

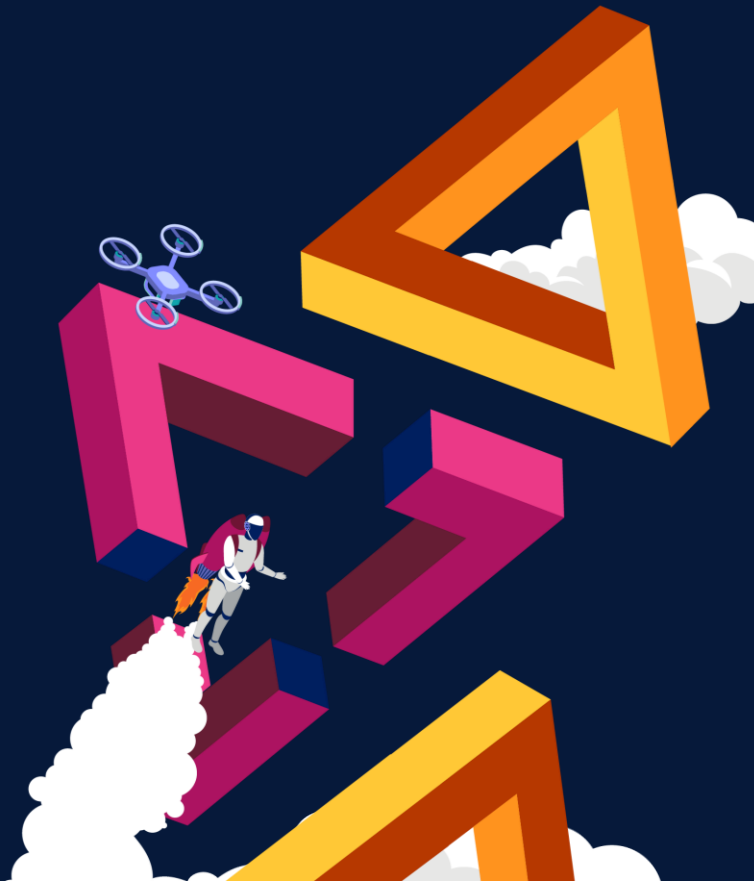


PegaWorld

JUNE 1-3, 2025 | LAS VEGAS

# Break Free from Legacy AI-led Mainframe Transformation with AWS & Pega

**Daniel Aucoin** | Technical Lead, AWS  
**Matt Healy** | Sr. Director, Product Marketing





# You're not alone.

In the US, **\$1.14 trillion** is spent every year on maintenance of existing IT investments<sup>1</sup>



*Customer journey,  
fractured.*

Teams spend up to **60% of their workdays** bridging gaps between disconnected systems<sup>1</sup>

*Data,  
trapped.*

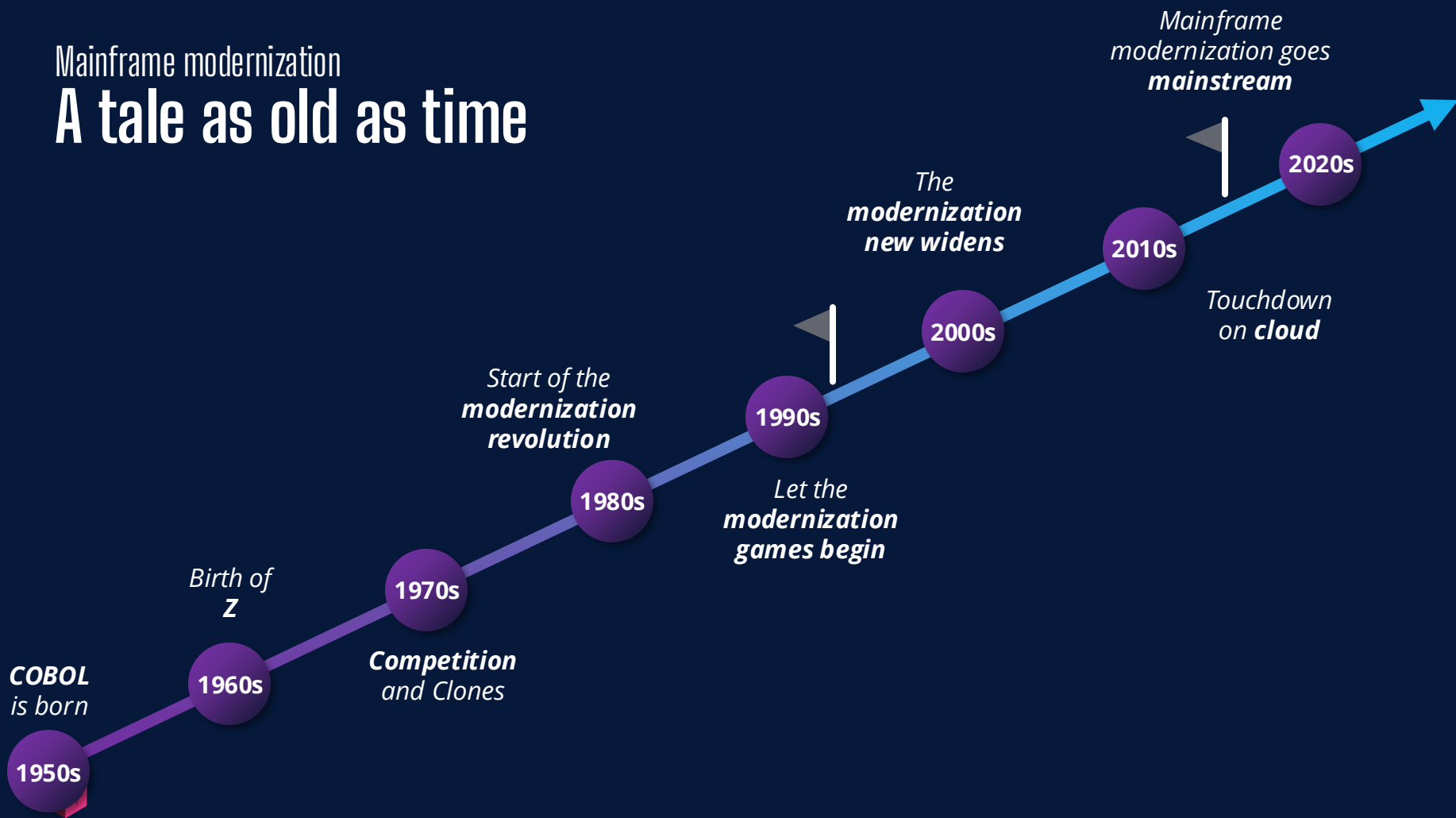
79% of organizations that have embraced real-time analytics reported improved business outcomes, with **revenue growth averaging 15% over just a year**<sup>2</sup>

*Agility,  
stifled.*

Legacy maintenance accounts for **57% of overall IT investment** in the US.<sup>3</sup>

Mainframe modernization

# A tale as old as time



# Modernization approaches



## Replicate & leverage data

Make mainframe data available to cloud applications



## Replatform

Port application to cloud with minimal changes



## Refactor

Automated conversion to functionally equivalent apps in modern languages



## Repurchase

Replace application with a software package



## Rehost

Lift & shift unchanged applications to partner-hosted mainframe



## Retain

When no business case for migration, defer modernization to the future



## Retire

Decommission or remove redundant applications

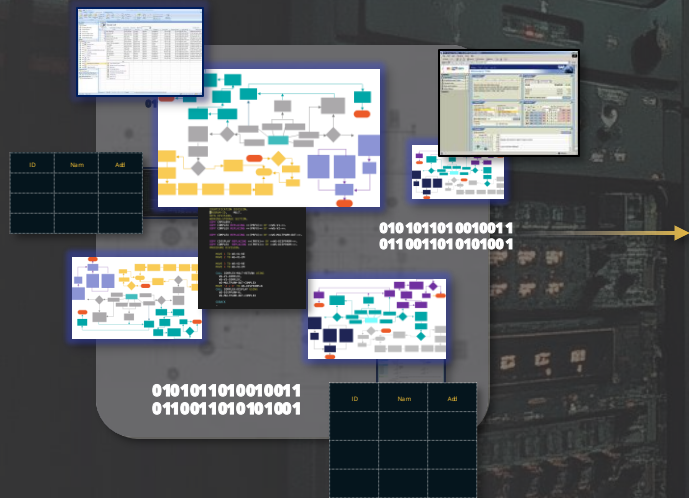




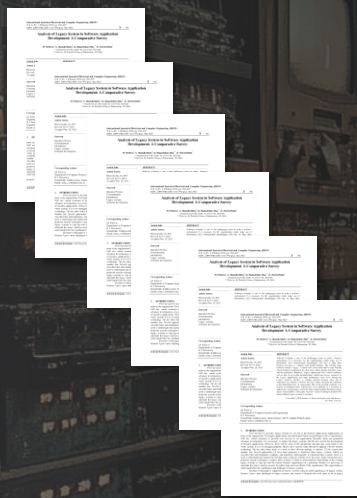
**74%**

**of organizations that embark on  
legacy modernization projects **fail**  
**to complete them****

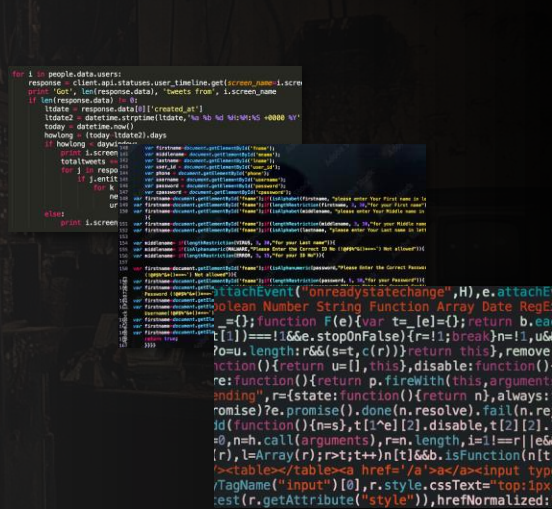
# Modernization **status quo**



# Drawn out evaluations



# Swimming in analysis

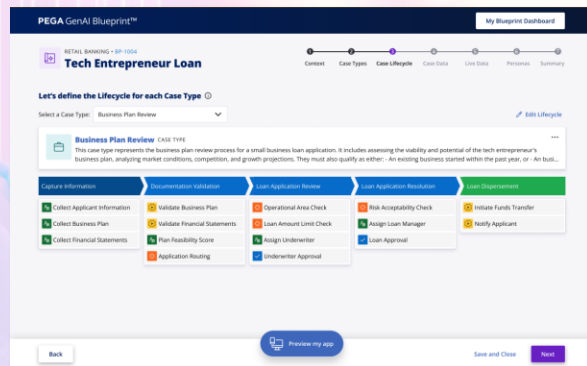


# Legacy code to...

# Transformation *reimagined*



**Rapid  
Analysis**  
AWS Transform



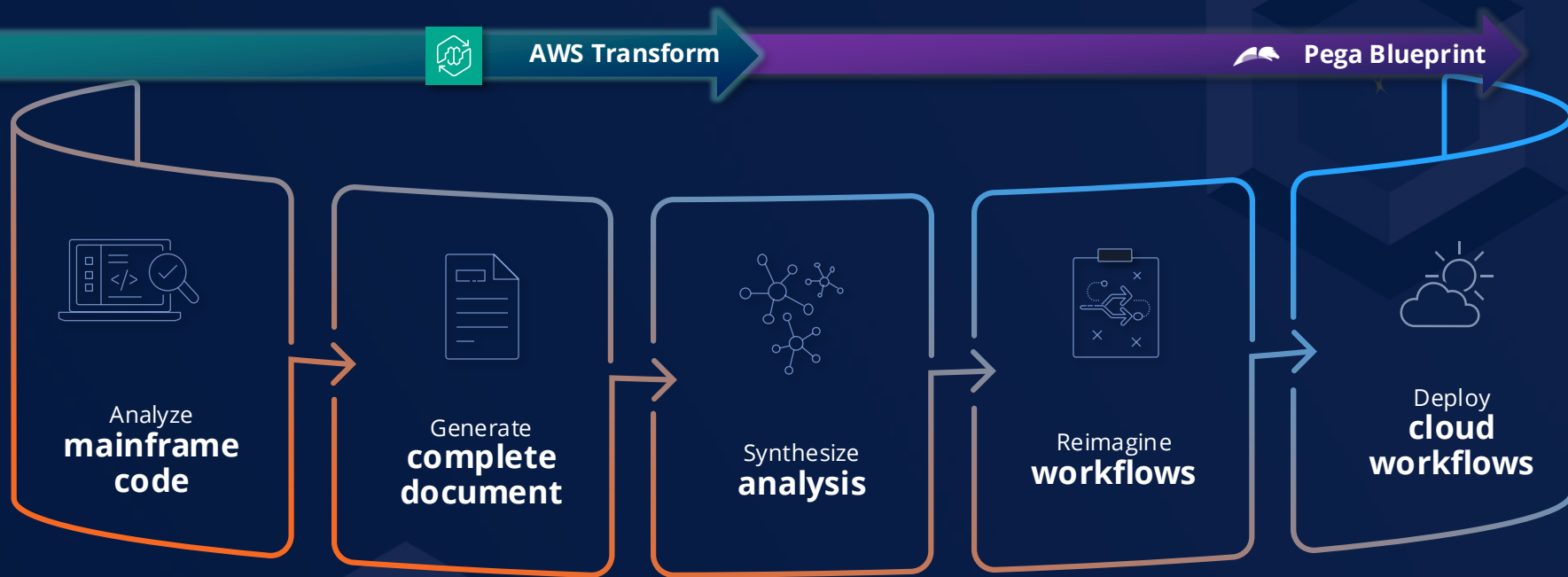
**Understand &  
reimagine**  
Pega Blueprint



**Future-proof  
Architecture**  
Pega Platform



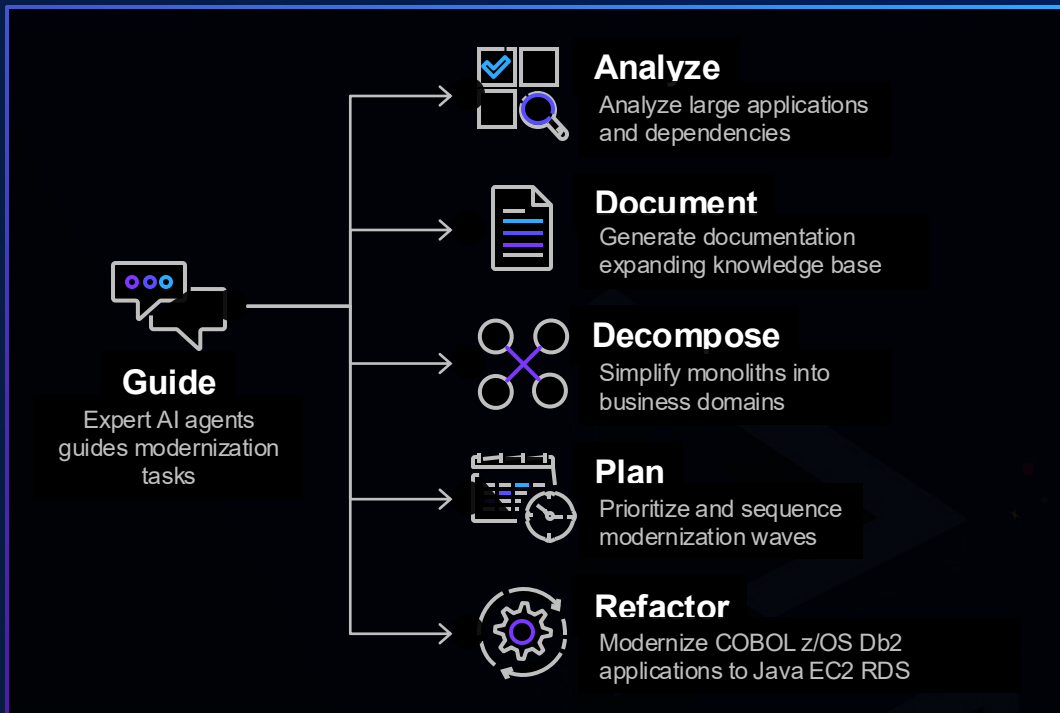
# Rapid, AI-led Mainframe Modernization





# AWS Transform for mainframe

The generative AI assistant  
for large-scale modernization of  
mainframe applications





## CODE ANALYSIS

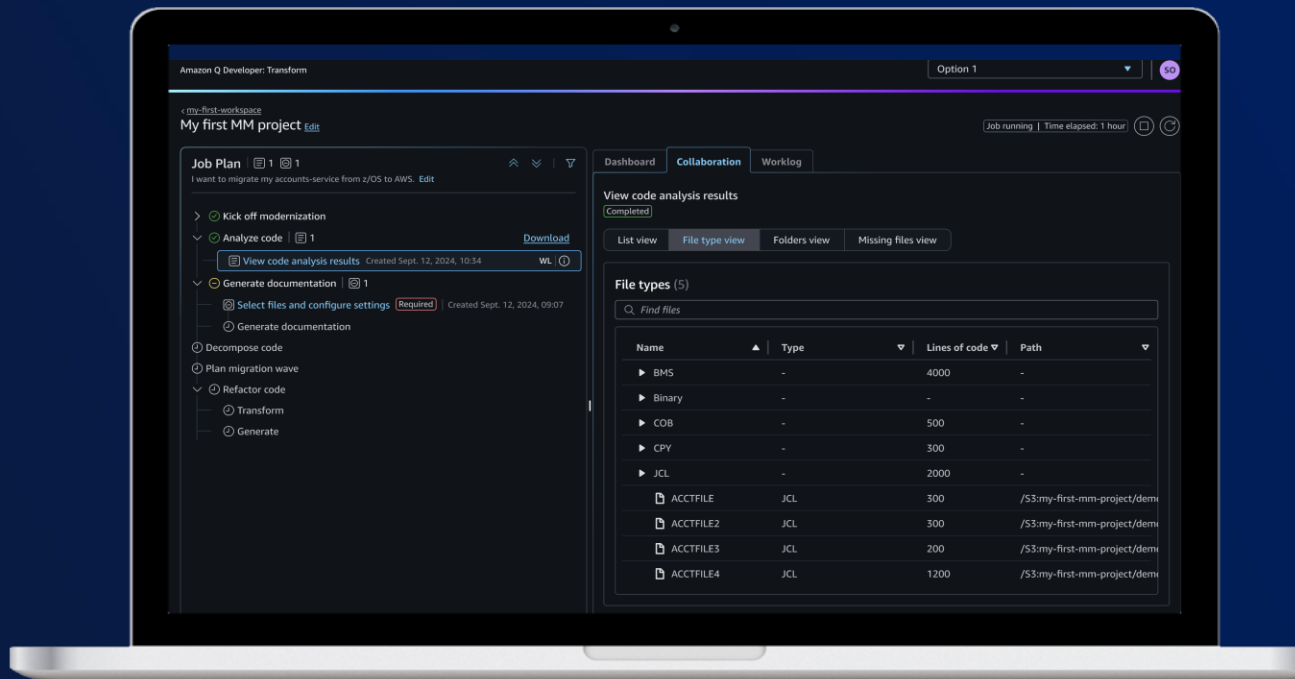
Cyclomatic complexity

Dependency analysis

Identification of  
missing artifacts

Graphical representation

Automatic code category  
identification





## DOCUMENT GENERATION

Custom acronym expansions

Component based

Persona driven

Context awareness

Business logic summarization

Flow representation

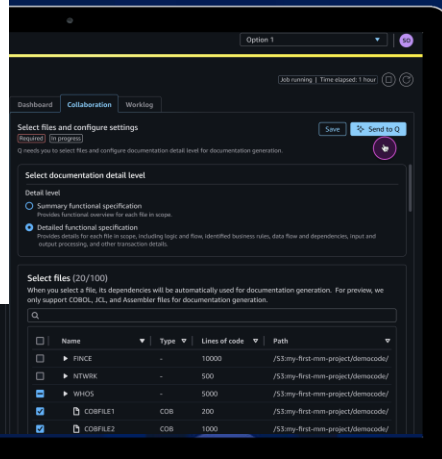
Knowledge base integration  
with chats

Amazon Q amazon

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Amazon Q This is bottom Document custom text Page 2







### Supporting content

Kickstart your Blueprint by uploading content related to your application.

#### Requirements documents

Drag and drop or choose files

Accepted formats: .pdf, .doc

#### Legacy application screen capture or video

Drag and drop or choose files

Accepted formats: .mov, .png

#### Data schemas and Integration signatures

Drag and drop or choose files

Accepted formats: .ddl, OpenAPI (.yaml), ERD (.crd)

#### Process diagrams

Drag and drop or choose files

Accepted formats: .bpmin, .jpg

#### Code analysis documents

Drag and drop or choose files

Accepted assets: Amazon Q, Google MAT, GeniWizard, CAST

#### Additional assets

Drag and drop or choose files

Accepted formats: .pdf, .doc

Analyze content


Cancel

Extract  
**core data,  
rules &  
logic**  
from  
AWS Transform  
documentation



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### Additional assets

📎 Drag and drop or choose files

Accepted formats: .pdf, .doc

Analyze content

Cancel

Supplement  
with  
**process &  
user needs**  
from  
Videos,  
documents, &  
more



## Supporting content



Kickstart your Blueprint by uploading content related to your application.

### Content

**CreditCardAppReq.doc** Requirements



Functional requirements for the legacy transformation of the CardDemo application.

**businessflow\_finalv12.bpmn** Process diagram...



A BPMN (Business Process Model and Notation) diagram visualizing the flow of activities, decisions, and events in the CardDemo application.

**COBOL\_walkthrough.mov** Legacy ...



A video walkthrough of the CardDemo COBOL application running on a mainframe

**MeetingNotes.docx** Additional assets



Feature prioritization and objectives for transforming the legacy CardDemo application

### GenAI Summary

Based on the 4 files provided, here's a summary of the setup for your Credit Card Management application.

**Industry:** Banking

**Subindustry:** Retail Banking

**App purpose:** Credit Card Management

#### Functional description:

The application, known as CardDemo, is a comprehensive Credit Card Management System designed for financial institutions or credit card companies. It manages various aspects of credit card operations such as account management, transaction processing, billing, user authentication, reporting, data management, and system maintenance

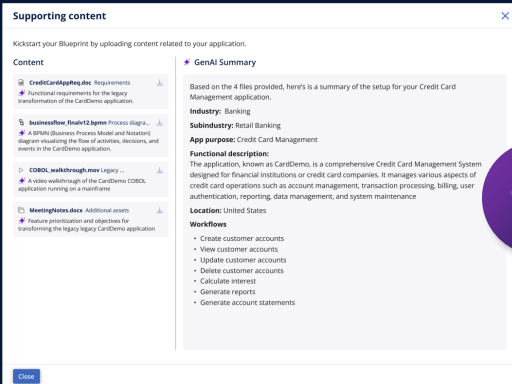
**Location:** United States

#### Workflows

- Create customer accounts
- View customer accounts
- Update customer accounts
- Delete customer accounts
- Calculate interest
- Generate reports
- Generate account statements

Close

Unlock  
**End-to-end**  
**insight**  
across sources



**Organizational** expertise  
& best practices



**Pega** expertise & best  
practices



**Regional** standards &  
regulations



**Broad industry** best  
practices

Synthesize with  
**Best  
practices**



Case Type	Case Data Model	Case Lifecycle
Secured Retail Loan Application		
Unsecured Retail Loan Application		
Secured Retail Loan Disbursement		
Unsecured Retail Loan Disbursement		
Secured Retail Loan Repayment		
Unsecured Retail Loan Repayment		
Secured Retail Loan Default		
Unsecured Retail Loan Default		

Dashboard
Pega GenAI + Blueprint™

RETAIL BANKING - BP-266181

## Retail Loan Origination

Application Context
Workflows
Workflow Details
Data & Integrations
Personas
Summary

Select the Case Type to define the workflow details: Secured Retail Loan Application

Case Lifecycle Case Data Model

This case type defines a secured Retail Loan application process, from submission, approval, and disbursement, ensuring efficient communication with applicants. This case type represents the process of handling and approving a secured retail lending products like vehicle loans.

Primary Stages

Capture Applicant Inf...	Eligibility and Evaluat...	Additional Document...	Loan Amount and Te...	Loan Agreement and ...
<ul style="list-style-type: none"> <li>Collect Applicant Information</li> <li>Collect Financial Information</li> <li>Collect Collateral Information</li> </ul>	<ul style="list-style-type: none"> <li>Eligibility Check</li> <li>Credit Check</li> <li>Validate Financial Documentation</li> <li>Check Collateral Type</li> <li>Validate Guarantor's Financial Data</li> <li>Retrieve Guarantor's Credit Score</li> <li>Check Guarantor's Eligibility</li> <li>Offer Risk Reducing Product to Client</li> </ul>	<ul style="list-style-type: none"> <li>Additional Documentation Check</li> <li>Collect Additional Documentation</li> <li>Collect Collateral</li> <li>Validate Collateral</li> <li>Valuation of Collateral</li> <li>Approve/Reject Loan</li> </ul>	<ul style="list-style-type: none"> <li>Loan Amount Check</li> <li>Loan Terms Calculation</li> <li>Loan Terms Approval</li> </ul>	<ul style="list-style-type: none"> <li>Prepare Loan Agreement</li> <li>Review and Sign Agreement</li> <li>Approve Loan Disbursement</li> <li>Update Loan Account Information</li> <li>Update Collateral Systems</li> <li>Loan Disbursement</li> <li>Notify Applicant for Loan Disbursement</li> </ul>

Back
Save & Close
Next

Instantly  
generate a  
**Blueprint**

[Dashboard](#)

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RETAIL BANKING • BP-266181

## Retail Loan Origination

Select the Case Type to define the workflow details: Secured Retail Loan Application

[Edit Case Type](#)[Settings](#)

Case Lifecycle

Case Data Model

This case type defines a secured Retail Loan application process, from submission, approval, and disbursement, ensuring efficient communication with applicants. This case type represents the process of handling and approving a secured retail lending products like vehicle loans.

[Edit Lifecycle](#)

Capture Applicant Inf...

Eligibility and Evaluat...

Additional Document...

Loan Amount and Te...

Loan Agreement and ...

+

Collect Applicant Information

Collect Financial Information

Collect Collateral Information

+ Add Step

Eligibility Check

Credit Check

Validate Financial Documentation

Check Collateral Type

Validate Guarantor's Financial Data

Retrieve Guarantor's Credit Score

Check Guarantor's Eligibility

Offer Risk Reducing Product to Client

+ Add Step

Additional Documentation Check

Collect Additional Documentation

Collect Collateral

Validate Collateral

Valuation of Collateral

Approve/Reject Loan

+ Add Step

Loan Amount Check

Loan Terms Calculation

Loan Terms Approval

+ Add Step

Prepare Loan Agreement

Review and Sign Agreement

Approve Loan Disbursement

Update Loan Account Information

Update Collateral Systems

Loan Disbursement

Notify Applicant for Loan Disbursement

+ Add Step

[Back](#)

[Save & Close](#)[Next](#)

Reimagine  
Collaborate  
Adapt  
Deploy

Let's **see it** in action



# Rapid, AI-led Mainframe Modernization



## **COST REDUCTION**

Automation of tasks  
Increased SME efficiency  
Improved efficiency



## **FASTER PROJECTS**

Faster decision making  
AI driven modernization  
Sequence wave planning  
  
GenAI Mainframe  
Domain Expert Agent  
as team member



## **BETTER MODERNIZATION RESULTS**

Human in the loop  
Simplified modernization  
Governance and trust  
  
Standardization  
  
Repeatability



## **SKILL AND INNOVATION**

Evolution of  
migrated applications  
Increased success rates  
  
Lack of skill on  
legacy platforms  
  
Performance and  
application innovation





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