

FUNCTIONAL REQUIREMENTS DOCUMENT (FRD)

Project: Automated Loan Origination System (LOS)

Version: 1.0

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Domain: Banking & Lending

Derived From: Business Requirements Document (BRD) v1.0

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1. Document Control

Item	Details
Document Title	Functional Requirements Document – Automated Loan Origination System
Version	1.0
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Approved By	Head of Digital Lending
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2. Purpose of the Document

This Functional Requirements Document (FRD) provides a detailed description of **system-level functional requirements** for the Automated Loan Origination System (LOS). It translates business requirements into **clear, testable, and implementable system behaviors** for design, development, testing, and deployment teams.

3. System Overview

The Automated LOS is a digital platform that enables end-to-end loan processing, including:

- Online customer onboarding
- Automated KYC and bureau checks
- Rule-based credit decisioning
- Underwriter-assisted approvals
- Integration with Core Banking System (CBS) for disbursement
- Real-time notifications and reporting

4. User Roles & Access

Role	Description
Customer	Applies for loan, uploads documents, tracks status
Branch User	Views application, assists customer if required
Underwriter	Reviews medium-risk cases and takes decisions
Credit Manager	Overrides decisions, monitors risk
Admin	Manages rules, users, templates, configurations
System	Executes automated validations and integrations

5. Functional Modules

1. Customer Application Portal
 2. KYC & Identity Verification
 3. Bureau (CIBIL) Integration
 4. Credit Scoring Engine
 5. Underwriter Workflow
 6. Approval Engine
 7. Disbursement Module
 8. Notification Engine
 9. Dashboard & Reporting
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6. Detailed Functional Requirements

6.1 Customer Application Portal

FRD ID	Functional Requirement
FRD-1.1	System shall allow customer login using mobile number and OTP authentication
FRD-1.2	System shall display loan products with eligibility criteria
FRD-1.3	System shall capture personal, employment, income, and loan details
FRD-1.4	System shall validate mandatory fields before submission
FRD-1.5	System shall allow document uploads in PDF/JPEG format (max 5 MB/file)
FRD-1.6	System shall auto-save application data at each stage
FRD-1.7	System shall display real-time application status tracker

6.2 KYC & Identity Verification Module

FRD ID	Functional Requirement
FRD-2.1	System shall initiate Aadhaar Offline KYC API upon submission
FRD-2.2	System shall validate PAN using PAN verification API
FRD-2.3	System shall compare KYC data with application data
FRD-2.4	System shall flag mismatches for manual review
FRD-2.5	System shall store KYC verification response securely

6.3 Bureau (CIBIL) Integration Module

FRD ID	Functional Requirement
FRD-3.1	System shall trigger CIBIL API call after successful KYC
FRD-3.2	System shall parse and map bureau response fields
FRD-3.3	System shall store bureau score and report reference ID
FRD-3.4	System shall auto-reject applications with CIBIL < 600
FRD-3.5	System shall route applications based on bureau score thresholds

6.4 Credit Scoring Engine

FRD ID	Functional Requirement
FRD-4.1	System shall calculate FOIR based on income and obligations
FRD-4.2	System shall evaluate credit score using configurable rule sets
FRD-4.3	System shall assign risk category: Low / Medium / High
FRD-4.4	System shall generate eligibility recommendation
FRD-4.5	System shall maintain audit trail for score calculation

6.5 Underwriter Workflow Module

FRD ID	Functional Requirement
FRD-5.1	System shall auto-assign medium-risk cases to underwriter queue

FRD ID	Functional Requirement
FRD-5.2	Underwriter shall view consolidated application summary
FRD-5.3	Underwriter shall add remarks and observations
FRD-5.4	Underwriter shall Approve / Reject / Request More Information
FRD-5.5	System shall notify customer on status change

6.6 Approval Engine

FRD ID	Functional Requirement
FRD-6.1	System shall auto-approve low-risk applications
FRD-6.2	System shall enforce business rule validations before approval
FRD-6.3	System shall generate approval decision logs
FRD-6.4	System shall trigger notification on approval or rejection

6.7 Disbursement Module

FRD ID	Functional Requirement
FRD-7.1	System shall initiate disbursement request to CBS via API
FRD-7.2	System shall receive loan account number from CBS
FRD-7.3	System shall update disbursement status in LOS
FRD-7.4	System shall handle CBS failure with retry mechanism

6.8 Notification Engine

FRD ID	Functional Requirement
FRD-8.1	System shall send SMS/email for each lifecycle stage
FRD-8.2	System shall support configurable notification templates
FRD-8.3	System shall retry failed notifications

6.9 Dashboard & Reporting

FRD ID	Functional Requirement
FRD-9.1	System shall display real-time application pipeline dashboard
FRD-9.2	System shall generate TAT and approval metrics
FRD-9.3	System shall allow report export in Excel and PDF formats

7. Error Handling & Exceptions

- API failures shall be logged and retried automatically
 - Manual fallback shall be enabled for KYC/Bureau failures
 - User-friendly error messages shall be displayed
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8. Audit & Compliance Requirements

- All actions shall be logged with timestamp and user ID
 - System shall comply with RBI KYC and data privacy guidelines
 - Data encryption at rest and in transit
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9. Non-Functional Requirements (Summary)

Category	Requirement
Performance	Response time < 3 seconds
Availability	99.5% uptime
Security	Role-based access, encryption
Scalability	Support peak concurrent users
Usability	Mobile and web responsive UI

10. Assumptions & Dependencies

- Third-party APIs are stable and available
 - CBS supports real-time integration
 - Regulatory rules are configurable
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11. Acceptance Criteria

- All BRDs mapped to FRDs
 - End-to-end loan processed successfully
 - Audit and compliance validations passed
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12. Appendix

- Sample API payloads
- Sample credit scoring rules
- Sample dashboards
- Glossary (FOIR, CIBIL, DPD, OCR)