Loan Against Securities

Scope

1. Origination, Eligibility & Documentation

Eligible Securities: Shares, mutual funds, bonds, fixed deposits, insurance policies—must be listed/liquid and held by the borrower in their demat/folio/financial account.

Eligibility:

- Age: Most banks require 21–70 years.
- Credit Score: CIBIL/credit scores above specific thresholds (e.g., 701+).
- Valid PAN, Aadhaar, proof of address/ownership.

Documentation:

- KYC documents: PAN, Aadhaar, address proof.
- Proof of securities ownership (demat statement).
- Income and account statements as required.

Digital Mandate: Increasingly facilitated via online depository platforms (NSDL/CDSL), allowing digital pledging and lien marking for speedy processing.

2. Application & Approval

Application Channels: Online forms, mobile apps, or bank branches.

Presanction Checks:

- Security type, market value, and liquidity verification.
- Lender sets a LoantoValue (LTV) ratio (typically 50% for shares, up to 80% for debt securities, subject to regulatory ceilings]
- Credit Assessment: Financial capability, history, and regulatory compliance are checked.
- Mandate Execution: Borrower authorizes the lender with a digital/paper pledge/lien.

3. Loan Disbursement

- Creation of Overdraft/Term Facility: An account is set up (often as an overdraft) with a sanctioned limit based on LTV
- Disbursal: Borrower can withdraw up to the sanctioned limit; funds credited within 24–48 hours after lien confirmation.
- Disclosure: Full loan terms, limits, interest, and charges are communicated and acknowledged.

4. Servicing & Account Management

Interest Calculation: Interest is usually charged only on the drawn amount; calculated daily, settled monthly.

Repayment Options:

- EMI, bullet payments, or interest only (principal adjusted at closure or offset against collateral).
- No penalties for prepayment for most lenders.

Collateral Monitoring:
- Lenders revalue securities daily due to market volatility.
- Borrowers retain ownership and earn any Linked dividends/interest/accruals from pledged assets.
- Digital Access: Track withdrawals, repayments, pledged collateral, and outstanding amounts via dashboards or statements.

5. Risk Monitoring & Margin Management
- LTV Monitoring: Maintained daily. Market dip may trigger LTV breach.
- Margin Calls: If LTV is exceeded, borrower must repay or pledge more securities. Failure to act can result in partial/total sale of securities.
- Timelines for action depend on the percentage above allowed LTV and regulator/lender policy (from 1–60 days).
- Automated Alerts: Borrowers get timely notifications via SMS/email so they can act promptly.

6. Collections & Delinquency Management
- Missed Payments: Automated reminders (email, SMS). Failure to act escalates to collections.
- Penalties: Overdue interest is charged over the base interest (e.g., 2% over prescribed rate).
- Regulatory Classification: Defaulting accounts move through special mention (SMA) to NPA status in line with RBI norms.
- Asset Liquidation: Unaddressed margin calls allow lenders to sell pledged securities to recover dues; borrower loses corresponding investments and faces possible credit score impact.

7. Recovery & Closure
- Partial/Full Release of Securities:
- Partial: Requests via digital platforms, released within stipulated timelines (24 hours or as per policy).
- Full/Foreclosure: After full repayment, securities are released, and a NoDues certificate issued.

- Settlement & Closure: Borrower notified, account closed, companies and depositories updated.

8. Compliance & Regulatory Reporting

- SEBI/RBI Norms:
- Maintain and monitor LTV limits (capped at 50% for shares—RBI; up to 95% for certain instruments—SEBI, subject to lender's policy).
- Securities must be liquid/marketable; unlisted or illiquid assets generally not allowed.
- Maintain mandatory reporting related to margin breaches, collateral revaluation, and NPA.
- Loan Purpose: Strict usage—cannot be used for market speculation or prohibited activities per RBI and SEBI rules

9. Portfolio & Risk Management

- Stress Testing: Periodic scenario analysis for collateral risk.
- Portfolio Limits: Caps by sector, asset type, and rating to avoid risk concentration.
- Dynamic Policies: LTVs and eligibility continually revised to match market/regulatory changes.

API Documentation

1. Authentication API

Endpoint: POST /api/v1/auth/token

Description: Authenticates client using OAuth2 and provides an access token.

Required Fields:

- - client_id: Client application ID
- - client_secret: Client secret key
- - scope: Access scope (e.g., read:securities write:pledge)
- - grant_type: Must be "client_credentials"

Returns: Bearer token with expiration info.

1. 1 Authentication & Security

Endpoint	Method	Parameters	Success Response (200)	Use Case
/auth/login	POST	{ "username": "fi_user", "password": "******", "institution_id": "NBFC_123" }	{ "token": "eyJhb...", "expiry": 3600, "roles": ["loan_officer"] }	User authentication

| /auth/refresh | POST | { "refresh_token": "def502..." } | { "token": "eyJhb...new" } | Session renewal |
| /auth/audit | GET | date_from=2025-07-01 | [{ "user": "fi_user", "action": "pledge_initiated", "time": "2025-07-04T10:22Z" }] | Compliance audit |

2. Customer Onboarding & KYC

2.1 Identity Verification

Endpoint	Method	Parameters	Success Response	Integration
/kyc/aadhaar	POST	{ "aadhaar_no": "2345****7890", "consent": true }	{ "name": "Rajesh Kumar", "dob": "1985-11-23", "status": "VERIFIED" }	UIDAI e-KYC
/kyc/pan	POST	{ "pan": "ABCPK1234D" }	{ "name_match": 98.7, "status": "VALID" }	NSDL PAN
/kyc/video	POST	file: video.mp4	{ "liveness_score": 92.3, "face_match": 95.1 }	Video KYC AI

2.2 Document Management

Endpoint	Method	Parameters	Success Response	Feature
/docs/upload	POST	file: cheque.jpg, type: CANCELLED_CHEQUE	{ "doc_id": "DOC_789", "ocr_data": { "acc_no": "XXX7890", "ifsc": "HDFC000123" } }	OCR Processing
/docs/esign	POST	{ "doc_id": "DOC_789", "aadhaar": "2345****7890" }	{ "signature_id": "SIGN_XYZ", "nsdl_ref": "eSign1234" }	NSDL e-Sign

3. Loan Origination Engine

3.1 Credit Decisioning

Endpoint	Method	Parameters	Success Response	Data Source
/credit/bureau	POST	{ "pan": "ABCPK1234D", "consent": true }	{ "cibil_score": 781, "active_loans": 2, "dti_ratio": 28.3 }	CIBIL API
/credit/decision	POST	{ "loan_amount": 500000, "collateral_value": 750000 }	{ "decision": "APPROVED", "risk_rating": "B+", "recommended_ltv": 65 }	AI Scoring Engine

3.2 Application Workflow

Endpoint	Method	Parameters	Success Response	Business Rule

/application/create	POST	{ "product": "LAS", "customer_id": "CUST_123" }	{ "app_id": "APP_2025XY7Z", "workflow_stage": "KYC_PENDING" }	New Application
/workflow/next	POST	{ "app_id": "APP_2025XY7Z", "action": "KYC_COMPLETE" }	{ "next_stage": "PLEDGE_INIT", "tasks": [	State Machine Transition

4. Collateral & Pledge Management

4.1.1 Fetch Equity Holdings API
Endpoint: GET /api/v1/securities/equity

Description: Fetches equity holdings based on PAN and optional Demat details.

Query Parameters:

- - pan: PAN number of user
- - dp_id: Optional DP ID of Demat account
- - client_id: Optional client ID

Returns: List of equity holdings with details like ISIN, name, quantity, value, LTV, and pledge eligibility.

4.1.2 Fetch Mutual Fund Holdings API
Endpoint: GET /api/v1/securities/mutual-funds

Description: Fetches mutual fund holdings via PAN.

Query Parameters:

- - pan: PAN number of user

Returns: List of mutual fund holdings including scheme name, NAV, units, value, LTV, and pledge eligibility

4.1.3 Fetch Insurance Policy Details API
Endpoint: GET /api/v1/securities/insurance

Description: Fetches insurance policy details including LIC policies.

Query Parameters:

- - pan: Optional PAN of the user
- - policy_number: Policy number to search
- - provider: Name of insurance provider

Returns: Insurance policy details such as insurer name, sum assured, surrender value, maturity date, and pledge eligibility.

4.1 Portfolio Integration

Endpoint	Method	Parameters	Success Response	Depository
/portfolio/fetch	POST	{ "dp_id": "IN123456", "client_id": "CL789012" }	{ "holdings": [{ "isin": "INE002A01018", "qty": 150, "value": 412500 }] }	CDSL EASI
/portfolio/ltv	POST	{ "holdings": [...] }	{ "eligible_ltv": 980000, "haircuts": { "EQUITY": 30, "DEBT": 15 } }	RBI Rule Engine

4.2 Pledge Automation

Endpoint	Method	Parameters	Success Response	Compliance
/pledge/initiate	POST	{ "app_id": "APP_2025XY7Z", "isin": "INE002A01018", "qty": 100 }	{ "pledge_id": "PLD_2025ABC", "cdsl_ref": "CDSL123", "otp_required": true }	SEBI Pledge Rules
/pledge/confirm	POST	{ "pledge_id": "PLD_2025ABC", "otp": "7890" }	{ "status": "CONFIRMED", "timestamp": "2025-07-04T11:30Z" }	OTP Verification

4.2.1 Pledge Verified Webhook

Triggered when a pledge is successfully verified.

Payload:

- - user_id: Unique identifier of the user
- - pledge_id: ID of the verified pledge
- - status: Status message

4.2.3 LTV Breach Webhook

Triggered when LTV breaches the predefined threshold.

Payload:

- - user_id: Unique identifier of the user
- - ltv: Current LTV percentage
- - asset: Asset name for which LTV is breached

5. Disbursal & Account Setup

5.1 Loan Activation

Endpoint	Method	Parameters	Success Response	Payment Rail

/disbursal/prepare	POST	{ "app_id": "APP_2025XY7Z", "account": "XXX7890", "ifsc": "HDFC000123" }	{ "disbursal_id": "DIS_XYZ", "fees": [{ "type": "processing", "amount": 2500 }] }	Sanction Memo
/disbursal/execute	POST	{ "disbursal_id": "DIS_XYZ" }	{ "utr": "HDFC20250704123456", "amount": 500000 }	IMPS/NEFT

5.2 Customer Communication

Endpoint	Method	Parameters	Success Response	Channel
/comms/sms	POST	{ "phone": "9198****21", "template": "DISBURSAL_SUCCESS", "params": { "amount": 500000 } }	{ "msg_id": "MSG_789", "status": "QUEUED" }	SMS Gateway
/comms/email	POST	{ "email": "user@gmail.com", "template": "LOAN_SUMMARY" }	{ "msg_id": "MSG_790" }	Email Service

6. Loan Management System (LMS)

6.1 Repayment Processing

Endpoint	Method	Parameters	Success Response	Feature
/repayment/schedule	GET	loan_id=LN2025XY7Z	{ "emi": 48230, "schedule": [{ "due_date": "2025-08-05", "principal": 39210, "interest": 9020 }] }	Amortization
/repayment/auto-debit	POST	{ "loan_id": "LN2025XY7Z", "mandate_id": "NPCIM2025ABC" }	{ "next_debit": "2025-08-05", "status": "ACTIVE" }	NPCI AutoPay

6.2 Account Operations

Endpoint	Method	Parameters	Success Response	Operation
/loan/partial-prepay	POST	{ "loan_id": "LN2025XY7Z", "amount": 100000 }	{ "new_emi": 38584, "savings": "₹96,460 interest" }	Prepayment
/loan/topup	POST	{ "loan_id": "LN2025XY7Z", "additional_amt": 200000 }	{ "new_limit": 700000, "new_pledge_req": "PLD_NEW1" }	Limit Increase

7. Risk & Compliance

7.1 Collateral Monitoring

Endpoint	Method	Parameters	Success Response	Trigger

/risk/margin-check	POST	{ "loan_id": "LN2025XY7Z" }	{ "current_ltv": 72.3, "margin_shortfall": 0, "status": "SAFE" }	Daily Batch
/alerts/margin-call	POST	{ "loan_id": "LN2025XY7Z", "breach_level": 85 }	{ "sms_sent": true, "email_sent": true }	LTV Breach

7.2 Regulatory Reporting

Endpoint	Method	Parameters	Success Response	Agency
/report/cersai	POST	{ "loan_id": "LN2025XY7Z" }	{ "cersai_ref": "CERSAI2025MH123", "filing_time": "0.8s" }	CERSAI API
/report/rbi	POST	{ "month": "2025-07" }	{ "report_id": "RBI_MASTER_202507" }	

8. Error Handling Standard

```
{
 "error_id": "ERR20250704-78B2",
 "code": "COLLATERAL_SHORTFALL",
 "message": "Security value dropped 15% - margin shortfall ₹85,000",
 "action": "INITIATE_MARGIN_CALL",
 "doc_link": "https://docs.domain.com/errors/collateral-shortfall"
}
```

HTTP Code	Error Code	Scenario
400	INSUFFICIENT_COLLATERAL	Pledge qty > available holdings
403	KYC_EXPIRED	CKYC data > 3 years old
429	RATE_LIMIT	API throttling by depository
503	CDSL_DOWNTIME	Depository maintenance window

External API Table :

CDSL	https://www.cdslindia.com/DP/APIs.html
NSDL	https://nsdl.co.in/API-BP/api_brief.html
CIBIL	https://www.cibil.com/developer-api
KFINTECH	https://docs.finsire.com/docs/3-fetch-mutual-funds https://docs.finsire.com/docs/loan-against-mutualfunds-1
CAMS	https://docs.finsire.com/docs/cams-mutual-funds
UpStox	https://upstox.com/developer/api
Kites (Zerodha)	https://kite.trade/docs/connect/v3/websocket/
LIC	https://inspay.in/service/lic-premium-payment-api

Digit	https://www.fintegrationfs.com/fintechapis/digit-insurance-api
Websoftex	https://websoftexpay.com/websoftex-loan-api.aspx
Setu	https://setu.co/use-cases/insurance/