**Requirements Specification (SRS)**

**Project Title: Loan Processing Application (FINCA MALAWI)**

**1. Introduction**

**1.1 Purpose**

This document outlines the requirements for a Loan Processing Application that facilitates document upload and management, access rights configuration, approval workflows, reporting, and hosting options to streamline loan processing.

**1.2 Scope**

The Loan Processing Application aims to:

* Enhance efficiency in loan document handling.
* Define and enforce user access levels.
* Streamline approval workflows for loan disbursement.
* Provide robust reporting and querying functionalities.

**1.3 Definitions, Acronyms, and Abbreviations**

* **Branch Managers**: Users responsible for loan verification and branch-level oversight.
* **Credit Committee**: A team tasked with final loan approvals.
* **On-Premise Hosting**: Deployment within the organization’s infrastructure.
* **Approval Workflow**: A system process for loan authorization.

**1.4 References**

N/A

**2. Functional Requirements**

**2.1 Document Upload and Management**

* The system must support the upload of loan application documents in various formats (PDF, Word, Excel, etc.).
* Users must be able to categorize and search for documents using metadata (e.g., applicant name, loan type).
* Secure storage for uploaded documents with versioning support.

**2.2 Access Rights Management**

* Role-based access control (RBAC) to define and enforce permissions.
* Three primary roles:
  + **Input**: Ability to upload and edit customer and loan related documents.
  + **Verification**: Review and verify Customer and loan related document accuracy and completeness.
  + **Authorization**: Approve or reject Customer or loan applications .
* Specific roles for Branch Managers and the Credit Committee.

**2.3 Approval Workflow**

* Automated workflows for loan applications:
  + Initial review by Branch Managers.
  + Final approval by the Credit Committee.
* Notifications for pending tasks and approvals (via email , SMS).
* Audit trails for all approval actions.

**2.4 Reporting and Queries**

* Built-in reports for:
  + Customer and Loan status overview.
  + Pending approvals.
  + Disbursed Customer loans by branch.
* Customizable queries to filter and export data.
* Support for exporting reports in multiple formats (PDF, Excel, etc.).

**2.5 User Creation and Management**

* Admin users can create, edit, and deactivate user accounts.
* Role assignments for users based on their responsibilities.

**2.6 Customer Data Capturing**

* Capture essential customer information, including personal and financial details.
* Support for capturing contact information, income data, and employment history.

**2.7 Customer KYC and Document Uploads**

* KYC (Know Your Customer) compliance through document uploads (e.g., ID, proof of residence).
* Automated checks to validate KYC completeness.

**2.8 Collateral Data Capturing**

* Capture details of collateral provided by customers (e.g., type, estimated value, and condition).
* Upload photos of collateral with metadata.

**2.9 Credit Scoring**

* Automated calculations of customer credit scores based on predefined criteria by FINCA.
* Determine whether the customer:
  1. Qualifies for a loan.
  2. Requires more information to qualify.
  3. Does not qualify.

**2.10 Geolocation**

* Tag locations when:
  1. An officer captures customer data.
  2. Collateral pictures are taken and uploaded.

**2.11 Web and Mobile Applications**

* Provide a responsive web application for desktop users to easily navigate through comprehensive pages.
* Develop a mobile application for field officers to capture data and upload documents on the go.
* Provide Offline Mode so that capturing can be done offline and do synchronisation later

**2.12 Application and Transaction Logs**

* Maintain logs of all user actions and system transactions for audit purposes.
* Include timestamps, user IDs, and descriptions of actions performed.

2.13

**3. Non-Functional Requirements**

**3.1 Security**

* Data encryption for document storage and transmission.
* Role-based access to ensure data confidentiality.
* Audit logs for all system activities.
* Secure login (2 factor authentication)

**3.2 Usability**

* Intuitive user interface with minimal learning curve.
* Support for both desktop and mobile platforms.

**3.3 Performance**

* The system should handle concurrent usage by up to 1000 users.
* Document uploads should not exceed 5 seconds per file of 1 MB or less.

**3.4 Scalability**

* The system must support adding new branches or roles without significant downtime or reconfiguration.

**3.5 Technology Stack**

* The programming language of C# for backend C# brazor for backend Dashboard
* Postgres for Database since is powerful and open source but optional of MSQSL will be an Ideal if customer decides to pay licenses
* React Native will be used for Mobile app and will have priority of Android over Ios

**4. Hosting Requirements**

**4.1 On-Premise Hosting**

* **Hardware Requirements**:
  + Server with at least 8-core CPU, 32GB RAM, and 1TB SSD storage.
  + Backup server with similar specifications.
* **Software Requirements**:
  + Operating System: Windows Server or Linux (e.g., Debian, CentOS).
  + Database: MSSQL or PostgreSQL.
  + Middleware: Apache/Nginx/IIS.
* **Infrastructure Requirements**:
  + Secure server room with controlled access.
  + High-speed internet for updates and remote support.

**4.2 Cloud Hosting (Optional, if considered)**

Provide details of supported cloud hosting providers (AWS, Azure, GCP) if requested.

**5. Demonstration Proposal**

**5.1 Potential Dates**

Please provide available dates for a demonstration, such as:

* Week 1 - Full Requirement gathered
* Week 2 – Prototype Delivered and user inputs collected
* Week 3 – The First version Delivered for UAT
* Week 4 – Fina Version is Delivered with Fina UAT
* Week 5 – Deployment of system

**5.2 Demonstration Scope**

The demonstration will include:

* Overview of core features.
* Sample workflows (user management, customer and loan information and document upload, approval, reporting).
* Hosting setup and maintenance details.

**6. Assumptions and Constraints**

* Users will require training for effective system use.
* The system assumes all branches have reliable internet connectivity for centralized data access.
* On-premise hosting requires the client to ensure necessary infrastructure is in place.

**7. Approval**

Approved by: [Client Name] Date: [Approval Date]