Requirement Phase Analysis for SB Works Freelancing Application

1. 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.

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2. 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

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3. 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

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4. 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

5. 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

6. System Architecture and Tech Stack

From Technical Stack and Freelancing App document:

Frontend: - React.js, Material UI, Bootstrap, Axios - Runs at 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

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7. 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.