industry, including shifts toward digital media, mobile consumption, and the rise of multimedia content (video, podcasts).

Market Size: Estimate the size of the target audience and overall market for news, including demographic segments.

Growth Potential: Look at historical growth rates and projections for the news industry, especially digital formats.

Phase 3: Technical Feasibility Analysis

A technical feasibility analysis for a news site focuses on assessing the technical requirements, resources, and capabilities needed to successfully develop and maintain the platform. Here's a structured approach to conducting this analysis in my project:

Information Architecture: Design a clear structure for content categorization to facilitate user navigation.

Database Management: Identify database requirements for storing articles, user data, and multimedia content. Consider using SQL databases (MySQL).

Front-End : HTML, CSS Bootstrap and JavaScript.

Back-End : PHP, MySQL

Data Protection: Implement measures for securing user data, including data encryption and secure passwords.

User Authentication: Develop secure user login systems and consider multi-factor authentication for administrators.

OTP: Added one time password using md5 function to provide more security systems.

Phase 4: Financial Feasibility Analysis

A financial feasibility analysis for my news site is essential for understanding the economic viability of your project. Here's a structured approach to conducting this analysis in my project:

Advertising Revenue: Estimate potential income from advertising, considering factors like CPM (cost per thousand impressions) . Also I have researched industry benchmarks for ad rates.

Subscription Models: Add subscription pack in future to estimate the number of subscribers and pricing tiers. Consider offering free trials or discounts.

Financial Risks: Identify potential risks that could impact revenue (market saturation, changes in advertising rates)

1.3 Target user profile

1. The Public at Large

Age range: 18–65

Demographics: Wide-ranging audience comprising seniors, professionals, and students.

Interests: Interested in following local and international happenings in a variety of fields, including business, politics, sports, entertainment, technology, and lifestyle.

Technology Use: Consistent users of desktop computers, tablets, and cellphones who are used to online news browsing.

2. Regional and Local Readers

Age range: 18–55

Demographics: People who reside in particular regions and look for news that is pertinent to their local or regional interests.

Interests: Curious about local news, politics, events, and community news.

Technology Use: People who desire a smooth, responsive news experience are primarily mobile users.

3. Expert and Specialized Viewers

Age range: 25–45

Demographics: Researchers, professionals, and specialized groups including political analysts, IT aficionados, and business experts.

Interests: Looking for in-depth publications, analysis, and professional viewpoints on niche subjects.

Technology Use: Consistent users of tablets, desktop computers, and sophisticated news aggregation software. likely to read extensively in the evening or during work breaks.

4. Aspiring journalists and job seekers

Age range: 18–35

Demographics: People seeking employment in media, journalism, or similar professions.

Interests: Would like to contribute to the editorial team, apply for positions in journalism or content-related fields, and obtain media industry experience.

Technology Use: Most people use laptops and cellphones to go through job postings and submit applications.

5. Subscribers and Users of Premium Content

Age Range: 25–60 years

Demographics: People who are prepared to spend money on ad-free or premium

news content.

Interests: Excellent journalism, unique stories, in-depth analysis, and features that offer something more than free articles.

Technology Use: Proficient users of desktops or tablets who are used to paying for premium content from news sources.

1.4 System Requirements

User Devices: Target user devices (desktop, laptop, tablet, smartphone).

Web Browser: Mozilla, Chrome, opera, etc.

Database: MySQL

HTTPS: For secure communication.

Data Protection: Encrypt sensitive user and site data.

Fast Loading: Optimized code and images for quick page loads.

Ad Management: Tools for monitoring ad performance and revenue.

Chapter 2 Design and Implementation

2.1 Introduction

A news site project's Design and Implementation phase entails developing the platform's functional and aesthetic features. This entails creating a simple, user-friendly interface that makes it simple to navigate multimedia and news articles while making sure the backend architecture supports performance, security, and scalability. The goal of the design process is to provide a responsive layout with an intuitive, interesting user experience that is optimized for a range of devices. Creating essential features like user authentication, content management, search capabilities, social media integration, and real-time breaking news updates are all part of implementation. It also entails making sure the website can manage large traffic volumes, particularly during busy events, and putting up safe, scalable databases.

2.2 Functional Requirements

The essential features and functionalities that the news website must have in order to satisfy the demands of its stakeholders and users are outlined in the functional requirements. For a system to be deemed operational, it must be able to carry out these tasks.

FR01	Login
Description	Before using the News Site Admin and Journalist must be logged in first
Stakeholder	Admin, Journalist

FR02	View post
Description	Before Reading newses Reader must be on the home page
Stakeholder	Reader

FR03	Add Post
Description	Before creating any post, Admin and Journalist must be logged in first
Stakeholder	Admin, Journalist

FR04	Delete Post
Description	Before deleting any post, Admin must be logged in first
Stakeholder	Admin

FR05	Edit Post
Description	Before editing any post, Admin must be logged in first
Stakeholder	Admin

FR06	Add Category
Description	Before Adding any Category, Admin must be logged in first
Stakeholder	Admin
FR07	Add Users
Description	Before adding or giving any user or role, Admin must be logged in first
Stakeholder	Admin
FR08	Update site info
Description	Before updating site setting, Admin must be logged in first
Stakeholder	Admin
FR09	Apply for job
Description	Before applying for job, Reader must be on the job application page
Stakeholder	Reader
FR10	Add comments
Description	Before commenting in any post, Reader must be on the read more page of any post.
Stakeholder	Reader

Table 2.1: Functional Requirement

2.3 Non-Functional Requirements

The system's quality qualities are defined by non-functional requirements (NFRs), which emphasize the system's performance over its functionalities.

1. Performance

Response Time: On a typical internet connection, the website should load in two to three seconds.

Scalability: During periods of high traffic, like breaking news, the system should be able to handle it without experiencing any outages.

2. Safety

Data protection: Encrypt sensitive user data and utilize HTTPS to guarantee secure communication.

Authentication: Use password encryption and safe user login procedures.

3. Practicality

User Interface: For a flawless user experience, offer a simple, clear, and consistent design.

Device Compatibility: Responsive design and full functionality on PCs, tablets, and mobile devices.

4. Reliability

Error Handling: To ensure uninterrupted service in the event of minor system faults, put error recovery mechanisms in place.

Content Backup: Frequently backup user data, multimedia, and articles to prevent loss in the case of a system crash.

5. The ability to scale

Content Volume: Maintain a growing collection of pictures, videos, and articles without sacrificing functionality.

User Growth: As the website becomes more well-known, accommodate growing user traffic and expanded storage.

2.2 System Design

2.2.1 Use Case Diagram

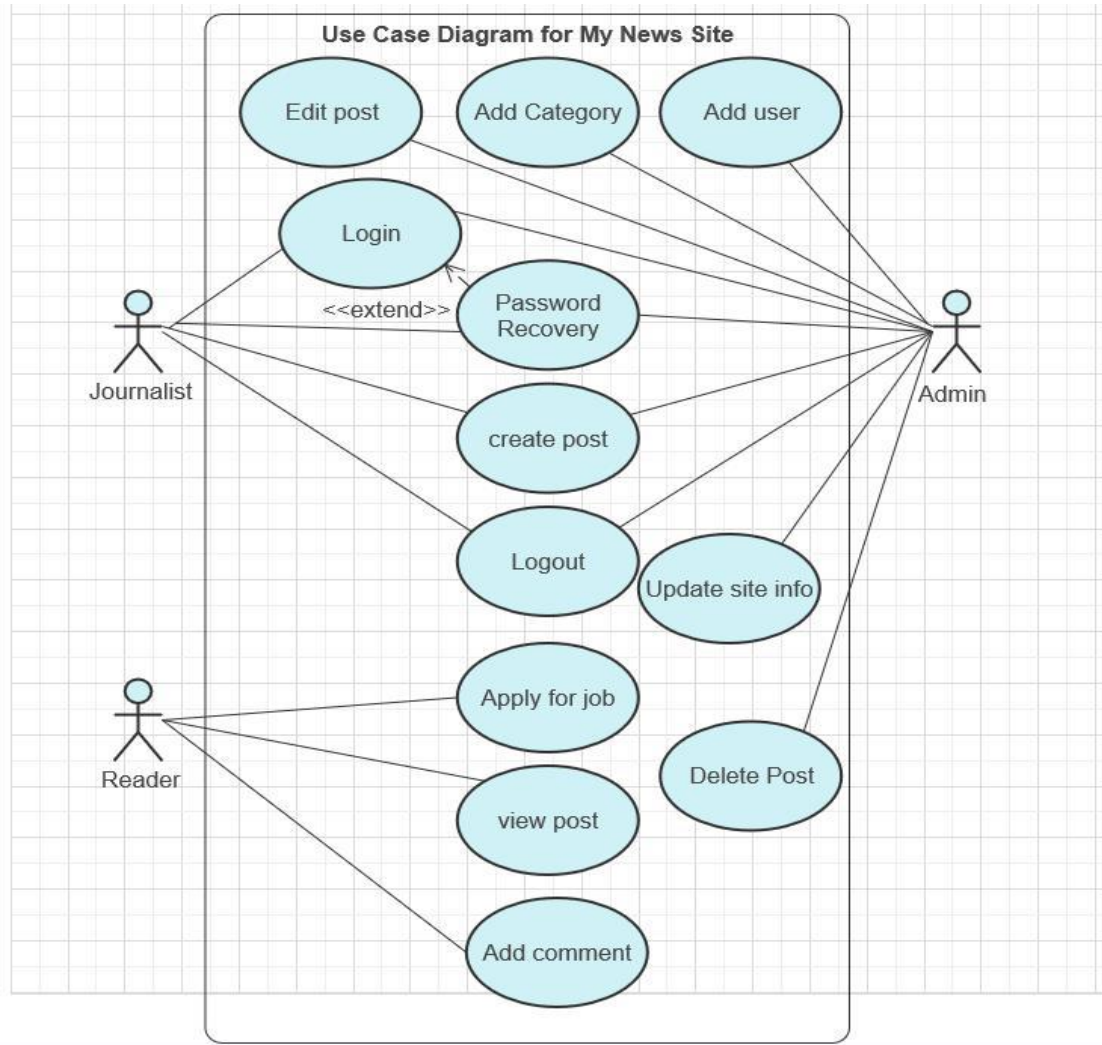


Figure 2.1: Use Case Diagram

Here, Admin, Journalist and Reader are 3 actors, Stakeholders.

Admin is secondary actor, Journalist and Reader are Primary actors.

Admin's roles are: Add user, Add Category, Login, Logout, Edit post, Delete Post, Update site info, Create post, Password Recovery.

Journalist's roles are: Login, Logout, Create post, Password Recovery.

Reader's roles are: view post, add comment, apply for job.

When a reader or visitor apply for job then journalist will be created by Admin.

2.2.2 Case Description :

A case description serves as a core document that directs the news site project's creation, implementation, and assessment. It guarantees clarity, lessens misunderstandings, and makes it easier for everyone to work together, all of which eventually help the project succeed

Table 2.2: Login

Use case	Login
Pre-condition	User must have account, internet access & the site must be online.
Post condition	The user is authenticated and granted access to the site's features.
Primary Actors: Secondary Actors:	Journalist, Reader Admin (Site owner)
Main Success Scenario	If the username & password are correct: <ol style="list-style-type: none">1. The user is redirected to the homepage or their last visited page.2. A success message is displayed If the credentials are incorrect: <ol style="list-style-type: none">1. An error message is displayed
Alternative flows:	<ol style="list-style-type: none">1. After multiple failed login attempts, The system locks the account for some time.
Special requirement:	<ol style="list-style-type: none">1. The login page must be secure.2. Passwords must be stored securely.

Use case	Password Recovery
Pre-condition	User must have account, internet access & the site must be online.
Post condition	The user receives an email with a password reset link.
Primary Actors: Secondary Actors:	Journalist, Reader Admin(Site owner)
Main Success Scenario	<ol style="list-style-type: none"> 1. The user navigates to the login page of the news site. 2. The user clicks the "Forgot Password" link. 3. The system displays a password recovery form asking for the registered email address. 4. The user enters their email address and submits the form. 5. The system verifies if the email address exists in the database: If the email address is valid, the system generates a unique otp code. If the email address is not valid, An error message is displayed. 6. The system validates the token 7. The user enters a new password and confirms it. 8. The user receives a confirmation message
Alternative flows:	<ol style="list-style-type: none"> 1. If the user clicks the password reset link after a specified expiration time 2. If the email fails to send due to server issues
Special requirement:	<ol style="list-style-type: none"> 1. The password recovery process must be secure. 2. The reset token must be unique and securely generated.

Table 2.3: Password Recovery

Use case	Add post
Pre-condition	Admin/journalist must be logged into the news site with appropriate permissions to add posts.
Post condition	The post is published and visible to users
Primary Actors: Secondary Actors:	Journalist, Reader Admin(Site owner)
Main Success Scenario	<ol style="list-style-type: none"> 1. Admin/journalist navigates to the "Add Post" page 2. The system displays a form with fields for the following: <ul style="list-style-type: none"> Title of the post Content (body text) Category selection Image upload 3. Admin/journalist fills out the form with the relevant information. 4. Admin/journalist clicks the "Submit" button.
Alternative flows:	1.If admin/journalist attempts to upload an image that has different file format.
Special requirement:	<ol style="list-style-type: none"> 1. The post creation form should be user-friendly and accessible. 2. The system should maintain a record of the post creation date and author information.

Table 2.4: Add Post

Use case	view post
Pre-condition	The post must exist in the system. Reader must have access to the internet and the news site.
Post condition	Reader views the content of the selected post.
Primary Actors: Secondary Actors:	Journalist, Reader Admin(Site owner)
Main Success Scenario	<ol style="list-style-type: none"> 1.Reader navigates to the news site's homepage 2.Reader clicks on a post title or image to view the full post. 3.The system displays the post 4.Reader navigates to the news site's search option. 5. Reader input the keyword for his specific news post.
Alternative flows:	1.If reader attempts to access a post that does not exist, the system displays a "No result found"
Special requirement:	<ol style="list-style-type: none"> 1. The post should be displayed in a responsive format. 2. Loading times should be optimized to enhance user experience.

Table 2.5: View Post

Use case	Delete post
Pre-condition	Admin must be logged into the news site with appropriate permissions to delete posts.
Post condition	The post is permanently removed from the system and is no longer visible to anyone.
Primary Actors: Secondary Actors:	Journalist, Reader Admin(Site owner)
Main Success Scenario	<ol style="list-style-type: none"> 1. Admin navigates to the "Delete post" section of the admin panel. 2. Admin selects a post from the list of existing posts. 3. Admin clicks the "Delete" button associated with the selected post. 4. The system prompts Admin with a confirmation message 5. Admin confirms the deletion.
Alternative flows:	<ol style="list-style-type: none"> 1. If admin chooses to cancel the deletion after the confirmation prompt 2. If the post cannot be found (already deleted or does not exist)
Special requirement:	<ol style="list-style-type: none"> 1. The delete action should be secure 2. User confirmation is essential to prevent accidental deletions.

Table 2.6: Delete Post

Use case	Edit post
Pre-condition	Admin must be logged into the news site with appropriate permissions to edit posts.
Post condition	The post is updated with the new content.
Primary Actors: Secondary Actors:	Journalist, Reader Admin(Site owner)
Main Success Scenario	<ol style="list-style-type: none"> 1. Admin navigates to the "edit Post" section 2. Admin selects a post from the list of existing posts. 3. The system displays a edit form with fields for the following: <ul style="list-style-type: none"> Title of the post Content (body text) Category selection Change image 4. Admin makes the necessary changes to the post. 5. Admin clicks the "Submit" button.
Alternative flows:	<ol style="list-style-type: none"> 1. If Admin attempts to change an image that exceeds the file size limit
Special requirement:	<ol style="list-style-type: none"> 1. The edit post form should be user-friendly and accessible. 2. The system should maintain a record of the edit post updated date and author information.

Table 2.7: Edit Post

Use case	Add Category
Pre-condition	Admin must be logged into the news site with appropriate permissions to add categories.
Post condition	A new category is created and saved in the system.
Primary Actors: Secondary Actors:	Journalist, Reader Admin(Site owner)
Main Success Scenario	<ol style="list-style-type: none"> 1. Admin navigates to the "Category" section of the admin panel. 2. Admin clicks the "Add Category" button. 3. The system displays a form with fields for: Category name, Category description. 4. Admin fills out the form with the relevant information. 5. Admin clicks the "Submit" button.
Alternative flows:	<ol style="list-style-type: none"> 1.If the actor tries to create a category with a name that already exists 2. If admin decides to cancel the addition after filling out the form.
Special requirement:	<ol style="list-style-type: none"> 1. The category creation form should be user-friendly. 2. The system should support a hierarchical structure for categories.

Table 2.8: Add Category

Use case	Add User
Pre-condition	Admin must be logged into the news site with appropriate permissions to add categories.
Post condition	A new category is created and saved in the system.
Primary Actors: Secondary Actors:	Journalist, Reader Admin(Site owner)
Main Success Scenario	<ol style="list-style-type: none"> 1. The actor navigates to the "User Management" section of the admin panel. 2. The actor clicks the "Add User" button. 3. The system displays a form with fields for: Journalist's username, Email address, Password, Role (Journalist) 4. Admin fills out the form with the relevant information. 5. Admin clicks the "Submit" button. 6. The system validates the input: <p>If all required fields are filled and the email is valid: Admin is shown a success message.</p> <p>If any required fields are missing or email is invalid: The system highlights the errors</p>
Alternative flows:	<ol style="list-style-type: none"> 1. If admin tries to add a user with an email that already exists in the system. 2. If admin decides to cancel the addition after filling out the form.
Special requirement:	1.The user creation form should be user-friendly.

Table 2.9: Add User

Use case	Update site info
Pre-condition	Admin must be logged into the news site with administrative permissions to update site information..
Post condition	The site information is updated in the system.
Primary Actors: Secondary Actors:	Journalist, Reader Admin(Site owner)
Main Success Scenario	<ol style="list-style-type: none"> 1. Admin navigates to the "Site Info" section of the admin panel. 2. The actor views the current site information, which includes: Site name, Logo upload (with size confirmation), footer description. 3. Admin makes the necessary changes to the site information. 4. Admin clicks the "Save" button.
Alternative flows:	<ol style="list-style-type: none"> 1. If admin attempts to upload a logo that exceeds the file size limit or has an incorrect format. 2. If admin decides to cancel the update after making changes
Special requirement:	1.The site info update form should be user-friendly.

Table 2.10: Update Site Info

Use case	Logout
Pre-condition	Admin/Journalist must be logged into the news site.
Post condition	Admin/Journalist is logged out of the site.
Primary Actors: Secondary Actors:	Journalist, Reader Admin(Site owner)
Main Success Scenario	<ol style="list-style-type: none"> 1. Admin/Journalist clicks the "Logout" button 2. The system prompts to confirm the logout action. 3. Admin/Journalist confirms the logout action 4. Admin/Journalist is redirected to the homepage
Alternative flows:	1. If admin/journalist decides not to proceed with the logout after being prompted: The system returns the user to the previous page.
Special requirement:	<ol style="list-style-type: none"> 1.The logout action should be secure. 2.The system should ensure that sensitive data is cleared upon logout.

Table 2.11: Logout

Use case	Add comment
Pre-condition	Reader must be on a post detail page where comments are allowed.
Post condition	A new comment is added to the post and is visible to other users.
Primary Actors: Secondary Actors:	Journalist, Reader Admin(Site owner)
Main Success Scenario	<ol style="list-style-type: none"> 1. Reader navigates to the comment section of a specific post. 2. Reader displays the comment form, which includes fields for: Reader's name, Reader's email address, Comment text area. 2. Reader fills out the comment form with the required information. 3. Reader clicks the "Submit" button.
Alternative flows:	1.If reader input the invalid email, The system prompts reader to input valid email address.
Special requirement:	<ol style="list-style-type: none"> 1. The comment form should be user-friendly and accessible. 2. The system should provide moderation tools for admins to review and manage comments.

Table 2.12: Add Comment

Use case	Apply for job
Pre-condition	Reader must be on the job apply page of the news site.
Post condition	Reader receives a confirmation of application submission.
Primary Actors: Secondary Actors:	Journalist, Reader Admin(Site owner)
Main Success Scenario	<ol style="list-style-type: none"> 1. Reader navigates to the 'Apply for job' option's page on the news site. 2. The system displays the job details along with an "Apply for job" button. 3. Reader clicks the "Apply for job" button. 4. The system presents an application form that includes fields for: Full name, Email address, upload cv. 5. Reader fills out the application form with the required information. 6. The reader clicks the "Submit" button. 7. System validates the input: If all required fields are filled and the cv file format & email are valid, Reader is shown success message. <p>If all required fields are not filled and the cv file format & email are invalid, System highlights the error.</p>
Alternative flows:	1.If the reader submits an application with missing required fields, The system displays an error message specifying which fields need to be filled
Special requirement:	<ol style="list-style-type: none"> 1. The application form should be user-friendly 2. The system should maintain a record of all applications for future reference and processing.

Table 2.13: Apply For Job

2.2.3. Activity Diagram:

An activity diagram is essentially a flowchart that shows activities performed by a system. It shows the steps involved in how a system works, helping us understand the flow of control. Following Figures will show my activity diagram of my news site based on use cases:

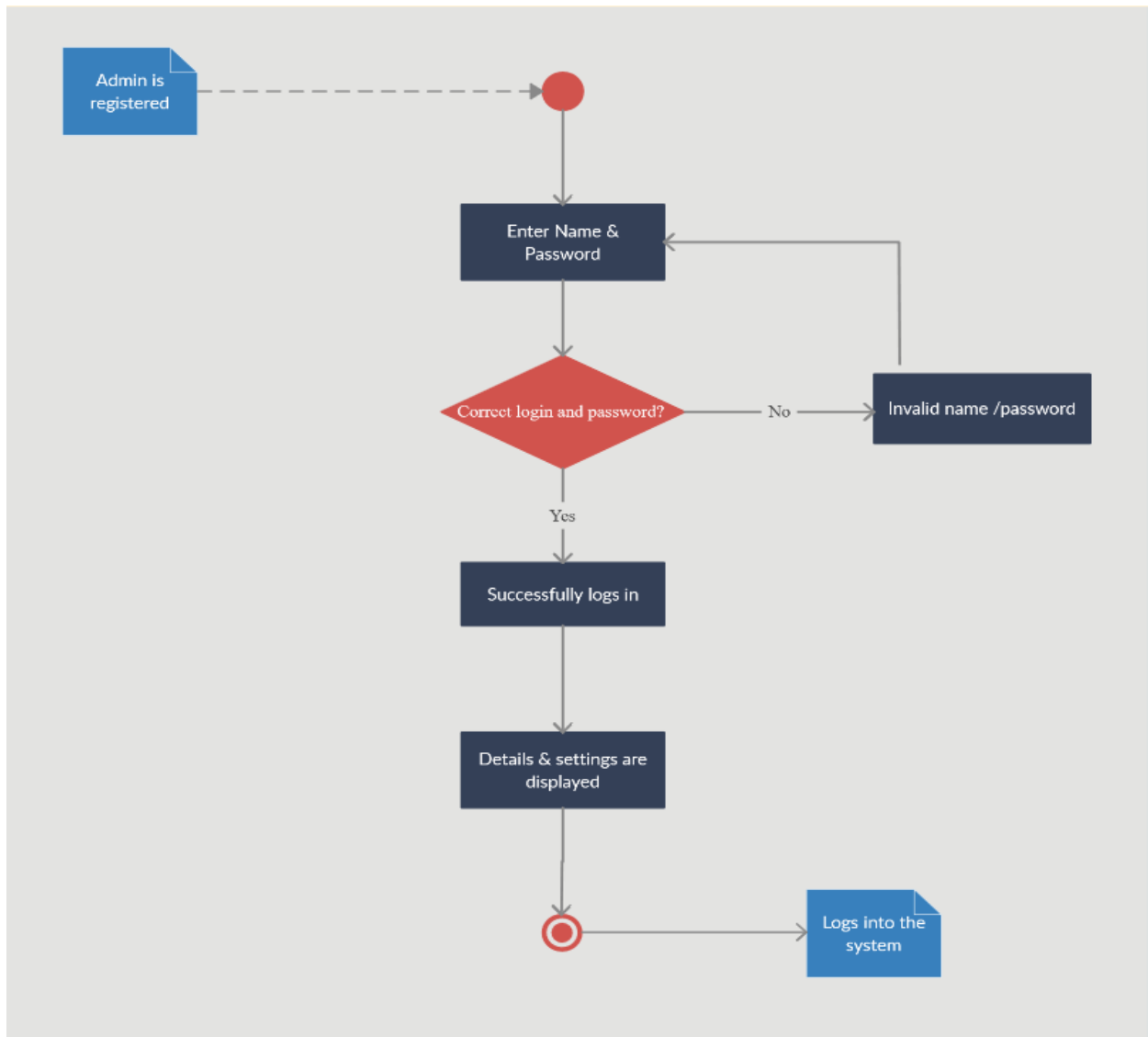


Figure 2.2: Activity diagram of 'login' use case

Here, Admin/Journalist select 'Enter name & Password. Then System will check the name/password is valid or not. If one of that is not valid, it will show invalid name/pass word & process will go back to enter name& password field. If both are correct, Then it will proceed & he/she can Successfully login. Then all details will be displayed & process will be finish.

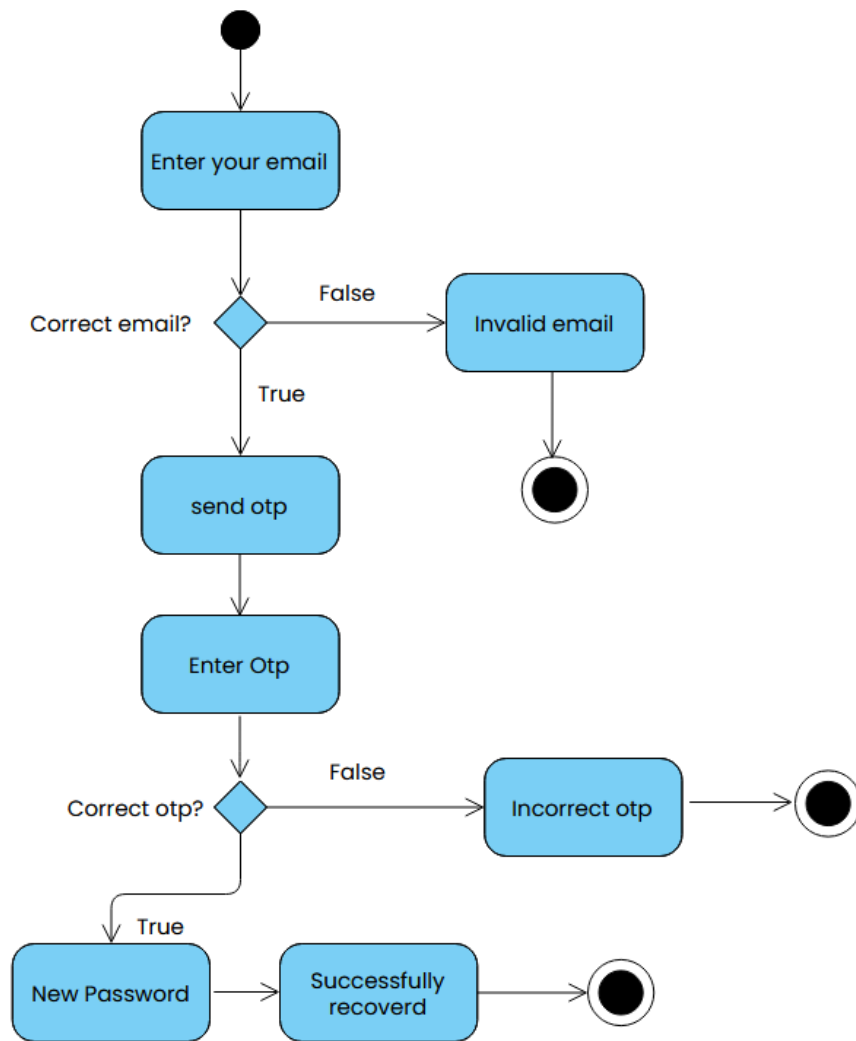


Figure 2.3: Activity diagram of 'Password recovery' use case

Here, Admin/Journalist select 'Forget Password' > Enter your email. Then System will check the email is valid or not. If that is not valid, it will show invalid email & process will go back to enter your email. If that is valid, Then it will proceed & he/she can select 'send otp'. Then they can get the otp from their given mail & select 'enter otp'. Then system will check that otp is correct or not. If that is not correct, it will show incorrect otp & process will go back to enter

otp.If that is correct, it will proceed & can type new password. Then Password will successfully recoverd/updated & process will be finished.

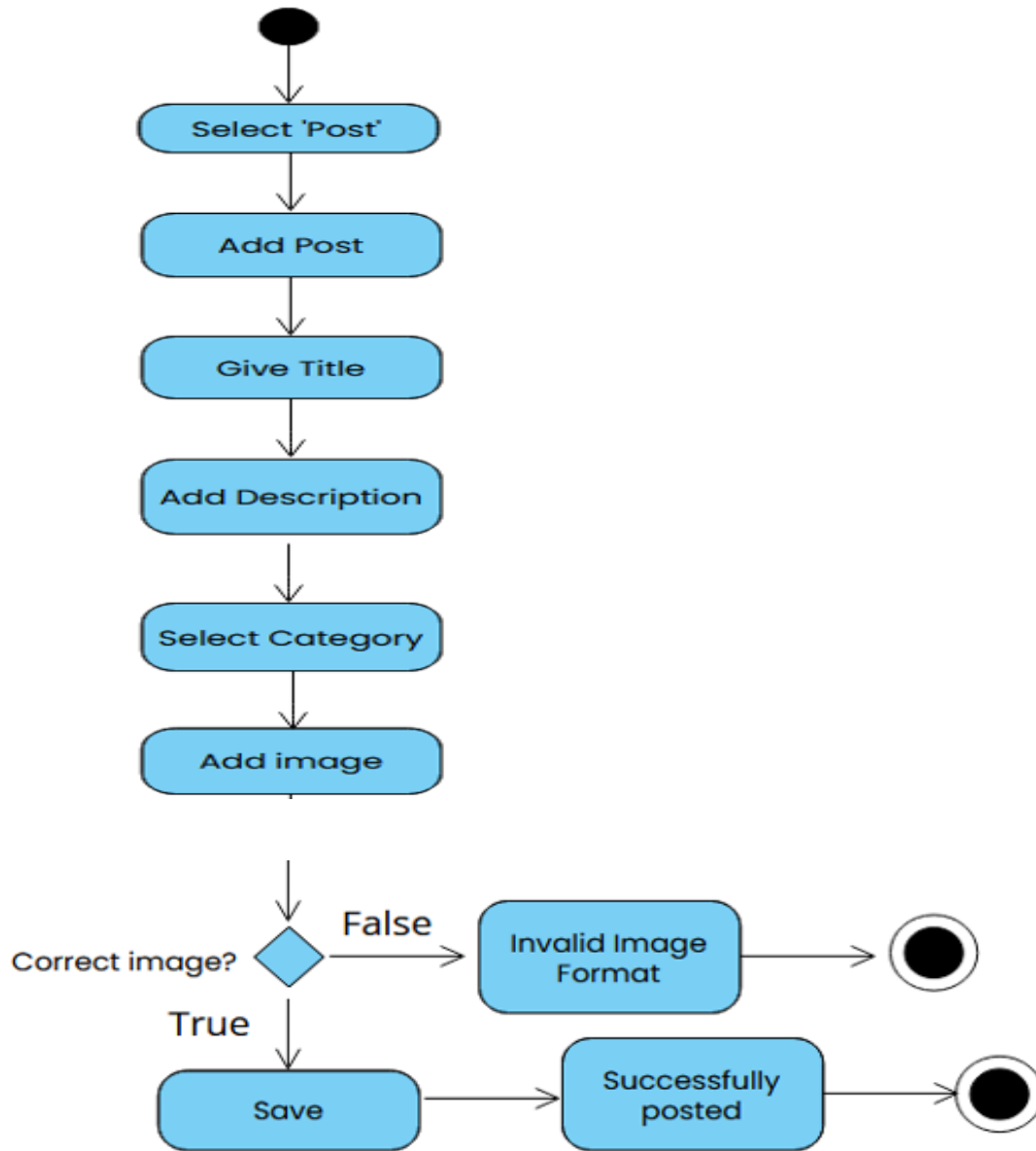


Figure 2.4: Activity diagram of 'Add post' use case

Here, Admin/journalist select 'Post' > Add Post > Give Title>Add Description>Category>Add Image, then system will check that the image format is valid or not. If that is not valid, it will show invalid image format and process

will go back to add image. If that is valid, image will be added & proceed for save. Then he/she can select 'save'. Then post will successfully posted & process will be finished.

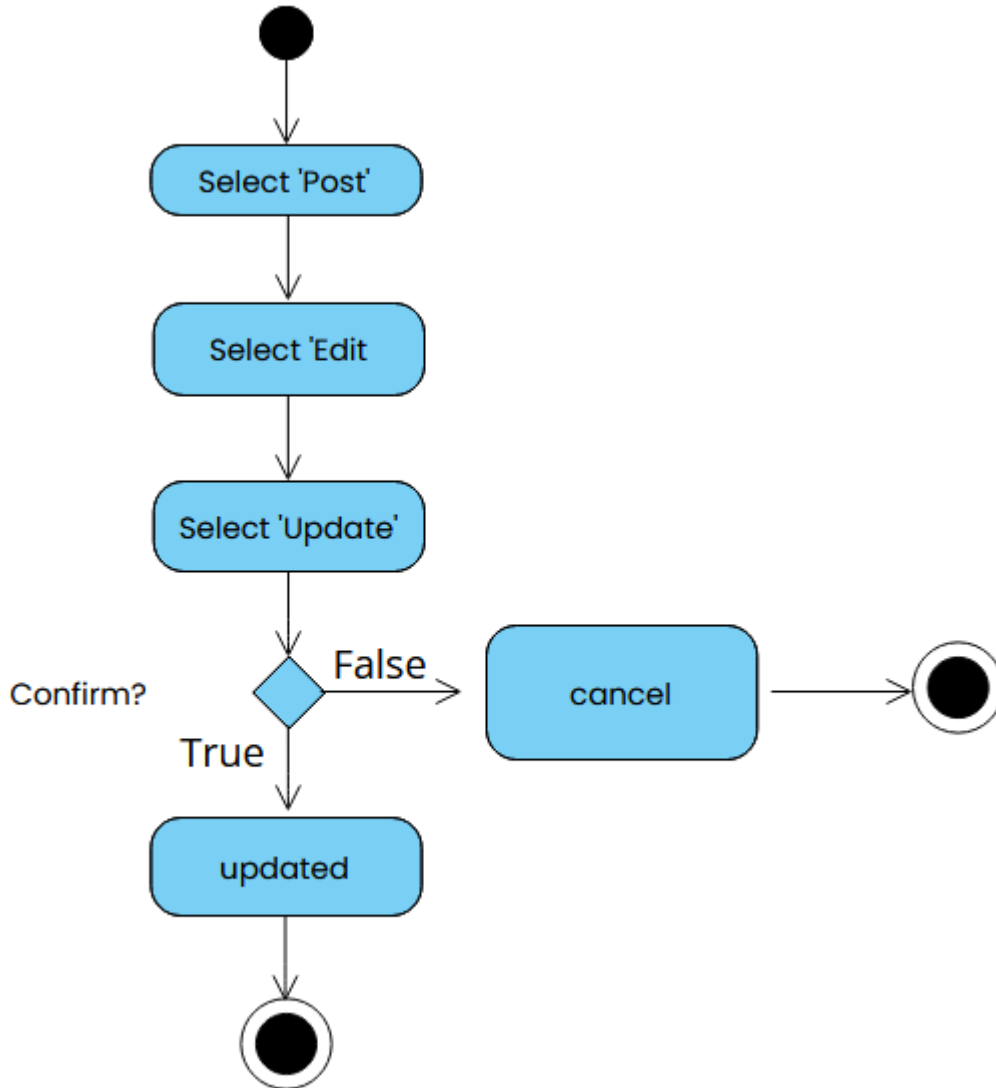


Figure 2.5: Activity diagram of 'edit post' use case

Here, Admin select 'Post' > edit. Then he/she will edit necessary things. Then Select 'update'. Then he/she will take decision to update the post or not. If no then he will select cancel & process will go back to update.

If yes then process will proceed & successfully updated. Process will be finished.

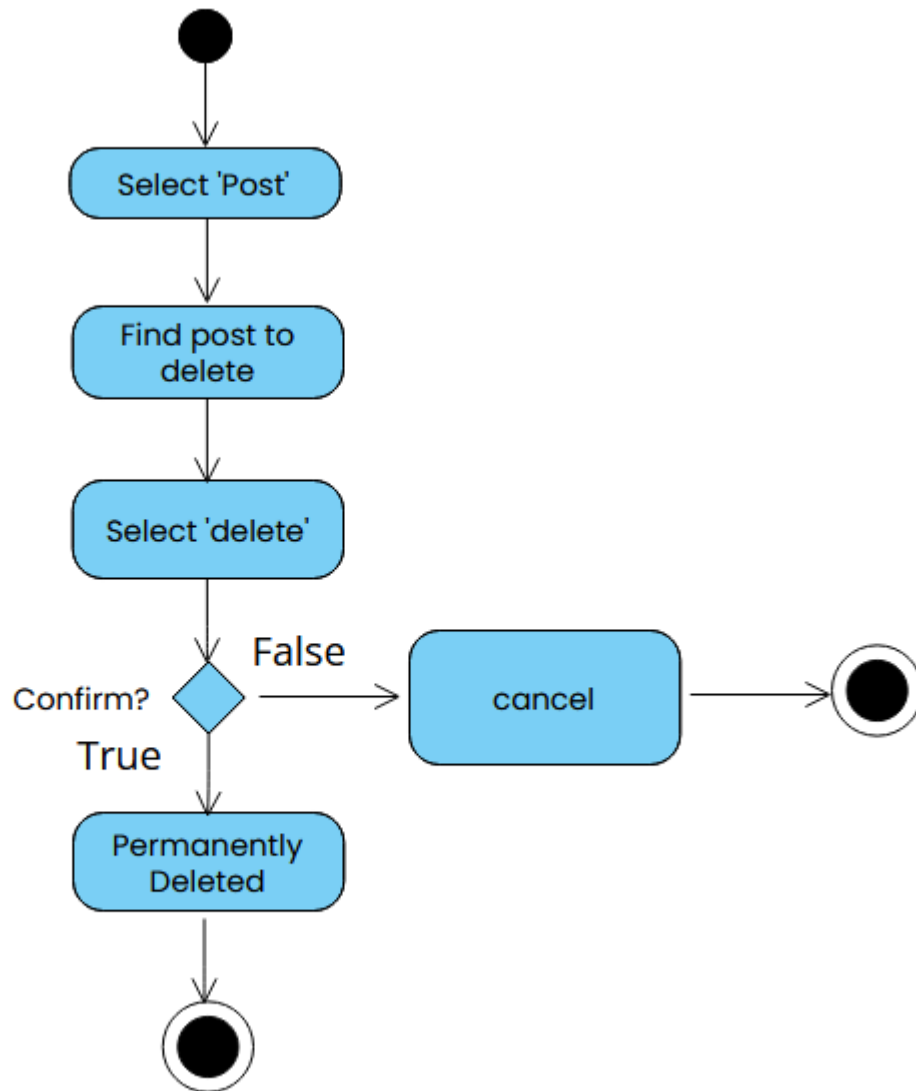


Figure 2.6: Activity diagram of 'delete post' use case

Here, Admin select 'Post', Then he/she will find specific post to delete, Then select 'delete'. Then he/she will take decision to confirm delete or not. If no then he/she will select cancel & process will go back to find post to delete. If yes, then the process will proceed & post will permanently deleted. Process will be finished there.

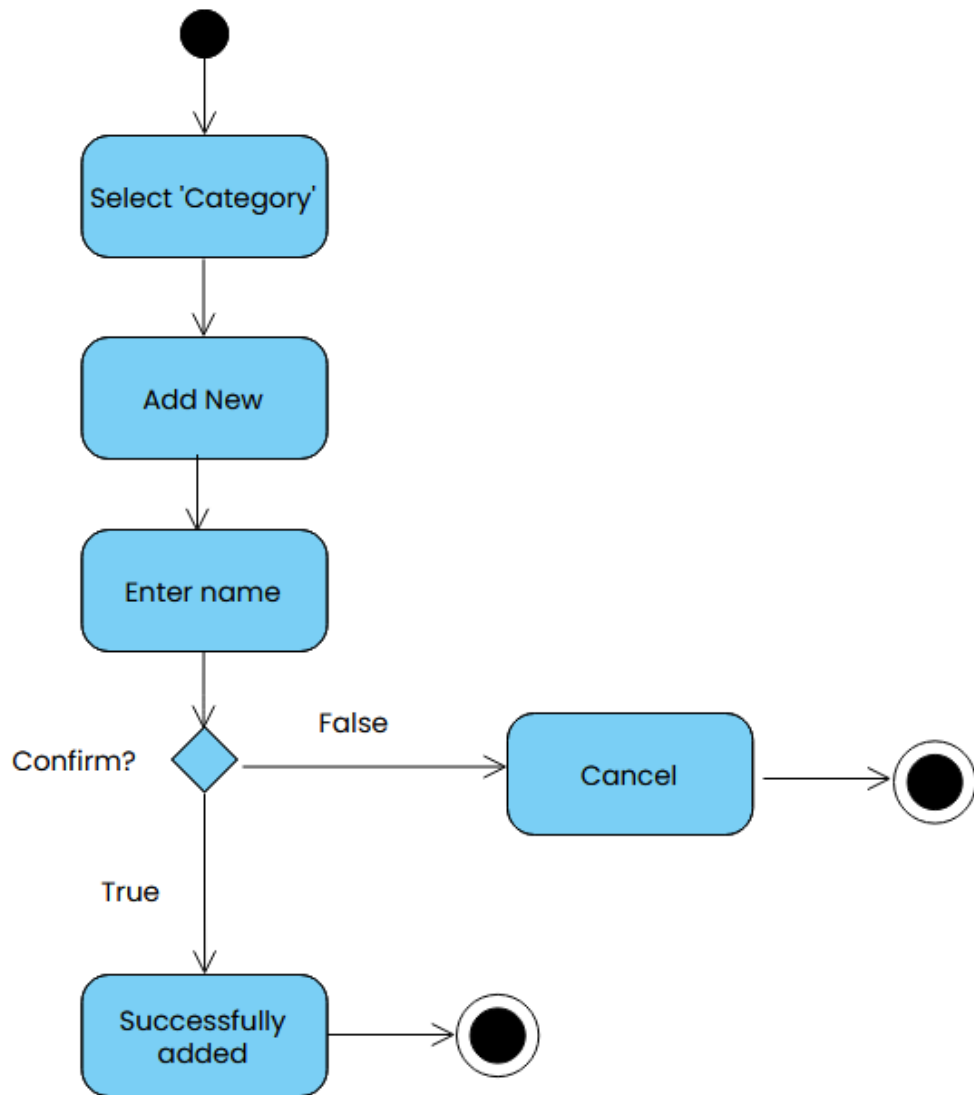


Figure 2.7: Activity diagram of 'add category' use case

Here, Admin select 'Category' > Add new > enter name. Then he/she will take decision to confirm the user or not. If no then he will select cancel & process will go back to enter name. If yes then process will proceed & successfully new user will be added. Process will finished there.

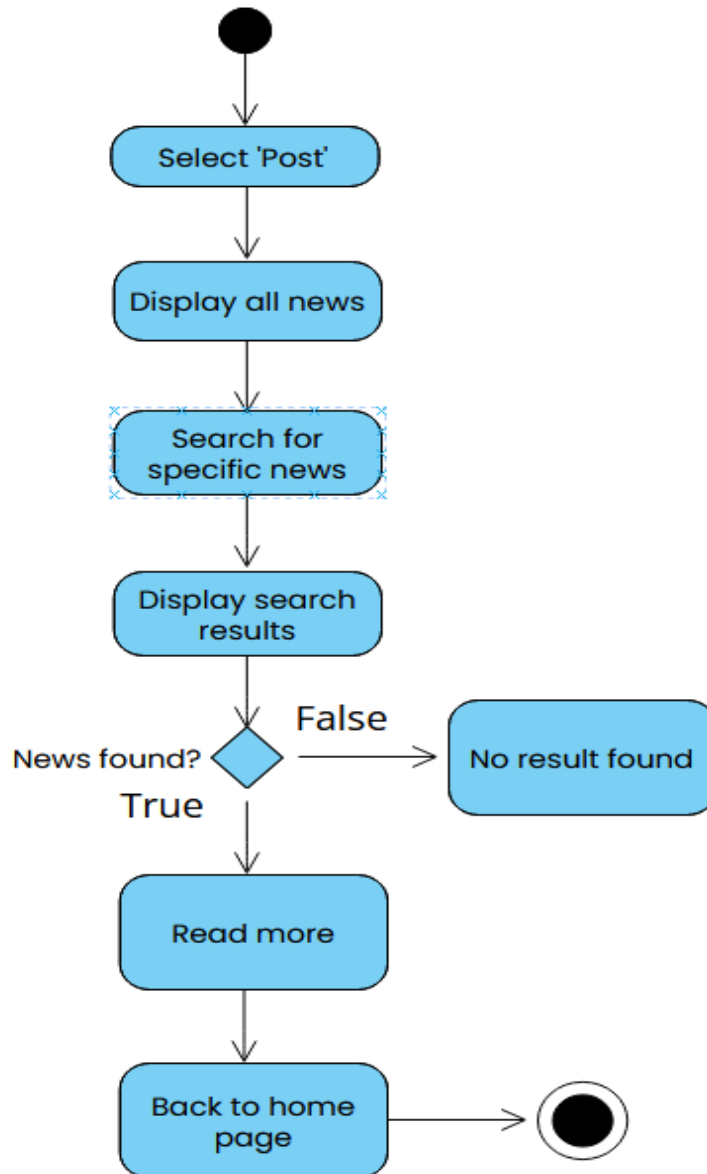


Figure 2.8: activity diagram of ‘view post’ use case

Here, Reader select ‘Post’, then he/she will find all news. then he/she have to search for specific news to read. Then it will display search results. Then the system will check the searched news is found or not. If the news is not found, it will show ‘no result found’ & process will go back to select post. If it is found, then it will display & people can select ‘read more’ to view in details. After read he/she can back to home page & process will be finished.

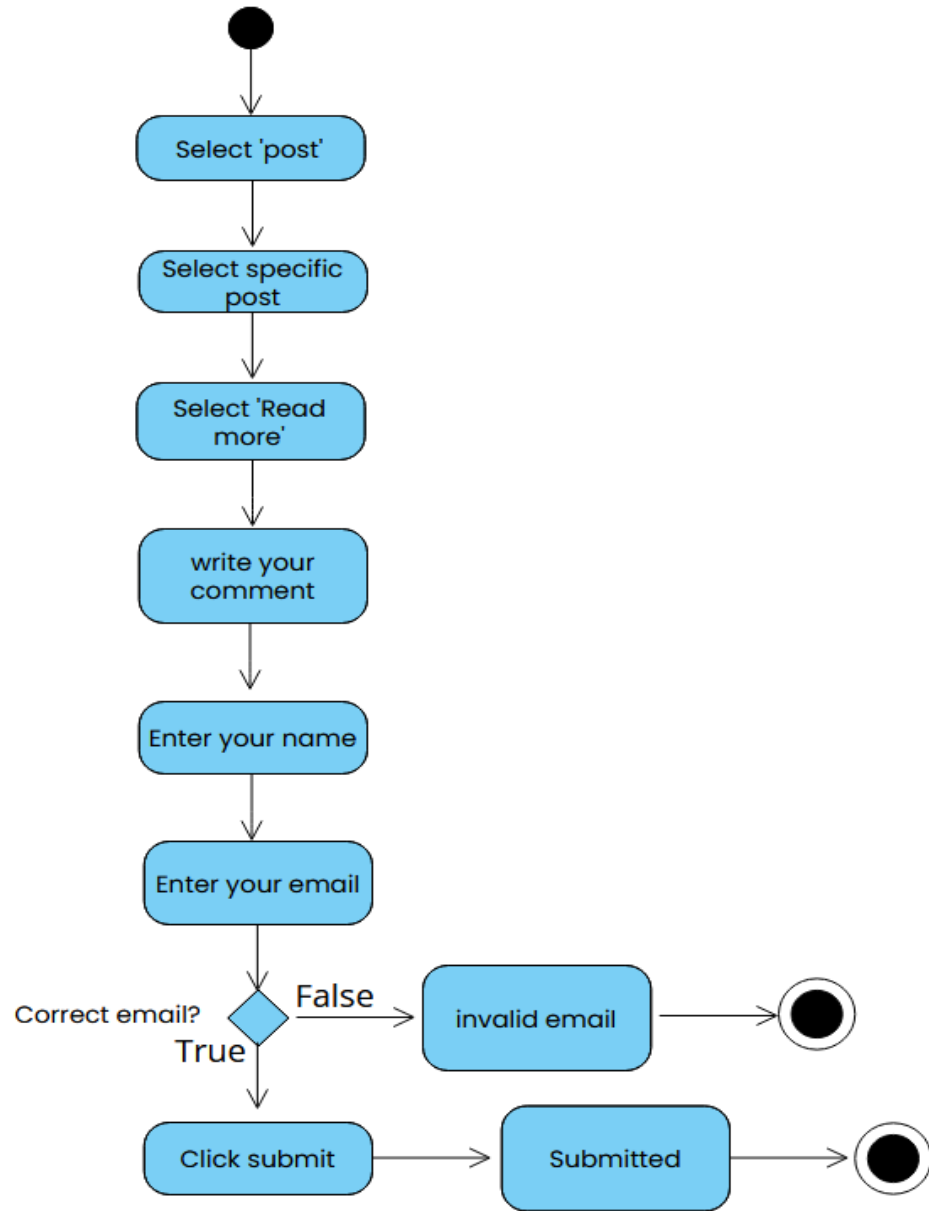


Figure 2.9: Activity diagram of 'Add comments' use case

Here, Reader select 'Post', then he/she have to select specific news to read. Then select 'read more' to view in details. Then he/she can find option there & select 'write your comment'. After writing something, he/she have put their name > email. Then the system will check his/her email is correct or not. If it is not correct, it will show invalid email & process will Go back to enter

your email. If it is correct, then it will proceed & reader can select 'submit'. Then his/her comment will successfully submitted & the process will be finished.

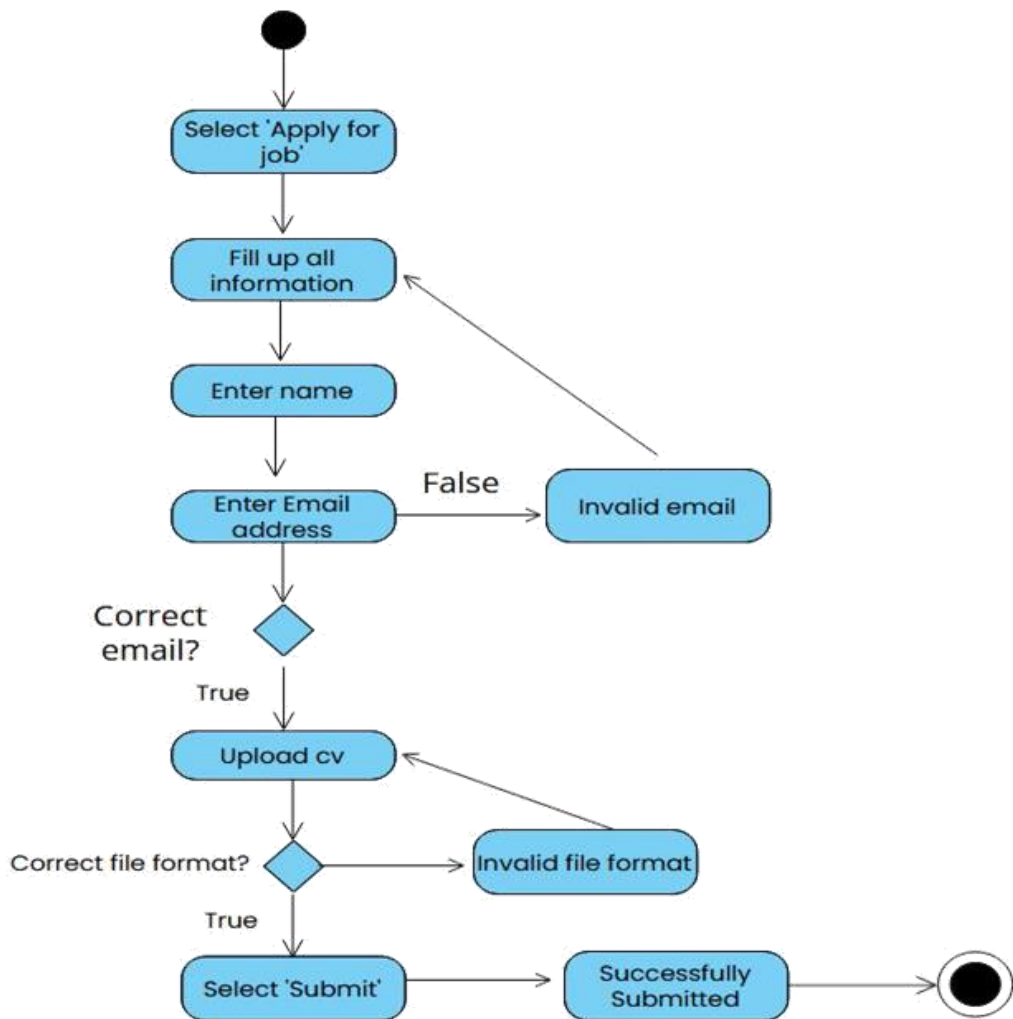


Figure 2.10: Activity diagram of 'apply for job'

Here, Reader select "Apply for job", Then system will pop up a link & reader select Fill up all information. Then Reader enter his/her name. Then He/she enter his email Address. Then system will check the email is valid or not. If that is not valid, It will show 'invalid email' and Process will go back to 'fill up all information' option. If that is valid, process will proceed & then he/she select 'upload cv'. Then system will check the file format is valid or not. If that is not valid, It will show invalid file format & Process will go back to 'upload cv' option. If that is valid, process will proceed and He/she select submit, Then it will be successfully submitted and process will be finished there.

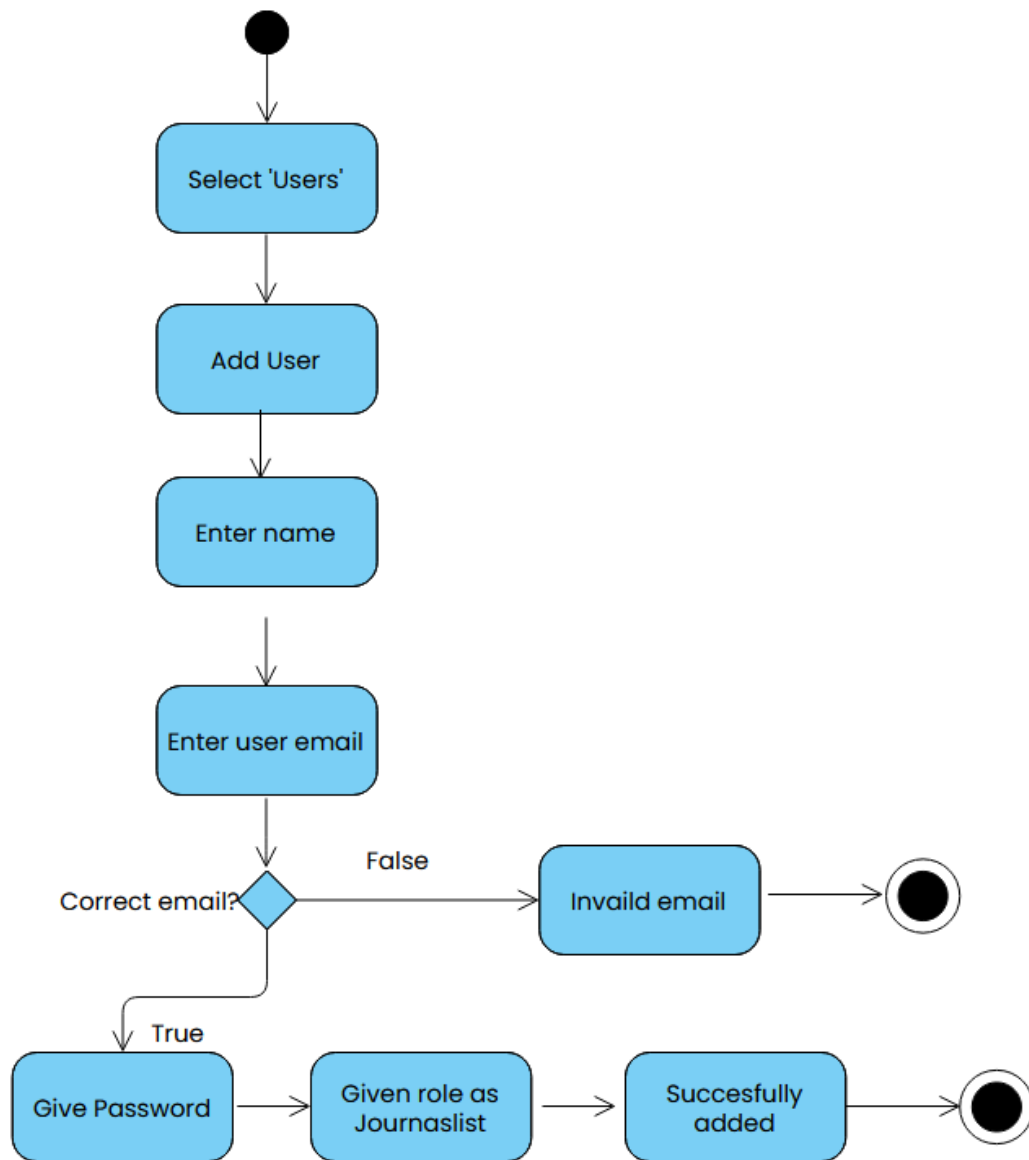


Figure 2.11: Activity diagram of 'add users' use case

Here, Admin select 'Users' > Add user > Enter name> Enter user email. then system will check that is correct email or not change logo or not.If that is not correct, it will show invalid email & procees will go back to enter user email. If that is correct, it will proceed & admin can give

password, then he will give role as journalist. Given role will be successfully added & the process will be finished.

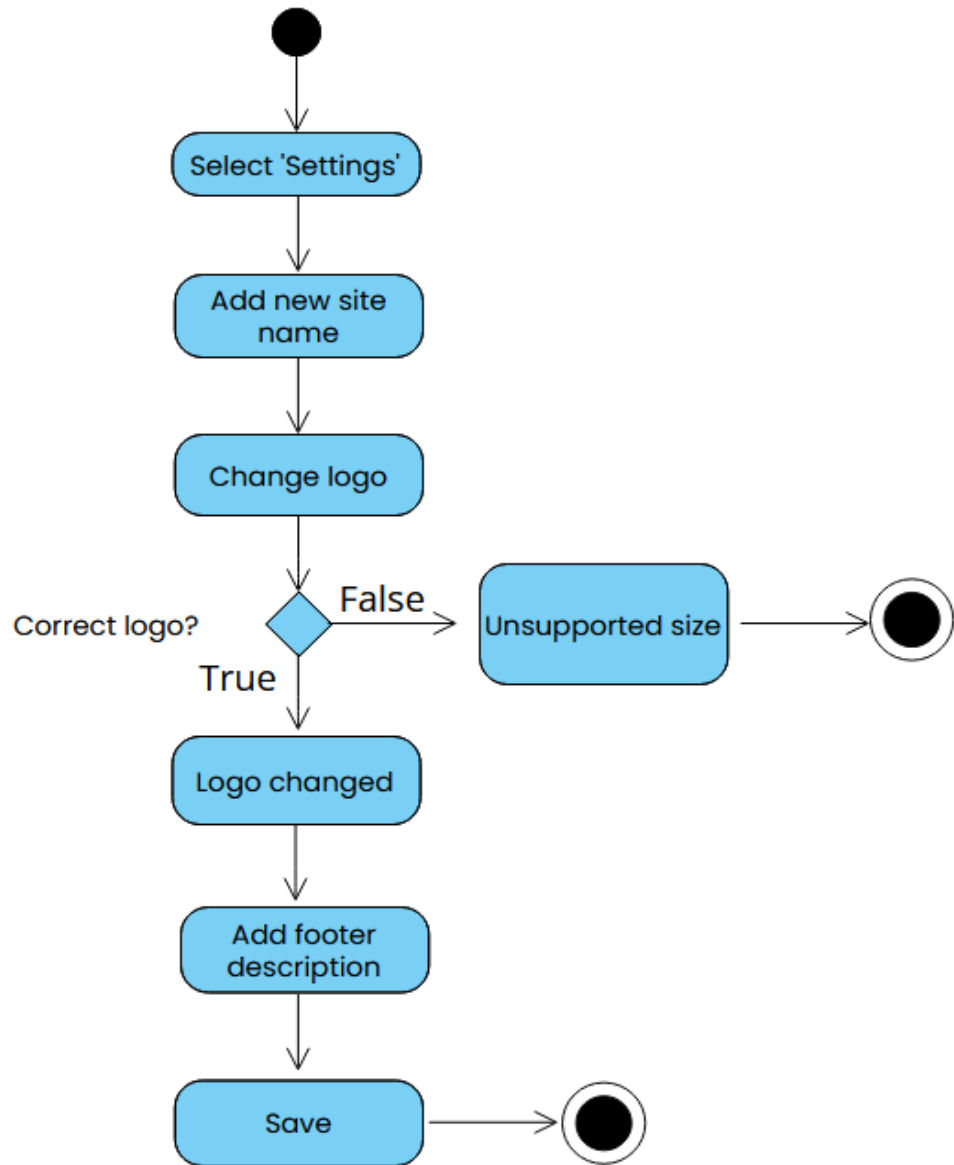


Figure 2.12: Activity diagram of 'update site info' use case

Here, Admin select 'Setting' > Add new site name > change logo, then he/she will take decision to change logo or not. If that is not correct logo size, it will show unsupported size & process will go back to change logo. If that is correct, logo will be changed, then he/she can select 'add footer description', then he/she can save the setting & process will be finished

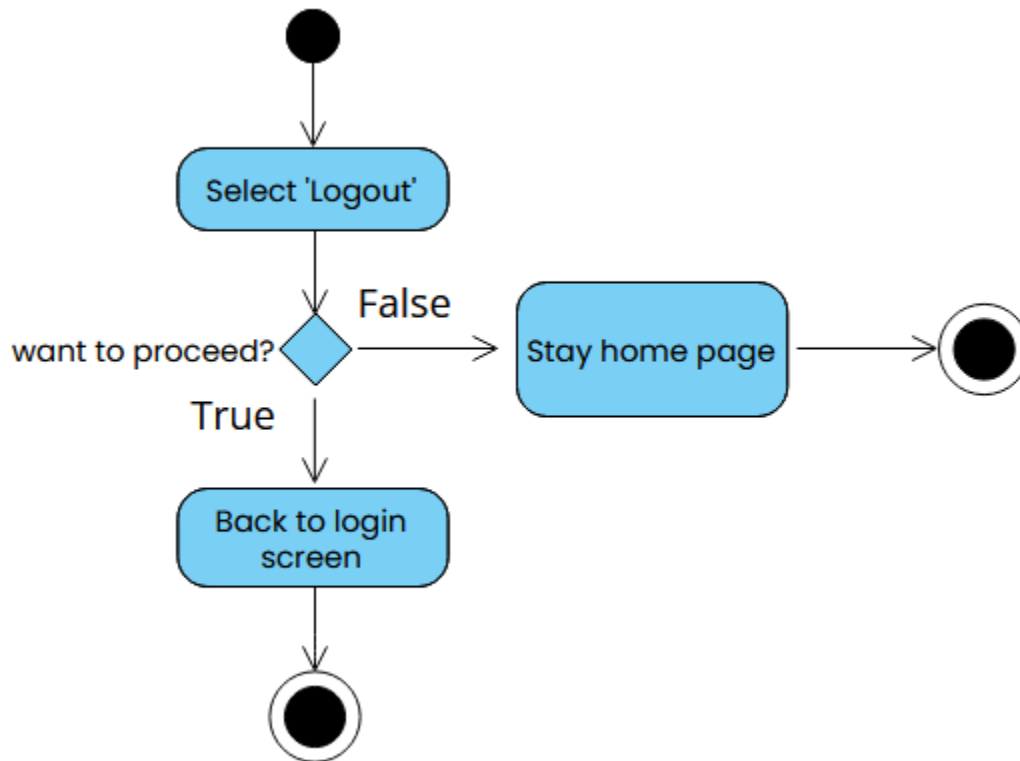


Figure 2.13: Activity diagram of 'logout' use case

Here, Journalist/admin select 'logout' then he/she will take decision to proceed or not. If not, process will go back to select logout section. If yes, then the process will proceed & back to login page.

2.2.4. Sequence Diagram:

In software engineering, a sequence diagram shows process interactions arranged in time sequence. My news site's sequence diagram for every cases are given below:

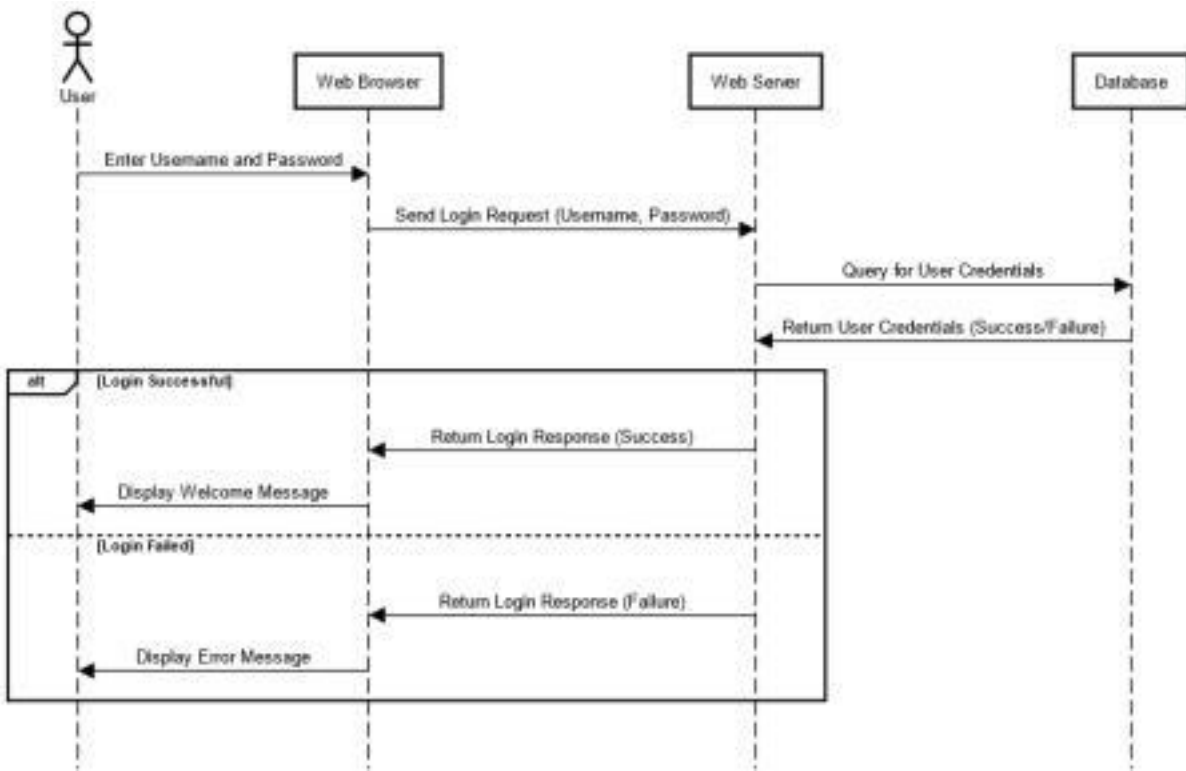


Figure 2.14: Sequence diagram for 'Login'

Here, The User navigates to the login page of the site. Then he/she inputs their username and password into the login form. He/she clicks the login button to submit the credentials. The Login Interface sends the submitted credentials to the Web Server for the Authentication Service. The Authentication Service queries the Database to check if the credentials match. The Database returns a success or failure response back to the web server. If the credentials are valid, the web server creates a session for the user. If the credentials are invalid, the web server sends an error message back. The Login Interface either redirects the User to the welcome page or displays an error message based on the result.

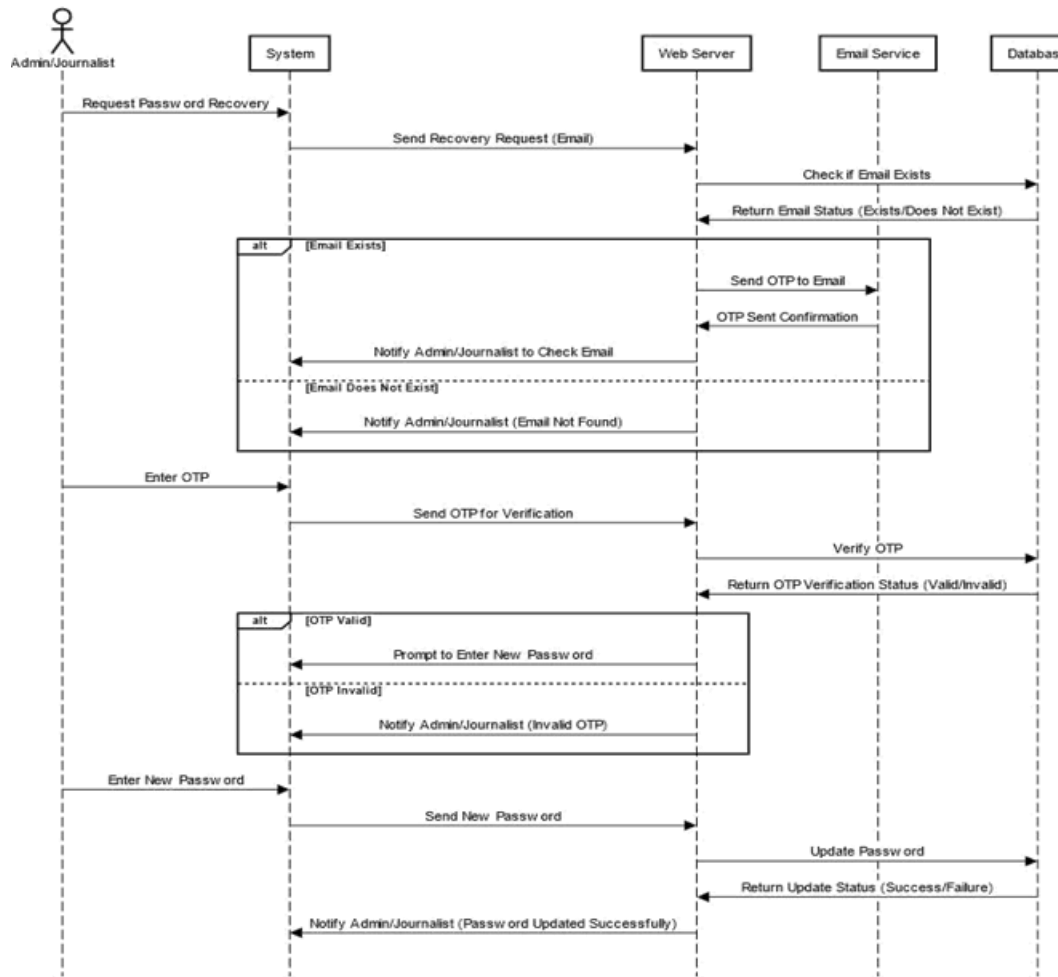


Figure 2.15: Sequence diagram for 'Password Recovery'

Here, Admin/journalist clicks the 'forget password' button to recover their password. Then he/she provides their email address to get otp. Then the web browser interface send recovery request by email to the web server. The email service queries the database to check if the email exist/valid. The database returns a success or failure response back to the web server. If email is exist/valid, then it will create another alternative message in the system & he/she can send otp to email. After sending otp to email, web server sends an otp sent confirmation message & notify admin/journalist to check email. If email is not exist or invalid, then web server sends an error message back & notify them that email is not found or invalid. After getting the otp, admin/journalist input that otp & send otp for verification request by system interface. Then web server queries the database to verify otp. The database returns a success or failure response back to the web server. If otp is valid then it will create alternative message to enter new password. If invalid, then it will notify admin/journalist that is invalid

& gets an error message. After getting valid otp, he/she enters a new password request by system interface to the web server. Then the web server sends the updated password to the database. The database returns a success message to the web server & notifies them that the password is updated successfully.

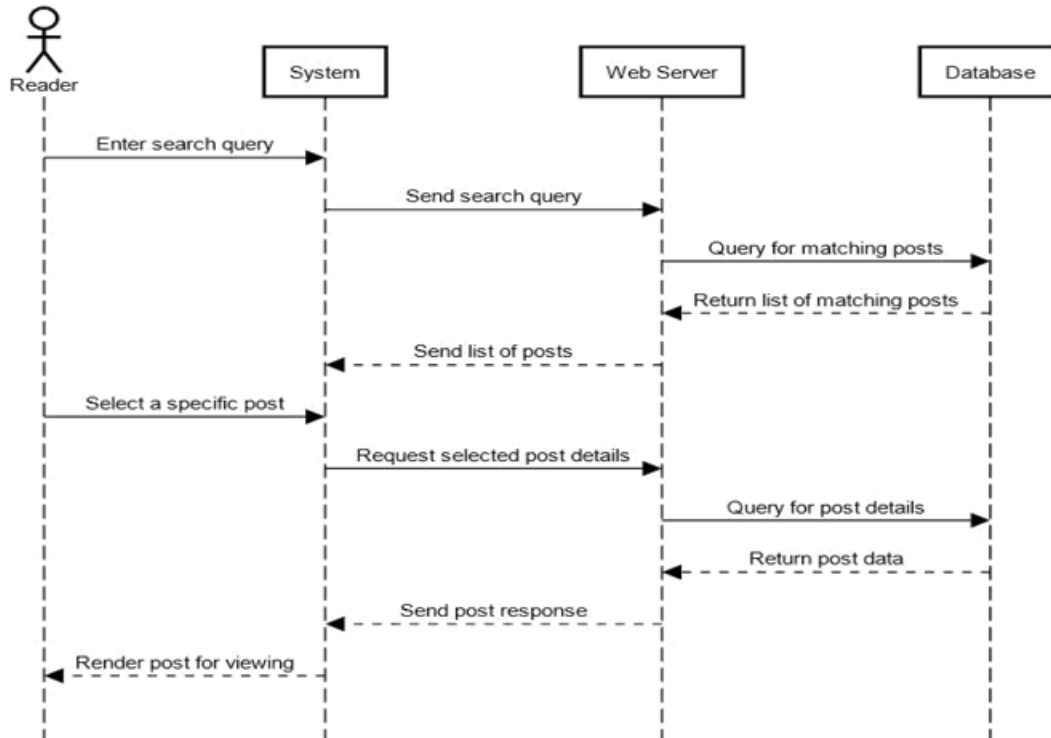


Figure 2.16: Sequence diagram for 'view post'

Here, Reader clicks the search option to find the post. Then the web browser interface requests a search query to the web server. Then the web server sends a query for matching posts to the database. The database returns a success message with a list of matching posts. Then the web server sends the list of posts to the web browser. Then the reader can select a specific post to read. Then the web browser interface requests details view from the web server. The web server sends a query to the database for post details. The database returns post data with success or error message.

Then the web server sends a post response to the web browser. Then the reader can read the post in details.

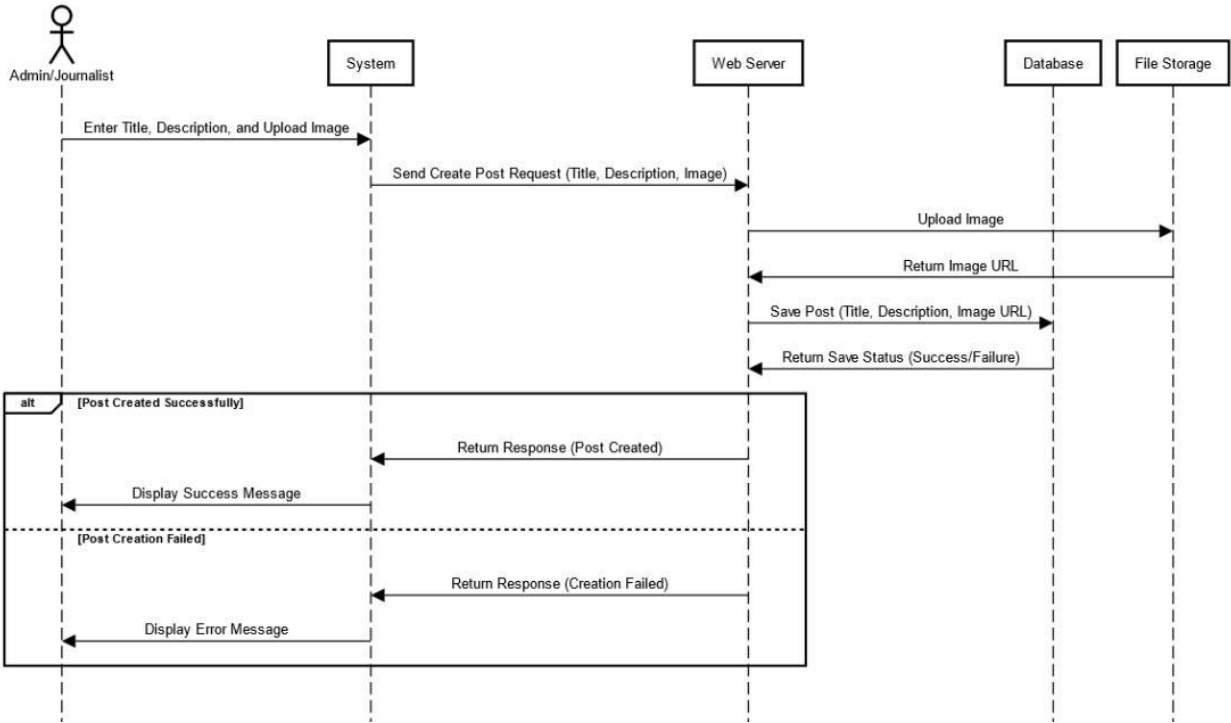


Figure 2.17: Sequence diagram for ‘Add post’

Here, admin/journalist select title, description, upload image one by one. Then web browser interface request to the web server to create post. Then web server send the uploaded image from the file server to the database. Database return with success message to the server with image url.then web server again send save post details to the database. Database returns with a success or failure message. If web server return with success message then it will display successfully added to the reader. if it return with failure message then it will display post creation failed to the reader.

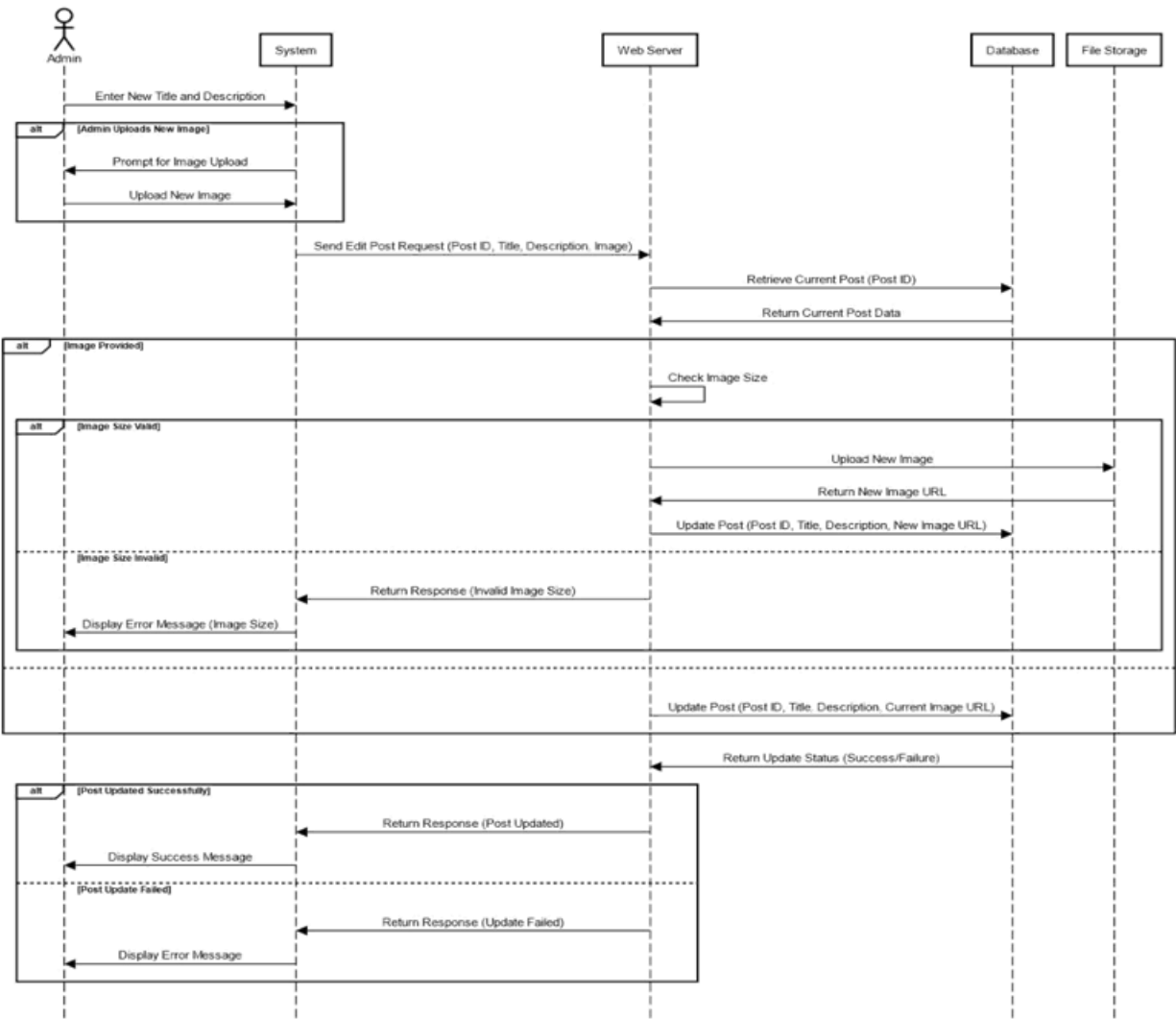


Figure 2.18: Sequence diagram for 'Edit post'

Here, admin select new title, description. then as a alternative message a upload image option will be promot from web browser then admin can upload new image. Then the browser interface request edit post details to the server. Server send edited post details to the database. Database return current post data with a alternative message. Database send self message to the server to check image size. then alternative message will be created if image is valid then database will return with image url. again send image details to the database. if invalid it will display error message. Then finally database will return with success or failure about update status.in alternative message,if return with a success message then it will display post updated successfully.If return with failure message then it will display update failed.

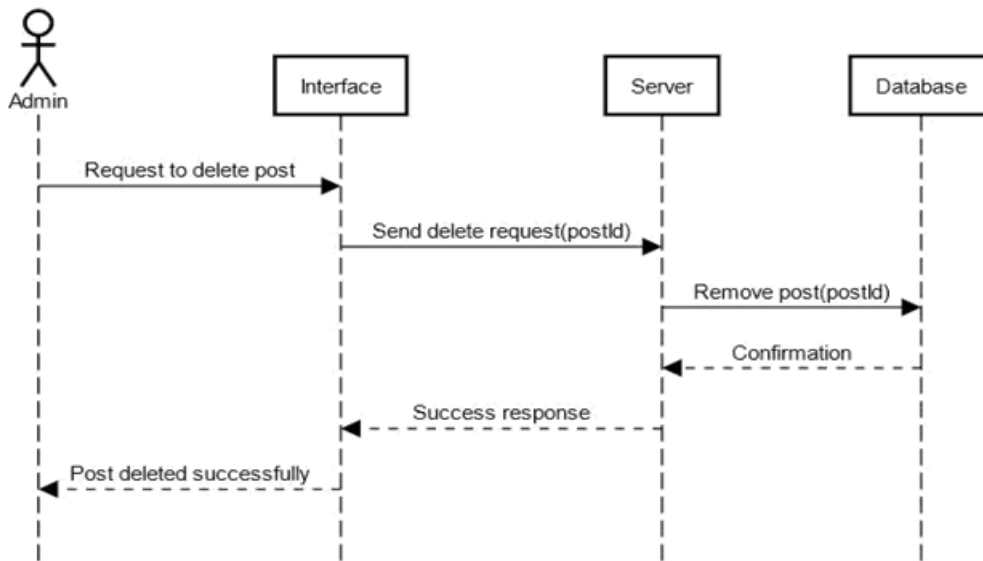


Figure 2.19: Sequence diagram for 'Delete post'

Here admin select delete post & send request to the web browser. web browser interface send delete request to the server. Then server send remove post to the database. Database return with confirmation of success or failure message to the server. Server give result with success response to the browser. Then it will display post deleted successfully to the admin.

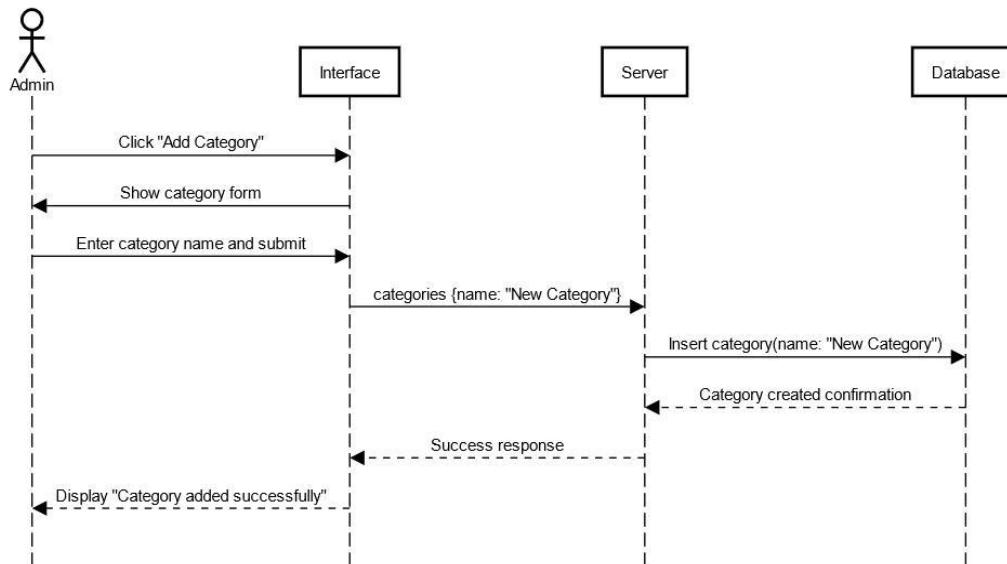


Figure 2.20: Sequence diagram for 'Add Category'

Here admin click add category & send request to the web browser. browser send back the category form to the admin. then admin enter category name and submit request to the browser. Browser interface post request to the server of category details. Then the server insert category name to the database. Database

returns with category created confirmation success or failure message to the server. Server send back the success message to the browser & then it will display category added successfully to the admin.

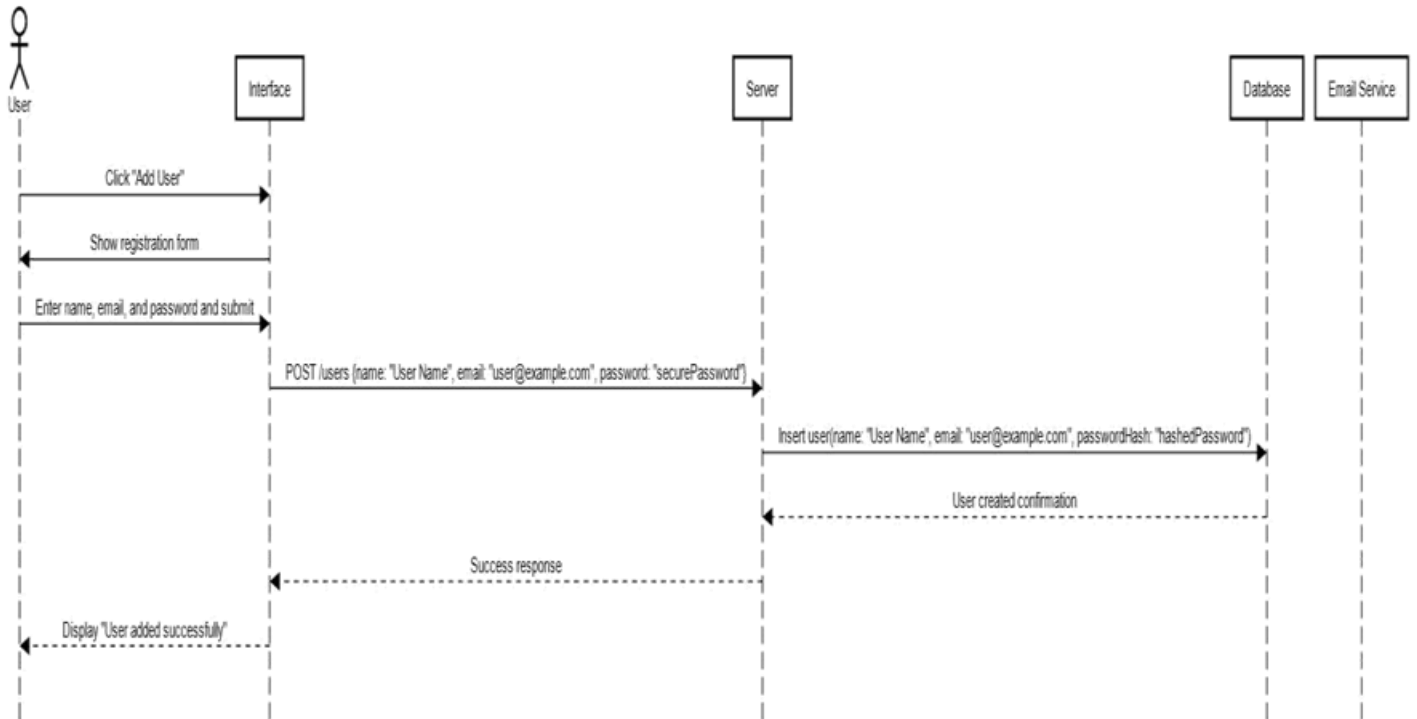


Figure 2.21: Sequence diagram for ‘Add user’

Here, admin click add user to the browser. Browser send back the registration form of user to the admin. Then he will enter name, email and password of the user and request to the browser for submit. Browser interface send post request to the server. Server send details to the database. Database return with success or failure message to the server from email service. IF email is not valid then it will display error message to the admin. if it is valid, then it will give success response to the browser and display user added successfully.

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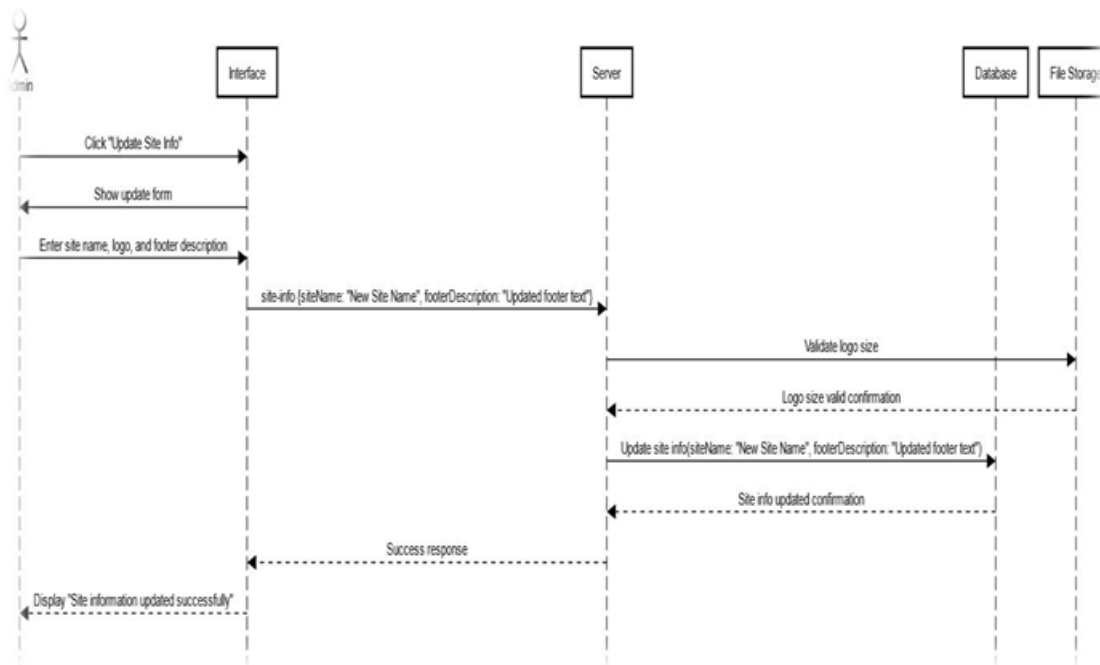


Figure 2.22: Sequence diagram for ‘Update site info’

Here, Admin click update site setting & web browser interface send back the update site form to the admin. Then admin enter site name, logo change & footer description and send it the to interface. The browser interface post request all information to the server. Server send queries to validate logo size from the file storage to the database. Database returns with logo size confirmation. Then server will send all information to the database. The database send back with success or failure message of the site update confirmation. Server send the confirmation message to the server & it will display site updated successfully.

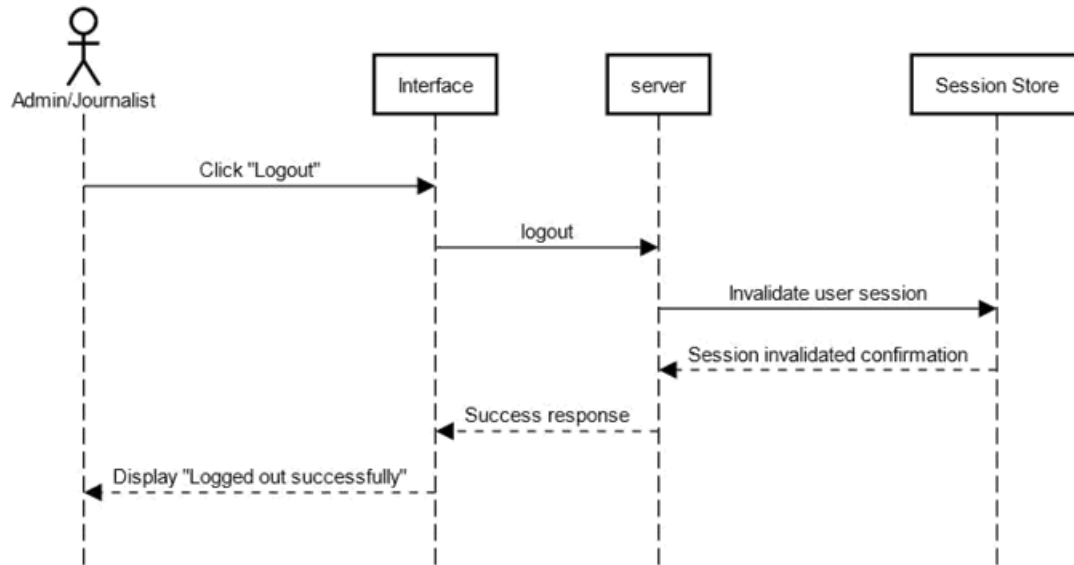


Figure 2.23: Sequence diagram for 'logout'

Here , admin/journalist select logout. Then it will send request to the browser. browser interface send request to the server. Then server send queries of invalidate user session to the session store. Then it will send reply message of confirmation to the server. Server send success response to the browser and it will display logged out successfully.

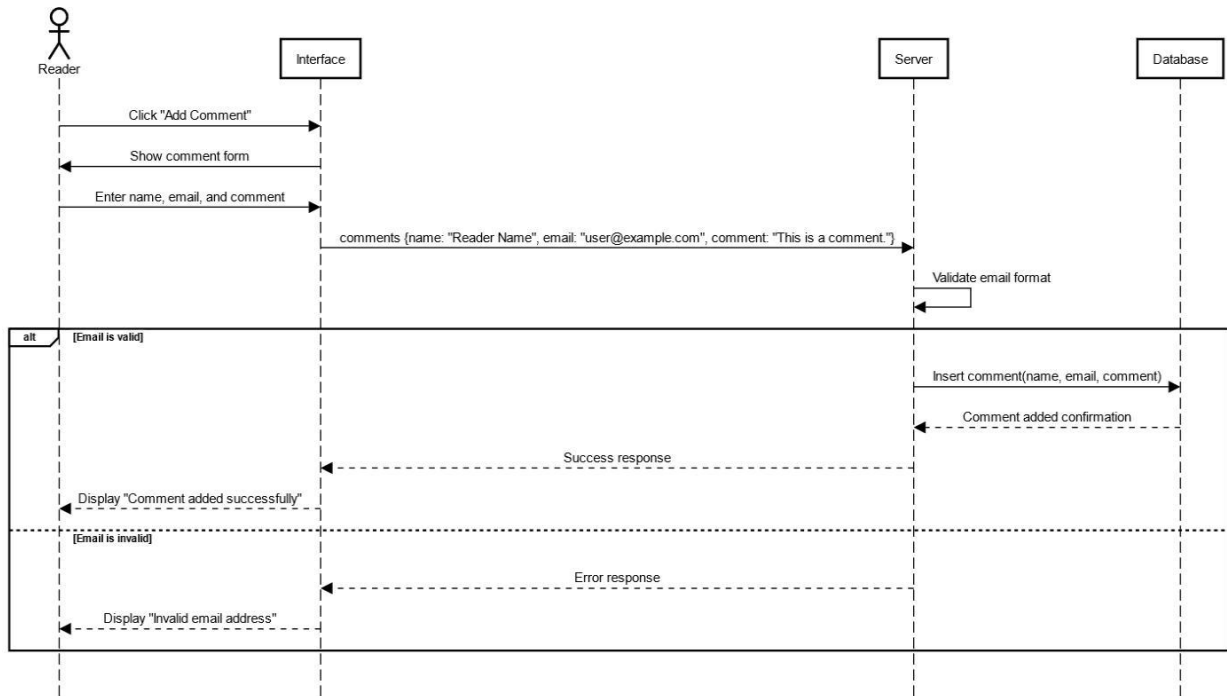


Figure 2.24: Sequence diagram for 'Add comment'

Here, reader click add comment. Then wen browser send back and show the comment section form to fill up. Then reader enter name, email and add comment, send request to the browser. Browser internet send request to the server. Server create a alternative message by self message if email is valid, server sent all information to the database & database reply success or failure confirmation of add comment to the server. if success it will display comment added successfully. if it is invalid it will send failure response to the interface. Then it will display error.

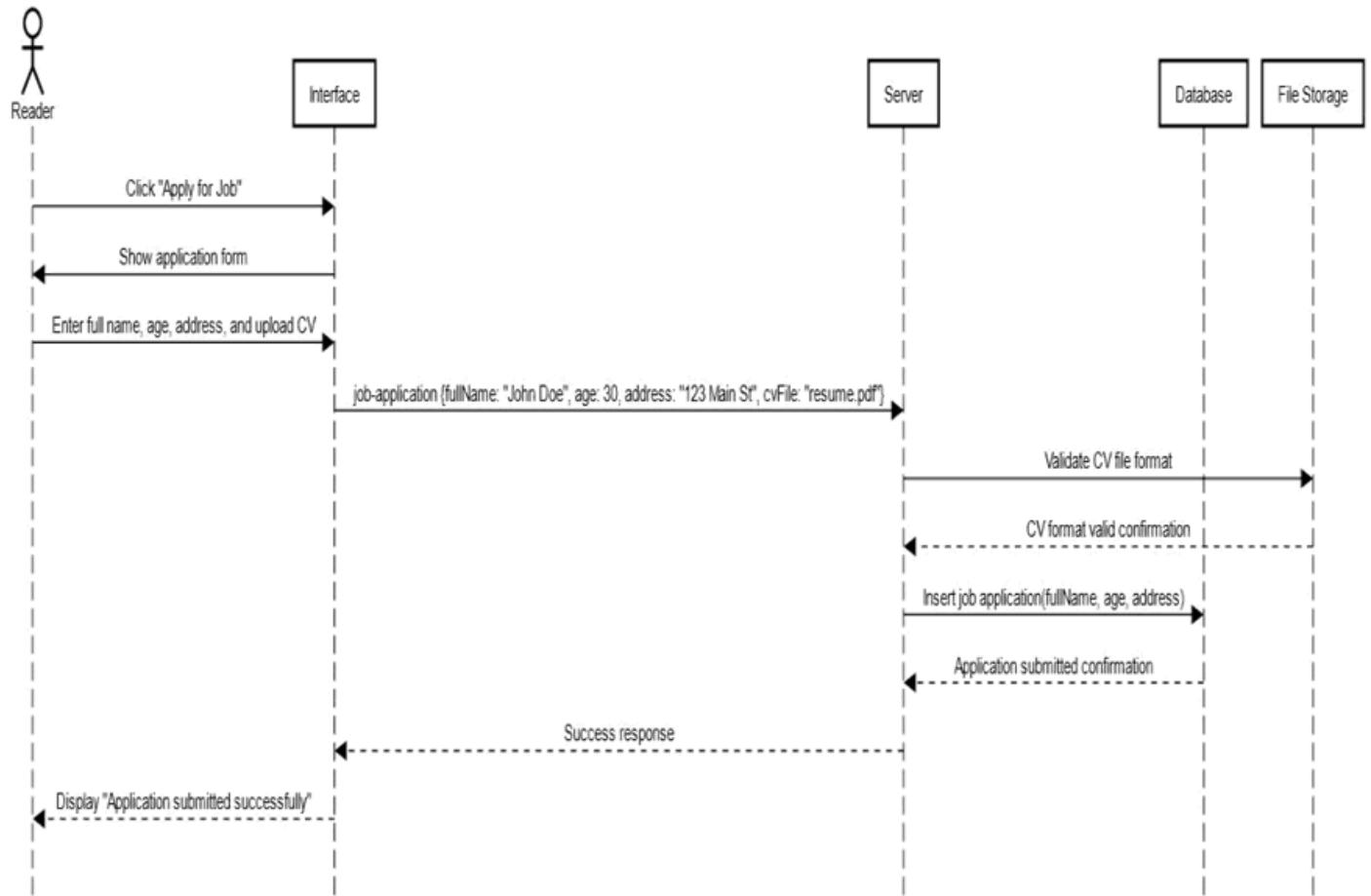


Figure 2.25: Sequence diagram for ‘Apply for Job’

Here, reader click apply for job and send request to the interface. web browser interface send back a application form to the reader. Reader enter his full name, age, address and upload cv. Then web interface send post request to the server with this information. Then server send queries to validate cv file format to the database from file storage. File storage send reply message with confirmation to the server. Then server again insert job application to the database. Database reply message of confirmation to the server. Server send success message to the interface. Then it will display application submitted successfully.

2.2.5. Class Diagram:

A UML class diagram is a visual tool that represents the structure of a system by showing its classes, attributes, methods, and the relationships between them.

News site's class diagram is given below:

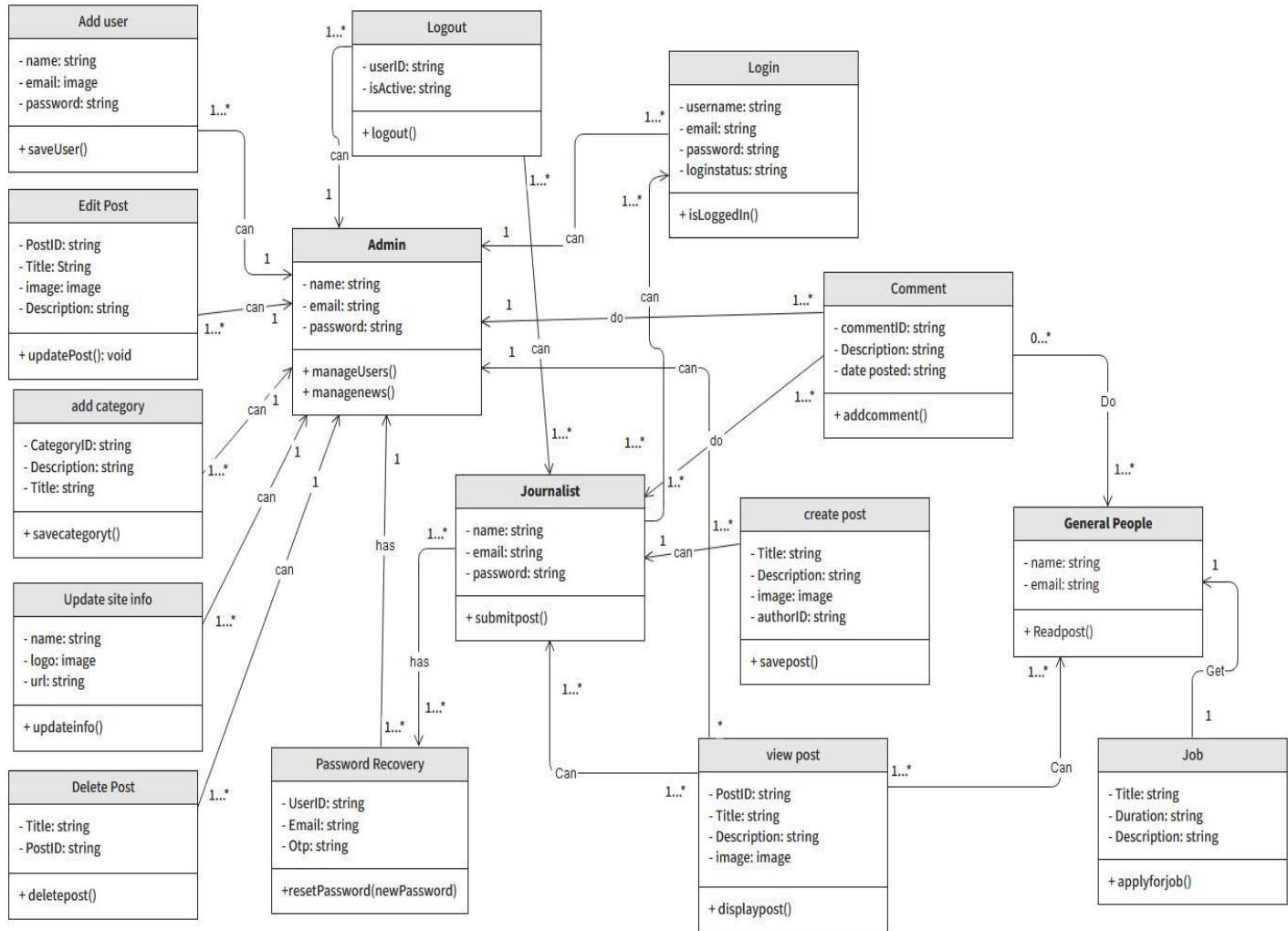


Figure 2.26: Class Diagram

All classes Information

1. Admin

Attributes: name, email, password

method: manageusers(), managenews()

2. Journalist

Attributes: name, email, password

method: submitpost()

3. Reader

Attributes: name, email

method: readpost()

4. Add user

Attributes: name, email, password

method: saveuser()

5. Edit post

Attributes: postid, title, image, description

method: updatepost()

6. Add category

Attributes: categoryId, description, title

Method: savecategory()

7. update site info

Attributes: name, logo, URL

method: updateinfo()

8. Delete post

Attributes: title, postId

method: deletepost()

9. logout

Attributes: userid, isactive

method: logout()

10. login

Attributes: username, email, password, loginstatus

method: isloggedin()

11. comment

Attributes: commentid, description, date posted

method: addcomment()

12. Password recovery
Attributes: userID, email, otp
method: resetpassword()

13. create post
Attributes: title, description, image, authorID
method: savepost()

14.view post
Attributes: PostID, title, description, image
method: displaypost()

15. Job
Attributes: Title, duration, description
method: applyforjob()

Relationship Between classes

Admin <> Add user

There is 1 to many or one relationship between them because 1 admin can add 1 or more user.

Admin <> edit post

There is 1 to many or one relationship between them because 1 admin can edit 1 or more post.

Admin <> Add category

There is 1 to many or one relationship between them because 1 admin can add 1 or more categories.

Admin <> Update site info

There is 1 to many or one relationship between them because 1 admin can update site 1 or more times.

Admin <> delete post

There is 1 to many or one relationship between them because 1 admin can delete 1 or many posts.

Admin <> password recovery

There is 1 to many or one relationship between them because 1 admin can recover his password 1 or many times.

Admin <> logout

There is 1 to many or one relationship between them because 1 admin can logout 1 or many times.

Admin <> login

There is 1 to many or one relationship between them because 1 admin can login 1 or many times.

Admin <> create post

There is 1 to many relationship between them because 1 admin can create many posts.

Journalist <> logout

There is 1 to many or one relationship between them because 1 Journalist can logout 1 or many times.

Journalist <> login

There is 1 to many or one relationship between them because 1 Journalist can login 1 or many times.

Reader <> comment

There is 1 or many to 0 or many relationship between them because 1 or many reader can comment many or 0 times.

Reader <> view post

There is many to many relationship between them because 1 reader

Journalist <> create post

There is 1 to many or one relationship between them because 1 journalist can create one or many posts.

Reader <> job

There is 1 to 1 relationship between them because 1 reader can apply for only 1 job.

2.2.6. ER Diagram:

An entity relationship diagram (also known as an ER diagram or simply ERD) shows how entities (people, objects, and concepts) interact.

News site's ERD is given below:

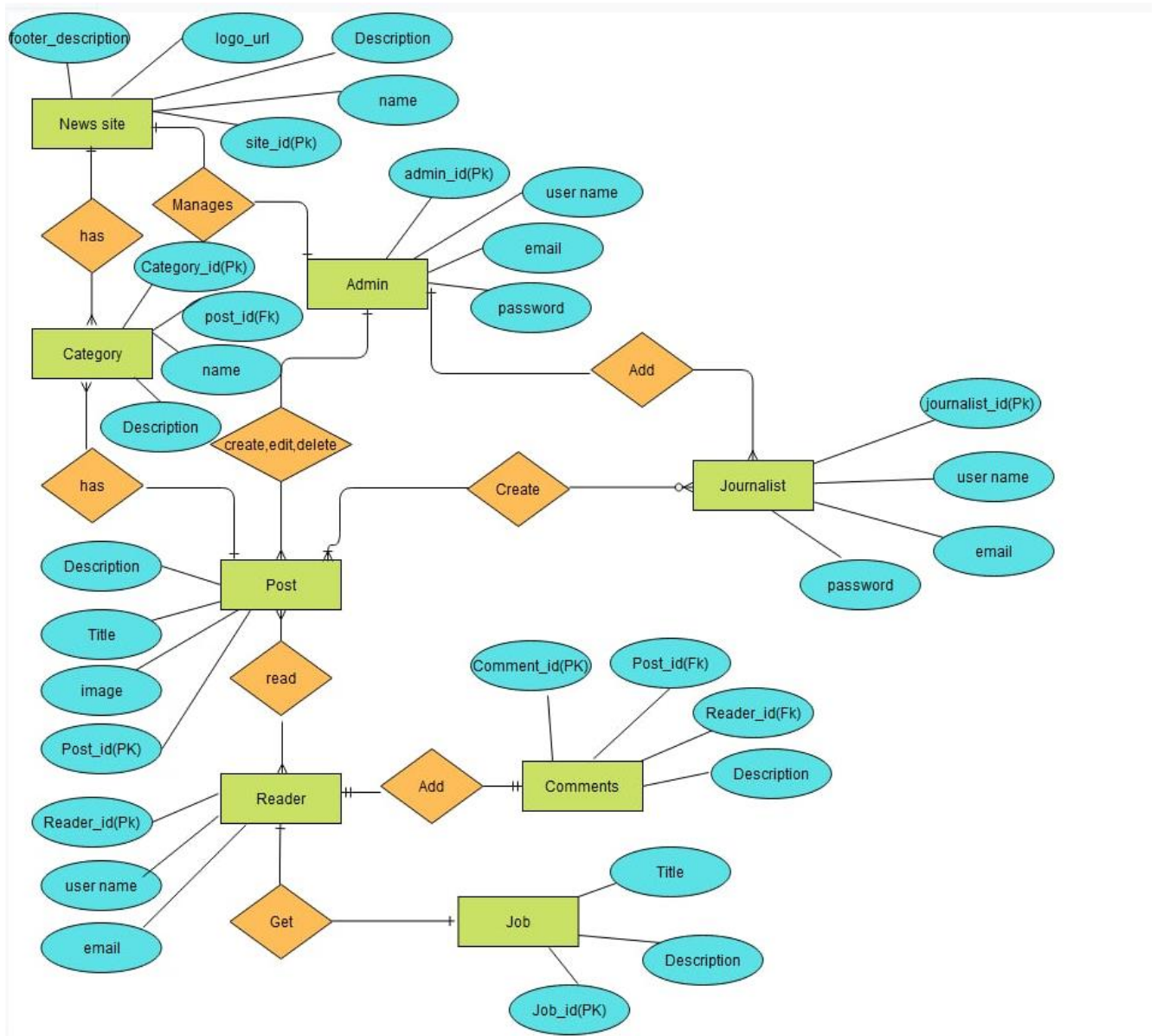


Figure 2.27: ER Diagram

Here, News site is an entity. It has 5 attributes: Site_id(pk), name, description, logo_url, footer_description. It has 1 to many relationship with category entity. because 1 news site can have many categories & many categories remain in 1 news site. There Admin is another entity. it has 4 attributes: admin_id(pk), username, password, email. Admin manages news site. So there is 1 to 1 relationship between them. because 1 admin can manage 1 news site & 1 news site can have 1 admin. Also admin add journalist. Journalist is another entity which has 4 attributes: journalist_id(pk), user name, password, email. Admin has 1 to many relationship with journalist. because 1 admin can add many journalist & many journalist can be added by 1 admin. also admin create, edit & delete post. here post is another entity which has 4 attributes: post_id(pk), title, image, description. Admin has 1 to many relationship with post. because 1 admin can create, edit & delete many posts. & many posts can be edited, deleted & posted by 1 admin. Here, post has 1 to 1 relationship with category. Category entity has 4 attributes: category_id(pk), post_id(fk), name, description. Because 1 post can have 1 category. Also journalist has many to many relationship with post. Because many journalist can create many post & many post can be created by many journalist. Here, reader is another entity. it has 3 attributes: reader_id(pk), user name, email. reader has many to many relationship to with post. Because many readers can read many posts & also many posts can be read by many readers. Also reader has one or many relationship with comments. Comments is another entity which has 4 attributes: Comment_id(pk), Post_id(fk), reader_id(fk), description. Because 1 or many reader can comment 1 or many. also 1 or many comments can be added by 1 or many reader. Also reader has 1 to 1 relationship with job. Job is another entity which has 3 attributes: Job_id(pk), description, title. 1 reader can get only 1 job.

Chapter 3 Software Testing

3.1 Introduction

The News Site project is a dynamic online platform designed to provide users with up-to-date news articles, blogs, and multimedia content across various categories. The site allows users to browse news by categories such as politics, entertainment, sports, technology, and more. In addition to the standard news reading experience, it also supports user-generated content where users can comment on articles, share news, and even submit their own stories. For the system testing phase, the focus is on ensuring that all components of the site function correctly, seamlessly integrating features such as content creation, commenting, user registration, login/logout, and navigation. System testing will cover scenarios including but not limited to verifying the proper creation and display of news articles, ensuring accurate comment submission, managing user roles, validating login/logout procedures, ensuring responsive design across devices, and verifying site performance under load.

Basically This is like a medium business case, 30-40 cases have been tested and this is really crucial because:

Extensive Coverage: To guarantee that every potential user action and edge situation is addressed.

Risk Mitigation: To reduce the possibility of malfunctions or security breaches, business-critical features need to be extensively tested.

Real-World Scenarios: Users' interactions with the system in a variety of real-world scenarios must be taken into consideration during testing.

Compliance and Security: Adhering to regulatory regulations is essential, particularly for systems that handle sensitive data or financial activities.

Quality Assurance: A seamless, error-free user experience is ensured by comprehensive test cases.

3.2 System Testing (Test Cases with Scenarios and Reports)

Test Case 01: Login

Business Case Objective: Admin/Journalist can log in to the news site.

Designed By: Rafrain Chowdhury

Executed By: Rafrain Chowdhury

Pre-condition: User accesses the login page

Test Scenarios	Email	Password	Response	Pass/Fail	Comment
1.Login with valid Credentials	Rafrain@gmail.com	123	Login Successful	Pass	Login is successful with valid information
2.Login with any Blank field		123	Email Field empty	Fail	Must input email
3.Login with Invalid Credentials	Rafrain@gmail.com	12	Wrong Password	Fail	Must input valid password

Post-condition: The user is successfully logs in & can access personalized content or settings.

Table 3.1: Login

Test Case 02: Password Recovery

Business Case Objective: Admin/Journalist can recover their password.

Designed By: Rafratin Chowdhury

Executed By: Rafratin Chowdhury

Pre-condition: User accesses the login page.

Test Scenarios	Email	OTP	New Password	Response	Pass/Fail	Comment
1.Recover Password with valid Information	Rafratin@gmail.com	500000	123456	Successfully Resetted	Pass	Password is successfully resetted.
2.Recover Password with any Blank field		500000	123456	Email Field empty	Fail	Must input email
3.Recover Password with Invalid Information	Rafratin@gmail.com	500012	123456	Wrong OTP	Fail	Must input valid OTP

Post-condition: The user is successfully reset password & can access personalized content or settings by login with new password.

Table 3.2: Password Recovery

Test Case 03: Add Post

Buisness Case Objective: Admin/Journalist can create a post in the news site.

Designed By: Rafrain Chowdhury

Executed By: Rafrain Chowdhury

Pre-condition: User is logged in the news site.

Test Scenarios	Description	Title	Category	Image	Response	Pass /Fail	Comment
1.Add post by giving all information	Kamran Ghulam is a great batsman for Pakistan right now.His 50 balls 100 runs will be recorded forever.	Kamran Ghulam Maiden Century	Sports	Cricket.JPG	Successfully Posted.	Pass	Post is added with valid Information.
2.Add post with any Blank field		Kamran Ghulam Maiden Century	Sports	Cricket.JPG	Description Field empty	Fail	Must input Description.
3.Recover Password with Invalid Information	Kamran Ghulam is a great batsman for Pakistan right now.His 50 balls 100 runs will be recorded forever.	Kamran Ghulam Maiden Century	Sports	Cricket.SVG	Invalid Image format	Fail	Must add image of supported format(JPG,PNG)

Post-condition: Post is successfully added & any one can view & read the contents of it.

Table 3.3: Add Post

Test Case 04: Delete Post

Buisness Case Objective: Admin can delete any post.

Designed By: Rafrain Chowdhury

Executed By: Rafrain Chowdhury

Pre-condition: User is logged in the news site.

Test Scenarios	Title	Confirmation	Response	Pass/Fail	Comment
1.Delete post by selecting any post	Kamran Ghulam Maiden Century	Yes	Successfully Deleted	Pass	Post is successfully deleted
2.Delete post by not select any post		Yes	No post is selected	Fail	Must Select at least 1 post to delete
3.Delete post by cancelling the process	Kamran Ghulam Maiden Century	No		Fail	Must select yes to delete.

Post-condition: The user is successfully deleted a post.

Table 3.4: Delete Post

Test Case 05: view post

Buisness Case Objective: Reader can view or read any post or news.

Designed By: Rafrain Chowdhury

Executed By: Rafrain Chowdhury

Pre-condition: Reader accesses the homepage and must have internet connection for it.

Test Scenarios	Article	image	Response	Pass/Fail	Comment
1.Read post by selecting specific post	Kamran Ghulam Maiden Century	Cricket.JPG	Successfully loaded	Pass	Post is successfully loaded and readable
2.Read post by searching specific post	Flood affected in mirpur	Mirpur.JPG	Post found	Pass	Search post is successfully found and readable
3.View post by searching unknown information	%GGGGG		Invalid keyword not found	Fail	Must type valid keyword

Post-condition: Reader can read any news and watch all contents of it.

Table 3.5: View Post

Test Case 06: Edit Post

Business Case Objective: Admin can edit a post in the news site.

Designed By: Rafrain Chowdhury

Executed By: Rafrain Chowdhury

Pre-condition: User is logged in the news site.

Test Scenarios	Description	Title	Category	Image	Response	Pass/Fail	Comment
1.Edit post by modifying any information	Kamran Ghulam is a great batsman for Pakistan right now. His 50 balls 100 runs will be recorded forever.	Kamran Ghulam Maiden Century	Sports	Cricket.JPG	Successfully Edited.	Pass	Post is edited with information updated.
2.Edit post with any Blank field		Kamran Ghulam Maiden Century	Sports	Cricket.JPG	Description Field empty	Fail	Must Description.
3.Edit post with Invalid Information	Kamran Ghulam is a great batsman for Pakistan right now. His 50 balls 100 runs will be recorded forever.	Kamran Ghulam Maiden Century	Sports	Cricket.JPG	Failed to upload	Fail	Must add image which size is less than 8 mb

Post-condition: Post is successfully edited & any one can view & read the updated contents of it.

Table 3.6: Edit Post

Test Case 07: Add user

Buisness Case Objective: Admin can add Journalist who can create post.

Designed By: Rafrain Chowdhury

Executed By: Rafrain Chowdhury

Pre-condition: User is logged in the news site.

Test Scenarios	email	name	Password	role	Response	Pass/Fail	Comment
1.Add user by giving all valid information	Aris@gmail.com	Aris khan	12345	Journalist	Successfully Added.	Pass	Successfully added a new user & give a mail.
2. Add user by keeping any field blank	Aris@gmail.com		12345	Journalist	Name field Is empty	Fail	Must input name
3.Add user by invalid information	Ari@gmail.com	Aris khan	12345	Journalist	Invalid email	Fail	Must input valid email.

Post-condition: The user is successfully added and logged into the website by given credentials.

Table 3.7: Edit Post

Test Case 08: Add comments

Business Case Objective: Reader can add comment and share their opinions of any post.

Designed By: Rafratin Chowdhury

Executed By: Rafratin Chowdhury

Pre-condition: Reader accesses the homepage and must have internet connection for it.

Test Scenarios	Email	Name	Text	Response	Pass/Fail	Comment
1.add comment by giving valid information	Ahmar@gmail.com	Ahmar Ahmed	Nice	Successfully added	Pass	comment is successfully posted and readable
2.Add comment by keeping any blank field	Ahmar@gmail.com		Nice	Name field is blank	Fail	Must input name
3.Add comment by giving invalid information	Ahma@gmail.com	Ahmar Ahmed	Nice	Wrong email	Fail	Must input valid email

Post-condition: Reader can comment below any post and anyone can read that.

Table 3.8: Add Comments

Test Case 09: Update site info

Buisness Case Objective: Admin can change site information like logo, name etc.

Designed By: Rafratin Chowdhury

Executed By: Rafratin Chowdhury

Pre-condition: Admin logged in the news site.

Test Scenarios	Footer	Name	Logo	Response	Pass/Fail	Comment
1.update site info by giving valid information	© 2024 news	NewsFeedBD	Site.PNG	Successfully Updated.	Pass	Successfully updated website settings
2.update site info by making any blank field	© 2024 news		Site.PNG	Name field is blank	Fail	Must input name
3.update site info by giving invalid information	© 2024 news	NewsFeedBD	Site.PNG	Wrong logo size	Fail	Must input 250 px (width) x 100 px (height) logo or less.

Post-condition: Admin can change website settings and anyone can view the updated scenario.

Table 3.9: Update Site Info

Test Case 10: Add category

Business Case Objective: Reader can add comment and share their opinions of any post.

Designed By: Rafrain Chowdhury

Executed By: Rafrain Chowdhury

Pre-condition: Reader accesses the homepage and must have internet connection for it.

Test Scenarios	Description	Name	Response	Pass/Fail	Comments
1.add category by giving valid information	Mainly focus on abroad newses	International	Successfully added	Pass	Category is successfully added and viewable.
2.Add category by keeping any blank field	Mainly focus on abroad newses		Name field is blank	Fail	Must input name
3.Add category by giving duplicate information	Mainly focus on abroad newses	Sports	Already exists	Fail	Must input different name

Post-condition: Admin can add category that is viewable for anyone.

Table 3.10: Add Category

Test Case 11: Apply for job

Business Case Objective: Reader can add comment and share their opinions of any post.

Designed By: Rafratin Chowdhury

Executed By: Rafratin Chowdhury

Pre-condition: Reader accesses the homepage and must have internet connection for it.

Test Scenarios	Mobile	Email	Name	Resume	Response	Pass/Fail	Comment
1. apply for job by giving valid information	01780-808080	Arman@gmail.com	Arman Ahmed	CV.Pdf	Successfully Submitted.	Pass	Form is successfully Submitted.
2. apply for job by keeping any blank field	01780-808080	Arman@gmail.com		CV.Pdf		Fail	Must input name
3. apply for job by giving invalid information	01780-808080	Arman@gmail.com	Arman Ahmed	CV.ppt	Upload failed	Fail	Must upload pdf file

Post-condition: Reader can apply for a job by submitting a form.

Table 3.11: Apply For Job

Test Case 12: Logout

Buisness Case Objective: User can logged out from the news site.

Designed By: Rafracin Chowdhury

Executed By: Rafracin Chowdhury

Pre-condition: User accessed on the home page.

Test Scenarios	Sign in	Confirmation	Response	Pass/Fail	Comments
1.Logout with valid attempt	yes	yes	Logout successful	Pass	Successfully logout and back to login page
2. Logout with not logged in	no		Error action	Fail	User must log in first
3.Logout by cancelling the process	yes	no		Fail	Must confirm yes for logout

Post-condition: Admin can successfully logout and back to login screen.

Table 3.12: Logout

Chapter 4 Deployment and Maintenance

4.1 Introduction

The deployment of the news site involves setting up the infrastructure, configuring servers, databases and domain settings and deploying the site from a staging environment to production.

The news site will undergo continuous maintenance, including regular bug fixes, security updates, performance optimizations, and the introduction of new features. Security patches will be applied promptly to protect user data, and database optimizations will ensure fast content access.

4.2 Deployment and Maintenance Plan (Following SRLC)

Plan of Deployment:

Making the news website stable and secure for end users is the goal of the deployment phase. This stage is essential to making sure the website functions well under different traffic loads, particularly during periods of high traffic, such as breaking news.

Pre-Deployment Tasks:

1. Complete the deployment strategy and discuss it with important parties.
2. Make a backup of your important data (media, user data, and content).
3. Conduct last-minute functional, performance, and security testing in a staging environment.

After-Deployment Tasks:

- To verify fundamental functioning, use smoke tests (e.g., page load, content display).
- Use technologies like Google Analytics or New Relic to track site performance (such as page speed, user activity, and server load).
- Get user input and quickly fix any problems (rollbacks if necessary).

Plan of Maintenance:

The maintenance phase makes sure the website stays safe, current, and performance-optimized throughout time.

Content Updates:

- Publish feature updates, multimedia content, and new news items on a regular basis.
- Make sure that current content is easily accessible while properly archiving older stuff.

Bug Fixes and Performance Optimization:

- Use a ticketing system (like Jira) to quickly track and address bugs.
- Regular load testing, caching, and database tuning will improve site speed.

Security and Compliance:

- Fix vulnerabilities by applying security patches.
- Make that the website continues to abide with laws (such as the GDPR and WCAG for accessibility).

Enhancements to Features:

- Add additional features such as push alerts, customized news feeds, and improved search capabilities.
- Update the website frequently in response to user comments to enhance the user experience (UX).

Observation and Reporting:

- Keep an eye on traffic trends and site health (uptime, performance).
- To comprehend user involvement, create reports on key performance indicators (KPIs).

Chapter 5 User Manual

5.1 Introduction

News site is an online platform designed to provide users with the latest news articles, blogs, and multimedia content across various categories such as politics, entertainment, sports, and technology. The site allows users to browse, read, and comment on news stories, while offering additional features for registered users such as submitting articles, applying for jobs, and receiving personalized content recommendations.

Key Features:

Browse News: View news articles by category or search for specific topics.

Read Articles: Access full articles, including text, images, and videos.

Comment and Engage: Leave comments on articles and engage with other users.

Users Login: log in and manage profile.

Submit Articles: Submit own news stories for publishing (for Journalist).

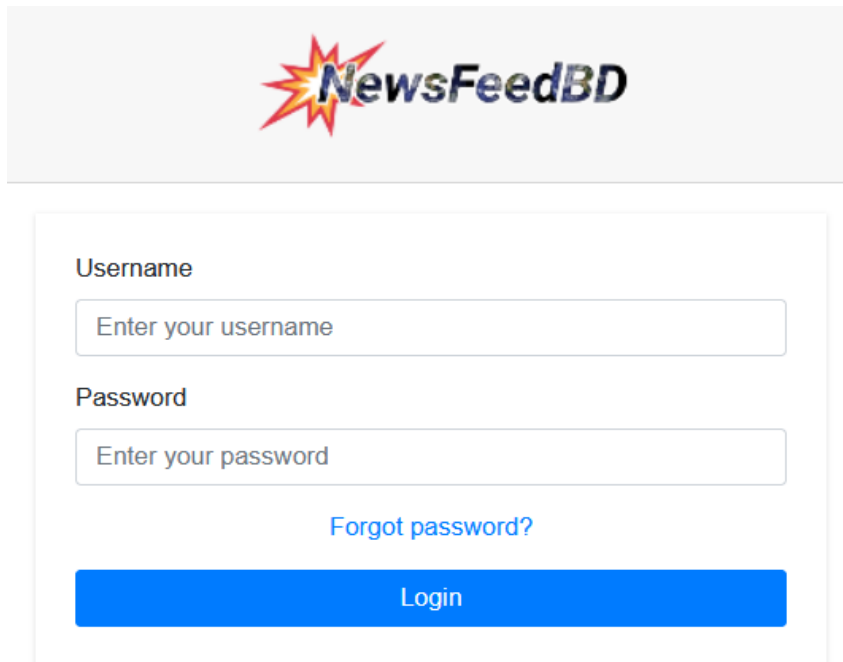
Apply for Jobs: Search for job and apply directly through the site.

Using Systems:

1. **Navigating the Site:** Use the navigation bar to access categories like Politics, Sports, Entertainment, etc.
2. **Reading Articles:** Click on any news headline to open the full article.
3. **Commenting:** Put name and email to leave comments on articles, share opinions or ask questions.
4. **Account Management:** Log in to manage your profile.
5. **Applying for Jobs:** Go to apply for job section and apply directly.

This user manual serves as a quick guide for navigating and using the core features of the news site.

5.2 Project Functionalities



NewsFeedBD

Username

Enter your username

Password

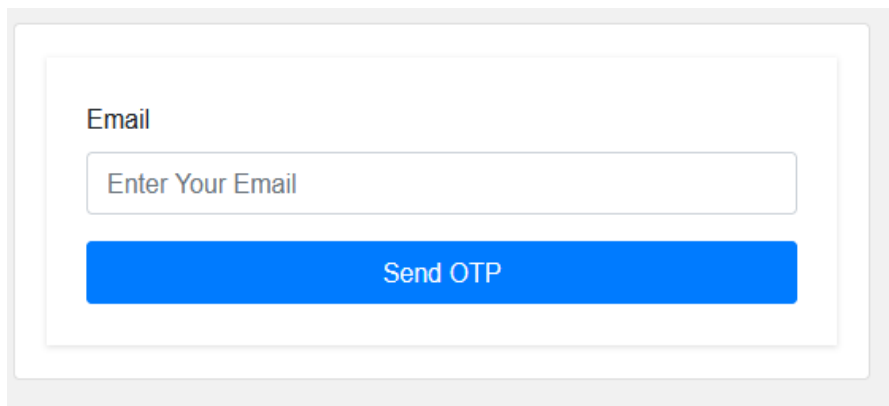
Enter your password

[Forgot password?](#)

Login

Figure 5.1: Login

Here, This is login functionality. Admin & Journalist can login the system by giving correct information, If any field is missing or incorrect, they can't login.



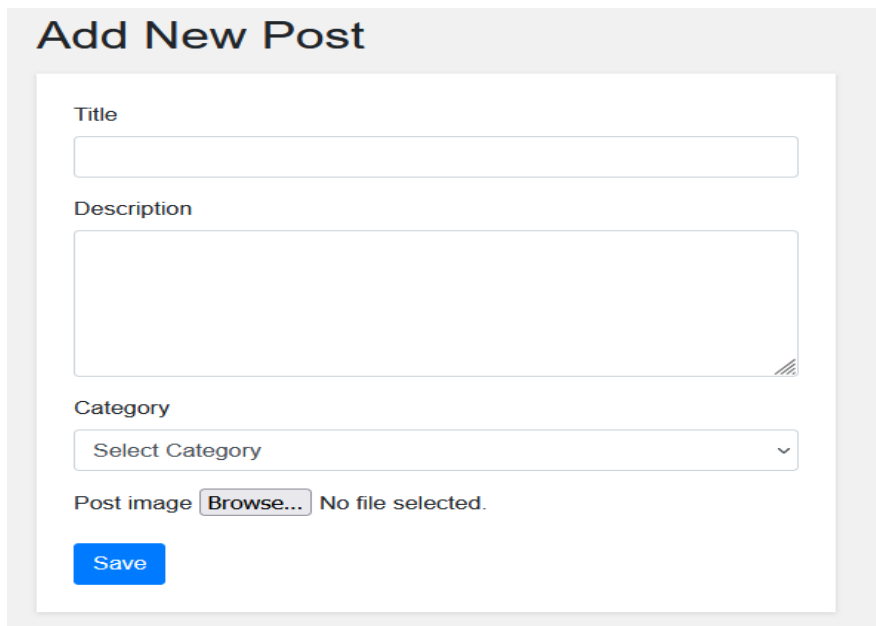
Email

Enter Your Email

Send OTP

Figure 5.2: Password Recovery

Here, This is Password recovery functionality, when Journalist or Admin try to reset or forget their password, they will click forget password button, then this image will be shown up. Then after giving valid email address they will get an OTP in their mail. Then they have to put that OTP and send that. After that they can put new password & the password will be changed or be recovered if they forget the previous one.



The screenshot shows a form titled "Add New Post". It contains the following elements:

- Title:** A single-line text input field.
- Description:** A multi-line text area with a small icon in the bottom right corner.
- Category:** A dropdown menu with the text "Select Category" and a downward arrow.
- Post image:** A label "Post image" followed by a "Browse..." button and the text "No file selected."
- Save:** A blue button with the text "Save".

Figure 5.3: Add Post

Here, this is add post functionality. Admin or Journalist can add a post for publishing. When they click add post, this image will be shown. Then They will give title, Description, category & correct image format & size. After that they can save the post.

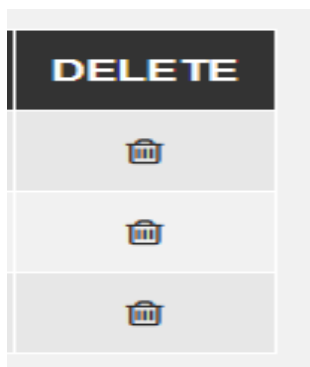


Figure 5.4: Delete Post

Here, This is delete post functionality. Admin can delete any post. At the right side of post name, this delete icon will be shown. If admin wants to delete, he/she will click this button, then confirmation message will pop up. Admin have to select yes, then the post will be deleted.

All Users					ADD USER
S.NO.	FULL NAME	USER NAME	ROLE	EDIT	DELETE
1	LeGendddd RCA	LeGend_RCA	Normal		
2	legendRCA rafrafin	arnob	Admin		

1

Figure 5.5: Add Users

Here, this is add user functionality. When admin click add user button then user setting will pop up. Admin can give new user his name, email, password, role. After that that user can login like admin and works as a journalist in the site.

Update Post

Title

Description

Category

Post image No file selected.




Figure 5.6: Edit Post

Here, edit post is a functionality. When Admin clicks edit post button this image will appear. First admin can modify post title, then he rewrite the description, change category & also can change the image & then after clicking update button, post will be updated.

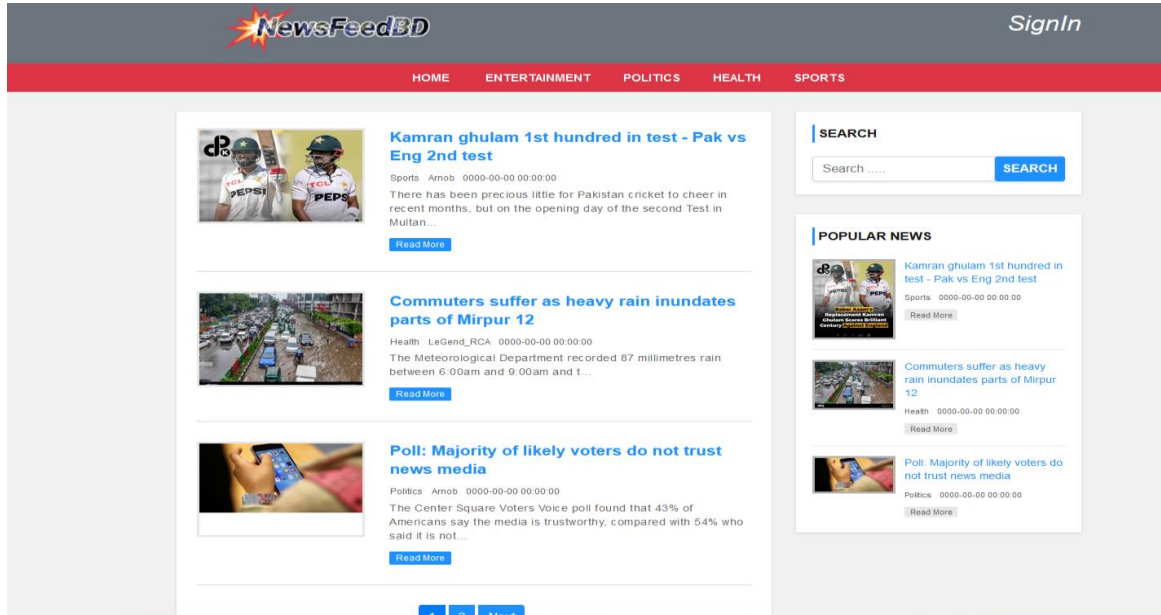


Figure 5.7: View Post

Here, this is view post functionality. Reader can view post from the home page. By clicking read more they can read news in details. Also they can search the news by typing in search option. If available, will be found. Also they can read by category and popular section.

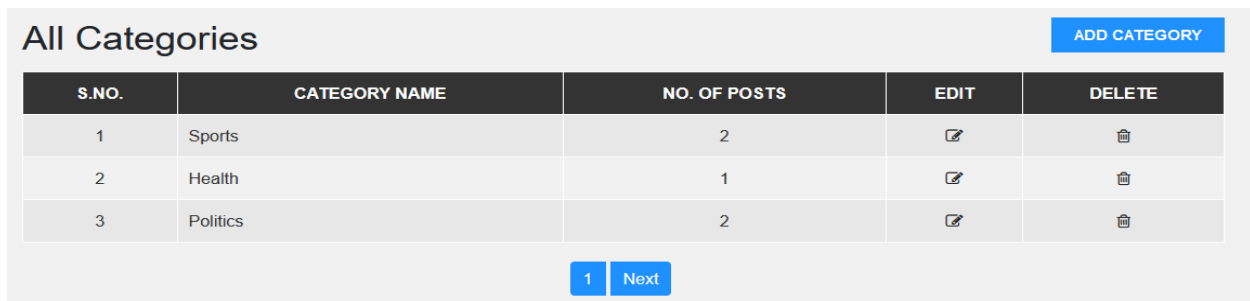
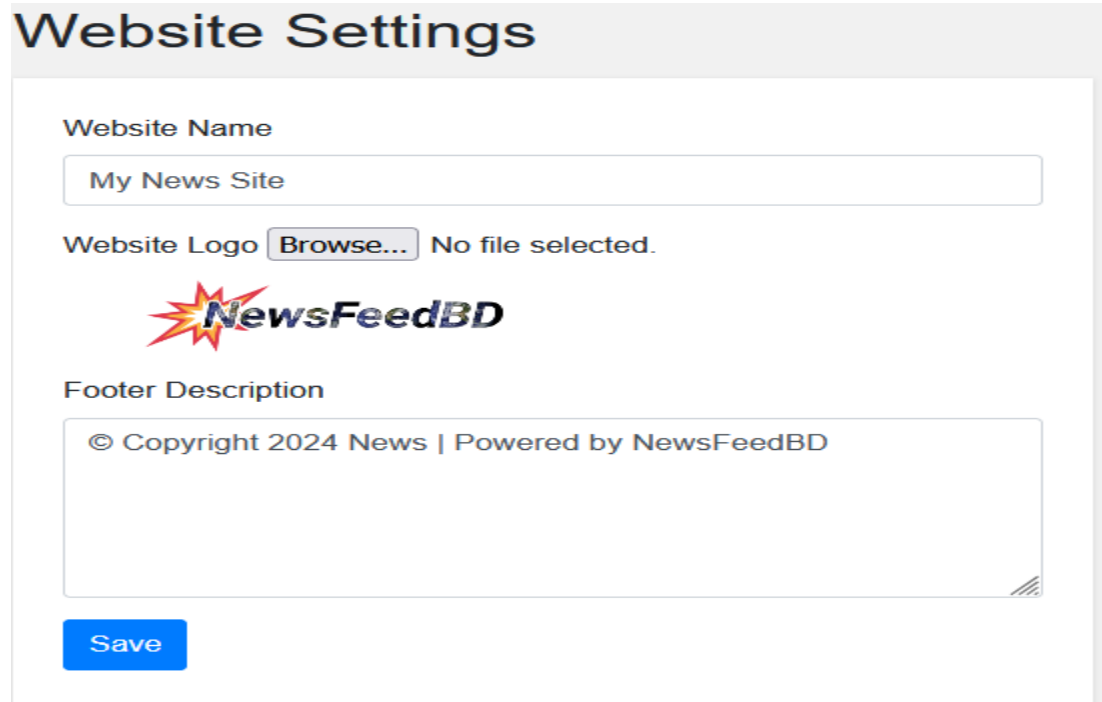


Figure 5.8: Add Category

Here, this is add category functionality. Admin can add category by clicking add category option. Then he can add name of the category. Also he can describe about the new category, then after clicking submit button, new category name will be found in category option.

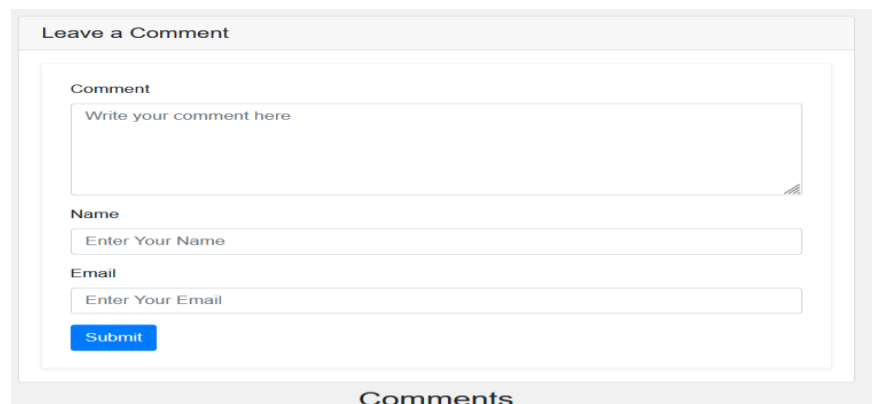


The screenshot shows a 'Website Settings' form with the following elements:

- Website Name:** A text input field containing 'My News Site'.
- Website Logo:** A 'Browse...' button followed by the text 'No file selected.' Below this is a logo for 'NewsFeedBD' featuring a starburst graphic.
- Footer Description:** A text area containing the text '© Copyright 2024 News | Powered by NewsFeedBD'.
- Save:** A blue button at the bottom left of the form.

Figure 5.9: Update Site Info

Here, This is update site info functionality. When admin click site setting then this image will appear. Then admin can change or add website name, logo and footer description. Then after clicking save button, website info will be updated.



The screenshot shows a 'Leave a Comment' form with the following elements:

- Comment:** A large text area with the placeholder text 'Write your comment here'.
- Name:** A text input field with the placeholder text 'Enter Your Name'.
- Email:** A text input field with the placeholder text 'Enter Your Email'.
- Submit:** A blue button at the bottom left of the form.

Below the form, the word 'Comments' is displayed in a grey bar.

Figure 5.10: Add Comments

Here, this is add comments functionality. when reader scroll down below of a post, then they will find this option. They can add comment in comment section. After giving valid name and email, the comment will be published. Before that submit button have to be clicked.

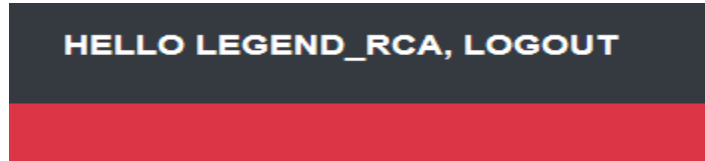


Figure 5.11: Logout

Here, this is logout functionality. When admin or journalist try to logout from the site, they have to click the logout button. After that, a confirmation message will pop up and they have to click 'yes' for logout. This is possible only when they are already logged in to the site.

A screenshot of an application form titled 'APPLICATION FORM'. The form contains several sections: 'Title (Mr Mrs Miss Ms)', 'Surname:', 'First name:', 'Contact details' (with sub-fields for 'Tel:', 'Mobile:', and 'Email:'), 'Job applied for:', and 'What is your experience?'. At the bottom, there is a text area with the prompt 'Tell us about yourself and why you want this job.'.

Figure 5.12: Apply For Job

Here, this is apply for job functionality. When visitors or reader click the apply for job button link, this form will pop up. They have to submit this form. After giving all information, they have to press submit for submission.

Chapter 6 Project Summary

6.1 Introduction

NewsFeed BD is a comprehensive online news platform tailored to deliver the latest news, trends, and insights from Bangladesh and around the world. The platform features a dynamic news feed that provides users with real-time updates on a wide range of topics, including politics, sports, entertainment, technology, and business. NewsFeed BD aims to be a one-stop source for timely and reliable news, with content designed to engage users through articles, videos, and multimedia content.

The site allows users to browse news stories by categories, leave comments, share posts, and interact with other readers. In addition to offering general news, NewsFeed BD provides a job application feature, enabling users to apply for relevant job postings directly through the site.

6.2 Future Work

Enhance content by integrating more video, podcasts, and live streams. This will allow users to engage with news in various formats and stay up-to-date with live broadcasts or breaking news.

- Develop a community forum or discussion board, where users can discuss news topics and interact with contributors and journalists.
- Build a feedback loop system, where users can provide input on content quality, site functionality, and new features, helping to guide future development.
- Introduce a premium subscription model for access to exclusive content, ad-free experiences, and other perks.
- Partner with other news outlets and media platforms for syndicated content, collaborations, and cross-platform promotions.

6.3 Conclusion

The future of NewsFeed BD is focused on expanding its functionality, improving user engagement, and providing a richer, more personalized experience for readers. These planned features will not only keep the site competitive in the fast-paced news industry but also offer users a more engaging and interactive platform to consume news and participate in discussions. By leveraging technology, user feedback, and community-driven content, NewsFeed BD aims to become a leading platform for news and information in Bangladesh and beyond.

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A News Site for media publication

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