**UNIVERSITY NAME : GLA UNIVERSITY, MATHURA**


**TOPIC: MINI PROJECT SYNOPSIS ON SOCIAL MEDIA APP**

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# DECLARATION

We hereby declare that the project report titled "Social Media App" submitted to GLA University is a result of our independent work, carried out under the guidance of Ms. Kalpana Singh, Department of Computer Engineering. This project is a genuine effort by our team to develop an original and functional social media platform, designed to enable users to connect, share content, and interact with one another.

We affirm that all components of the project, from ideation to implementation, were developed by us, without copying or reproducing any existing project or published material, except where properly cited.All sources of information and assistance have been duly acknowledged, and this work has not been submitted elsewhere for any degree, diploma, or academic recognition.

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## INTRODUCTION: -

- The Social Media App is a platform where users can connect, share posts, images, videos, and interact with each other by liking, commenting, and following other users.
- This project aims to create a minimal yet functional version of popular social media platforms like Facebook, Instagram, or Twitter. It demonstrates the core features required to build an interactive social network, enabling seamless communication among users.

## About the Project :-

Our social media app offers a user-friendly interface where individuals can:

- Create accounts and log in securely.
- Share posts with their followers.
- Like, comment, and share content.
- Follow other users and manage connections.
- Receive notifications about interactions on their posts.
- Upload multimedia such as images and videos.
- The project is designed to simulate real-world social media applications, providing afunctional user experience while exploring various software engineering concepts.

# Primary Reason to Choose This Project

The primary reason we chose this project is due to the massive influence of social media in modern communication and networking. With billions of users worldwide, social media platforms represent a growing field in both technology and business. By developing a social media app, we aim to:

- Understand user interaction and design principles.
- Explore scalable backend systems to handle large amounts of data.
- Work with real-time features such as notifications and feed updates.
- Improve our development skills by applying concepts such as authentication, databases, and data security.

# The Main Objective of the Project :

The main objectives of our social media app project are:

- To design a simple, intuitive user interface (UI) where users can easily create andshare content.
- To implement a backend that securely manages user data, profiles, and posts.
- To integrate key social media features such as posting, liking, commenting, andfollowing.
- To provide a real-time notification system for users to be informed about activityon their content.
- To enhance our understanding of full-stack development, integrating front-end and back-end technologies.

# Scope Of the Project

The scope of our project involves developing a fully functional prototype of a social media app with the following features:

- User Registration and Login System
- Profile Creation and Editing
- Posting text, images, and videos
- Interactions via likes, comments, and shares
- Real-time notifications
- User search and follow functionality
- Responsive design for both web and mobile platforms
- Future scalability of this project includes:
- Direct messaging between users.
- Advanced multimedia handling (live video streaming).
- Implementation of personalized recommendation systems.
- Integration of advertisements and monetization strategies.

# Working Methodology Of the Project:-

Our project follows the Agile Development Model, where tasks are divided into sprints with specific deadlines. Key stages include:

- **Requirement Gathering**: Identifying the core features required for a basic socialmedia app.
- **Design & Wireframing**: Sketching the layout and user interface, ensuring ease ofuse and interaction.
- **Backend Development**: Creating a secure database and server infrastructure tostore user information, posts, and interactions.
- **Frontend Development**: Designing the user interface with responsive features.
- **Integration & Testing**: Connecting the frontend and backend, performing functional and usability testing to ensure smooth operation.
- **Final Deployment**: Deploying the app on a platform where users can interact and test the app in real-time.

## System Requirements: -

- Operating System: Windows 10 or higher, macOS, or Linux.
- Processor: Intel i5 or equivalent.
- RAM: 8 GB or more.
- Storage: Minimum 500 GB HDD/SSD.
- Internet Connection: Required for online functionalities like booking integration.

## Hardware Requirements:-

- **Development Environment:** Desktop or laptop with the above system requirements.
- **Deployment Environment:** Web server for hosting the application, with a stable internet connection.
- **Testing Devices:** Smartphones, tablets, and other devices to ensure cross-platform compatibility.

## Listing Out testing technology:-

### Frontend :-

- **Languages:** HTML, CSS, JavaScript.
- **Frameworks:** React.js (for building user interfaces), Bootstrap (for responsive design)

### Backend :-

- **Server-Side Runtime:** Node.js
- **Database:** MongoDB

# Module Description:-

- The project is divided into the following modules:

1. **User Module**:
    - User registration, login, and profile management.
    - Users can create, edit, and view their profiles.
2. **Post Module**:
    - Users can create posts with text, images, or videos.
    - Liking, commenting, and sharing functionality is provided.
3. **Notification Module**:
    - Real-time notifications when users receive likes or comments on their posts.
4. **Feed Module**:
    - Display posts from followed users in reverse chronological order.
5. **Search & Follow Module**:
    - Allows users to search for other users and follow them.

# Data Flow Diagram:-

**Level 0 DFD (Context Level)**

- Represents the system as a whole.
- Inputs include user registration/login, creating posts, and interacting with other users.
- Outputs include user profiles, post feeds, notifications.

**Level 1 DFD**

- Expands the user registration/login process.
- Shows interactions between the user, database, and post module.

**Level 2 DFD**

- Breaks down the interactions within the post module.
- Illustrates how posts are created, stored in the database, and displayed to other users.

# References:-

- **HTML5, CSS3 & JavaScript**: To create the responsive front end.
- **Node.js and Express.js**: For building the back-end API and managing server requests.
- **MongoDB**: As the database to store user information, posts, and interactions.
- **React.js/Angular**: For building the dynamic front-end interface.
- **Socket.io**: For real-time notifications.
- Online tutorials, GitHub repositories, and documentations related to web development,database management, and UI/UX design.