**Project Design Phase-II**

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

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| Date | 21 June 2025 |
| Team ID | SWUID20250177139 |
| Project Name | Social Media App |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

**1. Functional Requirements**

These are the core functionalities the system must perform:

| **ID** | **Functional Requirement** |
| --- | --- |
| FR1 | Users shall be able to register and log in using email/password. | |
| FR2 | Users shall receive a token (JWT) upon successful authentication. | |
| FR3 | Users shall be able to update their profile (username, bio, picture). | |
| FR4 | Users shall be able to create, like, comment, and delete posts. | |
| FR5 | Users shall be able to upload and view stories that expire after 24h. | |
| FR6 | Real-time chat functionality shall be available via Socket.io. | |
| FR7 | Users shall receive real-time notifications (likes, comments, chat). | |
| FR8 | Users shall be able to follow and unfollow other users. | |
| FR9 | Users shall be able to save posts for later reference. | |
| FR10 | Users shall be able to explore trending or suggested content. | |

**2. Non-Functional Requirements**

These define the system’s quality attributes and constraints:

| **ID** | **Non-Functional Requirement** |
| --- | --- |
| NFR1 | The application shall be responsive and work across all screen sizes. |
| NFR2 | All user data shall be securely transmitted over HTTPS. |
| NFR3 | Passwords shall be hashed using bcrypt before storing in the database. |
| NFR4 | Real-time operations shall have latency under 500ms. |
| NFR5 | The app shall support at least 100 concurrent users in real-time chat. |
| NFR6 | The system shall auto-expire stories exactly 24 hours after upload. |
| NFR7 | Data integrity shall be ensured during all CRUD operations. |
| NFR8 | The app shall be hosted with 99.9% uptime on production servers. |
| NFR9 | The codebase shall follow modular structure and be easy to maintain. |
| NFR10 | All API responses shall be served within 2 seconds on average. |