**Project Design Phase**

**Proposed Solution Template**

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| Date | 6 June 2025 |
| Team ID | SWUID20250177139 |
| Project Name | Social Media App |
| Maximum Marks | 2 Marks |

**Proposed Solution for Social Media App**

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| Component | Technology / Description |
| Frontend | React.js + Redux • Responsive UI for feed, stories, profile, chat • Axios for API • Socket.io-client for real-time features |
| Backend | Node.js + Express.js • REST API for users, posts, chat, stories • Middleware for auth, error handling |
| Real-Time Engine | Socket.io • Enables instant messaging, notifications, typing indicators, post updates |
| Database | MongoDB + Mongoose • Stores users, posts, chats, stories • NoSQL structure for scalability |
| Authentication | JWT (Token-based) + bcrypt • Secure login, signup • Role-based route protection |
| Media Storage | Firebase / Cloudinary (optional) • Upload and serve images/videos |
| Security | • HTTPS for encrypted communication • CORS handling • Input validation and sanitation |
| Core Features | • Real-time chat and notifications • Post creation, likes, comments • Story upload & expiry • Follow users, save posts |
| Deployment | • Frontend: Vercel / Netlify • Backend: Render / Heroku • DB: MongoDB Atlas |