Building a Loan Application in Appian Using Record Types

This guide provides a step-by-step approach to building a Loan Application System in Appian using Record Types for data modeling.

Step 1: Define the Data Model Using Record Types

We will create three Record Types to store data:

1.1 Loan Application Record Type (LoanApplication)
Stores loan-related information.

Field Name	Data Type	Description
loanId	Auto-generated Identifier	Unique Loan ID
applicantId	Integer	Foreign Key to Applicant Record
loanAmount	Decimal	Loan Amount Requested
loanType	Text	Type of Loan (Home, Auto, Personal)
loanStatus	Text	Status (Pending, Approved, Rejected)
interestRate	Decimal	Interest Rate Applicable
tenureMonths	Integer	Loan Tenure in Months
createdDate	DateTime	Application Submission Date
approvedDate	DateTime	Loan Approval Date (if approved)

1.2 Applicant Record Type (Applicant)
Stores applicant details.

Field Name	Data Type	Description
applicantId	Auto-generated Identifier	Unique Applicant ID
firstName	Text	Applicant First Name
lastName	Text	Applicant Last Name
email	Email	Applicant Email
phoneNumber	Phone Number	Contact Number
dateOfBirth	Date	Applicant's Date of Birth
address	Text	Residential Address
creditScore	Integer	Credit Score of Applicant

1.3 Loan Repayment Record Type (LoanRepayment)
Stores loan repayment details.

Field Name	Data Type	Description
repaymentId	Auto-generated Identifier	Unique Repayment ID
loanId	Integer	Foreign Key to LoanApplication
paymentDate	Date	Date of Payment
amountPaid	Decimal	Amount Paid
remainingBalance	Decimal	Remaining Loan Balance

Step 2: Create the Loan Application Record Type in Appian

2.1 Define Data Sources

- If using an Appian Database, configure the Record Type to connect to a table.
- If using an external database, establish a Data Store Entity.

2.2 Configure Record Relationships

- LoanApplication.applicantId -> One-to-One Relationship with Applicant.applicantId
- LoanRepayment.loanId -> One-to-Many Relationship with LoanApplication.loanId

Step 3: Design User Interfaces (UI) for Loan Management

3.1 Loan Application Submission Form

Users apply for a loan by entering their details and selecting loan parameters.

Form Fields:
- Applicant Details (First Name, Last Name, Email, Phone)
- Loan Type (Dropdown: Home, Auto, Personal)
- Loan Amount
- Loan Tenure (Months)

3.2 Loan Approval Dashboard (For Loan Officers)

Displays Pending Loan Applications for approval.

Columns:
- Loan ID
- Applicant Name
- Loan Amount
- Loan Type
- Credit Score

- Status (Approve/Reject Button)

Actions:

- Loan officers can approve or reject loan applications.

- Approved applications get assigned an interest rate and approval date.

3.3 Loan Repayment Tracking Screen

Allows users to track and make payments.

Features:

- Displays Remaining Balance

- Allows payment via Appian action

- Shows Repayment History

Step 4: Design the Process Model for Loan Approval

Workflow Steps:

1. Applicant Submits Loan Request -> Stores data in LoanApplication Record Type

2. System Fetches Credit Score (Simulated via external service or stored data)

3. Loan Officer Reviews & Approves/Rejects

  - If approved, update loanStatus = "Approved"

  - If rejected, update loanStatus = "Rejected"

4. Notify Applicant of Decision via Email

Step 5: Implement Business Rules

Loan Approval Rules:

1. If creditScore < 600, auto-reject application.

2. If loanAmount > $50,000, escalate for manual review.

3. Interest Rate is assigned based on credit score:

   - >750 -> 5%

   - 600-750 -> 7%

   - <600 -> Loan Rejected

Step 6: Configure Security & Permissions

- Applicants -> Can view and edit their own applications only.

- Loan Officers -> Can approve or reject applications.

- Admins -> Can view and edit all applications.

Step 7: Deploy and Test the Application

- Test different loan amounts and credit scores.

- Verify approval process works correctly.

- Ensure UI is user-friendly and responsive.

Conclusion

This Appian Loan Application System provides a structured loan management workflow using Record Types, UI interfaces, and process models. It supports loan application, approval, and repayment tracking with business rules and security settings.