

One For All Social

A Summer Internship Report

Submitted by

Jasmin Jani

200130107054

In partial fulfilment for the award of the degree of

BACHELOR OF ENGINEERING

in

Computer Engineering

Government Engineering College, Gandhinagar



Gujarat Technological University, Ahmedabad

April – 2024

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Krish Gujariya

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Government Engineering College, Sector-28, Gandhinagar

CERTIFICATE

This is to certify that the project report submitted along with the project entitled “**OneForAllSocial**” has been carried out by **Jasmin Jani** under my guidance in partial fulfillment for the degree of Bachelor of Engineering in Computer Engineering, 8th Semester of Gujarat Technological University, Ahmedabad during the academic year 2023- 24.

Prof. Singh Nikhil Kumar

Internal guide

Prof. (Dr.) D. A. Parikh

Head of the Department



Government Engineering College, Sector-28, Gandhinagar

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Prof. (Dr.) D. A. Parikh

Head of the Department

Date: 16/04/2024

TO WHOM IT MAY CONCERN

This is to certify that **Jasmin Jani** student at **Government Engineering College, Gandhinagar** has successfully completed his internship in the field of Software Developer from 22nd January 2024 to 16th April 2024 under the guidance of Mr. Chintan Gor.

His internship activities include work on **“OneForAll Social”** Project.

During the period of his internship program with us, he had been exposed to different processes and was found diligent, hardworking and inquisitive.

We wish him every success in his life and career.

For eSparkBiz Technologies Pvt. Ltd.

S. J. Dholakia



Authorised Signature with Industry Stamp

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Government Engineering College, Gandhinagar

DECLARATION

We hereby declare that the Internship / Project report submitted along with the Internship / Project entitled **OneForAllSocial** submitted in partial fulfillment for the degree of Bachelor of Engineering in Computer Engineering to Gujarat Technological University, Ahmedabad, is a bonafide record of original project work carried out by me at **eSparkBiz Technologies Pvt. Ltd.** under the supervision of **Mr. Chintan Gor** and that no part of this report has been directly copied from any students' reports or taken from any other source, without providing due reference.

Name of the Student

Signature of the Student

1. Jasmin Jani

2. Krish Gujariya

ACKNOWLEDGEMENT

It gives me great pleasure to thank "**Mr. Chintan Gor**" (CTO, eSparkBiz Technologies Pvt. Ltd., Ahmedabad) for his unwavering support during the internship. Additionally, I want to thank "**Prof. Singh Nikhil Kumar**" and HOD sir "**Dr. D. A. Parikh**" from the Department of Computer Engineering at the Government Engineering College in Gandhinagar, for his invaluable advice and continuous support and guidance, which were of great help in successfully completing this project. I would also like to express my gratitude to the Training and Placement Cell of GEC Gandhinagar and the principal, "**Ms. Sweta P. Dave**," for providing this opportunity and their support.

I appreciate all the professors at our College's Computer Engineering Department for their special consideration and advice on the internship.

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Without acknowledging the individuals whose persistent direction and encouragement made this project possible, the satisfaction that comes with its successful completion would be incomplete. I am honored to be able to thank and respect everyone who has helped see initiatives through to completion.

ABSTRACT

*This '**Internship**' concentrated on developing the full stack developer's skills. In the specialized areas of technology, communication, and the "OneForAllSocial" project. which includes full stack development, UI/UX experience, and database operation in its whole. The project's major goal is to research various front end and backend technologies as well as certain crucial concepts for company development.*

*The "**OneForAllSocial**" project's main goal is to create a social media platform that enables users to link and manage all of their social media accounts in a single location. The platform seeks to give users of social media a comprehensive answer to problems like managing multiple accounts and staying up to date with the newest information and trends.*

An overview of the "OneForAllSocial" project, including its goals, parameters, and features, is given in this document. It also outlines the project development process, including the tools and technology employed. It also includes information about the project's requirements, design, and execution, as well as the testing and validation techniques employed to guarantee the product's quality.

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LIST OF SYMBOLS











	dataflow	Arrows showing direction of flow
	process	circles
	file	Horizontal pair of lines
	data-source, sink	Rectangular box
	Actor	
	Use case	
	Generalization symbol used between actors and between use cases	
	Association between actor and use case	
	Include relationship between use cases	
	Extend relationship between use cases	

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1. OVERVIEW OF THE COMPANY

eSparkBiz is a software development company that offers a wide range of services to businesses of all sizes. The company was founded in 2010 and is based in Ahmedabad, Gujarat, India.

The services provided by eSparkBiz include web and mobile app development, software development, custom software development, e-commerce development, UI/UX design, and digital marketing. These services are tailored to meet the specific needs and requirements of each client, with the aim of helping them enhance their online presence, streamline their operations, and achieve their business goals.

eSparkBiz has a team of experienced developers, designers, and marketers who work together to deliver high-quality solutions to their clients. The team has expertise in a wide range of technologies and tools, including PHP, Laravel, ReactJS, NodeJS, iOS, Android, and more. They stay up to date with the latest trends and developments in the industry to ensure that they are providing their clients with the most innovative and effective solutions.

eSparkBiz has worked with clients from various industries, including healthcare, education, real estate, finance, and more. The company takes a client-centric approach, working closely with each client to understand their specific needs and requirements. This enables them to deliver solutions that are tailored to the client's unique situation, rather than using a one-size-fits-all approach.

In summary, eSparkBiz is a reputable IT company that offers a wide range of software development services to businesses looking to enhance their online presence and streamline their operations. Their experienced team of developers, designers, and marketers work together to deliver high-quality solutions that meet the specific needs and requirements of each client.



Figure 1.1 Company Logo

1.1. History

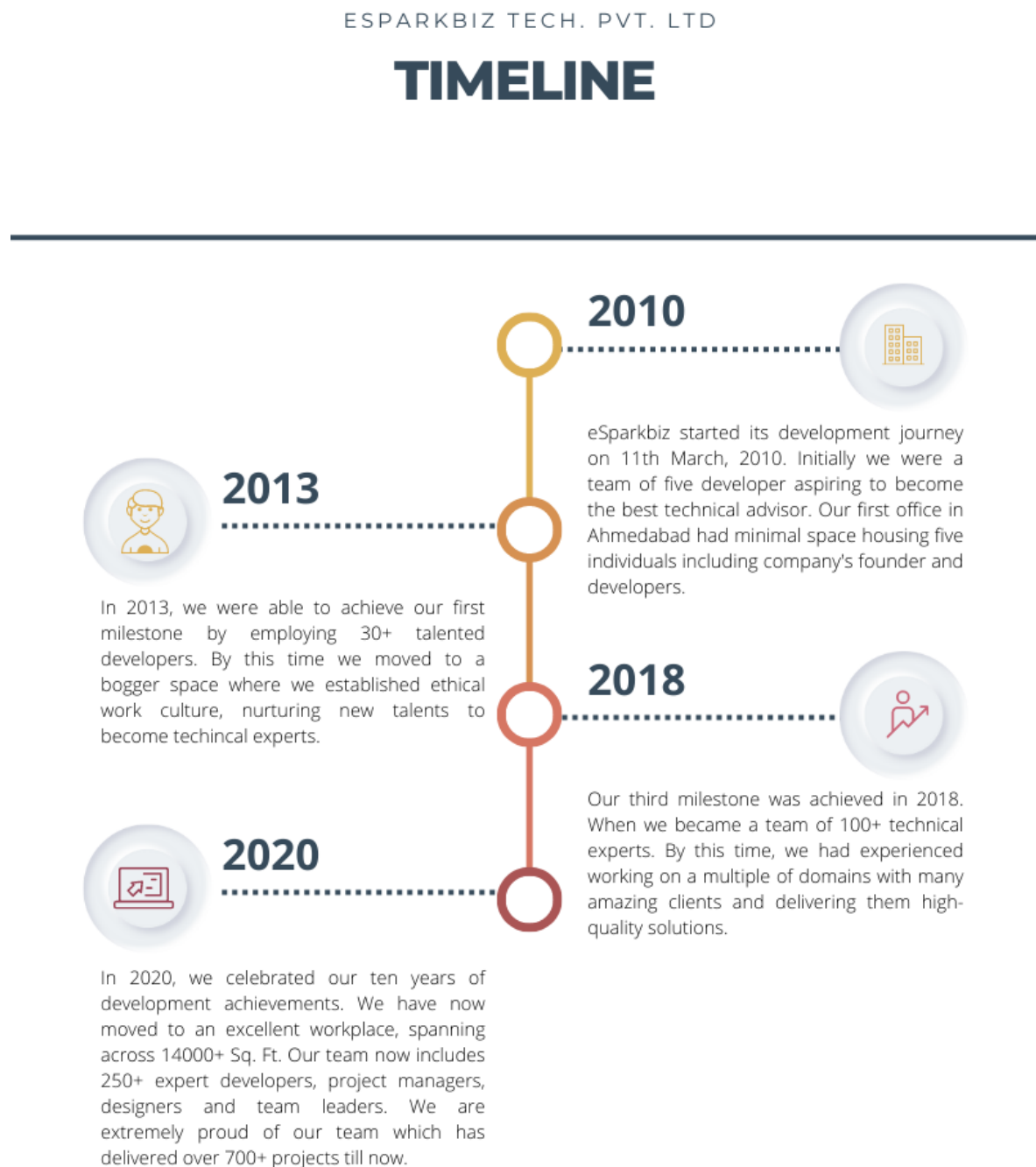


Figure 1.1.1 Company History

1.2. Different Scope of Work

We advocate for improved digitalization! Our concept of offering solutions tailored to industries has expanded to include support for other industries, including Fintech & Insurance, Healthcare, Education, and Real Estate.

➤ **Fintech & Insurance**

Redefine the payment, purchase, and investment processes! We use cutting-edge technology to give financial institutions a competitive edge and foster long-lasting customer relationships.

➤ **Healthcare**

eSparkBiz is an expert in delivering healthcare innovation through mobile apps. We use interactive apps and healthcare IT consulting to enhance patient care and manage hospital records.

➤ **Education**

To help students and educational institutions achieve growth, efficiency, and high performance, develop customized educational solutions to address the obstacles they face while learning.

➤ **Real Estate**

Utilize the advantages of affordable real estate and property solutions to streamline smarter customer communication, broaden your company's reach, and achieve the best possible outcome.

1.3. Core Values

At eSparkBiz, we pledge to create and uphold a moral workplace atmosphere and maintain an open development process. Our achievements are built upon our values. It enables us to create and deliver exceptional projects and build reliable connections with clients.



Figure 1.3.1 Core Values

1.4. Achievements

10 Years of experience	154% Avg. Company Growth	20+ Countries server	90% Client retention rate
-------------------------------------	---------------------------------------	--------------------------------	--

Table 1.1 Achievements

2. OVERVIEW OF THE DEPARTMENT

2.1. Development Process

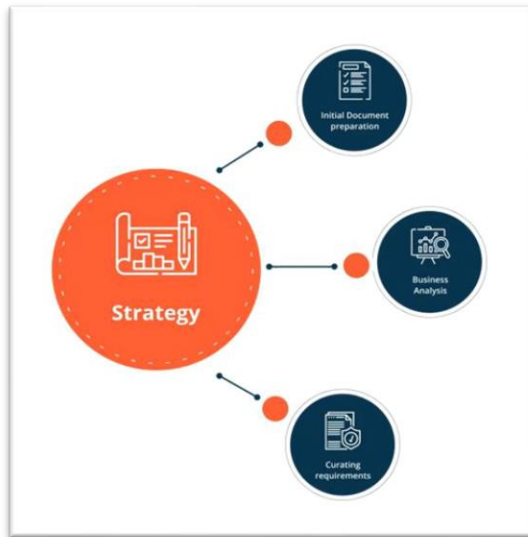


Figure 2.1.1 Strategy

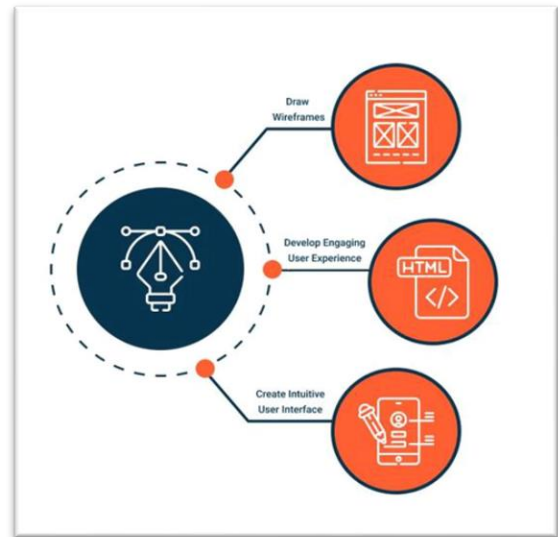


Figure 2.1.2 Design

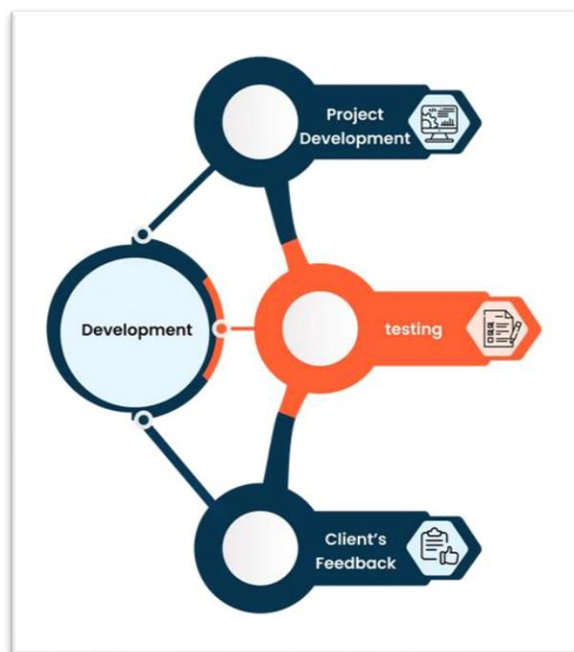


Figure 2.1.3 Development

2.2. Technical Specification

→ Service

- Web App Development
- Mobile App Development
- Front End Development
- Testing and QA
- HubSpot Development

→ Backend

- Node
- Python
- Laravel
- Golang
- WordPress

→ Front End

- Angular
- React JS
- Vue JS
- Gatsby JS

→ Mobile App

- Android
- IOS
- Flutter
- Kotlin
- React Native

→ Ecommerce

- WooCommerce
- Shopify
- Big commerce

→ Trending

- Chatbot
- AI/ML
- IOT
- Blockchain

3. INTRODUCTION TO PROJECT

3.1. Internship Summary

This internship program focuses on developing the skills of full-stack developers in specialized areas such as technology, communication, and working on the "OneForAllSocial" project. The project involves full-stack development, UI/UX experience, and database operation in its entirety. The primary objective of the project is to explore various front-end and back-end technologies and essential concepts for company development.

The "OneForAllSocial" project aims to create a social media platform that enables users to link and manage all their social media accounts from one location. The platform seeks to provide users of social media with a comprehensive solution to problems such as managing multiple accounts and staying up to date with the latest trends and information.

One of the standout features of the OneForAllSocial platform is its centralized dashboard, which provides users with the ability to manage multiple social media accounts from a single location. This feature is designed to help users save time and increase efficiency, by eliminating the need to switch between multiple social media platforms. This not only reduces the risk of errors but also boosts productivity. Additionally, the centralized dashboard makes it easier for users to monitor their social media activity and engagement, providing a more comprehensive view of their online presence.

In addition to its centralized dashboard, OneForAllSocial also offers content creation and scheduling tools, which allow users to create and schedule social media posts across multiple platforms. This feature ensures a consistent and timely online presence, which is essential for maintaining engagement and building a strong brand image. The scheduling function also enables users to plan their social media content in advance, freeing up time for other important tasks. Furthermore, OneForAllSocial's content creation tools provide a range of customization options, allowing users to create content that reflects their brand identity and values.

3.2. Objective Of the System

OneForAllSocial is a social media management platform that aims to provide a comprehensive solution for managing multiple social media accounts. Its primary objective is to simplify the social media management process by offering a centralized and user-friendly interface. By eliminating the need to switch between multiple social media platforms, OneForAllSocial reduces the risk of errors and enhances productivity.

The platform also offers a range of tools to help users create, publish, and analyze their social media content, allowing them to engage with their audience and increase their online reach. OneForAllSocial's content creation tools offer a range of customization options, enabling users to create unique and engaging content that reflects their brand's identity and values. Additionally, the platform's scheduling function allows users to plan and publish their social media content in advance, freeing up time for other tasks.

OneForAllSocial also offers comprehensive analytics tools, enabling users to monitor their social media activity and engagement, and providing insights into their audience's preferences and behaviors. Overall, OneForAllSocial's objective is to make social media management easier and more effective for businesses, social media managers, and influencers alike, by providing a comprehensive and streamlined solution.

3.3. Technology Used

The software development process involves studying the hardware and software used in a computerized system. Here's a list of the technologies and system specifications used during the development of the proposed system.

Requirements:

- **Operating System:** Linux or Windows Server.
- **Processor:** Dual-core or higher processor, preferably Intel or AMD.
- **Memory:** Minimum of 4 GB RAM, but 8 GB or more is recommended for better performance.
- **Storage:** Minimum of 20 GB of free disk space.
- **Database:** MySQL.

- **Web Server:** XAMPP server
- **Security:** SSL/TLS certificate for secure communication with clients, regular security updates and patches.
- **PHP:** PHP 7 or later.
- **Angular:** Angular version 10 or later.

3.4. Technology Review

Laravel

- Cross-platform runtime environment helps building server-side applications using PHP.
- Laravel provides powerful features such as thorough dependency injection, an expressive database abstraction layer, queues and scheduled jobs, unit and integration testing, and more.
- In addition to consuming less memory, the feature enables Laravel to handle a large number of concurrent connections efficiently.
- The runtime environment, to perform common tasks like reading or writing to the database, file system or network connections.

Angular

- Angular is a TypeScript-based and open-source web application framework.
- Important to design websites and to build one-page applications.
- It uses components to increase code reusability.

Hyper Text Markup Language

- Create web pages.
- Describes the structure of a website semantically along with cues for presentation.

Cascading Style Sheet

- Controls all design-related aspects of website.
- Important to design websites and to decorate the web pages.

JavaScript

- To create a dynamic and interactive websites
- Performs tasks entirely on the client's machine asynchronously and does not need to interact with the server to function.
- Helps easy navigation of the website.

MySQL

- Relational database management system. The application is used for a wide range of purposes.

phpMyAdmin

- A free software tool written in PHP that is intended to handle the administration of a MySQL or MariaDB database server.
- You can use phpMyAdmin to perform most administration tasks, including creating a database, running queries, and adding user accounts.

Visual Studio Code

- Visual Studio Code is a streamlined code editor with support for development operations like debugging, task running, and version control.
- It aims to provide just the tools a developer needs for a quick code-build-debug cycle and leaves more complex workflows to fuller featured IDEs, such as Visual Studio IDE.

Git

- Git is a DevOps tool used for source code management. It is a free and open-source version control system used to handle small to very large projects efficiently.
- Git is used to track changes in the source code, enabling multiple developers to work together on non-linear development.

GitLab

- GitLab is a web-based Git repository that provides free open and private repositories.
- It is a complete DevOps platform that enables to perform all the tasks in a project from project planning and source code management to monitoring and security.

3.5. Project Planning

- Everyday Scrum Meeting
- Everyday learning session with seniors or CTO
- Day to day tasks
- Team alignment tasks
- Git lab for work in a group

3.5.1. Project Development Approach

- Select a project.
- Project milestones and deliverables
- Budget allocation
- Project Estimates
 - Cost
 - Time
 - Size of code
 - Duration
- Resource Allocation
 - Hardware

- Software
- Previous relevant project information
- Approach: Top-Down Approach

I have used the Top-Down Approach. When approaching a project from the top down, higher-level decision-makers start with a big picture goal and work backward to determine what actions different groups and individuals will need to take in order to reach that goal.

3.5.2. Roles & Responsibility

- A. Investigation: Of the current system and its issues
- B. Requirement Analysis
- C. Database Design
- D. Development
- E. Testing

3.6. Project Scheduling

An elementary Gantt chart for the development plan is given below.

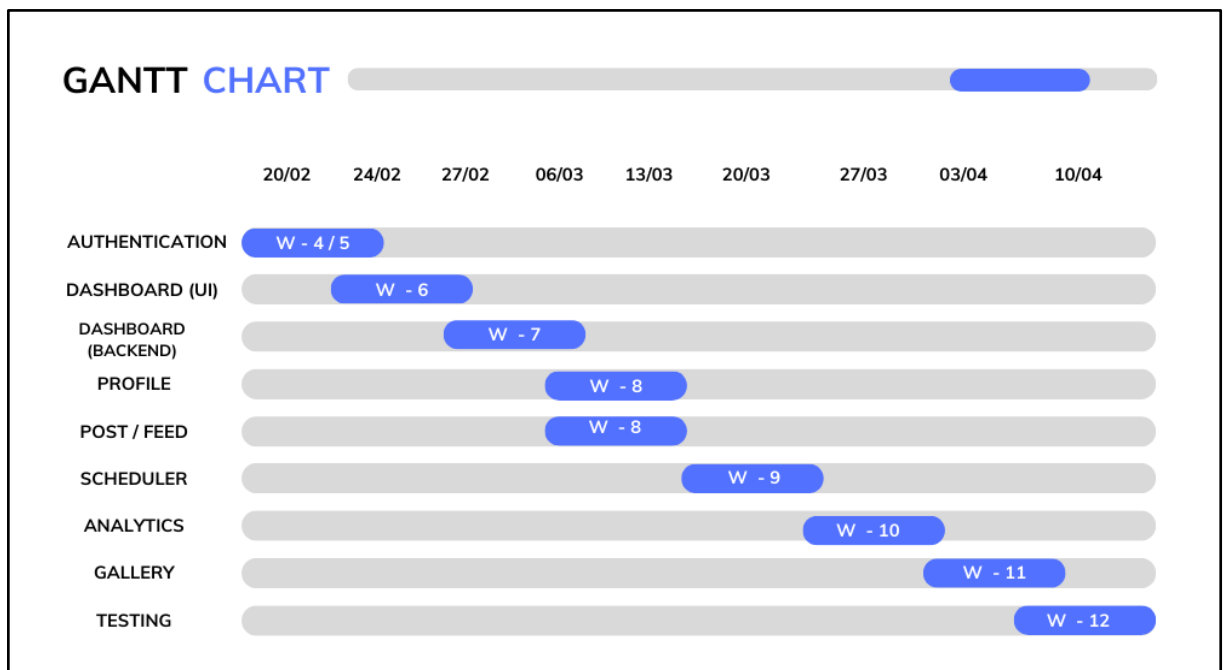


Figure 3.6.1 Gantt Chart

4. SYSTEM ANALYSIS

4.1. Study of the Current System

Without OneForAllSocial, users need to log in and out of various social media platforms, switching between different interfaces and keeping track of multiple login credentials. Creating and scheduling content across different platforms also requires users to manually post to each platform individually. Additionally, monitoring social media activity and engagement across multiple platforms requires users to manually check each platform.

4.2. Problem and Weaknesses of Current System

Without OneForAllSocial, users who manage multiple social media accounts may face several problems that can negatively impact their productivity and efficiency.

Firstly, managing multiple social media accounts without a centralized platform can be time-consuming and frustrating. Users would need to log in and out of various platforms, switching between different interfaces and keeping track of multiple login credentials. This can be particularly challenging for users who need to post content regularly and at specific times, as they would need to manually post to each platform individually, which can be inefficient and prone to errors.

Secondly, monitoring social media activity and engagement across multiple platforms can be a tedious and time-consuming task without a centralized platform. Users would need to manually check each platform for new notifications, comments, and messages, which can be overwhelming and challenging to keep up with, especially as the number of social media accounts grows.

Finally, without a comprehensive suite of tools to create, publish, and analyze social media content, users may struggle to engage with their audience effectively and grow their brand's online reach. This can be particularly challenging for small businesses, social media managers, and influencers who rely on social media to promote their brand and connect with their audience.

4.3. Requirements of New System

Managing multiple social media accounts can be a daunting task for businesses of all sizes. Without a centralized dashboard, it can be time-consuming and confusing to switch between different platforms, leading to errors and inefficiencies. Manually creating and scheduling content across multiple social media platforms can also be tedious and prone to mistakes.

To address these challenges, businesses require a comprehensive social media management platform that provides a centralized dashboard and content creation and scheduling tools. Such a platform can streamline the social media management process, save time, and improve accuracy. The centralized dashboard allows users to manage all their social media accounts from one place, simplifying the process of monitoring and responding to customer inquiries, comments, and messages.

A social media management platform can also provide valuable analytics and reporting features, allowing businesses to track their social media performance and make data-driven decisions to improve engagement and grow their online presence. By providing insights into key performance indicators such as likes, shares, comments, clicks, and conversions, businesses can optimize their social media strategies and tailor their content to their target audience.

Furthermore, a social media management platform can enable businesses to collaborate with their teams and other stakeholders more effectively. The platform can provide role-based access controls, task assignments, and approval workflows, ensuring that everyone is working together to achieve the same goals.

In summary, a new platform is required to overcome the challenges of managing multiple social media accounts and make social media management more effective and efficient. A comprehensive social media management platform that provides a centralized dashboard, content creation and scheduling tools, analytics and reporting features, and collaboration capabilities can help businesses optimize their social media strategies, improve engagement, and grow their online presence.

4.4. Proposed System

OneForAllSocial is an incredibly powerful social media management platform that is designed to help individuals and businesses manage all their social media accounts with ease. The platform allows you to create and manage all your social media accounts from a single place, eliminating the need to switch between multiple platforms. By using OneForAllSocial, you can save valuable time and streamline your social media management processes.

OneForAllSocial is required to address the challenges and complexities of managing multiple social media accounts. Without OneForAllSocial, users must log in and out of multiple platforms, switch between different interfaces, and manually create and schedule content for each platform separately. This can be time-consuming, inefficient, and prone to errors. OneForAllSocial streamlines the social media management process by providing a centralized dashboard where users can manage all their social media accounts from one location, create and schedule content across multiple platforms, and analyze their performance metrics. OneForAllSocial's features help users save time, increase efficiency, and improve their social media presence, making it an essential platform for businesses, social media managers, and influencers.

4.5. List of Main Modules of Proposed System

- ★ Dashboard
- ★ Social media account integration
- ★ Scheduling
- ★ Analytics
- ★ Messaging
- ★ Insights

4.6. Modules

→ **Dashboard:** OneForAllSocial's dashboard provides a centralized location for users to manage multiple social media accounts. It offers a user-friendly interface that makes it easy for users to navigate and access all of the platform's features and modules.

- **Social media account integration:** OneForAllSocial allows users to integrate and manage multiple social media accounts from a single dashboard. This feature eliminates the need for users to switch between different social media platforms, allowing them to save time and manage their social media presence more efficiently.
- **Scheduling:** OneForAllSocial's scheduling feature enables users to create and schedule social media posts across multiple platforms in advance. This allows users to plan their social media content and ensure a consistent and timely online presence, even when they are not actively managing their accounts.
- **Analytics:** OneForAllSocial provides users with insights into their social media performance through analytics. This feature allows users to track their social media activity and engagement, gain insights into how their content is performing, and identify areas for improvement.
- **Messaging:** OneForAllSocial's messaging feature allows users to interact with their followers and respond to messages and comments on multiple social media platforms from a single location. This feature streamlines communication and saves users time by eliminating the need to switch between different platforms to respond to messages.
- **Insights:** OneForAllSocial's insights feature provides users with valuable data on their social media performance. This feature includes metrics such as reach, engagement, and audience demographics.

4.7. Hardware & Software Characteristics

Hardware Requirements

- Processor: 1.9 gigahertz (GHz) x86or x64-bit dual core processor.
- Ram of 4GB or above for all devices.
- Free storage memory capacity of almost 500mb.
- Super VGA with a resolution of 1024 x 768.

Software Requirements

- Windows/ Android/ Linux/ Mac/ Chrome or any other OS
- Mozilla Firefox / Google Chrome / Opera Mini / UC Browser or Internet Explorer.

5. SYSTEM DESIGN

5.1. System Design & Methodology

5.1.1. Use Case Diagrams

5.1.1.1. Authentication Module

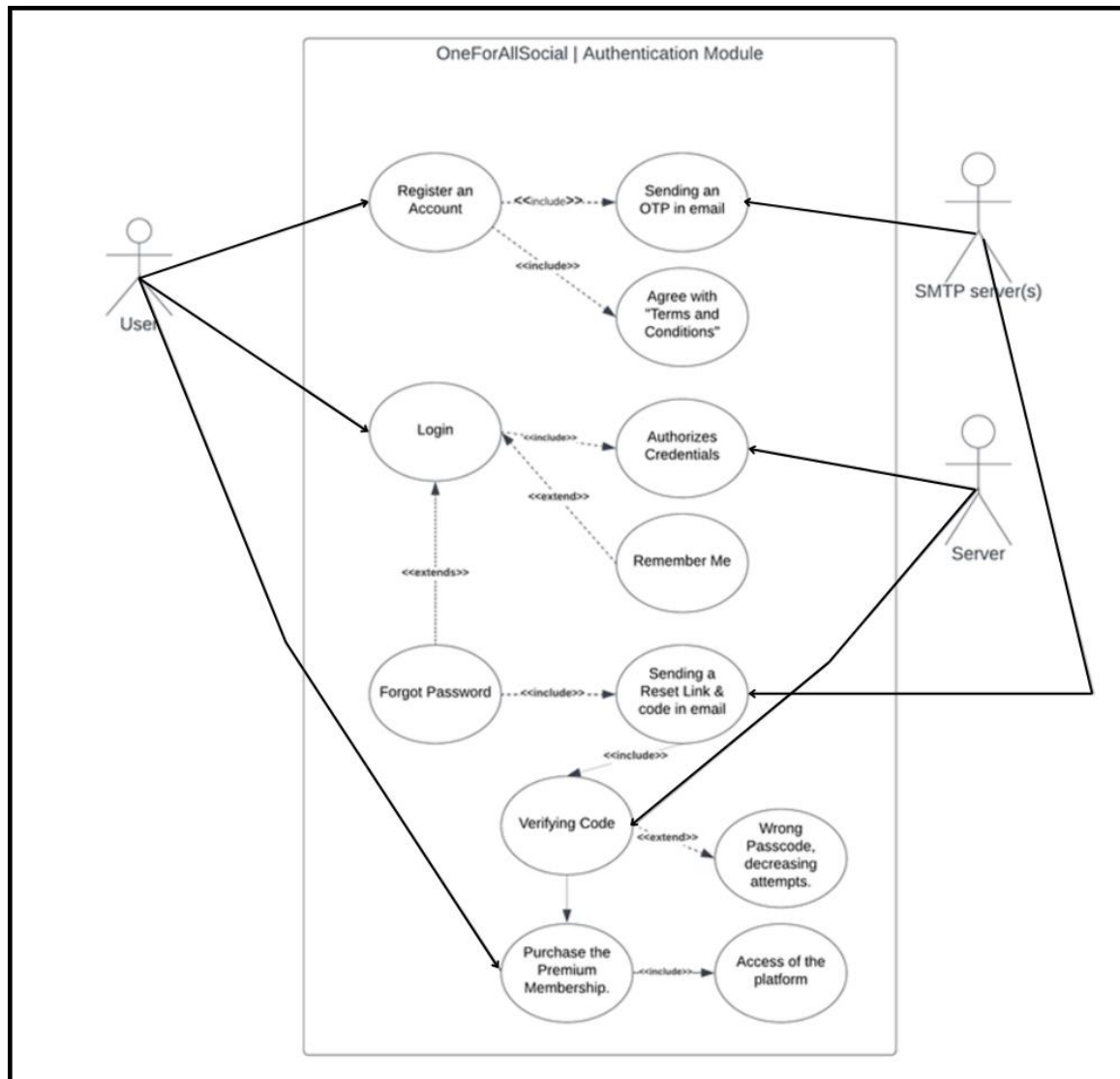


Figure 5.1.1.1.1 Authentication Module

Actors:

- User, Servers

Goals:

- Register as a new user.
- Login to the system
- Agree to the terms and conditions.
- Activate the account via an activation link.
- Select the "Remember me" option to stay logged in.

Preconditions:

- User has access to a device with an internet connection.
- User has not previously registered or logged in to the system.

Basic Flow:

1. User accesses the system and selects the "register" option.
2. User enters their personal information (e.g., name, email, password) and agrees to the terms and conditions.
3. System generates an activation link and sends it to the user's email address.
4. Users clicks on the activation link to activate their account.
5. User accesses the system and selects the "login" option.
6. Users enter their email and password.
7. System verifies the user's credentials and logs them in
8. User selects the "remember me" option to stay logged in.

Alternative Flows:

- If the user forgets their password, they can select the "forgot password" option and follow the steps to reset it.
- If the user's account is inactive or suspended, they will be notified and directed to contact support to resolve the issue.

Postconditions:

- Users are successfully registered and logged in to the system.
- User's account is active and functional.
- Users can access and use the system's features and functionalities.

5.1.1.2. Connection Module



Figure 5.1.1.2.1 Connection Module

Actors:

- User
- Social Media Platforms (e.g., Twitter, Instagram)
- Super Admin

Goals:

- Connect social media accounts to a single platform.
- Create new posts and share them across selected social media platforms.
- Save posts as drafts or schedule them for later.
- Submit posts to the super admin for approval.

Preconditions:

- User has registered and logged in to the system.

- Users have social media accounts that they want to connect to the platform.
- Social media platforms support third-party application integrations.

Basic Flow:

1. User selects the "connect social media accounts" option.
2. System redirects the user to the respective social media platform's authentication page.
3. User enters their social media credentials and authorizes the system to access their social media account.
4. System receives access tokens for the user's social media account and stores them securely.
5. User creates a new post and selects the social media platforms where they want to share the post.
6. User adds hashtags or captions to the post.
7. User saves the post as a draft or schedules it for later.
8. User submits the post for approval to the super admin.
9. Super admin reviews the post and either approves or rejects it.
10. If the post is approved, it is published on the selected social media platforms.

Alternative Flows:

- If the user's social media account authorization fails, the system redirects the user back to the authentication page with an error message.
- If the user wants to remove a social media account from the platform, they can do so from their account settings page.
- If the super admin rejects the post, they provide a reason for the rejection and notify the user to make changes to the post.

Postconditions:

- User's social media accounts are connected to the platform.
- Users can create and share posts across selected social media platforms.
- Users can save posts as drafts or schedule them for later.
- Super admin can review and approve or reject posts.

5.1.1.3. Cloud Module



Figure 5.1.1.3.1 Cloud Module

Actors:

- User
- AWS (for cloud storage)
- Social Media Platforms (e.g., Twitter, Instagram)

Goals:

- Upload media to AWS bucket
- Create albums and add photos to favorites.
- Filter media by size or creation date
- Check insights for social media accounts.
- Analyze reach and insights for specific posts.

Preconditions:

- Users have access to AWS bucket and valid AWS credentials.

- Users have social media accounts linked to the platform and authorized the system to access their data.

Basic Flow:

1. User selects the "upload media" option and selects the files.
2. System uploads the files to the user's designated AWS bucket.
3. User selects the "create album" option and selects the photos
4. The system creates a new album and adds the selected photos to the album.
5. Users select the "add to favorites" option to add a photo to their favorites list.
6. Users filter their media by size or creation date to find specific photos or albums.
7. User selects the "check insights" option and chooses a social media account they want to analyze.
8. The system fetches data from the respective social media API and displays the insights, including likes, reach, and other relevant metrics.
9. Users can filter the insights based on a specific time period or date range.
10. The user selects a specific post and analyzes its reach and engagement.

Alternative Flows:

- If the AWS credentials are invalid, the system displays an error message and prompts the user to enter valid credentials.
- If the user wants to delete a photo or album, they can do so from their account settings page.
- If the social media API fetch fails, the system displays an error message and prompts the user to try again later.

Postconditions:

- User's media files are uploaded to their designated AWS bucket.
- Users can create albums and add photos to favorites.
- Users can filter media by size or creation date.
- Users can check insights for their social media accounts.
- Users can analyze reach and insights for specific posts.

5.1.2. Sequence Diagrams

5.1.2.1. Login Sequence Diagram

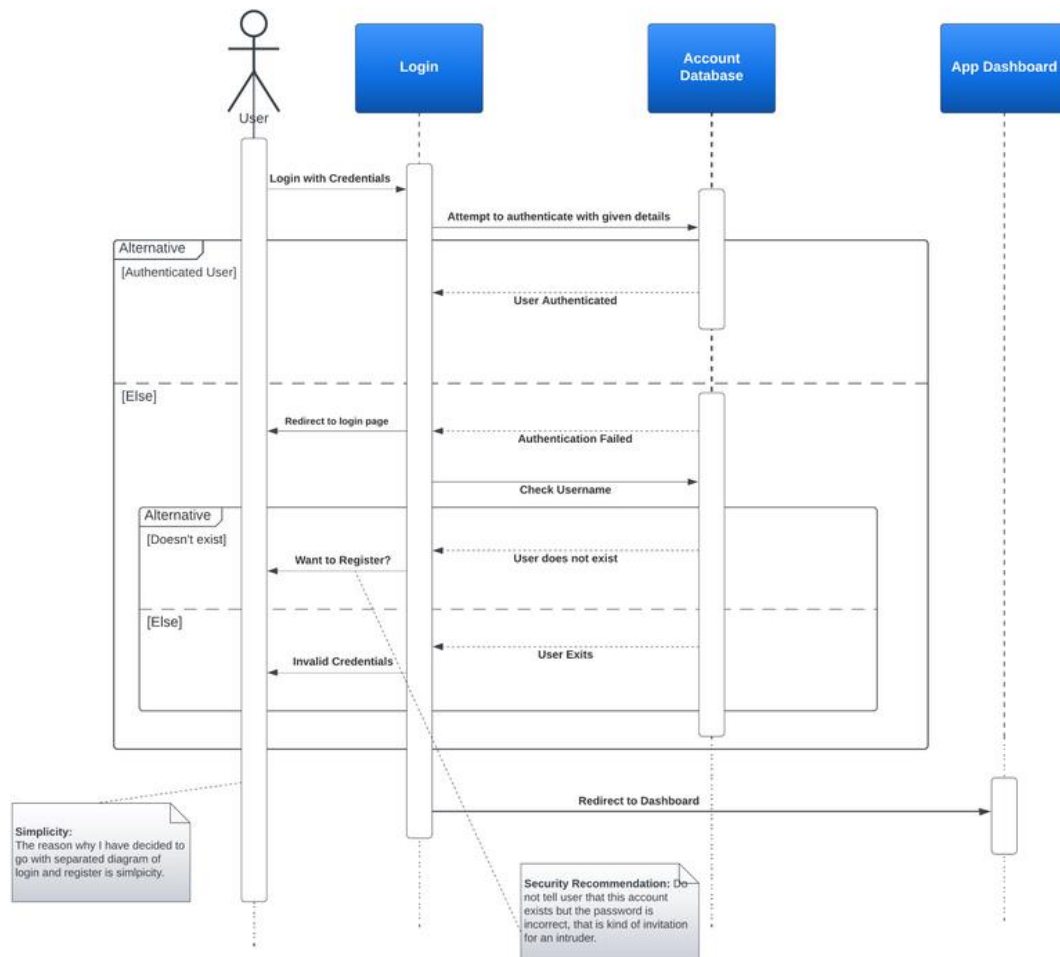


Figure 5.1.2.1.1 Login Sequence Diagram

The Login module allows the user to authenticate their credentials and access their account. The user inputs their registered email/username and password to log in to the system. If the credentials are valid, the user is granted access to their account. If the credentials are invalid, an error message is displayed, and the user is prompted to enter valid credentials. Once logged in, the user can perform various factions within the system based on their permissions and access level.

5.1.2.2. Registration Sequence Diagram

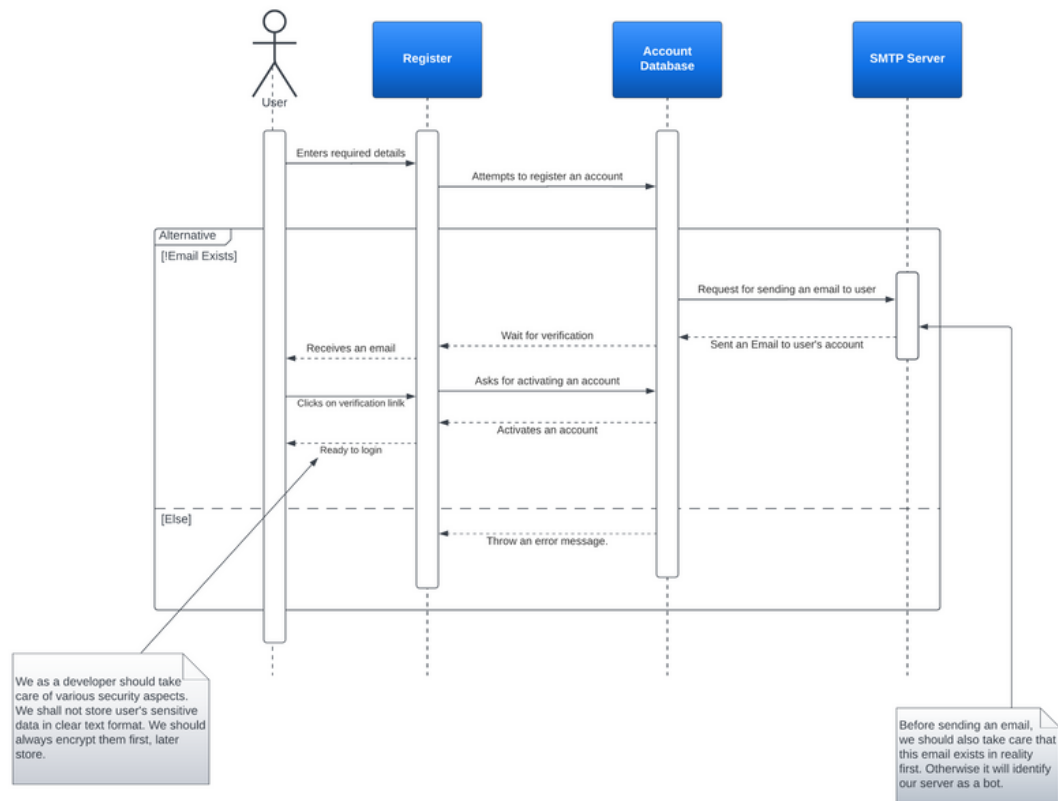


Figure 5.1.2.2.1 Registration Sequence Diagram

The Register module allows the user to create a new account in the system. The user inputs their personal details such as name, email/username, and password to register. Once the user submits the registration form, the system validates the user's information, and if everything is correct, it creates a new account for the user. If any information is incorrect, an error message is displayed, and the user is prompted to correct the information. Once the account is created, the user can log in and access the system. The user's details are stored in the system and can be accessed later.

5.1.2.3. Dashboard Sequence Diagram

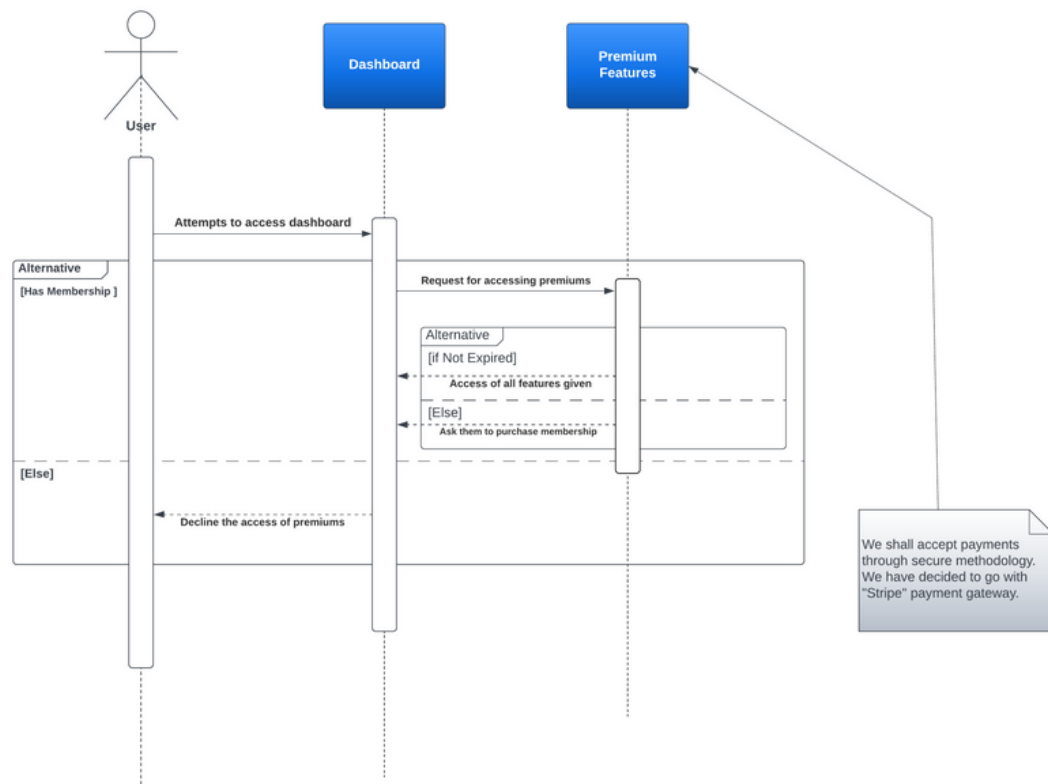


Figure 5.1.2.3.1 Dashboard Sequence Diagram

Upon logging into the system, if a user has purchased a premium plan, they are redirected to their dashboard where they can access all the premium features. If the user has not purchased a premium plan, they are redirected to the billing page where they can choose a plan and complete the payment process to upgrade their account. The system verifies the user's payment information and if it is valid, the user is granted access to the premium features and redirected to the dashboard. If there is an issue with the payment information, an error message is displayed, and the user is prompted to enter valid payment information.

5.1.2.4. Connect Social Media Sequence Diagram

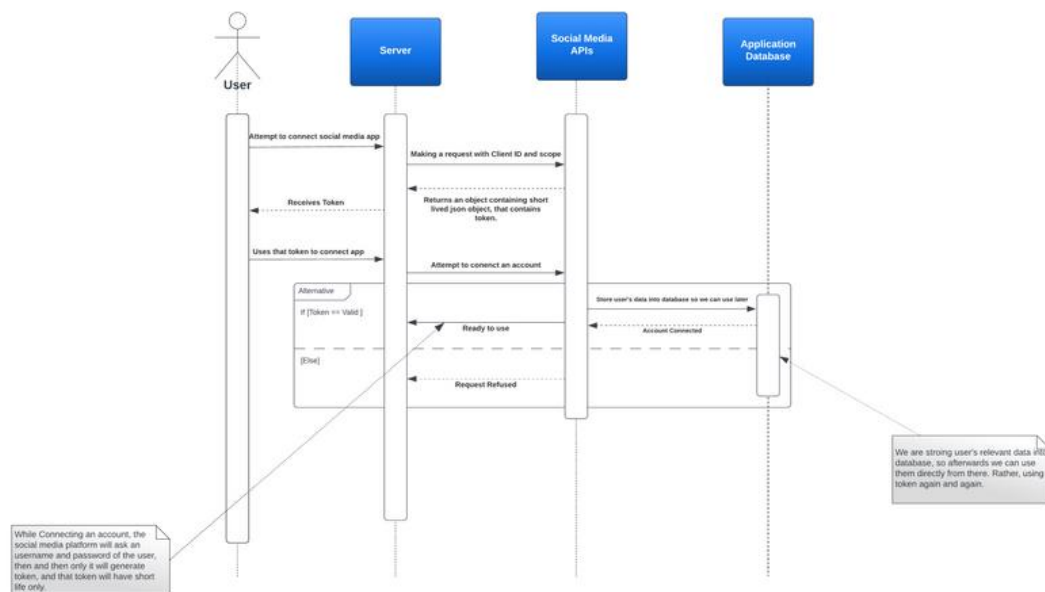


Figure 5.1.2.4.1 Connecting Social Media Sequence Diagram

The process of allowing users to connect their other social media accounts to OneForAllSocial can typically be accomplished through an API (application programming interface) integration. First, the user would initiate the connection process by clicking on a "Connect with" button for the desired social media account (e.g., Facebook, Twitter, LinkedIn). Then, OneForAllSocial would use the social media platform's API to request permission to access the user's account data.

The user would be prompted to grant permission for OneForAllSocial to access their data, and upon approval, OneForAllSocial would receive an authorization token that allows it to access the user's account data. OneForAllSocial can then use this token to retrieve the user's data from the social media platform and integrate it into OneForAllSocial as desired. It's important to ensure that the user's data is kept secure and that all data privacy regulations are followed throughout the integration process.

5.1.2.5. Post Sequence Diagram

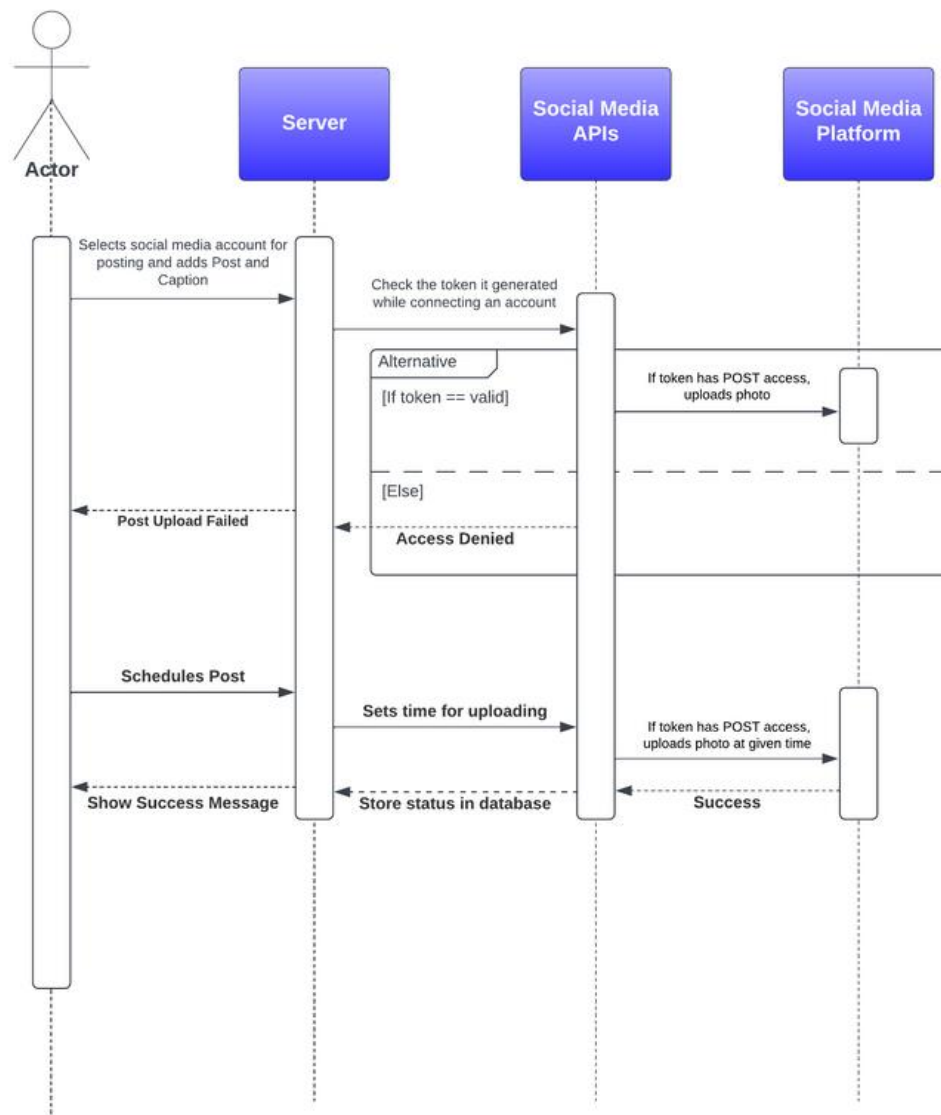


Figure 5.1.2.5.1 Post Sequence Diagram

OneForAllSocial can let users post their content to their social media accounts by using APIs. Users create and publish their content in OneForAllSocial, and it is then posted on their connected social media accounts using the social media platform's API. OneForAllSocial ensures user permission and compliance with regulations. Users can get feedback on the post's status, such as likes and comments.

5.1.3. ER Diagrams

5.1.3.1. Authentication Module

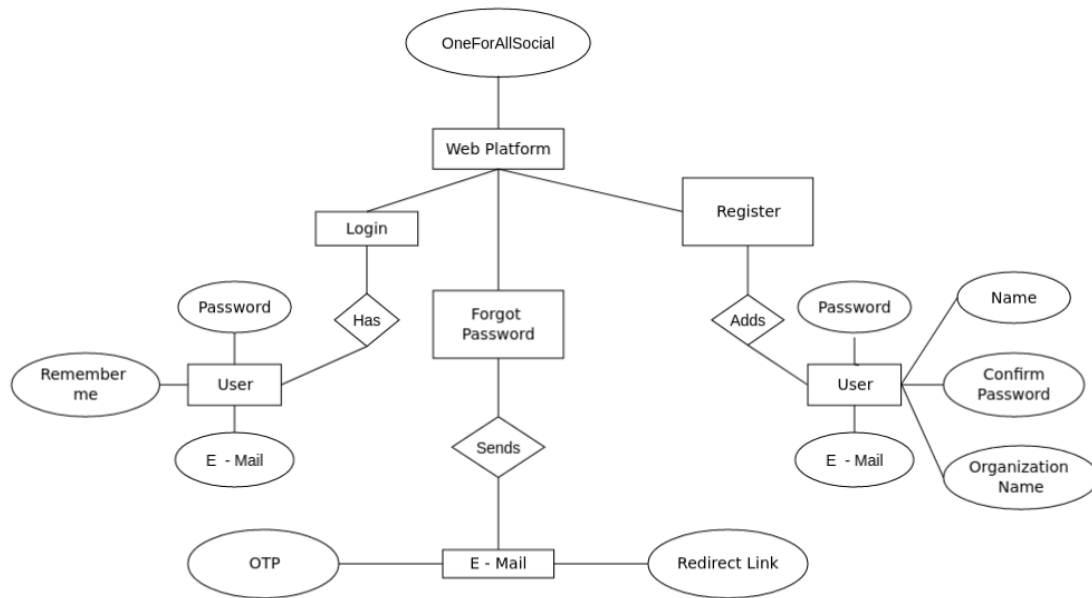


Figure 5.1.3.1.1 Authentication Model

The authentication module would likely involve at least one new table in the database to store user information, such as usernames, passwords, and other authentication-related data.

Depending on the specific requirements of the authentication module, there may be relationships between the user table and other tables in the database, such as those related to user roles or permissions. These relationships would need to be represented in the ER diagram.

5.1.3.2. User Model

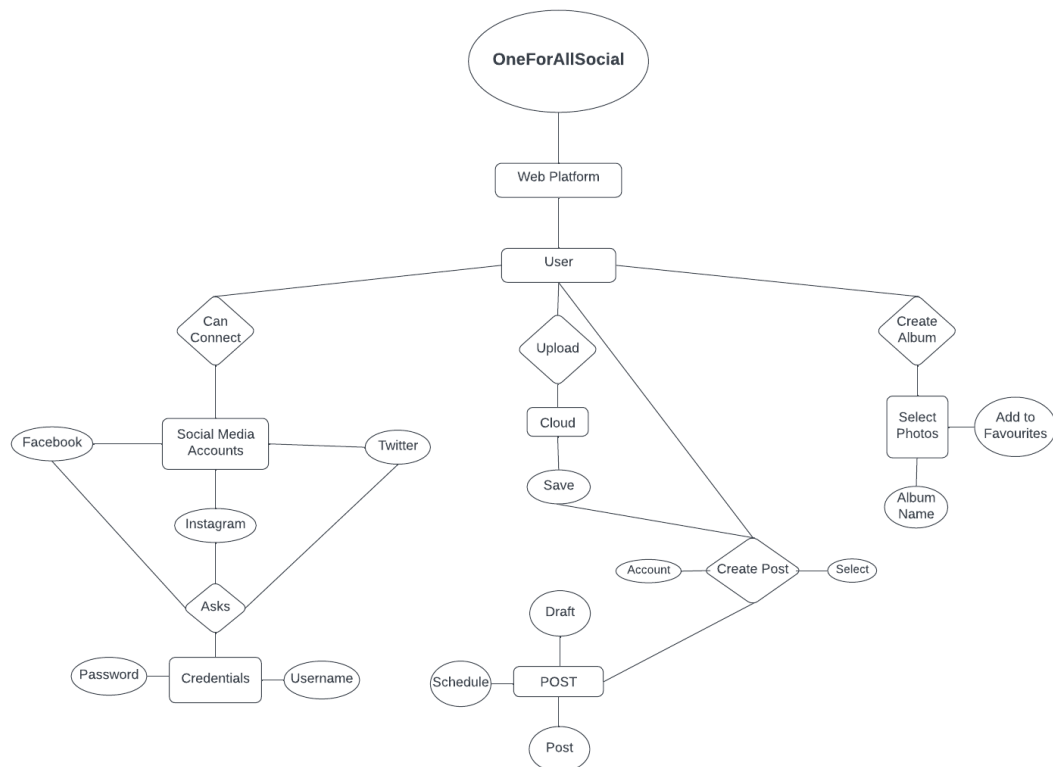


Figure 5.1.3.1.2 Login Model

The user module would require at least one table in the database to store user information, such as usernames, passwords, email addresses, and other relevant data.

Depending on the specific requirements of the user module, there may be relationships between the user table and other tables in the database, such as those related to user roles, permissions, or activity logs. These relationships would need to be represented in the ER diagram to ensure that the database schema accurately reflects the functionality of the user module.

5.1.3.3. Analytics Model

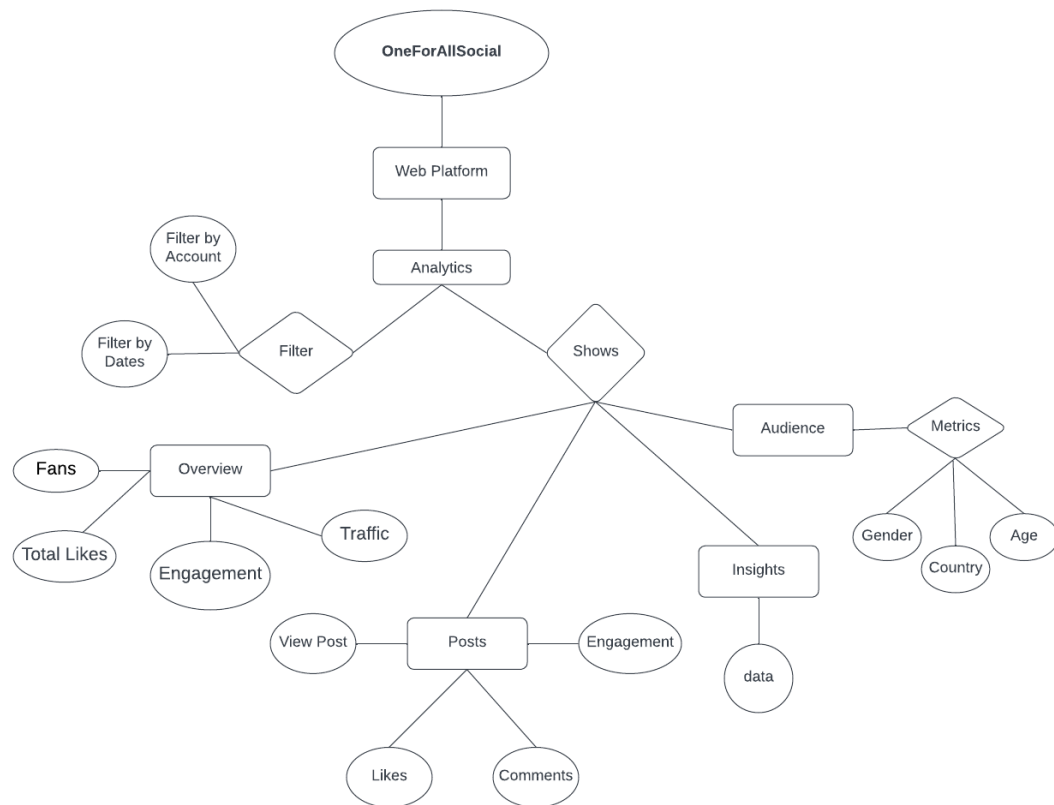


Figure 5.1.3.131 Analytics Model

The ER Diagram of OneForAllSocial's analytics module depicts the relationships between tables used for storing data related to user activities and system logs. It provides a clear representation of how data is organized and related in the module.

5.2. Database Design

5.2.1. Users

Columns	Type	Null	Constraints	Default	Comments
id	bigint(20)	NO	Primary Key, Auto Increment		To identify user
name	varchar (255)	NO			User's name
email	varchar(255)	NO			User's email
password	varchar(255)	NO			User's password in hash format
phone	varchar(20)	YES		NULL	User's contact number
profile_pic	varchar(255)	YES		user.jpeg	Display Picture
dob	date	YES		NULL	User's Date of Birth
email_verified_at	TIMESTAMP	YES		NULL	Verification time of email
status	tinyint(1)	NO		1	1: active, 0: inactive
verify_token	varchar(255)	YES		NULL	user's JWT token.

otp_verify	int(11)	YES		NULL	OTP that was sent to the user for verification.
profile_pic	varchar(255)	YES		user.jpeg	Display Picture
stripe_id	varchar(255)	YES		NULL	Stripe payment gateway id
created_at	TIMESTAMP	NO		CURRENT_TIMESTAMP	Creation time of user
updated_at	TIMESTAMP	YES		NULL	Profile Update time of user
deleted_at	TIMESTAMP	YES		NULL	The time when user deactivated his account

Table 5.1 users table

5.2.2. oauth_access_token

Columns	Type	Null	Constraints	Default	Comments
id	bigint(20)	NO	Primary Key, Auto Increment		To identify token differently
user_id	bigint(20)	NO	user -> id		Accessing User Data

access_token	varchar(100)	NO			Storing the user's access token we received when the user authenticated his acc.
social_name	varchar(30)	NO			The name of the social media app
access_token_secret	varchar(100)	NO			Storing the access token secret.
scopes	TEXT	YES		NULL	What scopes are allowed for a user to access with the generated token.
expires_at	TIMESTAMP	YES		CURRENT_TIMESTAMP	expires time of token.

Table 5.2 oauth_access_token table

Once a user authenticates his social media app into our platform we add their access_token and access_token_secret in this table. With them, we can get everything about their social media account. These tokens are short lived that means they'll expire soon, and a user will have to add their social media account again.

5.2.3. organization_teams

Columns	Type	Null	Constraints	Default	Comments
id	bigint(20)	NO	Primary Key, Auto Increment		To identify teams differently
team_name	varchar(255)	NO			Name of a team
user_id	bigint(20)	NO	users -> id		Id of the user who created a team
icon	varchar(100)	YES		team.jpg	Team icon
created_at	TIMESTAMP	YES		CURRENT_T IMESTAMP	Time when team got created
update_at	TIMESTAMP	YES		CURRENT_T IMESTAMP	Time when the team got updated, such as added a new user.

Table 5.3 Organization_teams table

The teams table is a critical component of the database schema, as it is responsible for storing team-related data. This table comprises five columns, namely: "id," which is the primary key and auto-incremented value, "team_name," which represents the name of the team, "user_id," that refers to the ID of the user who created the team, "icon," an optional field to store the file name of the team icon, and "createdAt" and "updatedAt" columns that show when the team was created and last updated, respectively. The proper organization of this table enables the efficient management of team-related data and helps ensure a smooth user experience within the platform.

5.2.4. team_management

Columns	Type	Null	Constraints	Default	Comments
id	bigint(20)	NO	Primary Key, Auto Increment		To identify roles differently.
team_id	bigint(20)	NO	organizations_team -> id		Accessing team.
role_name	varchar(50)	NO			Adding role to the team.
created_at	TIMESTAMP	YES		CURRENT_TIMESTAMP	The time when the role was added.
updated_at	TIMESTAMP	YES			Updated time of role

Table 5.4 team_management

The table "roles" has a foreign key "team_id" that references the "id" column of the "teams" table. This allows each role to be associated with a team. The "role_name" column contains the name of the role being assigned to the team. The "created_at" column records the time when the role was added and the "updated_at" column records the time when the role was last updated. Together, the "teams" and "roles" tables provide a way to manage teams and assign roles to team members.

5.2.5. team_members

Columns	Type	Null	Constraints	Default	Comments
id	bigint(20)	NO	Primary Key, Auto Increment		To identify team members differently
team_id	bigint(20)	NO	organizations_team -> id		Accessing team.
user_id	bigint(20)	NO	user -> id		Accessing user
status	tinyint(1)	YES		1	1: active 0: inactive
role	bigint(20)	NO	user_roles -> id		What is the role of user in the team
created_at	TIMESTAMP	YES		CURRENT_TIMESTAMP	The time when a user got added into the team.

Table 5.5 team_members

Based on the above two tables, we are forming another one - which contains information about the team_members. We can define programmatically what users are allowed to do based on roles.

5.2.6. image_upload_information

Columns	Type	Null	Constraints	Default	Comments
id	bigint(20)	NO	Primary Key		Id to uniquely identify
user_id	bigint(20)	NO	users -> id		ID of user who uploaded image
image_name	varchar(100)	NO			Image Name
image_url	varchar(255)	NO			Image URL
created_at	TIMESTAMP	NO		CURRENT_TIMESTAMP	Created Time of Image

Table 5.6 image_upload_information table

5.2.7. albums_information

Columns	Type	Null	Constraints	Default	Comments
id	bigint(20)	NO	Primary Key		Id to uniquely identify
user_id	bigint(20)	NO	users -> id		ID of user who uploaded image
album_name	varchar(100)	NO			Album Name
created_at	TIMESTAMP	NO		CURRENT_TIMESTAMP	Created Time of Image
updated_at	TIMESTAMP	NO			Updated Time of album.

Table 5.7 albums_information table

5.2.8. album_images

Columns	Type	Null	Constraints	Default	Comments
id	bigint(20)	NO	Primary Key		Id to uniquely identify
user_id	bigint(20)	NO	users -> id		ID of user who uploaded image
image_id	bigint(20)	NO	Image_upload -> id		ID of an image
album_id	bigint(20)	NO	Albums_info -> id		ID of an album
created_at	TIMESTAMP	NO			Created time of album.

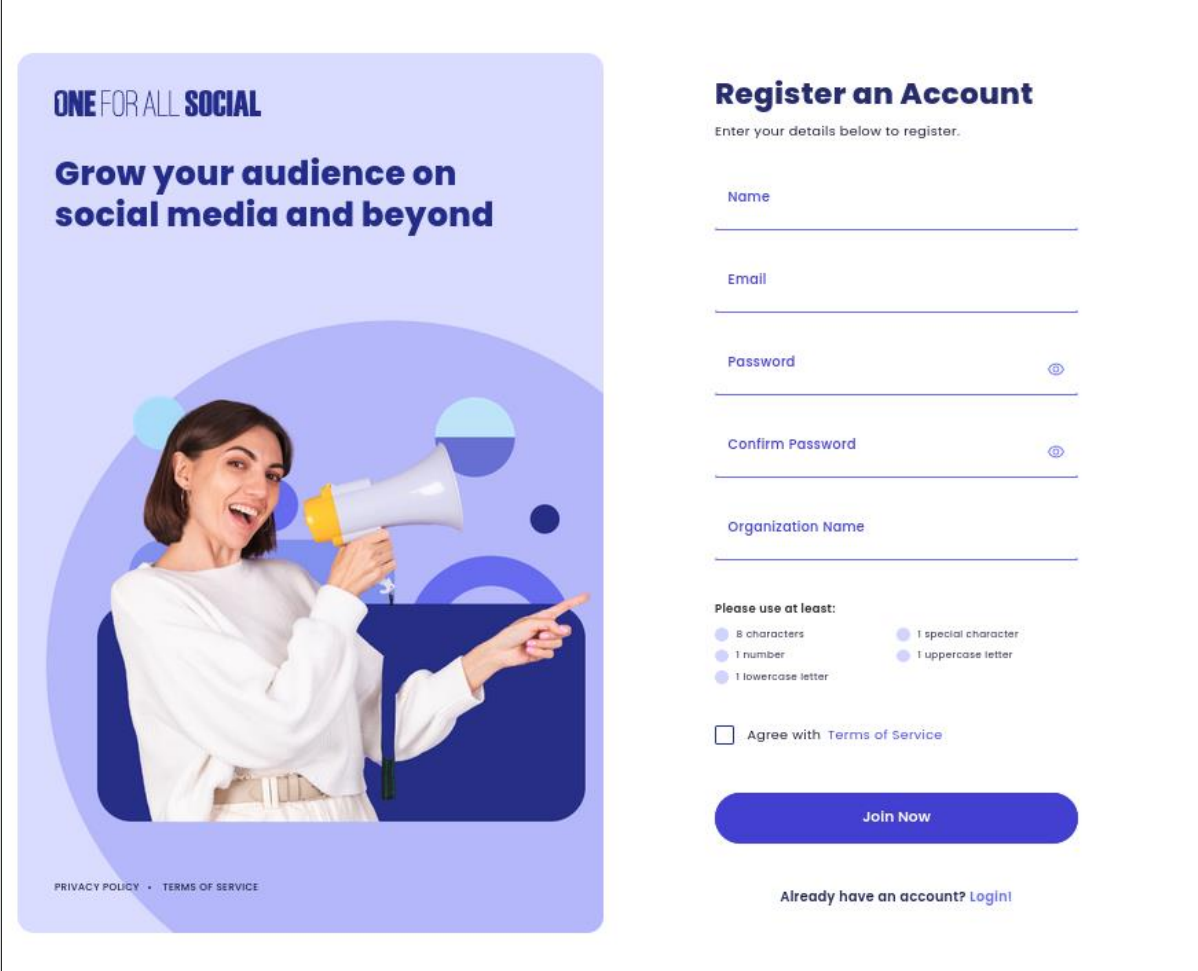
Table 5.8 album_images table

5.2.9. hash_tags

Columns	Type	Null	Constraints	Default	Comments
id	bigint(20)	NO	Primary Key, AI		To identify tags differently
user_id	bigint(20)	NO	user -> id		To keep track of which user added tags
tag_name	varchar(100)	NO			Adding tag content
social_media	varchar(20)	NO			For which social media platform tag has been added.
createdAt	TIMESTAMP	YES		CURRENT_TIMESTAMP	Time when tag got created.

Table 5.9 hash_tags table

5.3. Interface Design



The registration interface for OneForAllSocial is divided into two main sections. On the left, a promotional banner features the text "ONEFORALL SOCIAL" and "Grow your audience on social media and beyond" above an image of a woman with a megaphone. On the right, the "Register an Account" form includes input fields for Name, Email, Password, Confirm Password, and Organization Name. It also lists password requirements (8 characters, 1 number, 1 lowercase letter, 1 special character, 1 uppercase letter) and a checkbox for agreeing to the Terms of Service. A "Join Now" button and a "Login" link are at the bottom.

ONEFORALL SOCIAL

Grow your audience on social media and beyond

PRIVACY POLICY • TERMS OF SERVICE

Register an Account

Enter your details below to register.

Name

Email

Password

Confirm Password

Organization Name

Please use at least:

- 8 characters
- 1 number
- 1 lowercase letter
- 1 special character
- 1 uppercase letter

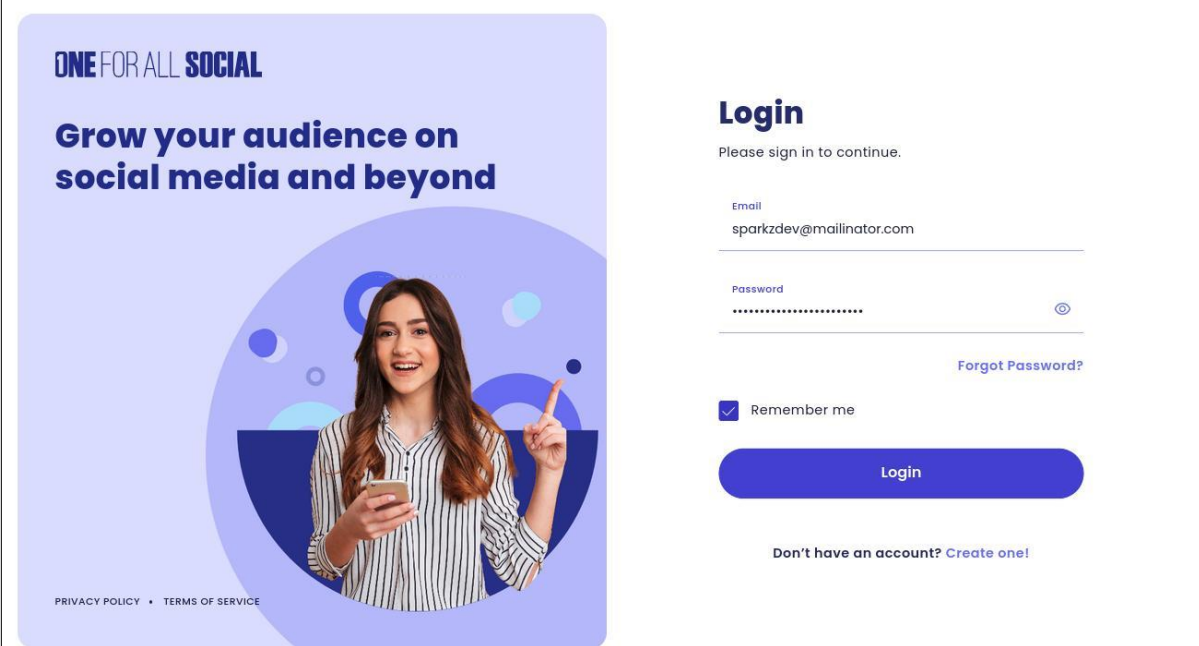
☐ Agree with [Terms of Service](#)

Join Now

Already have an account? [Login](#)

Figure 5.3.1 Registration

The registration screen for OneForAllSocial platform is the initial step for new users to join the platform. It is a simple yet important screen that collects essential user information to create their account. The registration screen typically consists of fields such as username, email address, password, and organization name.



The login screen for OneForAllSocial features a purple header with the logo and tagline. On the left, a woman holds a smartphone. The right side contains a login form with fields for email and password, a 'Remember me' checkbox, a 'Forgot Password?' link, a 'Login' button, and a 'Create one!' link.

ONEFORALL SOCIAL

Grow your audience on social media and beyond

PRIVACY POLICY • TERMS OF SERVICE

Login

Please sign in to continue.

Email
sparkzdev@mailinator.com

Password
.....

[Forgot Password?](#)

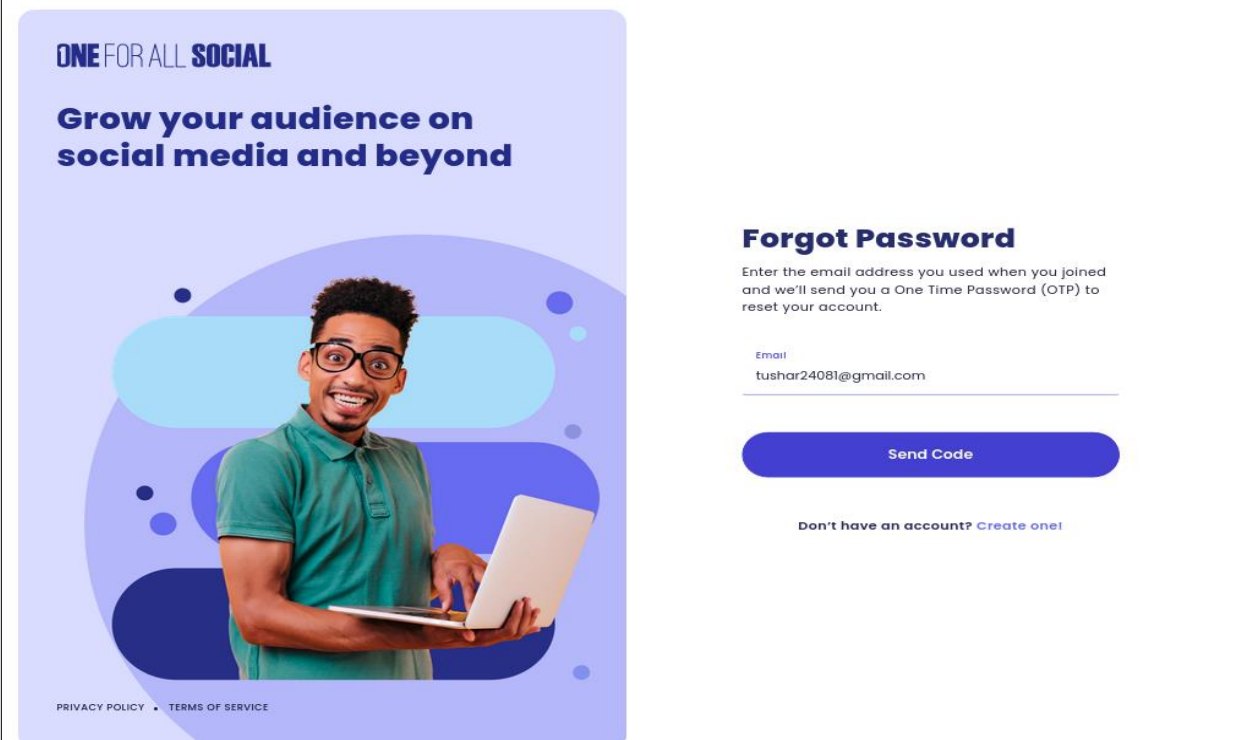
☒ Remember me

Login

Don't have an account? [Create one!](#)

Figure 5.3.2 Login

The login screen for OneForAllSocial platform is where registered users can access their accounts by entering their username or email address and password. This screen provides a secure entry point to the platform's features, ensuring that only authorized users can access their accounts.



The forgot password screen for OneForAllSocial features a purple header with the logo and tagline. On the left, a man holds a laptop. The right side contains a form to request a one-time password (OTP) by email, with a 'Send Code' button and a 'Create one!' link.

ONEFORALL SOCIAL

Grow your audience on social media and beyond

PRIVACY POLICY • TERMS OF SERVICE

Forgot Password

Enter the email address you used when you joined and we'll send you a One Time Password (OTP) to reset your account.

Email
tushar24081@gmail.com

Send Code

Don't have an account? [Create one!](#)

Figure 5.3.3 Forgot Password

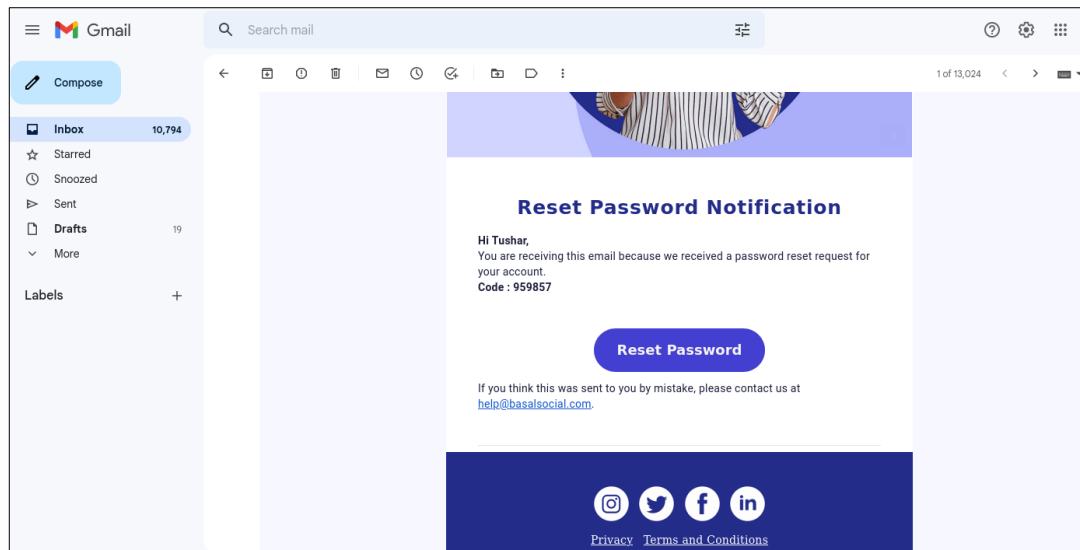


Figure 5.3.4 Reset Password

The "forgot password" feature on the OneForAllSocial platform allows users to reset their password if they have forgotten it or need to change it for security reasons. The process usually starts from the login screen, where users can click on a "forgot password" link to initiate the password recovery process.

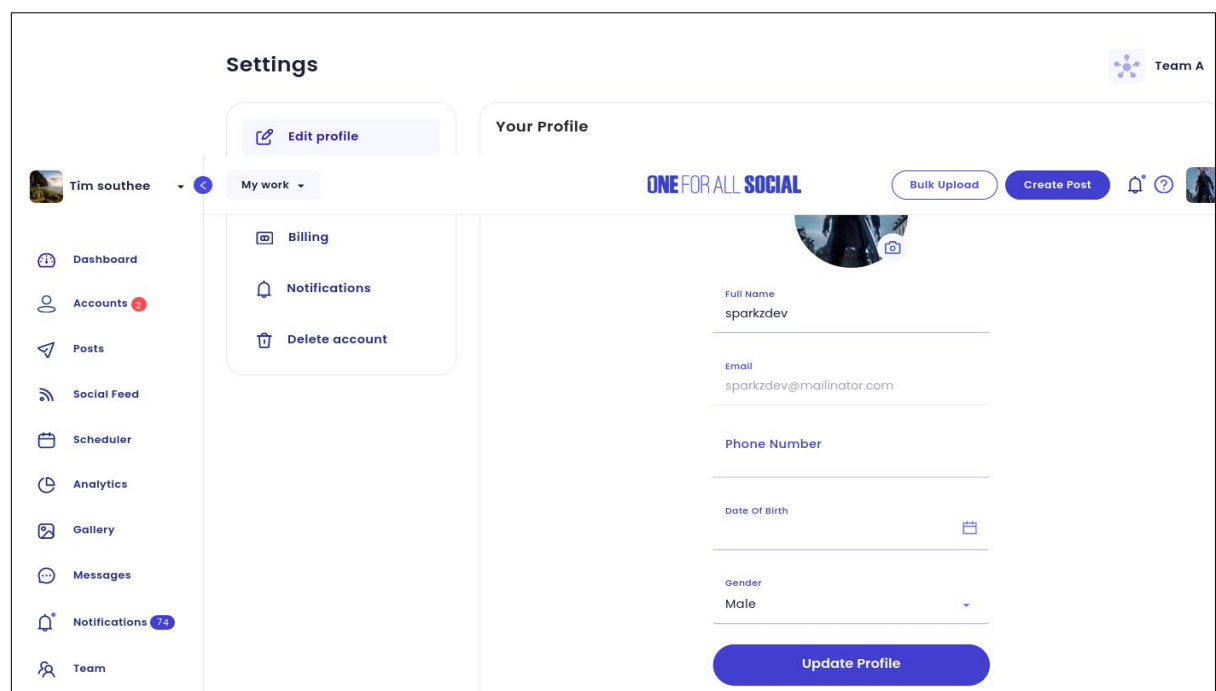


Figure 5.3.5 Edit Profile

OneForAllSocial's Edit Profile feature allows you to update your personal information on the platform, including your full name, email, phone number, date of birth,

and gender. With this feature, you can easily make changes to your personal information and ensure that your profile is always up to date.

To access the Edit Profile feature, simply navigate to the profile section on OneForAllSocial and click on the Edit Profile button.

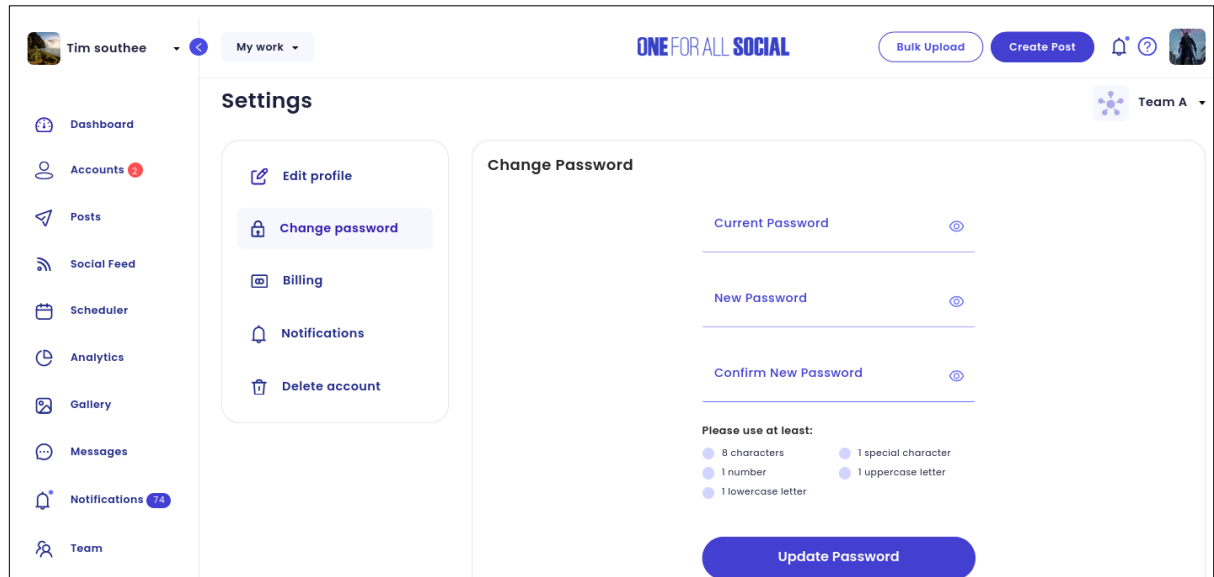


Figure 5.3.6 Change Password

OneForAllSocial's Change Password feature allows you to update your password on the platform if you know your current password. With this feature, you can ensure that your account remains secure and always protected.

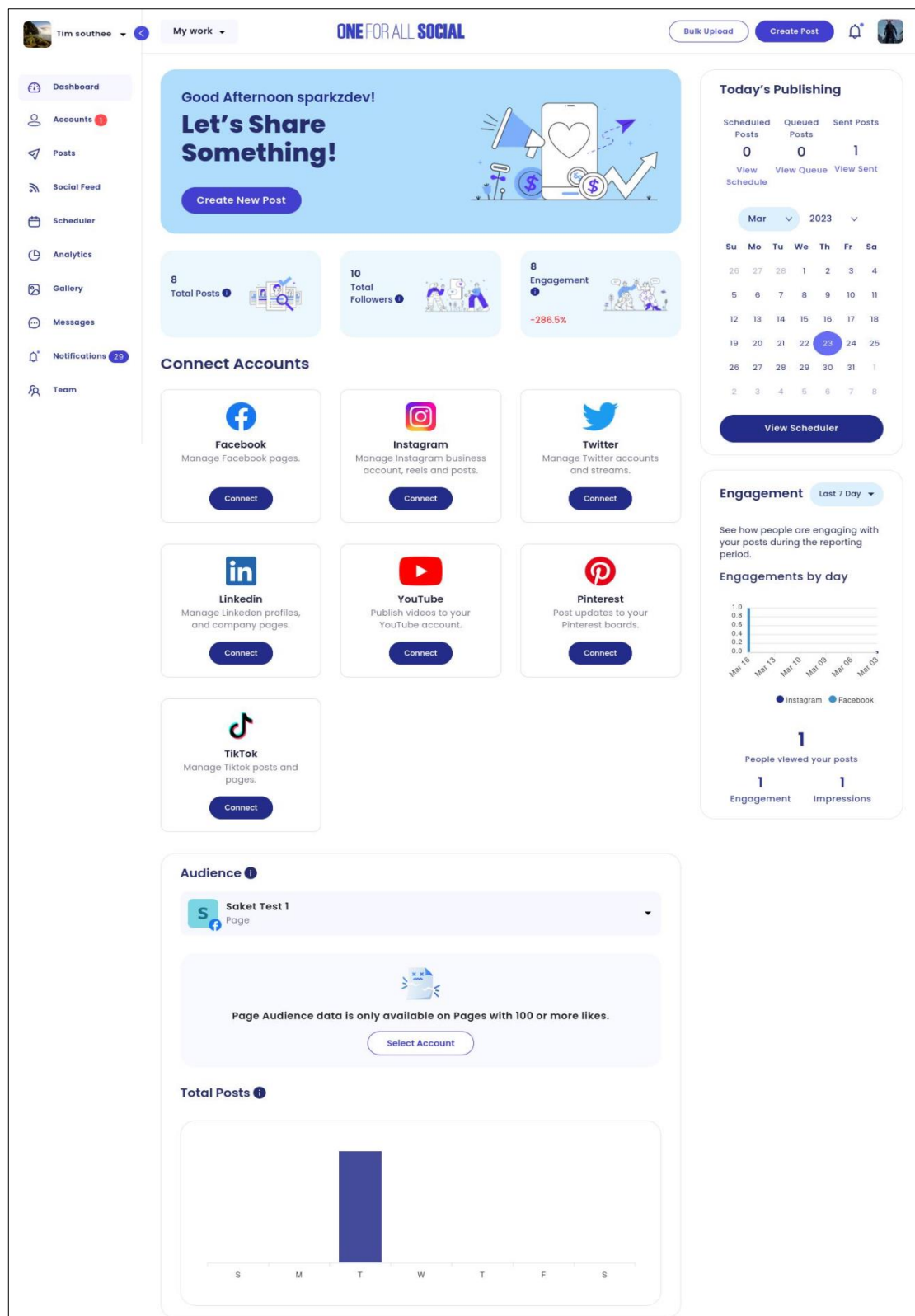


Figure 5.3.7 Dashboard

OneForAllSocial's dashboard provides a centralized hub for managing all your social media accounts in one place, making social media management easy and efficient.

The dashboard offers a comprehensive view of your social media activity, including real-time insights into your followers, engagement metrics, and post-performance.

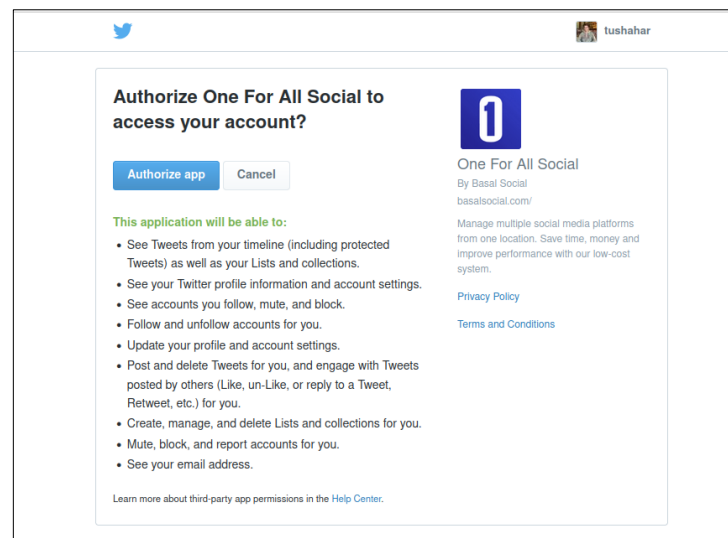


Figure 5.3.8 Connecting social media

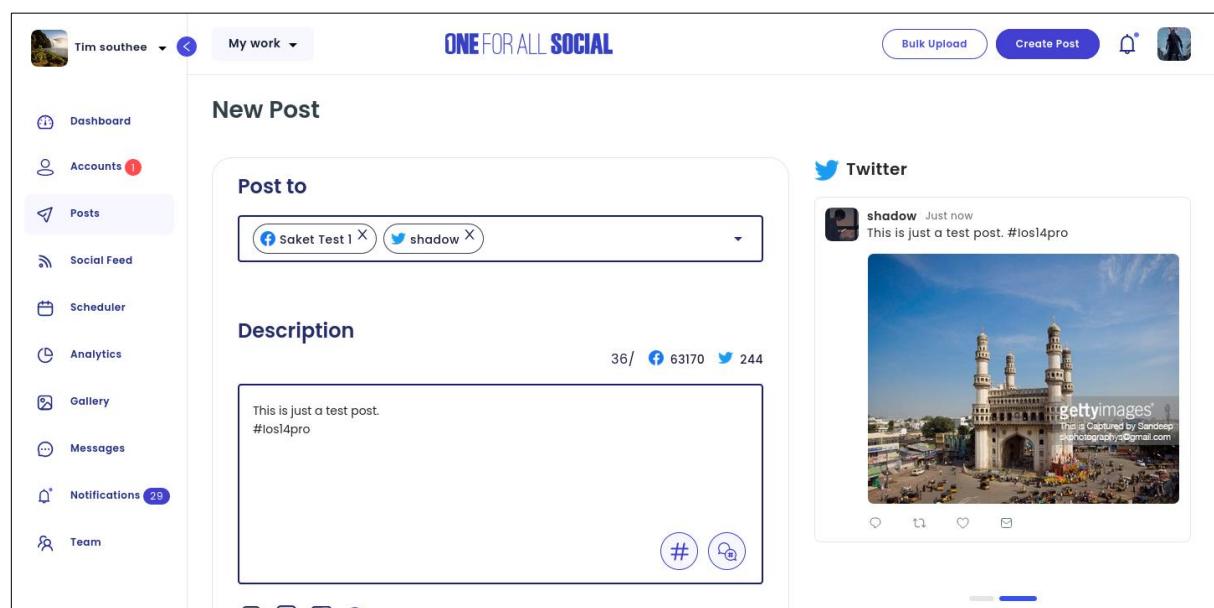


Figure 5.3.9 Create Post

OneForAllSocial offers a sophisticated social media management platform that allows businesses and individuals to create and publish social media content across multiple platforms with ease. One of the key features of OneForAllSocial's platform is its content creation and scheduling tools, which allow users to upload and schedule social media posts, captions, and hashtags for multiple platforms from a single location. This makes it easy to manage and maintain a consistent social media presence, while also saving time and increasing efficiency.

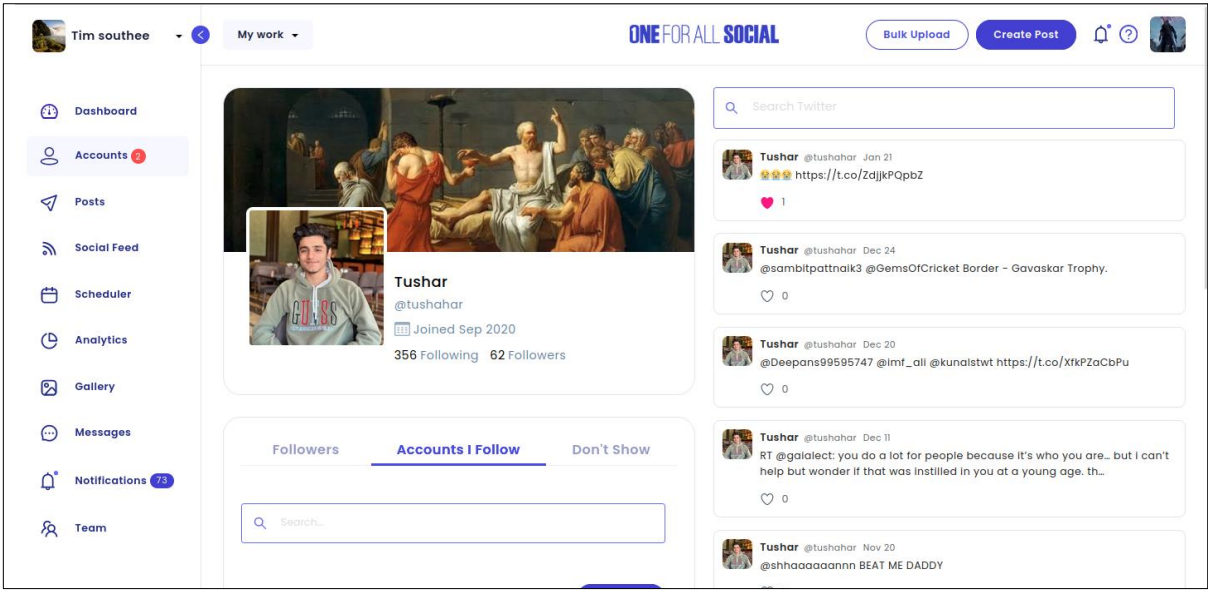


Figure 5.3.10 Account

Connecting your Twitter account to OneForAllSocial allows you to streamline your social media management, giving you greater control and visibility over your Twitter activity. With OneForAllSocial's powerful scheduling and monitoring tools, you can easily create and publish engaging content, track your Twitter performance, and stay up-to-date with the latest trends and conversations.

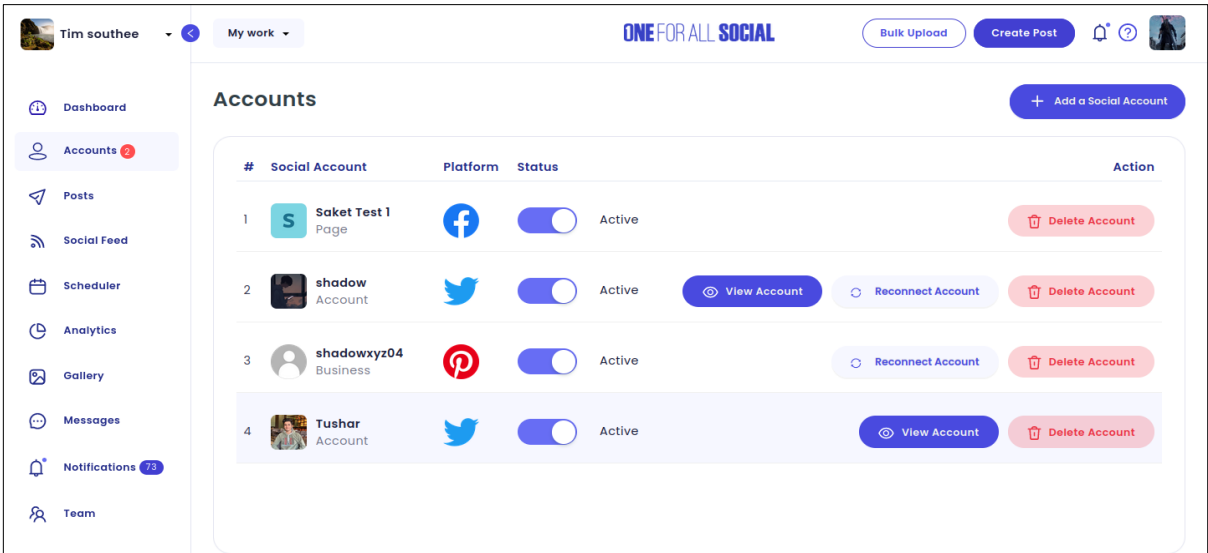


Figure 5.3.11 Connected Account's List

By providing a centralized location for all your social media accounts, OneForAllSocial simplifies the process of social media management and helps you stay

organized. Whether you're managing accounts for multiple businesses or just looking to streamline your personal social media presence, OneForAllSocial makes it easy to keep track of all your accounts in one place.

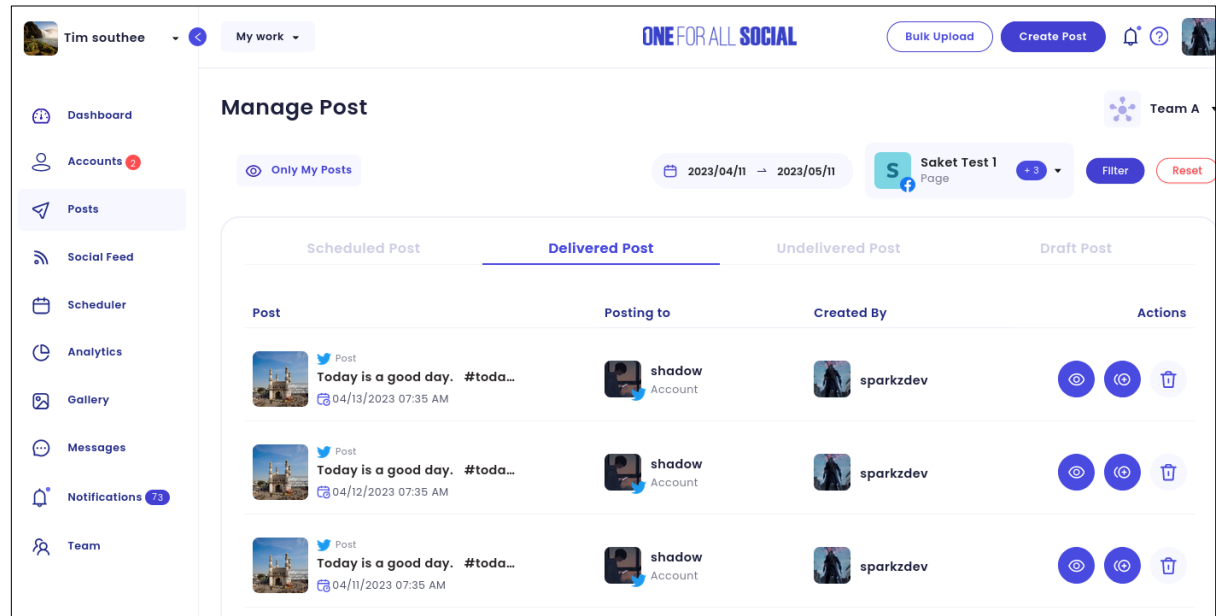


Figure 5.3.12 Posts

Just like how a user can manage accounts, he is also able to keep track of posts.

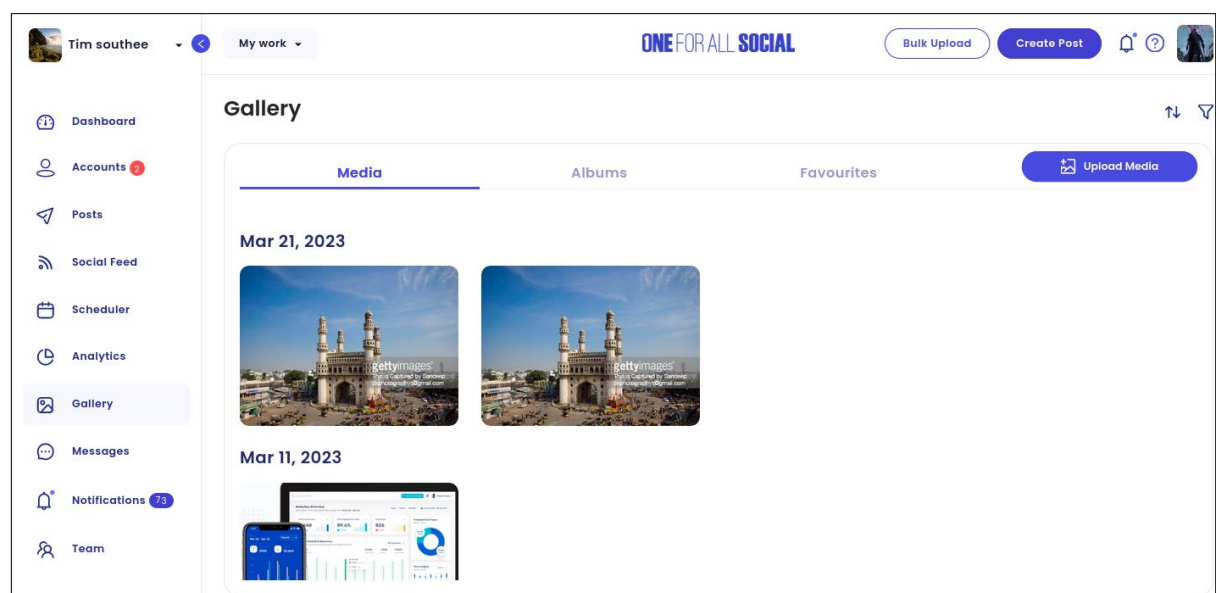


Figure 5.3.13 Gallery

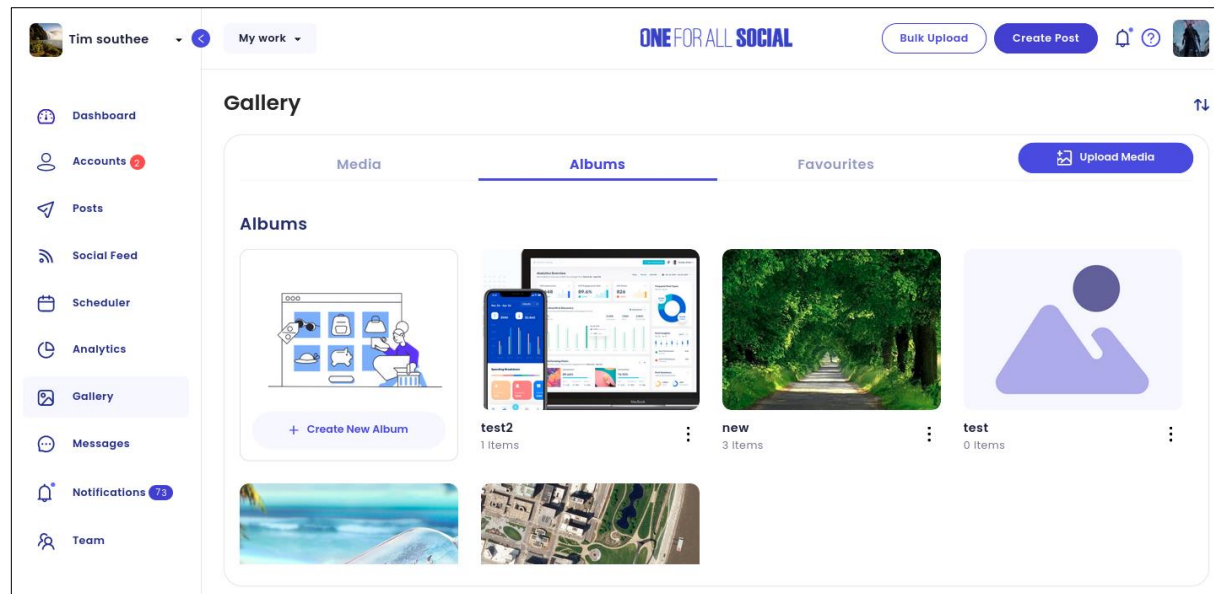


Figure 5.3.14 Album

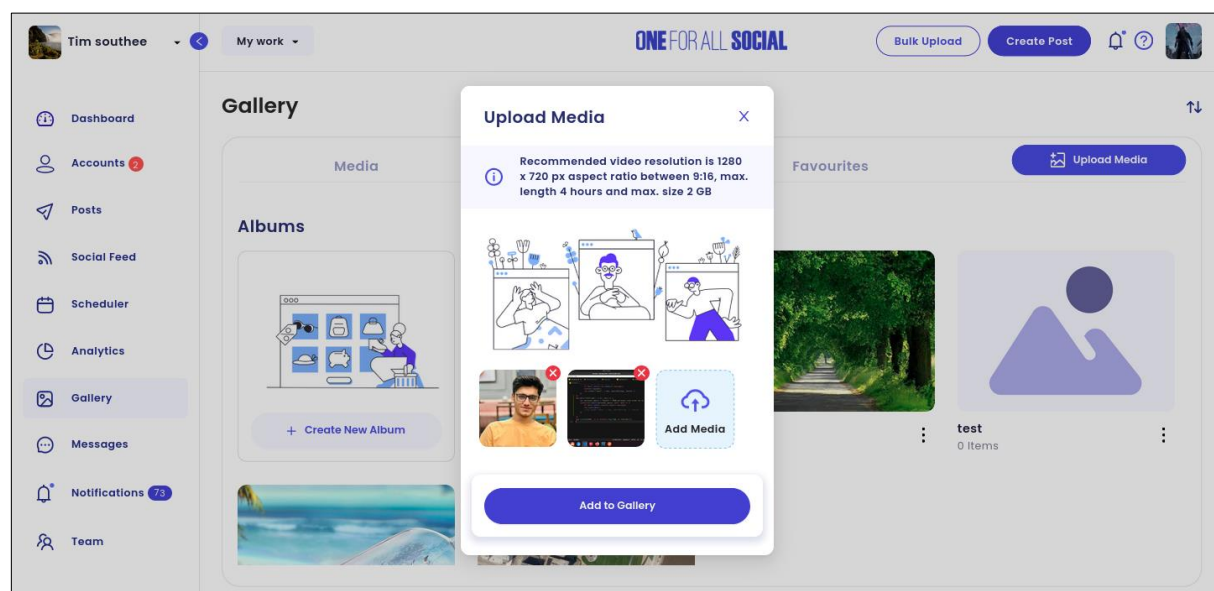


Figure 5.3.15 Upload Media

OneForAllSocial's gallery module offers a powerful tool for managing your photos and organizing them for easy access when it's time to create a social media post.

With the ability to add photos to albums and mark them as favorites, OneForAllSocial makes it easy to keep your photos organized and quickly find the ones you need. Whether you're creating a social media post or simply looking to browse your photo collection, OneForAllSocial's gallery module provides a user-friendly interface and powerful tools to help you get the job done.



Figure 5.3.16 Analytics

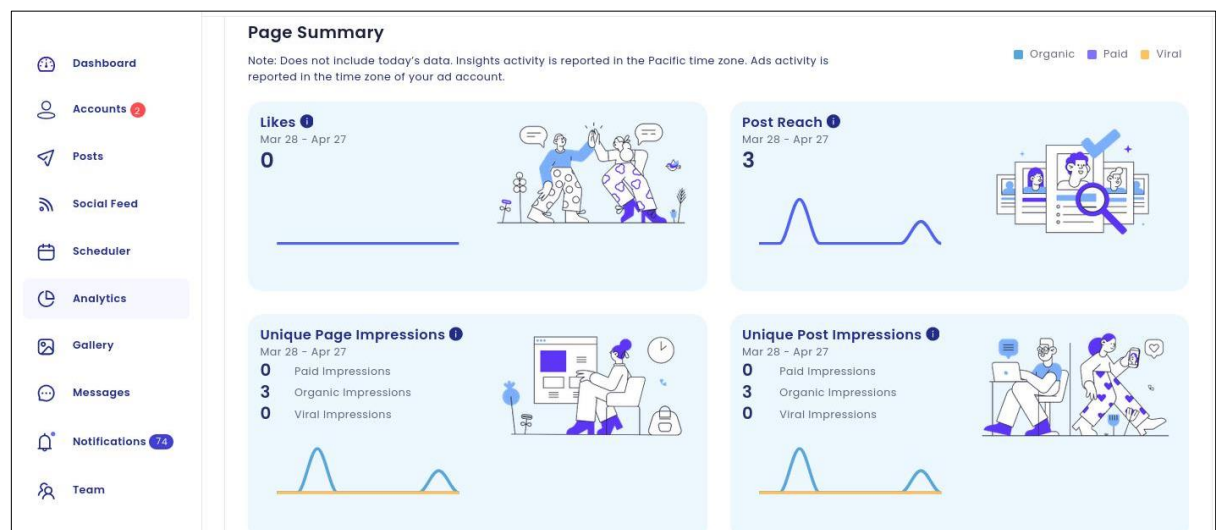


Figure 5.3.17 Summary of Posts

OneForAllSocial's advanced analytics module provides users with a comprehensive view of their social media performance. The module offers a range of features, including detailed reports on engagement and audience growth, as well as insights into the best times to post and the most effective content types.

Users can view metrics such as likes, comments, shares, and followers across multiple social media platforms, allowing them to gain a holistic view of their social media

presence. The analytics module also provides data on the reach and impressions of social media posts, as well as information on the demographics and interests of their followers.

In addition, OneForAllSocial's analytics module includes advanced features such as sentiment analysis, which allows users to gauge the overall sentiment of their social media audience towards their brand or products. This information can be used to refine social media strategies and improve audience engagement.

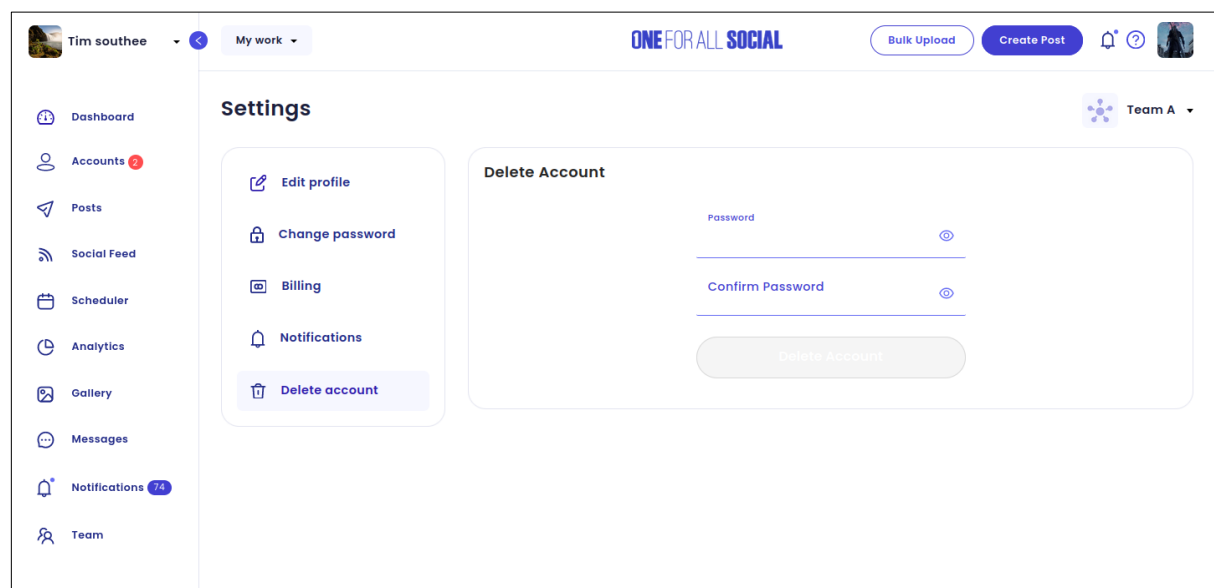


Figure 5.3.18 Delete Account

OneForAllSocial understands that sometimes users may want to delete their account and offers a straightforward process for doing so. Users can easily delete their account through the platform's settings menu, with the option to provide feedback on their decision if they choose to do so. OneForAllSocial respects user privacy and ensures that all data associated with the deleted account is permanently removed from the platform's servers.

It is important to note that account deletion is a permanent action and cannot be undone. Before deleting their account, users are advised to download any data they may want to keep, such as reports or analytics, as these will not be recoverable after the account is deleted. OneForAllSocial also provides resources and support for users who may be experiencing issues or have questions about account deletion.

6. IMPLEMENTATION

6.1. Implementation Environment

6.1.1. IDE

VS Code is a versatile code editor that supports several web development technologies, including Laravel and Angular. Its extension marketplace provides a vast library of extensions for almost any technology, from code formatting to debugging and testing.

The built-in Git integration allows you to manage your code repositories and version control directly from the editor, while the debugger supports many programming languages and frameworks.

VS Code's popularity among developers is due to its ability to provide an excellent development experience. In summary, VS Code is a powerful tool for web development that supports a wide range of technologies and provides several built-in features and extensions to enhance the development experience.

6.1.2. Laravel, Composer

Laravel is a popular PHP web application framework known for its simplicity, elegance, and ability to help developers create high-quality web applications quickly. Laravel's built-in features and tools, coupled with Composer's ability to manage dependencies, make it a top choice for building web applications.

Composer simplifies the process of managing dependencies in Laravel development by allowing developers to declare the packages they need and automatically managing their installation, updates, and removal. This saves developers time and effort, allowing them to focus on building their application's core features.

Laravel's core packages, including Eloquent ORM, Blade templating engine, and Artisan CLI, provide developers with a solid foundation to build upon. Developers can extend Laravel's capabilities by adding third-party packages using Composer, such as those for authentication, debugging, caching, and more.

Composer provides several useful commands that Laravel developers can use to manage their dependencies, including `composer install`, which installs all required packages, and `composer update`, which updates all packages to their latest version.

In summary, Laravel and Composer are powerful tools that simplify the process of building high-quality web applications. With Laravel's built-in features and Composer's ability to manage dependencies, developers can create web applications more efficiently while maintaining code quality and scalability.

6.1.3. Angular

Angular also provides a robust set of tools and features for building scalable and maintainable web applications. For instance, Angular's built-in router allows developers to create multiple views with different URLs, making it easier to handle navigation and create a seamless user experience. The router also provides advanced features such as lazy loading, which loads only the necessary parts of an application, reducing initial load times and improving performance.

Another useful feature of Angular is its built-in support for forms. Angular's Forms module provides two-way data binding and validation capabilities, making it easier to create complex forms with minimal code.

Angular also provides testing tools and libraries that make it easier to write and run tests for your application. The Angular Testing Library, for example, provides a simple and intuitive API for testing Angular components, making it easier to ensure that your application is functioning correctly.

Finally, Angular has a thriving community of developers who contribute to the framework's development and provide support through forums and documentation.

In summary, Angular provides a robust set of tools and features for building scalable and maintainable web applications. Its built-in router, support for forms, testing tools, and community make it a popular choice for building complex single-page web applications.

6.2. Modules Specification

OneForAllSocial is a comprehensive social media management platform that provides a centralized solution for managing multiple social media accounts. This platform consists of several modules that work together to streamline the social media management process. These modules include:

Account Management : This module allows users to manage multiple social media accounts from a centralized location. Users can add, remove and edit social media accounts, and connect to popular platforms such as Facebook, Twitter, Instagram, and LinkedIn.

Post Creation : This module allows users to create and customize social media posts with a range of tools and features. Users can create text posts, images, and videos with various editing tools, filters, and effects.

Scheduling : This module enables users to schedule social media posts in advance, based on the social media calendar. Users can set the date and time for publishing content, and schedule posts for different social media accounts simultaneously.

Analytics and Insights : This module provides users with comprehensive analytics and reporting capabilities, enabling them to track the performance of their social media accounts. Users can monitor engagement, reach, impressions, and other key metrics, and generate reports for insights and decision-making.

Collaboration : This module allows multiple users to work together on the same social media accounts. Users can collaborate on content creation, scheduling, and analytics, and share access to accounts and data securely.

The modular architecture of OneForAllSocial allows users to customize their social media management experience based on their needs and preferences. By providing a comprehensive solution for social media management, OneForAllSocial aims to simplify the process and enhance productivity, reduce the risk of errors, and increase online reach.

6.3. Coding Standard

Coding standards are a set of guidelines and best practices that we developers are instructed to follow when writing code. The main purpose of coding standards is to ensure

consistency, maintainability, and readability of the codebase. Here are some common coding standards that we followed while writing code in Laravel and Angular:

- **Consistent Naming Conventions** : We used consistent naming conventions in both Laravel and Angular projects, improving readability and maintainability of code with CamelCase and lowercase with underscores/hyphens for variables, functions, classes and components.
- **Folder Structure** : We maintained a consistent folder structure for both Laravel and Angular projects, improving organization and making it easier to find files, following recommended folder structures for each..
- **Consistent Indentation and Formatting** : We enforced consistent indentation and formatting using PHP-CS-Fixer and Prettier for PHP and Angular code respectively. This helped to improve readability and make the code easier to understand and maintain.
- **Comments and Documentation** : We used comments to document the code and provide context for other developers. This included adding comments to explain the purpose of functions and classes, as well as documenting any important design decisions or changes made during development.
- **Error Handling and Security** : We followed best practices for error handling and security, such as validating user input and handling errors gracefully. We also took steps to secure our Laravel and Angular applications, such as using HTTPS and implementing CSRF protection.
- **Testable Code** : We wrote testable code that was thoroughly tested using Laravel's built-in testing framework and Angular's built-in testing framework. This helped to ensure that the code was reliable and worked as intended and made it easier to catch and fix bugs during development.

Here is the sample Code Snippet from our Platform.



```
1 import { APP_INITIALIZER, CUSTOM_ELEMENTS_SCHEMA, ErrorHandler, NgModule } from '@angular/core';
2
3 import { AppRoutingModule } from './app-routing.module';
4 import { AppComponent } from './app.component';
5 import { NZ_I18N } from 'ng-zorro-antd/i18n';
6 import { registerLocaleData } from '@angular/common';
7 import en from '@angular/common/locales/en';
8 import { AuthService } from './services/auth.service';
9 import { AuthGuard } from './guards/auth.guard';
10 import { Router } from '@angular/router';
11 import * as Sentry from '@sentry/angular';
12
13 registerLocaleData(en);
14
15 @NgModule({
16   declarations: [
17     AppComponent,
18     LayoutComponent,
19     FacebookRedirectAuthComponent
20   ],
21   imports: [
22     BrowserModule,
23     AppRoutingModule,
24     FormsModule
25     NgxsLoggerPluginModule.forRoot({
26       disabled: environment.production,
27     }),
28     NgxsStoragePluginModule.forRoot({
29       key: 'auth.token'
30     })
31   ],
32   providers: [
33     {
34       provide: ErrorHandler
35       useValue: Sentry.createErrorHandler({
36         showDialog: false,
37       })
38     }
39   ]
40 })
41 export class AppModule { }
```

Figure 6.3.1 Code Snippets

7. TESTING

7.1. Testing Strategy

A test strategy is a guide that informs project managers, developers, and testers about testing objectives, methods, resources, and environment, helping to mitigate product risks through testing. It is developed based on system design documents and created for each stage of development to ensure adequate testing of new feature sets.

During the development of OneForAllSocial, we employed various testing strategies to ensure that the platform meets our quality standards. Our testing efforts included functionality testing, usability testing, compatibility testing, performance testing, security testing, and integration testing.

Functionality testing was used to verify that all features and functionalities of OneForAllSocial are working as expected. We tested features like content creation, scheduling, analytics, and account management to ensure that they function correctly.

Usability testing was conducted to evaluate the user-friendliness of the platform. Testers provided feedback on the platform's ease of use, navigation, and overall user experience.

Compatibility testing was focused on ensuring that OneForAllSocial is compatible with different browsers, devices, and operating systems. We verified that the platform works well on different screen sizes, resolutions, and mobile devices.

Performance testing was used to measure the platform's response time and scalability. We simulated heavy usage scenarios and measured the platform's response time, resource usage, and scalability.

Security testing was conducted to identify and address any vulnerabilities in the system. We verified that user data is protected, access control is properly implemented, and the platform is resilient to cyber-attacks.

Integration testing was focused on verifying that OneForAllSocial can integrate with other third-party systems seamlessly. We verified that data is being transferred accurately and there are no compatibility issues.

Our testing strategies helped us to identify and address issues early in the development cycle, resulting in a more reliable, user-friendly, and efficient platform. By employing these testing strategies, we ensured that OneForAllSocial meets our quality standards and provides a seamless experience to our users.

7.2. Test Case

As part of our testing efforts for OneForAllSocial, we developed a set of test cases to evaluate the functionality, usability, compatibility, performance, and security of the platform. Our test cases covered a range of scenarios, including account creation and management, post creation and scheduling, analytics data analysis, and collaboration with team members. The following are examples of the test cases that we developed:

a. Functionality Test Cases:

Test Case 1.1: Verify that a user can create an account and log in to the platform.

Test Case 1.2: Verify that a user can add and manage multiple social media accounts.

Test Case 1.3: Verify that a user can create, edit, and delete posts.

Test Case 1.4: Verify that a user can schedule posts for future dates and times.

Test Case 1.5: Verify that a user can view and export analytics data for their social media accounts.

Test Case 1.6: Verify that a user can collaborate with team members on social media management tasks.

b. Usability Test Cases:

Test Case 2.1: Verify that the platform is easy to navigate and user-friendly.

Test Case 2.2: Verify that the platform has clear and concise instructions for each feature.

Test Case 2.3: Verify that the platform's user interface is consistent across different pages.

Test Case 2.4: Verify that the platform's design is visually appealing and modern.

c. Compatibility Test Cases:

Test Case 3.1: Verify that the platform is compatible with different web browsers, including Chrome, Firefox, Safari, and Edge.

Test Case 3.2: Verify that the platform is responsive and works well on different screen sizes and resolutions.

Test Case 3.3: Verify that the platform works well on different operating systems, including Windows, macOS, and Linux.

Test Case 3.4: Verify that the platform is mobile-friendly and works well on different mobile devices.

d. Performance Test Cases:

Test Case 4.1: Verify that the platform loads quickly and efficiently.

Test Case 4.2: Verify that the platform can handle multiple users and concurrent sessions.

Test Case 4.3: Verify that the platform can handle a high volume of posts and social media accounts without slowing down.

Test Case 4.4: Verify that the platform's response time is consistent and within acceptable limits.

e. Security Test Cases:

Test Case 5.1: Verify that the platform uses secure authentication and authorization methods to protect user data.

Test Case 5.2: Verify that the platform encrypts sensitive data in transit and at rest.

Test Case 5.3: Verify that the platform has proper access control measures in place to prevent unauthorized access.

Test Case 5.4: Verify that the platform is resilient to cyber-attacks and can recover from data breaches.

Our testing efforts helped us to identify and address issues early in the development cycle, resulting in a more reliable, user-friendly, and efficient platform. By employing these test cases, we ensured that OneForAllSocial meets our quality standards and provides a seamless experience to our users.

8. CONCLUSION

8.1. Overall Analysis

During my internship, I gained a deeper understanding of the daily tasks and responsibilities of a software developer, including the importance of team collaboration, problem-solving, and attention to detail. This exposure allowed me to comprehend the role of a software developer and has prepared me to become a responsible and innovative developer in the future.

Throughout my training, I learned that observation is a crucial element in identifying the root cause of a problem, not only for my project but also in my daily activities. By collaborating with my colleagues and operators, I was able to effectively determine the problems and devise solutions. This experience taught me the importance of communication, teamwork, and problem-solving skills in the software development field.

Additionally, the project indirectly helped me to learn independently and develop self-discipline, patience, self-trust, and the ability to take initiative in my work. These qualities are essential for success in a professional environment, and I believe that my internship has given me a solid foundation to build upon.

Furthermore, I improved my communication skills through interactions with senior professionals and colleagues. Constructive criticism and advice have been a valuable resource for me to learn from my mistakes and avoid repeating them in the future. I have also developed my ability to communicate effectively, both verbally and in writing, which I believe will be critical for success in the software development industry.

In addition, I had the opportunity to work on various programs, which helped me to enhance my programming skills and further develop my understanding of Laravel. This experience has provided me with practical experience in developing software solutions, which I believe will be useful in my future career.

Overall, the knowledge and skills I gained during my industrial training have been invaluable in preparing me for a career in software development. The experience has provided me with a strong foundation of technical skills, communication skills, and problem-solving abilities that will serve me well in any professional work environment.

During my industrial training, I discovered the significance of several aspects that are essential for a software developer to succeed:

Effective Task Organization and Problem Solving

To ensure the smooth execution of our project tasks and assignments, we followed a systematic approach that involved careful analysis and problem-solving. Our team made sure to thoroughly examine each task and assignment to identify potential issues and obstacles that may arise. We then formulated a well-planned solution that took into account all possible scenarios, ensuring that we were adequately prepared for any unforeseeable situations. Additionally, we created contingency plans for each solution to minimize any potential risks or delays.

The Importance of Time Management in Development

As the project required a lot of tasks to be completed within a limited time frame, I utilized various time management strategies to ensure that I met the project deadlines. One of the tools that I used was the Pomodoro technique, which helped me to stay focused and productive while working on the project tasks. Additionally, I created a detailed project schedule using a project management software, which allowed me to prioritize tasks and allocate time accordingly. By effectively managing my time, I was able to complete the project on time and with high quality.

The Importance of Teamwork in a Working Environment

Throughout the project, the team recognized the importance of working collaboratively and respecting each other's contributions. Regular team meetings were held to ensure effective communication, and team members were encouraged to share their ideas and feedback openly. By working together as a team, we were able to overcome obstacles and complete the project successfully within the given timeline.

I would like to express my gratitude once more to everyone who contributed to making my industrial training an exceptional experience.

8.2. Dates of Continuous Evaluation

16 Mar 2024 First Internal Review by Prof. Singh Nikhil Kumar (Offline).

19 Apr 2023 Second Internal Review by Prof. Singh Nikhil Kumar (Offline).

8.3. Summary of Internship

My internship at eSparkBiz was a rewarding experience both personally and professionally. I gained valuable knowledge and skills while developing a fully functional web application using Laravel and Angular. Despite encountering several technical challenges, I spent time researching and discovering how to work with these technologies. Although my work could still be improved, I'm proud of what I accomplished. I'm grateful for the opportunity and support from the eSparkBiz team and look forward to applying what I learned to future projects.

8.4. Limitation

- **Platform limitations:** OneForAllSocial currently supports only a limited number of social media platforms, such as Facebook, Instagram, and Twitter. This means that users may not be able to manage all of their social media accounts through the platform.
- **Security concerns:** As OneForAllSocial requires access to users' social media accounts, there may be concerns around the security and privacy of users' data. While OneForAllSocial takes measures to protect user data, there is always a risk of unauthorized access.
- **Technical limitations:** OneForAllSocial may have technical limitations that may impact its performance, such as limited server capacity, network issues, or software bugs. These limitations may cause delays or errors in the platform's functionality.
- **User limitations:** OneForAllSocial is designed to be used by individuals and small businesses. As such, it may not be suitable for larger organizations or businesses with more complex social media management needs.
- **User adoption:** Despite its features and benefits, OneForAllSocial may face challenges in terms of user adoption. Social media management is a competitive space, and users may already be using other tools or platforms for their social media needs.

These limitations can impact the overall usability and effectiveness of OneForAllSocial, and as such, it's important for the platform to address them in order to provide a better user experience.

8.5. Future Enhancement

- **Enhanced analytics** : While OneForAllSocial currently offers basic analytics functionality, there is room for improvement in this area. More detailed data and insights could be provided to users to help them better understand their social media performance and make informed decisions about their content strategy.
- **Streamlined content creation** : One possible future enhancement to OneForAllSocial could involve the development of a more intuitive and user-friendly content creation tool. This could make it easier for users to create and publish engaging posts across multiple social media platforms.
- **More customization options** : OneForAllSocial could be improved by providing users with more options for customizing their profiles, including the ability to add profile pictures, cover photos, and other design elements.
- **Improving security features** : As the platform grows and more users sign up, it will be important to ensure that OneForAllSocial remains secure and protected against potential cyber threats. Enhancements in this area could include two-factor authentication, more robust password policies, and regular security audits.

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