**Project Design Phase-II**

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

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| Date | 26-06-2025 |
| Team ID | SWUID20250172439 |
| Project Name | Social Media 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 Authentication | - Sign up, Login, Password Reset - JWT-based Authentication - Bcrypt password hashing |
| **FR-2** | Post Creation & Viewing | - Create text/image posts - View posts in a feed layout - Like, view post count |
| **FR-3** | 24-Hour Stories | - Upload stories with media - Auto-expire after 24 hours - View active stories |
| **FR-4** | Real-time Messaging | - Send and receive real-time messages - One-on-one chat using Socket.io |
| **FR-5** | Notifications | - Receive real-time notifications - Notifications for messages, likes, stories |
| **FR-6** | Profile Management | * View and edit personal profile - Upload/change profile picture * Display posts and stories by user |
| **FR-7** | Media Storage | - Upload media files (images, stories) - Secure access via Firebase Storage |

# Non-functional Requirements

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

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| --- | --- | --- |
| **NFR**  **No.** | **Non- Functional Requirement** | **Description** |
| **NFR-1** | Usability | The platform should offer a modern, intuitive UI usable across devices. |
| **NFR-2** | Security | All data transfers must be encrypted using HTTPS. User sessions protected via JWT. Firebase rules enforced for media access. |
| **NFR-3** | Reliability | Ensure all core features (auth, posts, chat, stories) work under normal and peak load. |
| **NFR-4** | Performance | Page loads and user interactions (like chat & stories) should be near-instant (within 2 seconds). |
| **NFR-5** | Availability | System should maintain 99.9% uptime and ensure service continuity. |
| **NFR-6** | Scalability | Architecture should support user growth with scalable backend and Firebase infrastructure. React Native migration planned for mobile expansion. |