

Technical Design Document (Outline Draft - End result)

This is end result, which will be achieved over multiple phase. For MVP 1, see Architecture diag.

1. Introduction

- **Purpose:** Describe the purpose of the document.
- **Scope:** Define the scope of the platform.
- **Definitions, Acronyms, and Abbreviations :** List and define any terms used in the document. ## 2. System Overview
- **Primary Goal:** Connecting bankers with small business owners for business loans.
- **User Roles:**
 - Business Owners
 - Bankers
- **High-Level Architecture :** Provide a high-level overview of the system architecture. ## 3. System Architecture
- **Front-End:**
 - Framework: React
 - Key Components: Describe key UI components.
- **Back-End:**
 - Technology: Node.js
 - Key Services: Describe key back-end services.
- **Database:**
 - Technology: NoSQL (e.g., MongoDB, Cassandra)
 - Schema: Describe the database schema.
- **Authentication:**
 - Method: Two-factor authentication
- **Document Storage:**
 - Technology: Cloud storage (e.g., AWS S3, Google Cloud Storage)
- **Third-Party Integrations:**
 - Document Signing: DocuSign ## 4. Component Design
- **User Registration :**
 - Business Owners: Name, email, phone, business name, address.
 - Bankers: Name, email, phone, organization/company name, specialization area.
- **Loan Application :**
 - Fields: Capital needed, services needed, use of funds, ownership, credit range, time in business, entity type, state of incorporation, industry, profitability, gross annual revenues, financial difficulties, use of funds for real estate, real estate property type, bank rejection status.
- **Banker Preferences:**
 - Fields: Loan amount, credit score, industry preferences. ## 5. Data Design
- **Database Schema:**
 - Users Collection: Fields for business owners and bankers.
 - Loan Applications Collection: Fields for loan application details.
 - Preferences Collection: Fields for banker preferences.
- **Data Flow:** Describe how data flows through the system. ## 6. Security Considerations
- **Authentication:** Two-factor authentication.
- **Data Protection:** Encryption for sensitive data.
- **Access Control:** Role-based access control. ## 7. Performance Metrics
- **Response Time:** Define acceptable response times for key operations.
- **Scalability:** Describe how the system will scale to handle increased load. ## 8. User Interface Design
- **Mock-ups:** Provide mock-ups or wireframes of key screens.
- **User Flows:** Describe the user flows for key tasks. ## 9. API Documentation
- **Endpoints:** List and describe API endpoints.
- **Requests and Responses:** Provide examples of requests and responses. ## 10. Error Handling and Logging
- **Error Handling:** Describe how errors will be handled.
- **Logging:** Describe the logging strategy. ## 11. Testing Strategy
- **Unit Tests:** Describe the approach for unit testing.
- **Integration Tests :** Describe the approach for integration testing.
- **User Acceptance Testing :** Describe the approach for user acceptance testing. ## 12. Deployment Plan
- **Environments:** Describe the different environments (development, staging, production).
- **Deployment Steps:** Outline the steps for deploying the system. ## 13. Maintenance and Support
- **Maintenance Plan:** Describe the plan for maintaining the system.
- **Support Resources:** List support resources and contact information. ## 14. Appendices
- **Flowcharts:** Include flowcharts for key processes.
- **Design Diagrams:** Include design diagrams for system architecture and components.