Requirement Phase Analysis for SB Works Freelancing Application

# Project Overview

SB Works is a full-stack freelancing platform (MERN-based) that facilitates project posting, bidding, collaboration, and communication between clients and freelancers. It includes roles such as Users (Clients and Freelancers), Admins, and Support Executives.

# Functional Requirements

Derived from the Solution Requirements document:

FR No. Epic Sub-Requirement

|  |  |  |
| --- | --- | --- |
| FR-1 | User Registration | Registration via Form, Gmail, LinkedIn |
| FR-2 | User Confirmation | Confirmation via Email, OTP |
| FR-3 | Project Management | Create/Edit/Delete project, Browse/Bid |
| FR-4 | Communication System | Chat between users, Notifications |
| FR-5 | Admin Oversight | Conflict resolution, Monitoring |

# Non-Functional Requirements

NFR No. Category Description

|  |  |  |
| --- | --- | --- |
| NFR-1 | Usability | User-friendly interface for all user roles |
| NFR-2 | Security | Role-based access, secure authentication |
| NFR-3 | Reliability | 99% uptime, session continuity |
| NFR-4 | Performance | Scalable, fast loading for concurrent users |
| NFR-5 | Availability | Cloud deployment with failover support |
| NFR-6 | Scalability | Support horizontal scaling of backend and DB |

# User Stories

From the “User Stories” document:

User Type Epic US No.

User Story Acceptance Criteria

Priority Release

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Customer (Mobile) | Registration | USN-1 | Register using email/ password | Can log in to dashboard | High | Sprint 1 |
| Customer (Mobile) | Registration | USN-2 | Receive confirmation email post- registration | Click to confirm | High | Sprint 1 |
| Customer (Mobile) | Registration | USN-3 | Register using Facebook | Access via Facebook | Low | Sprint 2 |
| Customer (Mobile) | Login | USN-5 | Log in using email/ password | Dashboard access | High | Sprint 1 |

# Customer Journey Mapping (Adapted from City Tour Case)

Step User Activity Pain Point Opportunity

|  |  |  |  |
| --- | --- | --- | --- |
| Discover Platform | Visit SB Works to find projects | Overwhelming variety | Filter/sort by category & skill |
| Register & Log In | Register as freelancer or client | No social login | Add Google/LinkedIn login |
| Browse/Post Project | Clients post, freelancers browse | Project detail inconsistency | Enforce mandatory fields |
| Bid & Chat | Submit proposals, initiate chat | Delayed responses | Add instant notification triggers |
| Work Delivery | Freelancer submits final work | Limited feedback structure | Add feedback templates |
| Review & Payment | Clients rate and pay | Unclear payment status | Add invoice generation, clear milestones |

# System Architecture and Tech Stack

From Technical Stack and Freelancing App document:

Frontend: - React.js, Material UI, Bootstrap, Axios - Runs at [http://localhost:3000](http://localhost:3000/) Backend: - Node.js, Express.js - API routes for auth, project mgmt, chat Database: - MongoDB with Mongoose (users, projects, chats, applications)

Security & Auth: - JWT, Bcrypt, CORS, Role-based auth

Dev Tools: - Git, VS Code, Postman

# Data Flow Diagram Summary

Level 0 DFD Entities: - External: User, Admin - Processes: Register/Login, Post/Bid Projects, Submit Work, Feedback - Data Stores: UserDB, ProjectDB, ChatDB

# Conclusion

This Requirement Phase Analysis covers the foundation of the SB Works application. It combines user requirements, technical architecture, customer journeys, and system design to guide subsequent design and development phases.