LoanPro

Name: **LoanPro**
Team Name: LoanPro Dev Team

Persons Applying for Loan (End Users)-
- **individual borrowers,**
- **small business owners**
- **investors/lenders.**
- **institutions**

Stakeholders
Bank: AXIS Bank

Loan Types:
Individual Borrowers:
- **Home Loans**
- **Car Loans**
- **Personal Loans**
- **Jewel Loans**

Small Business Owners:
- **Business Loans**
- **Equipment Loans**
- **Working Capital Loans**

Investors/Lenders:
- **Investment Loans**
- **Peer-to-Peer Lending**

Institutions:
- **Institutional Loans**
- **Project Financing**

Work Flow

Borrower Applies for a Loan:
- Borrower logs in to the LoanPro platform.
- Selects the type of loan they want to apply for (e.g., home, car, personal).
- Fills out the loan application form, providing personal and financial details.
- Submits the application along with necessary documents (ID proof, income documents, etc.).

LoanPro Collects Documents and Information:
- LoanPro receives the loan application and documents.
- Verifies the information provided by the borrower.
- If necessary documents are missing or unclear, requests the borrower to provide additional information.

AXIS Bank Reviews the Application:
- AXIS Bank receives the loan application from LoanPro.
- Performs a thorough review of the borrower's financial history, credit score, and application details.
- Conducts a credit check to assess the borrower's credit worthiness.
- Based on the review, AXIS Bank decides whether to approve or reject the loan application.

Loan Approval Process:
- If the loan application is approved, AXIS Bank informs LoanPro and specifies the approved loan amount, interest rate, and repayment terms.
- If the application is rejected, AXIS Bank informs LoanPro and provides a reason for rejection.

Loan Disbursement:
- Upon approval, AXIS Bank disburses the loan amount to the borrower's bank account.
- LoanPro updates the borrower's account with the disbursed amount and loan details.

Repayment Schedule and Payments:
- LoanPro generates a repayment schedule based on the loan amount, interest rate, and repayment terms.

- **Borrower receives the repayment schedule and instructions on how to make payments.**
- **Borrower makes regular payments through LoanPro.**

Monitoring and Customer Support:
- **LoanPro monitors the loan account for timely payments.**
- **Provides customer support to borrowers for any queries or issues related to the loan.**

Closure of Loan:
- **Once the borrower completes the repayment schedule, LoanPro marks the loan as fully repaid and closes the loan account.**

Pseudocode (Flow chart) – diagram:
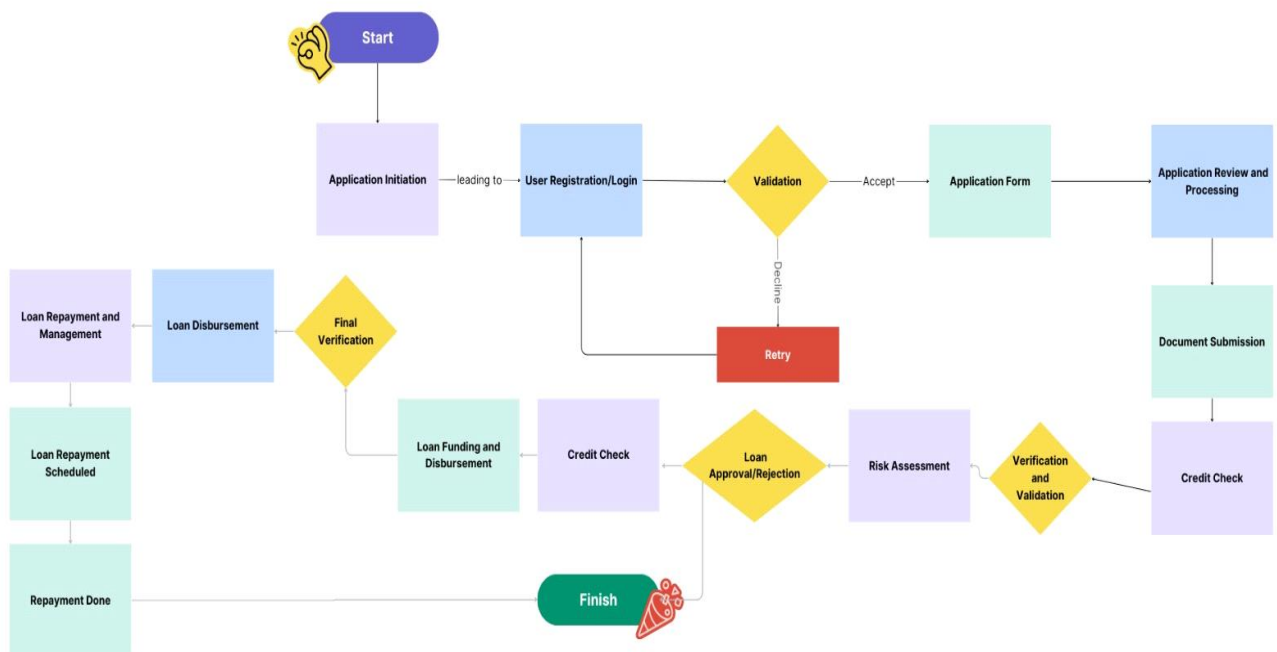
Database structure :

Borrower
- **id (Primary Key)**
- **username**
- **password**
- **name**
- **address**
- **contact_number**
- **email**

LoanApplication
- **id (Primary Key)**
- **borrower_id (Foreign Key referencing Borrower)**
- **loan_type**
- **application_date**
- **status (e.g., pending, approved, rejected)**

LoanDocument
- **id (Primary Key)**
- **loan_application_id (Foreign Key referencing LoanApplication)**
- **document_type**
- **document_path**

LoanApproval
- **id (Primary Key)**
- **loan_application_id (Foreign Key referencing LoanApplication)**
- **approval_date**
- **approved_amount**
- **interest_rate**
- **repayment_terms**
- **status (e.g., approved, rejected)**

LoanDisbursement
- **id (Primary Key)**
- **loan_application_id (Foreign Key referencing LoanApplication)**

- **disbursement_date**
- **amount**
- **status (e.g., disbursed)**

RepaymentSchedule
- **id (Primary Key)**
- **loan_application_id (Foreign Key referencing LoanApplication)**
- **payment_date**
- **amount**
- **status (e.g., paid, pending)**

LoanAccount
- **id (Primary Key)**
- **borrower_id (Foreign Key referencing Borrower)**
- **loan_application_id (Foreign Key referencing LoanApplication)**
- **loan_amount**
- **interest_rate**
- **repayment_terms**
- **repayment_schedule_id (Foreign Key referencing RepaymentSchedule)**
- **status (e.g., active, closed)**

CustomerSupport
- **id (Primary Key)**
- **loan_account_id (Foreign Key referencing LoanAccount)**
- **issue**
- **status (e.g., resolved, pending)**

Technologies:
- **frontend- HTML ,CSS ,JavaScript, Angular**
- **Backend- Java , SpringBoot , SpringData , Microservices**
- **Database: MySQL**
- **IDE: IntelliJ IDEA.**
- **Version Control: Git , github**
- **Deployment : AWS , putty , winSCP**
- **Testing: Junit , Mockito**

- **System Testing**: Test the entire system.
- **User Acceptance Testing (UAT):** Test with end users to ensure it meets their needs.

KYC Documents

Documents required for KYC (Know Your Customer) verification include:

- **Identity Proof (Aadhar Card, Passport etc)**
- **Address Proof (Utility Bill, Rent Agreement etc)**
- **Income Proof (Salary Slip, Income Tax Return etc)**

Security

- **Authentication and Authorization**: role-based access control and JWT auth.
- **Data Encryption**: Encrypt sensitive data at rest and in transit using strong encryption algorithms.
- **Secure Coding Practices:** Follow secure coding practices to prevent common vulnerabilities like password encryption.
- **Regular Audits and Testing:** Conduct regular security audits, vulnerability assessments, and penetration testing.
- **Secure Configuration:** Configure servers and network devices
- **Logging and Monitoring**: Implement logging and monitoring to track and detect suspicious activities.
- **Patch Management**: Keep all software and systems up to date with the latest security patches.
- **Data Backup and Recovery**: Implement regular data backups and have a plan for data recovery.

Monitoring and Customer Support:

- **LoanPro monitors the loan account for timely payments.**
- **Provides customer support to borrowers for any queries or issues related to the loan.**
- **Provides alerts to Axis Bank in case of payment default.**