

# NeoBank Digital – Loan Application & Approval Module

## 1. Document Control

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## 2. Executive Summary

The Loan Application & Approval Module enables customers to browse loan products, submit applications digitally, and receive approval decisions quickly. This module integrates with credit bureaus and internal risk engines to automate eligibility checks and approval workflows. The goal is to improve loan origination efficiency, reduce manual interventions, and enhance the customer experience.

## 3. Objectives

- Enable customers to apply for loans completely online.
- Provide real-time eligibility checks and approval decisions.
- Integrate seamlessly with external credit bureaus and internal risk engines.
- Reduce manual processing by 50% within the first year.

## 4. Scope

### In-Scope

- Loan product catalog (personal loans, home loans, auto loans).
- Application submission (web & mobile).
- Real-time credit bureau checks.
- Internal risk scoring integration.
- Automated approval/rejection workflows.
- Document checklist for supporting documents (salary slips, bank statements).

## Out-of-Scope

- Repayment management (handled by Loan Repayment Module).
- Collections workflows.
- Fraud monitoring (covered in Fraud & Risk Module).

## 5. Key Features

1. **Loan Product Catalog** – display available products with terms & conditions.
2. **Application Form** – guided step-by-step digital form.
3. **Eligibility Check** – real-time bureau integration.
4. **Risk Scoring** – internal engine for affordability & creditworthiness.
5. **Approval Workflow** – automated decisioning engine.
6. **Document Submission** – upload salary slips, bank statements, tax returns.
7. **Application Status Tracker** – track progress (submitted, under review, approved).

## 6. User Stories

- As a **customer**, I want to view loan products with clear terms so I can choose the right loan.
- As a **customer**, I want to submit my application online so I don't need to visit a branch.
- As a **risk officer**, I want the system to fetch bureau reports automatically so that I can reduce manual work.
- As a **customer**, I want to track the status of my loan application in real time.

## 7. Integrations

- **Credit Bureau APIs** – Experian, Equifax, TransUnion.
- **Internal Risk Engine** – calculates risk scores.
- **Document Management Service** – OCR & validation of uploaded documents.
- **Notification Service** – SMS/Email for application updates.

## 8. Authentication & Security

- Authentication: OAuth2.0 with MFA (mobile/email OTP).
- Data Encryption: AES-256 at rest, TLS 1.3 in transit.

- Role-Based Access Control (RBAC) for staff dashboards.
- PII Handling: Strict logging and masking for sensitive fields.

## 9. Non-Functional Requirements (NFRs)

- **Performance:** Loan eligibility check ≤ 3 seconds.
- **Availability:** 99.9% uptime for loan application services.
- **Scalability:** 50,000 concurrent applications supported.
- **Compliance:** AML/KYC regulations, GDPR, PCI DSS for financial data.
- **Security:** End-to-end encryption with audit logs.

## 10. Risks & Mitigations

Risk	Impact	Mitigation
Credit bureau downtime	Delay in processing	Implement failover to alternate bureau APIs
Incorrect risk scoring	Wrong approvals	Regular audits of risk engine models
Document upload failures	Application delays	Multiple file format support & retry mechanism
High loan rejection rates	Customer dissatisfaction	Provide pre-eligibility checker in catalog

## 11. Success Metrics

- Loan Application Completion Rate: ≥ 80%
- Average Approval Decision Time: ≤ 2 minutes
- Reduction in Manual Interventions: ≥ 50%
- Customer Satisfaction Score (CSAT): ≥ 4.5/5

## 12. Dependencies

- Agreements with credit bureau partners.
- Availability of internal risk scoring engine.
- Integration with notification service.
- Compliance approvals from legal and regulatory teams.

## 13. Timeline & Milestones

- **Week 1–2:** Requirements finalization & design.
- **Week 3–5:** Credit bureau API integration.
- **Week 6–7:** Risk engine integration.
- **Week 8:** Document management integration.
- **Week 9:** Internal testing.
- **Week 10:** UAT & compliance sign-off.
- **Week 11:** Production rollout.

## 14. Appendix

- Glossary of Terms:
  - **CSAT:** Customer Satisfaction Score
  - **PII:** Personally Identifiable Information
  - **AML:** Anti-Money Laundering
- Reference Standards: Basel Risk Guidelines, GDPR, RBI lending regulations.