

NeoBank Digital – Loan Repayment & Collections Module

1. Document Control

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2. Executive Summary

The Loan Repayment & Collections Module manages the post-approval loan lifecycle, ensuring customers can repay loans seamlessly while minimizing defaults. The system provides repayment schedules, automatic debits, reminders, and a structured collections process for overdue accounts. This module improves customer convenience and strengthens the bank's risk management.

3. Objectives

- Provide flexible repayment options (monthly, quarterly, auto-debit).
- Reduce loan delinquency rates by 20% within the first year.
- Automate payment reminders and overdue notifications.
- Ensure compliance with financial regulations regarding collections.

4. Scope

In-Scope

- Repayment schedule generation.
- Auto-debit integration with payment gateways.
- Manual payment options (net banking, UPI, cards).
- Reminders & notifications for upcoming due dates.
- Overdue collections workflow (soft reminders → escalation → legal).
- Payment receipts & account statements.

Out-of-Scope

- Loan origination and approval process.
- Fraud monitoring (covered in Fraud & Risk Module).
- Credit scoring recalculations.

5. Key Features

1. **Repayment Schedule** – auto-generated during loan approval.
2. **Auto-Debit** – integration with payment gateway for recurring EMI.
3. **Payment Channels** – UPI, cards, net banking, mobile wallet.
4. **Notifications** – SMS/email reminders before due dates.
5. **Overdue Management** – escalation rules for missed payments.
6. **Collections Dashboard** – for bank staff to track delinquent accounts.
7. **Receipts & Statements** – downloadable PDF receipts for payments.

6. User Stories

- As a **customer**, I want to receive reminders before EMI due dates so that I don't miss payments.
- As a **customer**, I want to pay via multiple channels so that I can use my preferred method.
- As a **collections officer**, I want to see overdue accounts in a dashboard so I can prioritize outreach.
- As a **customer**, I want to receive receipts for payments so that I have proof of repayment.

7. Integrations

- **Payment Gateways** – Razorpay, Stripe, PayPal, UPI.
- **Notification Service** – SMS, Email, Push notifications.
- **CRM System** – for collections follow-up.
- **Accounting System** – reconciliation of payments.

8. Authentication & Security

- Authentication: OAuth2.0 with MFA.
- Data Encryption: AES-256 at rest, TLS 1.3 in transit.
- PCI DSS compliance for payment data.
- Role-based access for collections officers.

9. Non-Functional Requirements (NFRs)

- **Performance:** Payment confirmation within ≤ 5 seconds.
- **Availability:** 99.9% uptime for repayment services.
- **Scalability:** Handle 500,000 monthly repayments.
- **Compliance:** RBI guidelines, GDPR, PCI DSS.
- **Security:** End-to-end encryption with audit trails.

10. Risks & Mitigations

Risk	Impact	Mitigation
Payment gateway downtime	Missed repayments	Support multiple gateway integrations
High delinquency rates	Financial losses	Automated reminders and structured collections
Data breach of payment info	Legal & reputation	PCI DSS compliance, tokenization of card data
Manual errors in collections	Inefficiency	Automated dashboards and escalation workflows

11. Success Metrics

- On-time Repayment Rate: $\geq 90\%$
- Reduction in Delinquency Rate: $\geq 20\%$
- Average Payment Confirmation Time: ≤ 5 seconds
- Customer Satisfaction with repayment process: $\geq 4.5/5$

12. Dependencies

- Agreements with multiple payment gateway providers.

- CRM integration for collections workflows.
- Compliance sign-off from finance/legal teams.

13. Timeline & Milestones

- **Week 1–2:** Requirement finalization & repayment flow design.
- **Week 3–5:** Payment gateway integration.
- **Week 6:** Notification service integration.
- **Week 7:** Collections dashboard development.
- **Week 8:** Internal testing.
- **Week 9:** UAT & compliance review.
- **Week 10:** Production rollout.

14. Appendix

- Glossary of Terms: EMI (Equated Monthly Installment), PCI DSS, CRM.
- Reference Standards: RBI repayment guidelines, GDPR, PCI DSS compliance standards.