**Requirement Gathering and Analysis Phase**

**Solution Requirements (Functional & Non-functional)**

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| --- | --- |
| Date | 12 April 2025 |
| Team ID | Team ID : SWTID1743172790 |
| Project Name | Social Media Web App |
| Maximum Marks | 4 marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Registration through Form Registration through Gmail Registration through LinkedIN |
| FR-2 | User Confirmation | Confirmation via Email Confirmation via OTP |
| FR-3 | User Authentication | Login via form credentials  Token/session-based authentication  Password encryption |
| FR-4 | User Profile Management | Create/Edit profile  Upload profile photo  Manage account settings |
| FR-5 | Post Management | Create, edit, delete posts  Support for text, image, video posts  Save posts for later |
| FR-6 | Story Management | Upload stories (images/videos)  Auto-delete after 24 hours |
| FR-7 | Real – Time Messaging | One-on-one and group chats  Support for text, emoji, media  Instant delivery with socket.io |
| FR-8 | User Engagement Features | Like, comment, share posts  Tag users  Receive in-app notifications |
| FR-9 | Search & Discovery | Search users, posts, tags  Trending post section  Follow/unfollow accounts |
| FR-10 | Notifications | Like, comment, follow alerts  Story viewed notifications  Real-time updates |

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | Usability | Intuitive UI/UX with easy navigation, responsive design for all devices |
| NFR-2 | Security | End-to-end encryption in chat, secure authentication, protection against data breaches |
| NFR-3 | Reliability | Minimal downtime, robust error handling, consistent data sync |
| NFR-4 | Performance | Fast response time (<200ms for user interactions), optimized database queries |
| NFR-5 | Availability | Decent uptime guaranteed, ensured through cloud-based deployment and monitoring |
| NFR-6 | Scalability | Support for growing number of users and data using horizontal scaling with MongoDB and Node.js cluster modules |