



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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## Experiment - 3

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**Subject Name:** System Design

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### **Aim:**

To design a **Social Media Platform** that allows users to register, login, create posts, follow other users, and interact with posts through likes and comments, ensuring high availability, scalability, and low latency.

### **Objectives:**

1. To understand the working of a Social Media system
2. To identify **functional requirements** of the system
3. To identify **non-functional requirements** such as performance and scalability
4. To design a high-level system flow using **draw.io**
5. To understand core entities involved in the platform

### **Procedure-**

1. Identify functional requirements of a social media platform.
2. Define non-functional requirements such as scalability, latency, and availability.
3. Analyze CAP theorem trade-offs for social media systems.
4. Identify core entities required for system implementation.
5. Design the system architecture using Draw.io.
6. Validate the design against real-world social media behavior.

### **Functional Requirements -**

1. Users should be able to **register and login** to the application.
2. Users should be able to **create posts** (text / image / video).
3. Users should be able to **follow other users** or send friend requests.
4. Users should be able to **like and comment** on posts.
5. Users should be able to **view a feed** consisting of posts from users they follow.

