SOCIAL MEDIA SCHEDULING
A MINI-PROJECT REPORT

Submitted By

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BONAFIDE CERTIFICATE

Certified that this mini project **"SOCIAL MEDIA SCHEDULING APPLICATION**" is the Bonafide work of "**BHARGAVI(2116220701044), J.P.SAI SRAVANTHI(220701902)"** who carried out the project work under my supervision.

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Submitted for the End semester practical examination to be held on ..……

INTERNAL EXAMINER **EXTERNAL EXAMINER**

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ABSTRACT

Social Media Scheduling is a powerful application designed to streamline the management of social media platforms for small businesses and individual content creators. The project provides a comprehensive solution that integrates post scheduling, performance tracking, and resource management to enhance content strategies and improve engagement. With features like real-time scheduling and an intuitive analytics dashboard, the platform empowers users to manage their social media presence efficiently. Its architecture is built on a three-tier model, featuring a responsive frontend developed with HTML, CSS, and JavaScript, a secure backend powered by PHP, and a robust MySQL database for efficient data storage.

The platform's scheduling engine automates post publishing across various social media platforms, saving users valuable time. The analytics dashboard delivers actionable insights such as audience demographics, engagement trends, and growth metrics, enabling data-driven decision-making. Additionally, the resource management module allows users to organize media assets for future use, ensuring smooth and effective content planning. This project overcomes common challenges in social media management and demonstrates how Social Media Scheduling enhances productivity, reduces effort, and enables users to build a stronger digital footprint.

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CHAPTER – 1

INTRODUCTION

1.1 Introduction

The rise of social media has revolutionized how individuals and businesses communicate, connect, and share ideas. Platforms like Instagram, Facebook, and Twitter have become essential tools for marketing, branding, and audience engagement. However, managing these platforms effectively is often challenging, especially for small businesses and individual content creators who lack the resources or time to dedicate to robust social media strategies. This is where Social Media Scheduling and analytics steps in as a comprehensive solution. It is an all-in-one platform that seamlessly integrates post scheduling, engagement analytics, and resource management, enabling users to maximize their social media presence with minimal effort. By automating repetitive tasks and providing actionable insights, the application helps users focus on creating meaningful content and achieving their digital marketing goals.

1.2 Scope of the Work

The scope of Social Media Scheduling Application revolves around simplifying and optimizing workflows for social media management. The application is designed to:

- Schedule posts: Users can plan their content by setting specific dates, times, and platforms for posts, ensuring consistent and timely engagement.
- Monitor engagement analytics: The platform tracks metrics like likes, shares, comments, and audience demographics in real-time, offering insights into what strategies work best.
- Organize media resources: Users can store, manage, and retrieve media files such as images, videos, and music, streamlining the content creation process.

1.3 Problem Statement

Managing multiple social media accounts often requires juggling several tools and repetitive tasks, which can be time-consuming and overwhelming. Existing platforms may be too costly or lack the customization needed for small businesses and individual creators, resulting in inefficiencies and inconsistent strategies. This leads to lost opportunities for engagement, reduced productivity, and limited growth potential. **Social Media Scheduling Application** addresses these challenges by offering an affordable, centralized solution that automates tasks, provides actionable insights, and ensures a streamlined approach to managing social media workflows effectively.

1.4 Aim and Objectives

Aim:

To design and develop Social Media Scheduling Application, an all-in-one tool to simplify social media management for small businesses and individual creators. This platform aims to address common challenges such as juggling multiple tools, inconsistent posting, and the lack of data-driven strategies**.**

Objectives:

1. Develop an intuitive and user-friendly social media scheduling tool for easy post management across multiple platforms.
2. Implement secure login and robust data protection mechanisms to ensure user privacy and security.
3. Integrate real-time analytics to track post performance and offer actionable insights for strategy improvement.
4. Design a responsive platform for seamless access on desktops, tablets, and smartphones.
5. Build a scalable architecture to efficiently handle growing user bases and data.

CHAPTER – 2
SYSTEM SPECIFICATIONS

Social Media Scheduling Application is designed to run efficiently on modern hardware and software platforms. The system combines robust backend processing with a responsive frontend to provide a seamless user experience. It ensures smooth functionality for social media management, from scheduling posts to tracking analytics.

2.1 Hardware Specifications

- Processor: Intel i5 or higher for smooth performance and efficient handling of multiple tasks.
- Memory: 8 GB RAM to ensure efficient multitasking and fast processing.
- Storage: At least 40 GB of free HDD/SSD space, with SSD preferred for faster data access and performance**.**

2.2 Software Specifications

- Operating System: Compatible with Windows 10 or higher, and Linux (Ubuntu 20.04) for flexibility across environments.
- Frontend:
    - HTML for web page structure,
    - CSS for styling and responsive design,
    - JavaScript for interactivity and real-time updates.
- Backend: PHP for managing data processing, backend logic, and database interactions.
- Database: MySQL to store user data, posts, and analytics efficiently.
- Other Tools:
    - Bootstrap for responsive design,
    - APIs for Social Media Integration to automate posting and retrieve analysis.

CHAPTER – 3

ARCHITECTURE DIAGRAM

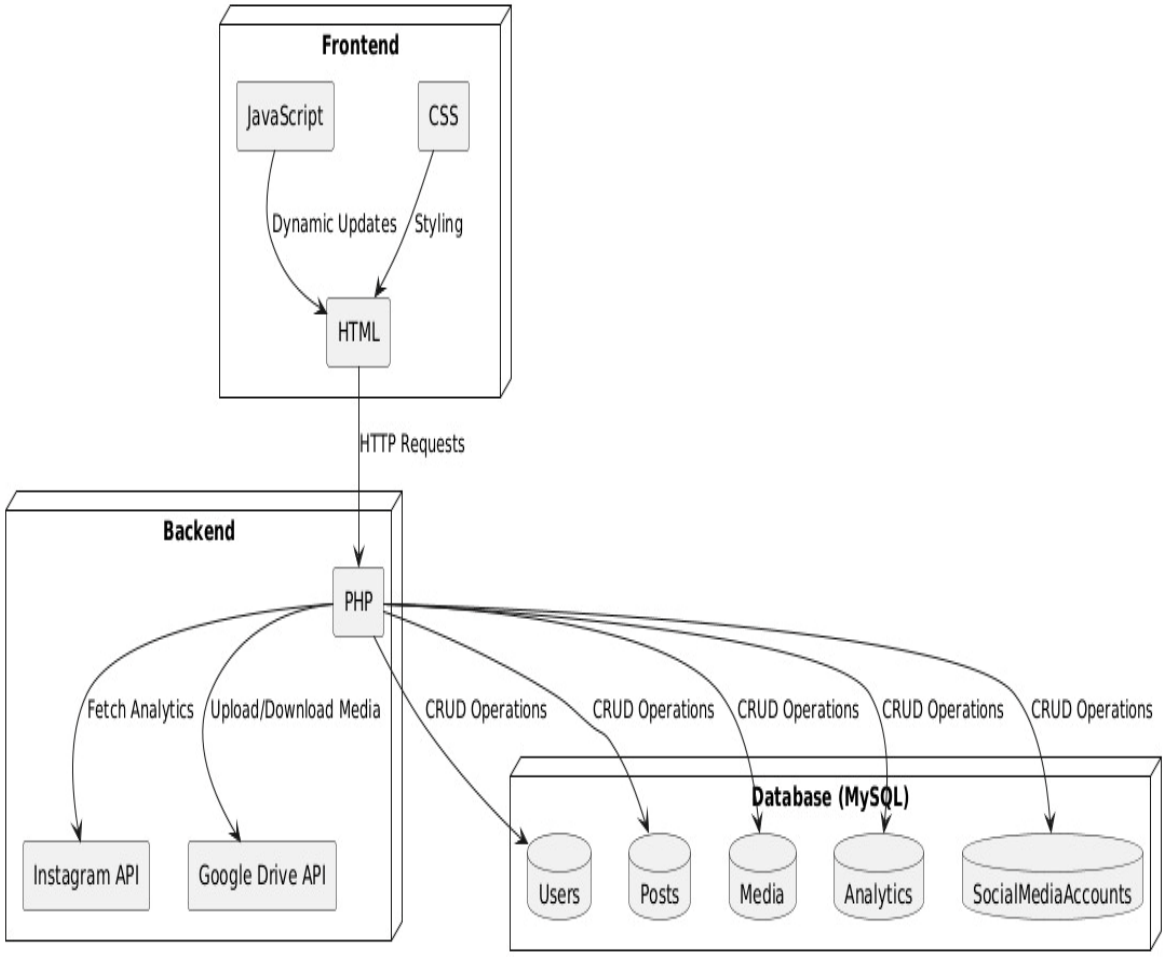

Fig 3.1.Architecture Diagram

CHAPTER – 4
MODULE DESCRIPTION

MODULE DESCRIPTION

The Social Media Scheduling platform is designed with three core modules that provide secure access, streamlined scheduling, and comprehensive analytics. Each module has specific functionalities that work together to deliver a user-friendly and efficient social media management experience.

4.1 User Authentication Module

This module is critical for ensuring secure and seamless access to the platform. It supports multiple login methods, catering to a wide range of user preferences while maintaining high levels of security. Key features include:

- OAuth-based login: This feature allows users to log in using social media credentials through APIs like Instagram, ensuring quick and secure access without the need to create a new account.
- Secure password hashing: For users opting for traditional login methods, passwords are encrypted using robust hashing algorithms. This ensures that sensitive user data is stored securely, protecting against unauthorized access and breaches.

4.2 Post Scheduling Engine

This module simplifies content planning and publishing by allowing users to automate their social media workflows. It ensures consistent posting schedules, saving time and enhancing audience engagement. Key features include:

- Scheduling posts: Users can select specific dates, times, and platforms for their posts, ensuring content is published at optimal times for maximum reach.

- Queueing posts for automation: The module enables users to create a queue of posts, which are published automatically according to the scheduled times, reducing manual effort.
- Calendar view: A visual calendar interface displays all scheduled posts, providing users with an organized overview of their content plan and helping them avoid overlapping or missed posts.

4.3 Analytics Dashboard

The analytics module empowers users by providing actionable insights into the performance of their social media accounts. Through visually appealing and easy-to-understand charts and graphs, users can track key metrics and optimize their strategies. Key features include:

- Engagement metrics: Displays the performance of posts, including likes, shares, comments, and overall engagement levels, helping users understand which content resonates most with their audience.
- Audience demographics: Provides detailed insights into the audience, including age, gender, and regional distribution, allowing users to tailor their content to better suit their target demographic.
- Growth trends: Tracks follower growth and engagement trends over time, enabling users to measure the success of their strategies and make data-driven improvements.

These modules work cohesively to deliver a powerful and comprehensive tool for social media management, addressing the needs of small businesses and individual creators.

CHAPTER – 5

SYSTEM DESIGN

5.1 USECASE DIAGRAM

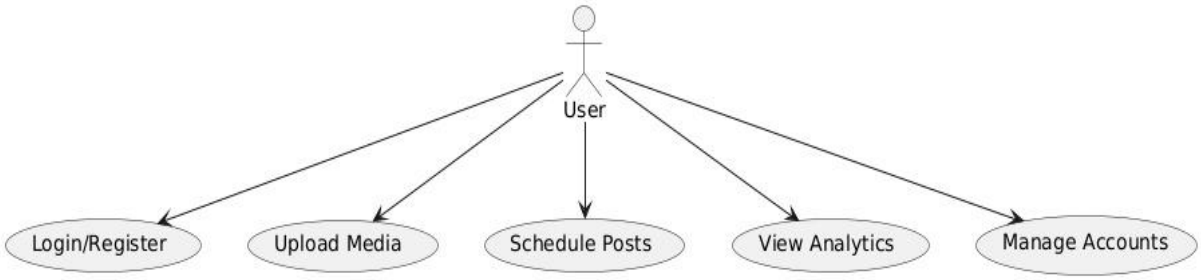

Fig 5.1.Use Case Diagram

5.2 E-R MODEL

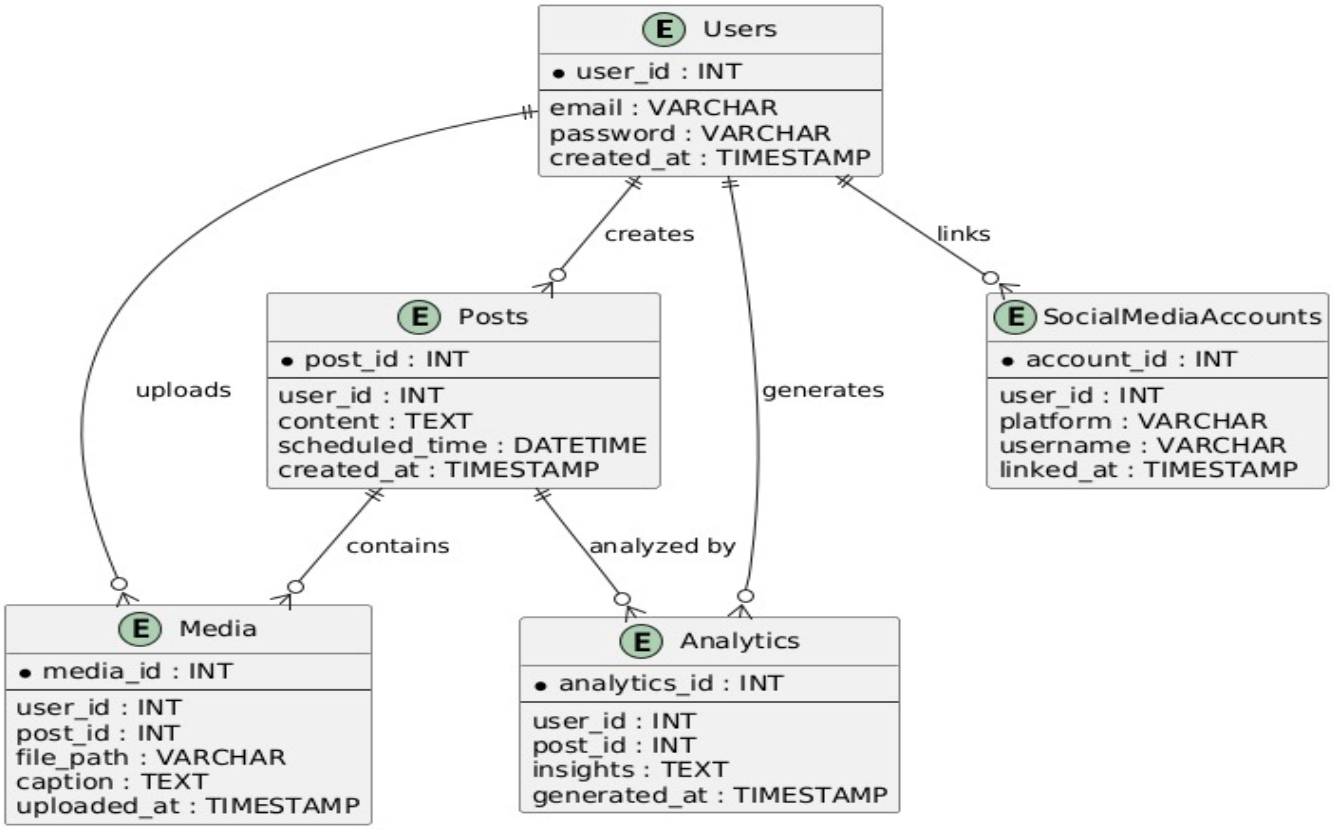

Fig 5.2 E-R Diagram

5.3 DATAFLOW DIAGRAM

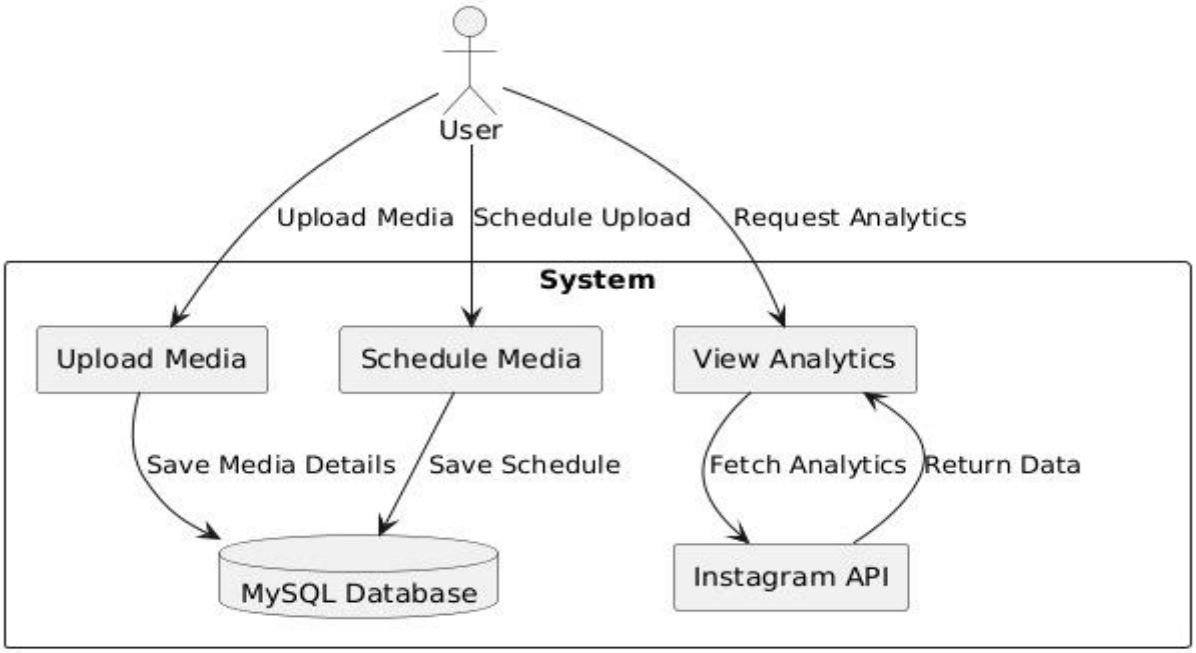

Fig 5.3. Dataflow Diagram

5.4 ACTIVITY DIAGRAM

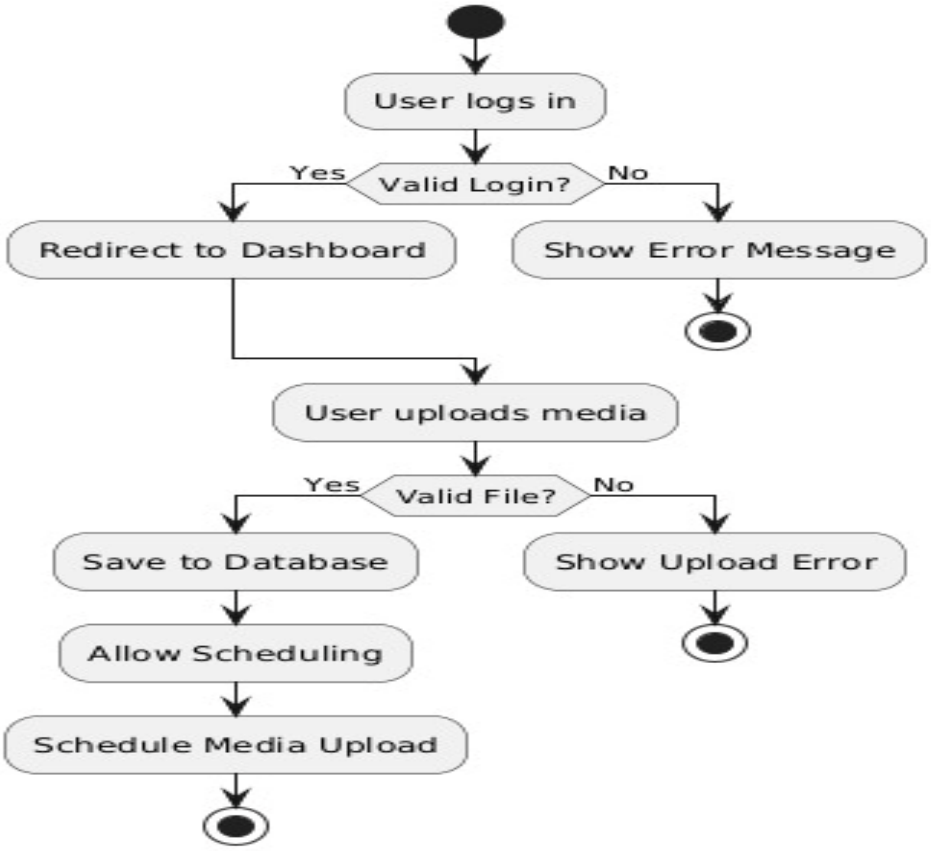

Fig 5.4.Activity Diagram

CHAPTER – 6

CODING

userDashboard.php

```
<?php
include 'C:\xampp\htdocs\social_sync\includes\db.php'; // Include your existing database connection
include 'C:\xampp\htdocs\social_sync\includes\header.php';

// Assuming you have a session or a way to get the current user's ID
session_start();
$user_id = $_SESSION['user_id']; // Example: Fetching user ID from session

if ($_SERVER['REQUEST_METHOD'] == 'POST' && isset($_FILES['media'])) {
    $targetDir = "uploads/";
    $fileName = basename($_FILES["media"]["name"]);
    $targetFilePath = $targetDir . $fileName;
    $fileType = pathinfo($targetFilePath, PATHINFO_EXTENSION);

    // Validate file type
    $allowedTypes = array('jpg', 'png', 'gif', 'mp4', 'avi');
    if (in_array($fileType, $allowedTypes)) {
        if (move_uploaded_file($_FILES["media"]["tmp_name"], $targetFilePath)) {
            // Save file info to database
            $caption = isset($_POST['caption']) ? $_POST['caption'] : ''; // Get caption if provided
            $scheduled_time = date("Y-m-d H:i:s"); // For example, set to now; adjust as needed
            $sql = "INSERT INTO media (user_id, image_path, caption, scheduled_time) VALUES ('$user_id', '$targetFilePath', '$caption', '$scheduled_time')";
```

```
            if ($conn->query($sql) === TRUE) {
                echo "<div class='alert alert-success'>File uploaded successfully!</div>";
            } else {
                echo "<div class='alert alert-danger'>Error saving to database: " . $conn->error . "</div>";
            }
        } else {
            echo "<div class='alert alert-danger'>Error uploading your file.</div>";
        }
    } else {
        echo "<div class='alert alert-warning'>Sorry, only JPG, PNG, GIF, MP4, and AVI files are allowed.</div>";
    }
}

// Fetch uploaded media from the database for the current user
$query = "SELECT * FROM media WHERE user_id = '$user_id' ORDER BY created_at DESC";
$result = $conn->query($query);

?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="style.css">
    <title>Media Dashboard</title>
    <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">
</head>
```

```
<body>
<div class="container mt-5">
    <h1 class="text-center">Media Dashboard</h1>

    <!-- File Upload Form -->
    <form action="" method="post" enctype="multipart/form-data" class="mb-4">
        <div class="form-group">
            <label for="media">Upload Media</label>
            <input type="file" name="media" class="form-control-file" id="media"
required>
        </div>
        <div class="form-group">
            <label for="caption">Caption</label>
            <textarea name="caption" class="form-control" id="caption" rows="3"
placeholder="Add a caption (optional)"></textarea>
        </div>
        <button type="submit" class="btn">Upload</button>
    </form>

    <h2>Your Uploaded Media</h2>
    <div class="row">
        <?php if ($result->num_rows > 0) : ?>
            <?php while ($row = $result->fetch_assoc()) : ?>
                <div class="col-md-4">
                    <div class="media-item">
                        <?php if (in_array(pathinfo($row['image_path'],
PATHINFO_EXTENSION), ['jpg', 'png', 'gif'])) : ?>
                            <img src="<?php echo $row['image_path']; ?>" alt="<?php echo
htmlspecialchars($row['caption']); ?>" class="img-fluid">
                        <?php else: ?>
                            <video controls class="w-100">
```

```
                        <source src="<?php echo $row['image_path']; ?>"
type="video/<?php echo pathinfo($row['image_path'], PATHINFO_EXTENSION);
?>">
                        Your browser does not support the video tag.
                    </video>
                <?php endif; ?>
                <div class="p-2">
                    <p class="mb-0">Caption: <?php echo
htmlspecialchars($row['caption']); ?></p>
                    <p class="mb-0">Uploaded on: <?php echo $row['created_at']; ?></p
                </div>
            </div>
        </div>
    <?php endwhile; ?>
<?php else: ?>
    <p class="text-center">No media uploaded yet.</p>
<?php endif; ?>
</div>
</div>

<script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"></script>
<script
src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.2/dist/umd/popper.min.js"></scri
pt>
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/js/bootstrap.min.js"></script>
</body>
</html>
<?php
include 'C:\xampp\htdocs\social_sync\includes\footer.php';
$conn->close(); // Close the connection when done
```

CHAPTER – 7

IMPLEMENTATION SCREENSHOTS

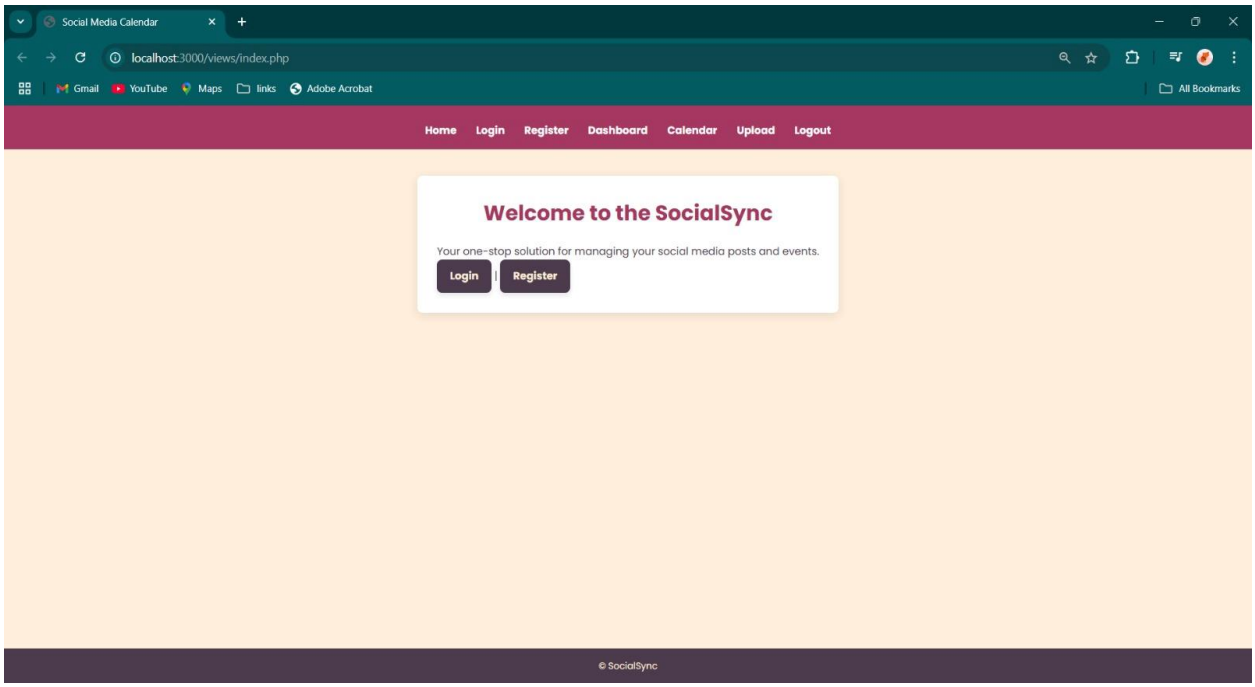

Fig.7.1.Home Page

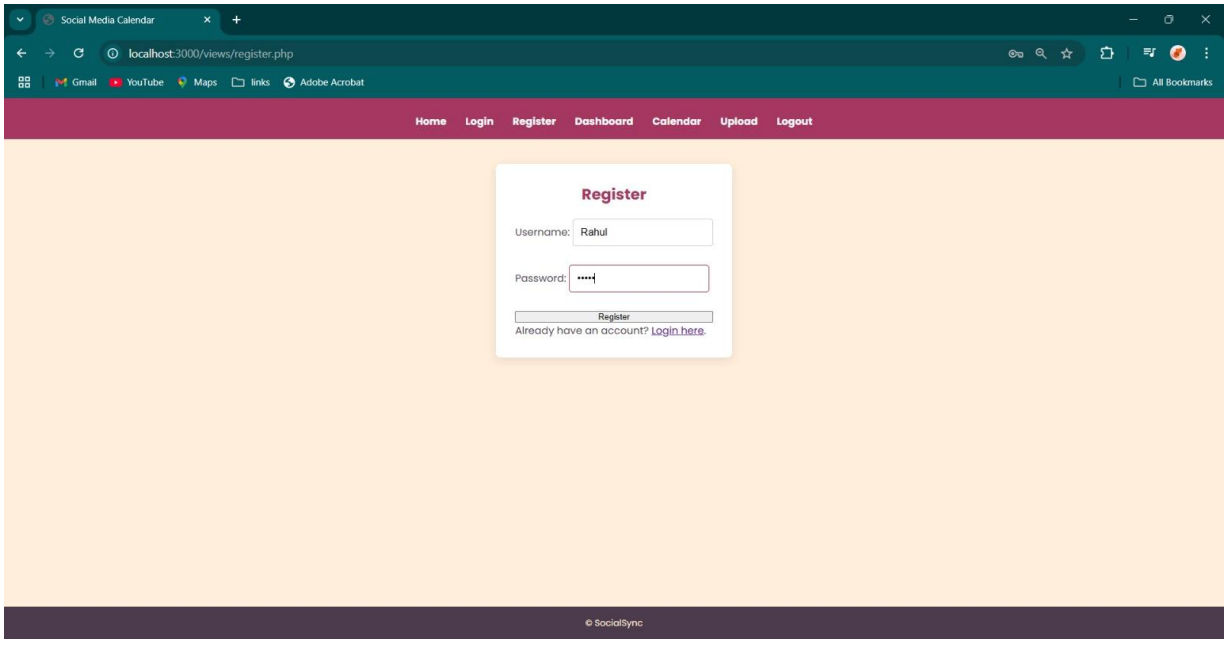

Fig.7.2.Login Page

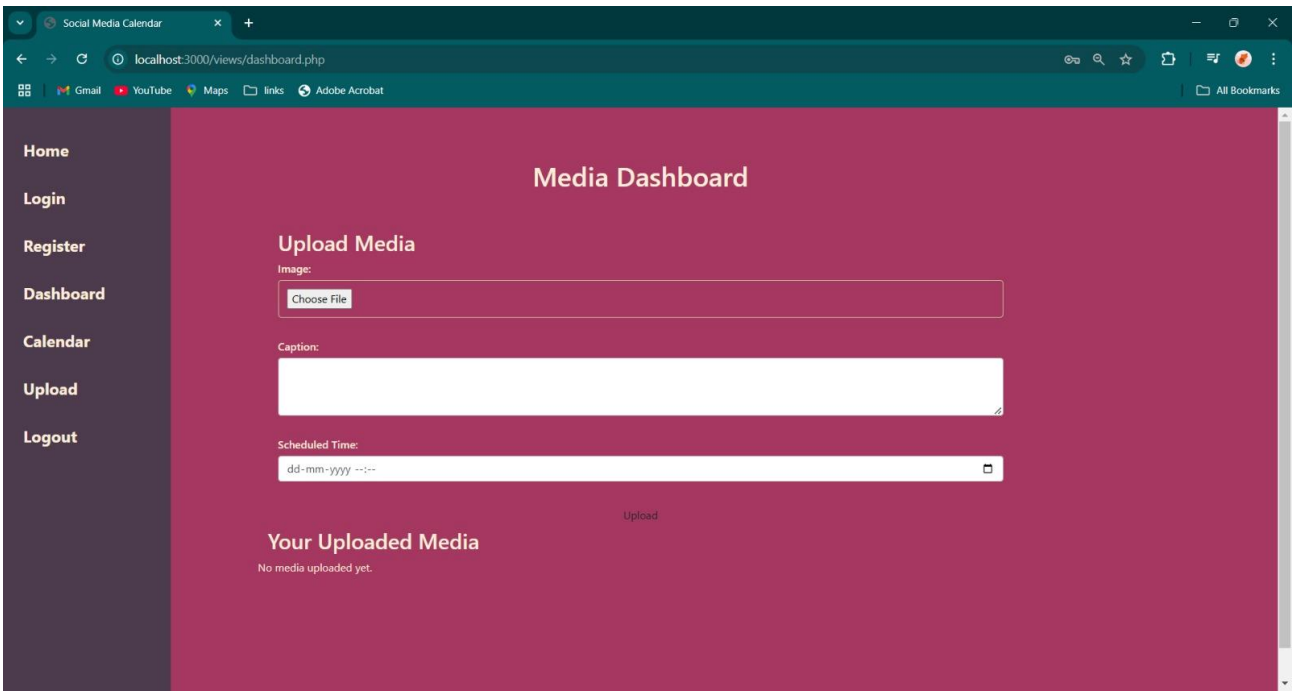

Fig.7.3.Dashboard

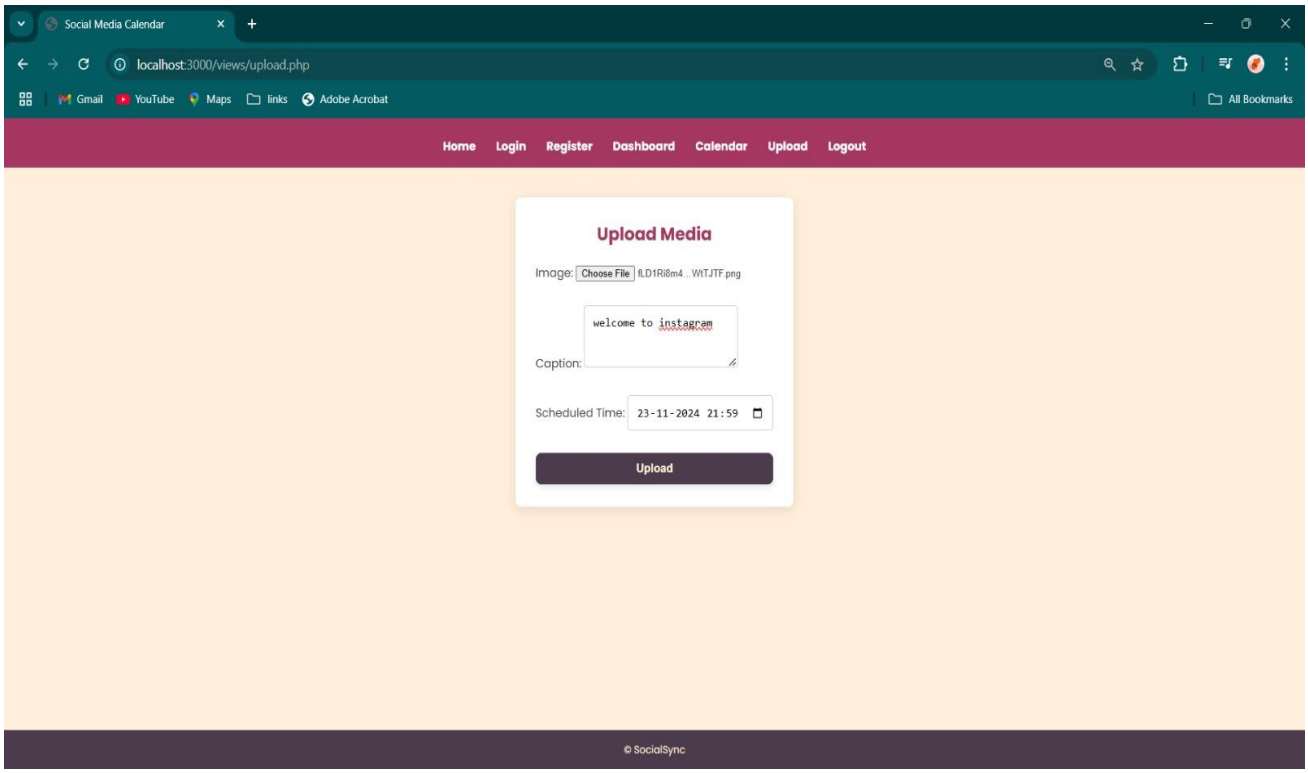

Fig.7.4.Upload Page

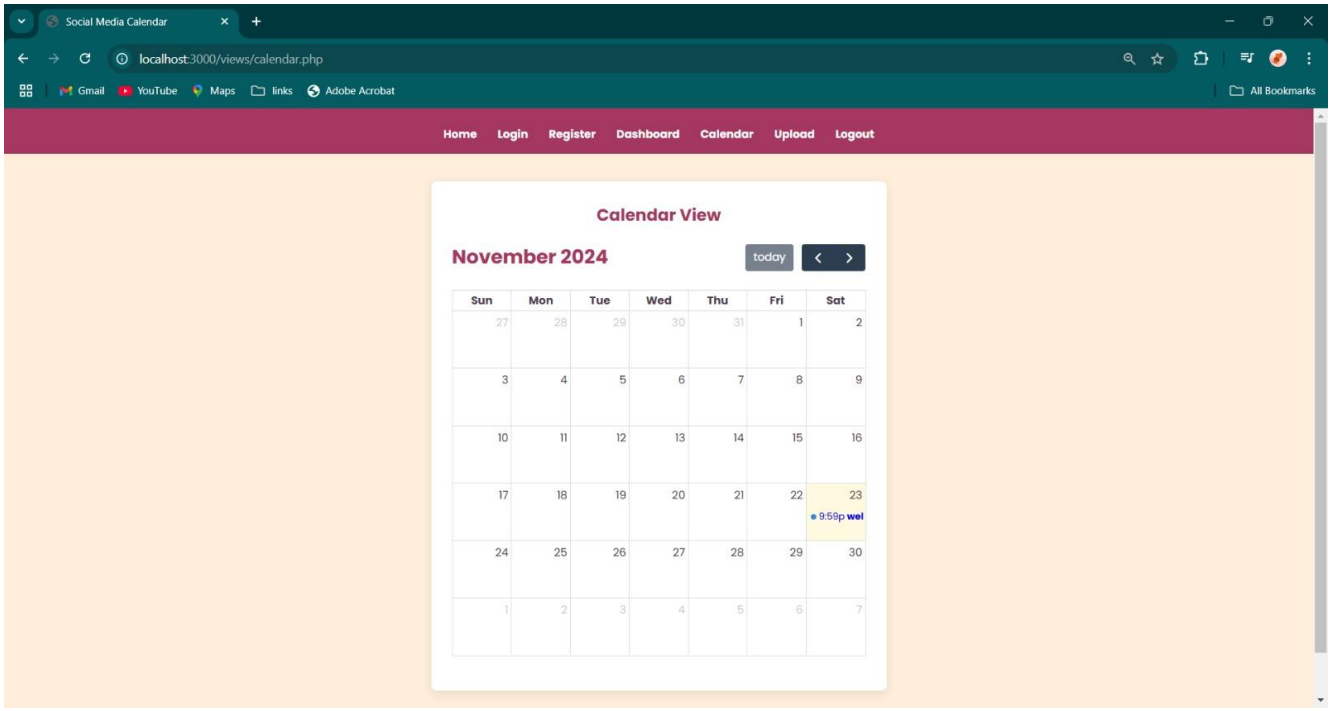

Fig.7.5.Calender Page

CHAPTER – 8
CONCLUSION

The **Social Media Scheduling** platform offers a streamlined and efficient solution for managing multiple social media accounts. By combining secure user authentication, a robust post scheduling engine, and insightful analytics, the platform enables users to save time, enhance productivity, and optimize their social media strategies. Its intuitive design and reliable performance cater to small businesses and individual creators, helping them maintain a consistent and impactful online presence with minimal effort. This system not only simplifies workflows but also helps users focus on creating meaningful content while automating routine tasks.

Looking ahead, the platform has the potential to incorporate advanced features like AI-driven content recommendations, integration with emerging social media platforms, and enhanced analytics tools. These future improvements would further empower users to adapt to the dynamic social media landscape, ensuring their strategies remain effective and relevant. With its current capabilities and scalability, the platform provides a solid foundation for transforming how users manage and grow their social media presence. It serves as an indispensable tool for anyone looking to enhance their engagement, drive growth, and build a stronger digital footprint.

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5. **PHP Manual. "Comprehensive Guide to PHP Programming." Available at: https://www.php.net/manual/en/**