Document Matrix: Smart Document Collection for Financial Services

The Problem

Business Context

Bank IT administrators faced a critical operational bottleneck: they had to create **dozens of duplicate assessment forms** with identical questions but different document requirements based on customer profiles.

Specific Pain Points

- **Manual duplication at scale:** A single account opening process required 5+ separate forms for different customer types (NRI vs. resident, business vs. personal)
- **Poor customer experience:** Customers saw irrelevant upload options (e.g., visa requirements for local residents)
- **High maintenance cost:** Any question update required changes across all duplicate forms
- **Implementation failure rate:** 30% of custom form implementations failed due to complexity

Epic

"As a bank admin setting up account opening forms, I need customers to see only relevant document uploads based on their answers (citizenship, account type, business structure), so I don't have to maintain 20+ separate forms for what's essentially the same process."

My Role & Approach

Strategic Leadership

As Product Lead, I:

- **Defined product vision** for a reusable, intelligent document collection component
- **Aligned stakeholders** across Financial Services Cloud, Platform Architecture, and OmniStudio teams
- **Defined success metrics:** adoption rate, churn prevention

Cross-Functional Collaboration

- Partnered with **engineering leadership** to design technical architecture leveraging Salesforce Decision Tables
- Worked with **UX team** to create intuitive design-time and runtime experiences
- Collaborated with **architects** to ensure scalability and enterprise-grade security

- Coordinated with **product managers** across industries (Banking, Insurance) to validate use cases

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Solution Design

Product Strategy

I spearheaded the creation of **Document Matrix**, an intelligent component that dynamically displays document upload options based on user responses using decision logic.

Key Innovation: Decision Table Integration

Instead of hard-coding rules, I designed the solution to use Salesforce Decision Tables, enabling:

- **No - code business rule management** for admins
- **Complex conditional logic** (e.g., "IF country=India AND account_type=Savings THEN show Aadhaar, PAN card")
- **Easy updates** without developer involvement

Technical Architecture Decisions

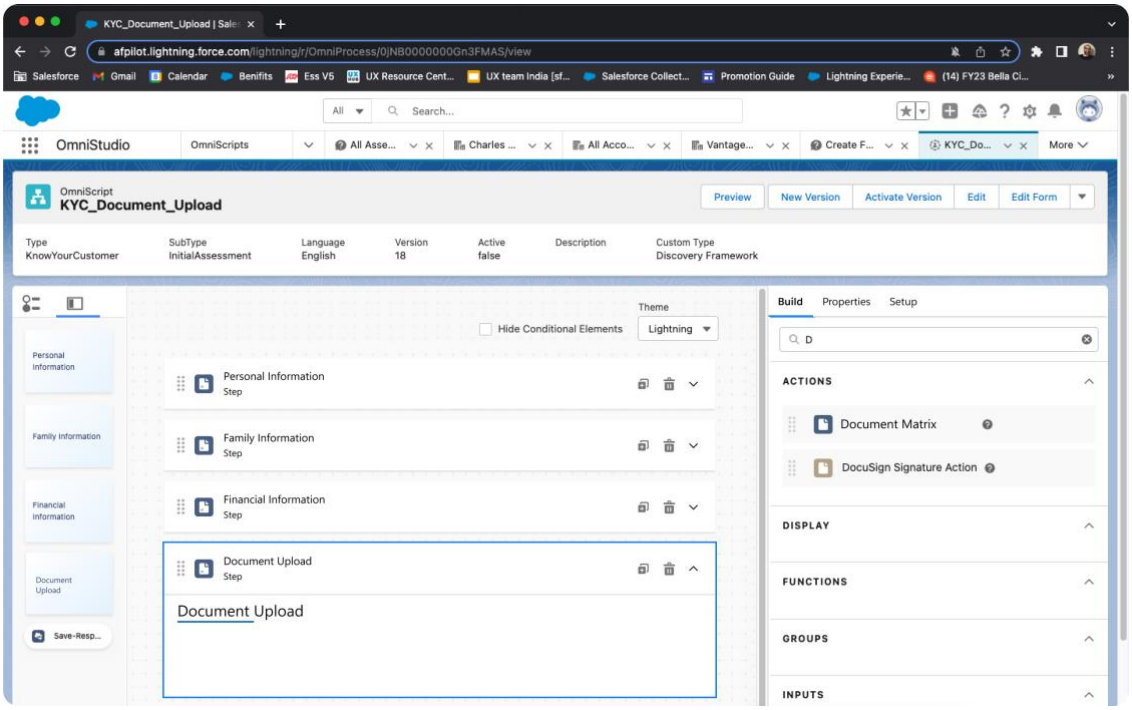
I drove key architectural decisions:

1. **Reusable Component Framework**
    - Designed for use across OmniScript, Record Pages, and Tabs
    - Built with migration capability for ISV partners
    - Separated design-time (configuration) from runtime (customer experience)
2. **Data Model Strategy**
    - Created DocumentDecisionRequirement as platform entity for Decision Table source
    - Established DocumentCategory and DocumentType relationship model
    - Integrated with DocumentChecklistItem (DCI) for secure file storage
3. **API Design**
    - Created RESTful Connect API: /connect/document-matrix/document-decision/{id}
    - Supported up to 100,000 business rules per decision table
    - Built error handling for invalid outputs and edge cases

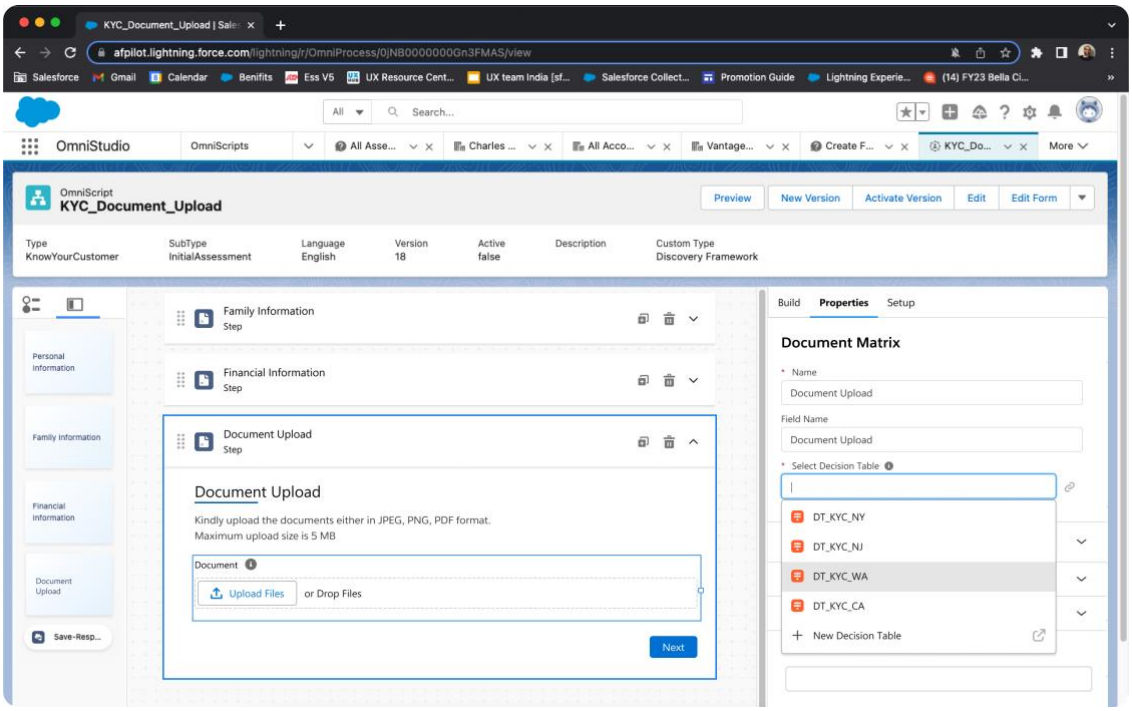
User Experience Design

Admin Persona

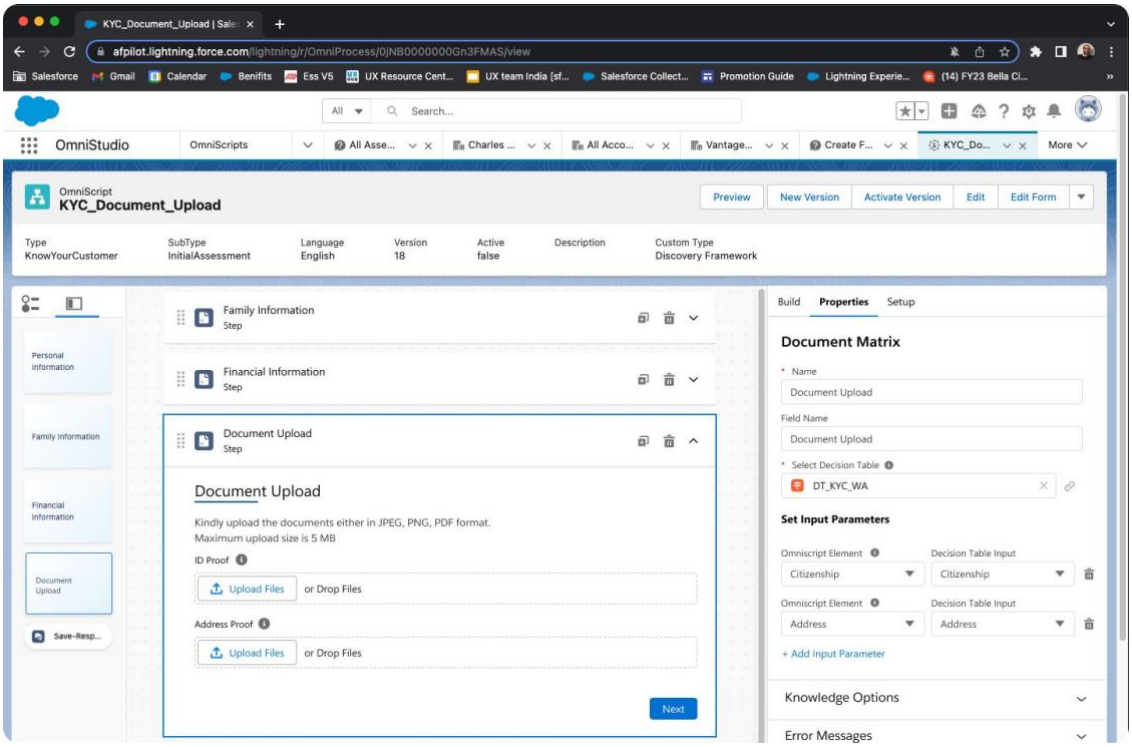
1. ***Step 1:*** *Select Document matrix from right pane in OmniScript*



Step 2: *Select Decision Table with document logic*

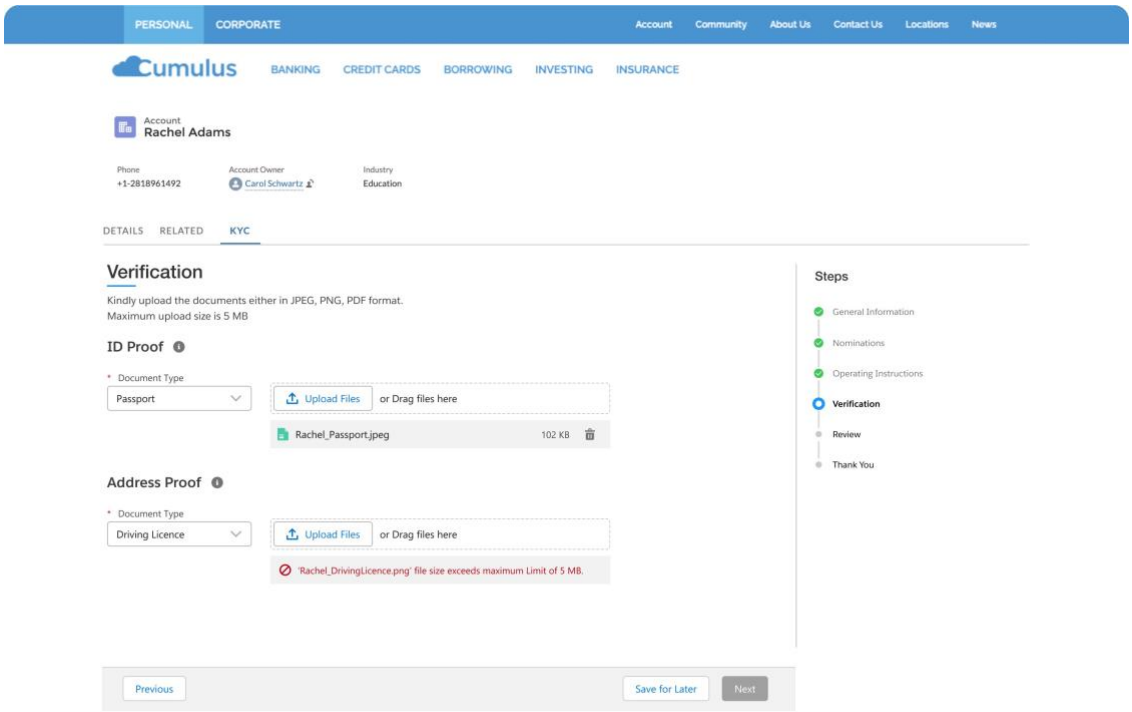


Step 3: *Map output fields (category, file size, upload limits, help text)*



Step 4: *Validate and deploy*

End-Customer Persona



Dynamic Document Collection:

- Only relevant upload options appear based on answers
- Clear help text and requirements per document type
- File size validation (up to 2GB per file)
- Mobile-responsive with iOS/Android privacy support
- Real-time validation and error messaging

Results & Impact

Quantified Business Outcomes

Operational Efficiency

- ⬇️ **86% reduction in deployment time:** 14 days → 2 days
- ⬆️ **10% increase in platform adoption** across 150+ enterprise accounts

Revenue Impact

- 💰 **$1M churn prevented** by solving data complexity issues
- 💰 **$200K annual savings per client** (eliminated custom development costs)
- 💰 **$100K+ ARR generated** from new industry adoptions

Key Learnings & Takeaways

Product Management Lessons

- **Cross-functional alignment is continuous:** Weekly syncs with engineering, UX, and architecture prevented scope creep
- **Start with constraints:** Understanding Decision Table limits (10 inputs, 5 outputs) shaped elegant solutions
- **Migration matters to enterprise:** ISV portability was initially out-of-scope but became a key differentiator

Leadership Growth

- **Technical credibility accelerates decisions:** My engineering background enabled faster architectural choices
- **Metrics drive executive buy-in:** Quantified impact on churn prevention secured additional resources
- **Customer empathy beats feature lists:** Shadowing bank admins revealed the duplicate form pain that wasn't in initial requirements

Technical Insights

- **Platform leverage over custom builds:** Integrating with Decision Tables provided 10x more flexibility than hard-coded logic
- **API-first design enables scale:** RESTful API approach allowed component reusability across contexts
- **Error handling is product experience:** Comprehensive validation messaging reduced support burden significantly

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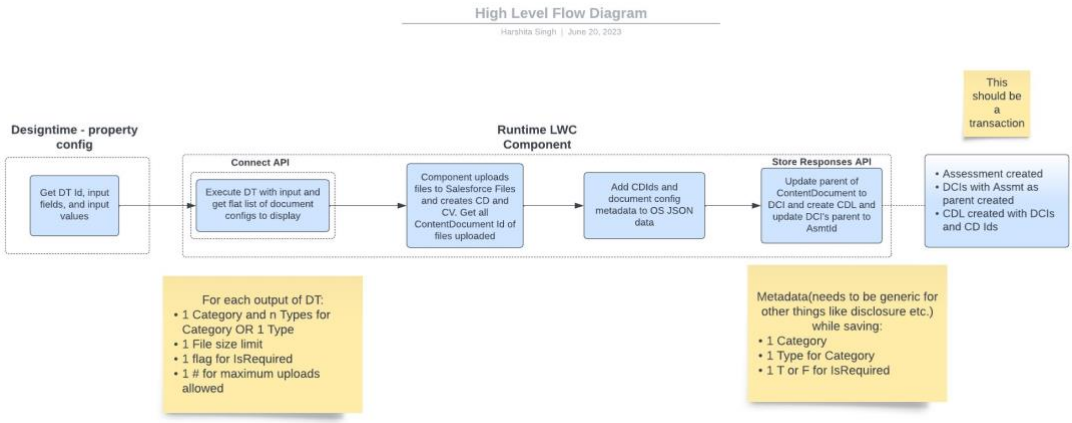
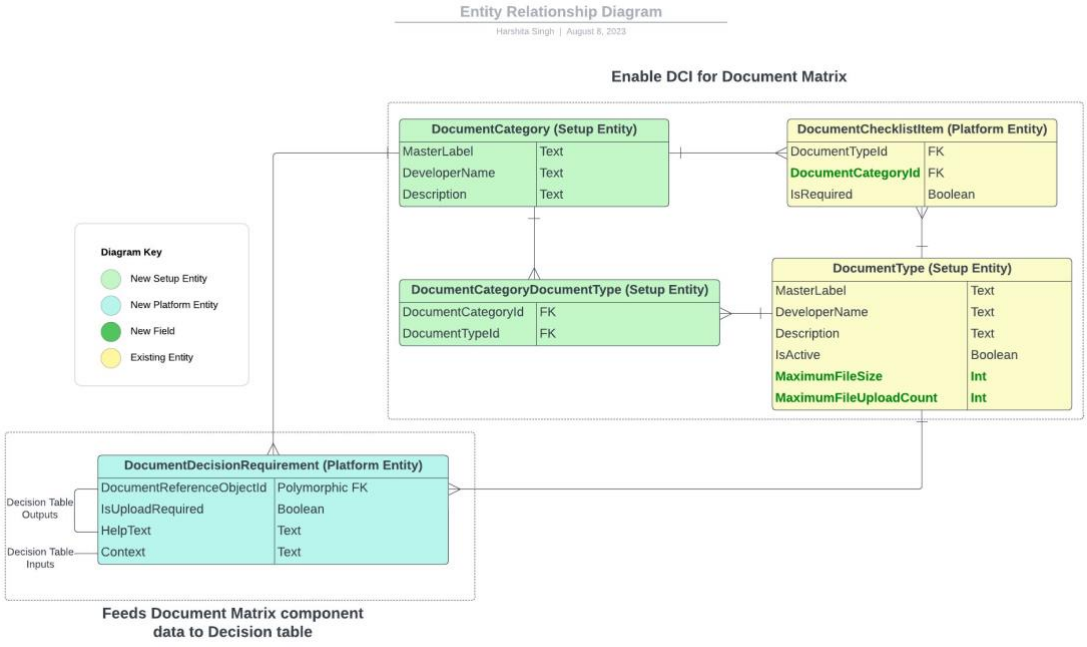
Technical Artifacts

Design Diagrams

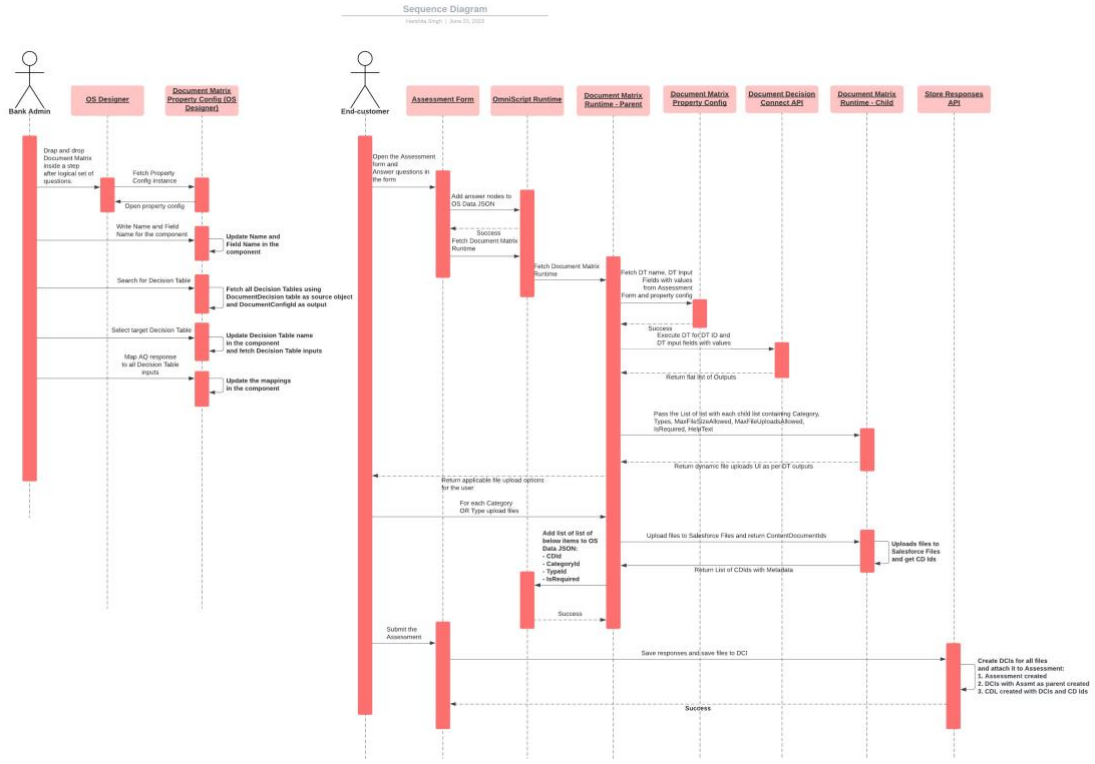
High Level Flow Diagram:



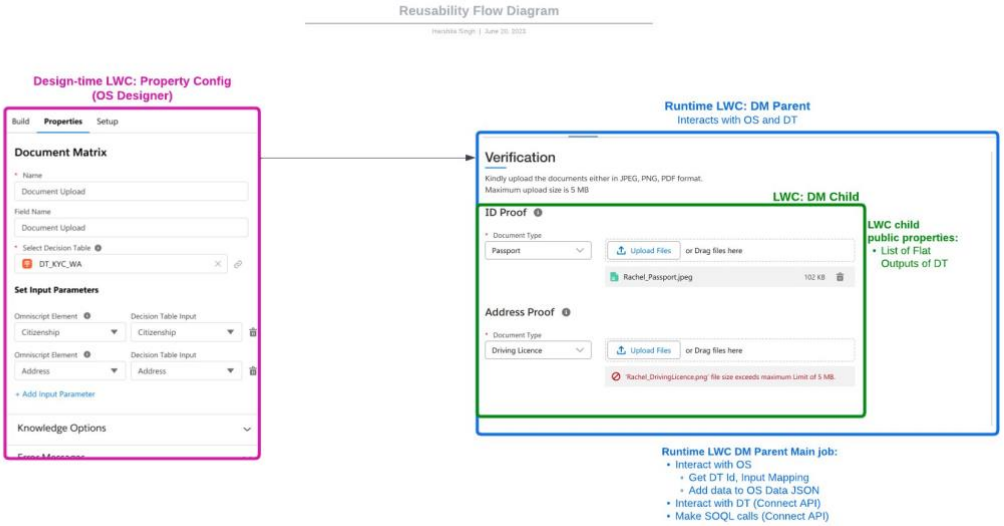
ER Diagram:



Sequence Diagram:



Reusability Flow Diagram:



APIs Designed

POST /services/data/vXX.X/connect/document-matrix/document-decision/{decisionTableId}

Input: Assessment responses (key-value pairs)
Output: Dynamic document requirements with validation rules

Data Model

- DocumentDecisionRequirement (Platform Entity)
- DocumentCategory (Setup Entity)
- DocumentType (Setup Entity)
- DocumentChecklistItem (Storage Entity)

Performance Specifications

- Supports 100,000+ business rules per decision table
- 400,000 cumulative invocations per hour
- 2GB max file upload size
- <2s decision response time at 95th percentile