

Guardian Life Insurance - NLQ Service Metadata Documentation

Prepared for: Guardian Life Insurance Company

Date: November 25, 2025

Purpose: Business and Technical Metadata for Natural Language Query (NLQ) Service Implementation

Executive Summary

This document provides comprehensive metadata for Guardian Life's NLQ service implementation across two primary insurance domains: **Policy Management & Underwriting** and **Claims & Customer Service**. Following the proven metadata framework, this documentation establishes the foundation for natural language query capabilities that will enable Guardian Life's stakeholders to interact with data intuitively and efficiently.

Section 1: Metadata Framework Overview

1.1 Domain and Subdomain Structure

A Domain represents a major business process area within Guardian Life's insurance operations. Each domain is subdivided into manageable functional processes to ensure clarity, ownership, and effective data governance.

Selected Domains for Guardian Life:

1. Policy Management & Underwriting Domain

- Policy Origination & Quoting
- Risk Assessment & Underwriting
- Policy Issuance & Administration
- Premium Management
- Policy Renewals & Retention

2. Claims & Customer Service Domain

- Claims Intake & Registration
 - Claims Assessment & Investigation
 - Claims Settlement & Payment
 - Customer Service Operations
 - Policyholder Communication
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Section 2: Domain 1 - Policy Management & Underwriting

2.1 Domain-Subdomain-Glossary Mapping

Domain	Subdomain	Glossary
Policy Management & Underwriting	Policy Origination & Quoting	Policy Administration Glossary
Policy Management & Underwriting	Risk Assessment & Underwriting	Underwriting & Risk Glossary
Policy Management & Underwriting	Policy Issuance & Administration	Policy Administration Glossary
Policy Management & Underwriting	Premium Management	Premium & Billing Glossary
Policy Management & Underwriting	Policy Renewals & Retention	Policy Administration Glossary

2.2 Business Metadata

2.2.1 Policy Administration Glossary - Business Terms

Business Term	Description	Physical Table(s)	Column(s)
Policy Number	Unique identifier for each insurance policy	policy_master	policy_number
Policy Holder	Individual or entity that owns the insurance policy	policy_master, customer_master	policy_holder_id, customer_id
Face Amount	The death benefit amount payable to beneficiaries	policy_master	face_amount
Policy Term	Duration of the insurance coverage in years	policy_master	policy_term_years
Policy Status	Current state of policy (Active, Lapsed, Paid-Up, Surrendered)	policy_master	policy_status
Issue Date	Date when policy was officially issued	policy_master	issue_date
Maturity Date	Date when policy reaches end of term	policy_master	maturity_date
Premium Amount	Payment amount for insurance coverage	premium_schedule	premium_amount
Premium Frequency	Payment schedule (Monthly, Quarterly, Annual)	premium_schedule	premium_frequency
Cash Value	Accumulated value in permanent life insurance policies	policy_value	cash_value
Surrender Value	Amount payable if policy is terminated early	policy_value	surrender_value

Business Term	Description	Physical Table(s)	Column(s)
Beneficiary	Person(s) designated to receive policy proceeds	beneficiary_master	beneficiary_id, beneficiary_name
Coverage Type	Category of insurance (Term Life, Whole Life, Universal Life)	product_master	coverage_type
Rider	Additional coverage attached to base policy	policy_rider	rider_type

2.2.2 Underwriting & Risk Glossary - Business Terms

Business Term	Description	Physical Table(s)	Column(s)
Risk Class	Categorization of applicant risk level (Preferred, Standard, Substandard)	underwriting_decision	risk_class
Underwriting Decision	Final determination (Approved, Declined, Postponed, Counter-offer)	underwriting_decision	decision_type
Medical Underwriting	Health-based risk assessment process	medical_exam, underwriting_assessment	medical_exam_id, health_rating
Mortality Rate	Statistical probability of death within age group	actuarial_tables	mortality_rate
Risk Premium	Additional premium charged for higher risk applicants	underwriting_decision	risk_premium_loading
Underwriter	Professional assessing insurance application risk	underwriting_decision	underwriter_id
Application Date	Date insurance application was submitted	application_master	application_date
Medical Exam	Physical examination required for underwriting	medical_exam	exam_date, exam_results
Paramedical Report	Basic health assessment by paramedic	medical_exam	paramedical_report
Attending Physician Statement	Medical records from applicant's doctor	medical_records	aps_document

Business Term	Description	Physical Table(s)	Column(s)
Declination	Rejection of insurance application	underwriting_decision	declination_reason
Preferred Plus	Lowest risk classification with best rates	underwriting_decision	risk_class
Table Rating	Numerical rating system for substandard risks	underwriting_decision	table_rating
Flat Extra Premium	Additional fixed premium for specific risks	underwriting_decision	flat_extra_amount

2.2.3 Premium & Billing Glossary - Business Terms

Business Term	Description	Physical Table(s)	Column(s)
Premium Due Date	Scheduled date for premium payment	premium_schedule	due_date
Premium Payment	Actual payment received from policyholder	payment_transaction	payment_amount, payment_date
Grace Period	Time allowed after due date before lapse (typically 30-31 days)	policy_master	grace_period_days
Lapse	Policy termination due to non-payment	policy_master	lapse_date
Reinstatement	Restoring a lapsed policy to active status	reinstatement_transaction	reinstatement_date
Paid-Up Insurance	Policy continuing without further premiums	policy_master	paid_up_date
Non-Forfeiture Value	Guaranteed value after premiums stop	policy_value	non_forfeiture_value
Policy Loan	Loan taken against cash value of policy	policy_loan	loan_amount
Outstanding Balance	Unpaid premium amount	premium_schedule	outstanding_balance
Premium Mode	Payment frequency selection	premium_schedule	premium_mode

2.3 Key Performance Indicators (KPIs)

2.3.1 Policy Administration KPIs

KPI Name	Definition	Business Terms Involved	Table(s)	Column(s)	Calculation Logic
Policy Count	Total number of active policies	Policy Number, Policy Status	policy_master	policy_number, policy_status	COUNT(DISTINCT policy_number) WHERE policy_status = 'Active'
New Business Volume	Number of new policies issued in period	Policy Number, Issue Date	policy_master	policy_number, issue_date	COUNT policies WHERE issue_date in period
Average Face Amount	Mean death benefit across all policies	Face Amount	policy_master	face_amount	AVG(face_amount)
Policy Retention Rate	Percentage of policies remaining active	Policy Status	policy_master	policy_status, issue_date	(Active policies / Total issued) × 100
Lapse Rate	Percentage of policies that lapsed	Policy Status, Lapse Date	policy_master	policy_status, lapse_date	(Lapsed policies / Total in-force) × 100
Reinstatement Rate	Percentage of lapsed policies	Policy Status	policy_master, reinstatement_transaction	policy_number, reinstatement_date	(Reinstated / Lapsed) × 100

KPI Name	Definition	Business Terms Involved	Table(s)	Column(s)	Calculation Logic
	reinstated				
Average Policy Duration	Mean time policies remain active	Issue Date, Policy Term	policy_master	issue_date, maturity_date	AVG(DATEDIF(F(CURRENT_DATE, issue_date)))
Policy Persistence	Policies remaining in force after N years	Policy Status, Issue Date	policy_master	policy_status, issue_date	(Active after N years / Total issued) × 100
Surrender Rate	Policies voluntarily terminated early	Policy Status	policy_master	policy_status, surrender_date	(Surrendered / Total in-force) × 100
Policy Conversion Rate	Term policies converted to permanent	Coverage Type, Policy Number	policy_master, policy_conversion	coverage_type, conversion_date	(Conversions / Eligible term policies) × 100

2.3.2 Underwriting & Risk KPIs

KPI Name	Definition	Business Terms Involved	Table(s)	Column(s)	Calculation Logic
Application Approval Rate	Percentage of applications approved	Underwriting Decision	underwriting_decision	decision_type, application_id	(Approved / Total applications) × 100
Declination Rate	Percentage of applications declined	Underwriting Decision, Declination	underwriting_decision	decision_type	(Declined / Total applications) × 100
Average Underwriting Time	Mean days from application to decision	Application Date, Underwriting Decision	application_master, underwriting_decision	application_date, decision_date	AVG(DATEDIFF(decision_date, application_date))
Medical Exam Completion Rate	Applications with completed medical exams	Medical Exam, Application	medical_exam	exam_date, application_id	(Completed exams / Total requiring exams) × 100
Preferred Risk Percentage	Percentage of policies in preferred risk class	Risk Class	underwriting_decision	risk_class	(Preferred class / Total approved) × 100
Substandard Risk	Percentage of policies with	Risk Class, Table Rating	underwriting_decision	risk_class, table_rating	(Substandard / Total approved) × 100

KPI Name	Definition	Business Terms Involved	Table(s)	Column(s)	Calculation Logic
Percentage	table ratings				
Average Risk Premium Loading	Mean additional premium for substandard risks	Risk Premium	underwriting_decision	risk_premium_loading	AVG(risk_premium_loading) WHERE risk_class = 'Substandard'
Simplified Issue Percentage	Applications approved without medical exam	Medical Exam, Underwriting Decision	application_master, medical_exam	application_id, exam_required	(No exam required / Total approved) × 100
Underwriter Productivity	Applications processed per underwriter per day	Underwriter, Underwriting Decision	underwriting_decision	underwriter_id, decision_date	COUNT(applications) / COUNT(DISTINCT underwriter_id) / days
Postponement Rate	Applications postponed for additional information	Underwriting Decision	underwriting_decision	decision_type	(Postponed / Total applications) × 100

2.3.3 Premium & Billing KPIs

KPI Name	Definition	Business Terms Involved	Table(s)	Column(s)	Calculation Logic
Premium Collection Rate	Percentage of due premiums collected on time	Premium Payment, Premium Due Date	payment_transaction, premium_schedule	payment_date, due_date	(Paid on time / Total due) × 100
Outstanding Premium	Total uncollected premium amount	Outstanding Balance	premium_schedule	outstanding_balance	SUM(outstanding_balance) WHERE payment_status = 'Unpaid'
Average Premium Size	Mean premium amount across all policies	Premium Amount	premium_schedule	premium_amount	AVG(premium_amount)
Policy Loan Utilization	Percentage of policies with outstanding loans	Policy Loan, Policy Number	policy_loan	loan_amount, policy_number	(Policies with loans / Total eligible) × 100
Average Policy Loan Amount	Mean loan amount against cash value	Policy Loan	policy_loan	loan_amount	AVG(loan_amount) WHERE loan_status = 'Active'
Grace Period	Policies in grace period	Grace Period,	policy_master	grace_period_flag,	COUNT(policies) WHERE

KPI Name	Definition	Business Terms Involved	Table(s)	Column(s)	Calculation Logic
Utilization		Policy Status		policy_status	grace_period_flag = 1
Modal Premium Distribution	Breakdown by payment frequency	Premium Mode, Premium Frequency	premium_schedule	premium_mode	COUNT(policies) GROUP BY premium_mode
Reinstatement Success Rate	Reinstatements completed vs attempted	Reinstatement	reinstatement_transaction	reinstatement_status	(Completed / Attempted) × 100
Cash Value Growth Rate	Year-over-year cash value increase	Cash Value	policy_value	cash_value, valuation_date	((Current CV - Prior CV) / Prior CV) × 100
Premium Persistence	Premiums paid continuously without lapse	Premium Payment, Lapse	payment_transaction, policy_master	payment_date, lapse_date	(Policies without lapse / Total) × 100

2.4 Knowledge Base - Natural Language Queries with SQL Mapping

2.4.1 Policy Administration Queries

User Query	Business Intent	SQL/Logic	Table(s)/Columns
How many active policies do we have?	Get current policy count	SELECT COUNT(DISTINCT policy_number) FROM policy_master WHERE policy_status = 'Active';	policy_master/policy_number, policy_status
What is the total face amount in force?	Calculate total death benefit exposure	SELECT SUM(face_amount) FROM policy_master WHERE policy_status = 'Active';	policy_master/face_amount, policy_status
List all policies issued in 2024	Identify new business volume	SELECT policy_number, policy_holder_id, issue_date FROM policy_master WHERE YEAR(issue_date) = 2024;	policy_master/policy_number, policy_holder_id, issue_date
Which policies are in grace period?	Find policies at risk of lapse	SELECT policy_number, premium_due_date FROM policy_master pm JOIN premium_schedule ps USING(policy_number) WHERE ps.payment_status = 'Unpaid' AND DATEDIFF(CURRENT_DATE, ps.due_date) BETWEEN 1 AND 30;	policy_master, premium_schedule/policy_number, due_date, payment_status
What is our lapse rate this quarter?	Calculate policy termination rate	SELECT (COUNT(CASE WHEN policy_status = 'Lapsed' THEN 1 END) * 100.0 / COUNT(*)) as lapse_rate FROM policy_master WHERE lapse_date BETWEEN '2024-07-01' AND '2024-09-30';	policy_master/policy_status, lapse_date

User Query	Business Intent	SQL/Logic	Table(s)/Columns
Show policies with cash value over \$50,000	Identify high-value whole life policies	<pre>SELECT pm.policy_number, pm.policy_holder_id, pv.cash_value FROM policy_master pm JOIN policy_value pv USING(policy_number) WHERE pv.cash_value > 50000;</pre>	policy_master, policy_value/policy_number, cash_value
Which policies are maturing next year?	Plan for upcoming policy maturities	<pre>SELECT policy_number, maturity_date, face_amount FROM policy_master WHERE YEAR(maturity_date) = YEAR(CURRENT_DATE) + 1;</pre>	policy_master/policy_number, maturity_date, face_amount
List all policies with disability riders	Find policies with specific rider type	<pre>SELECT pm.policy_number, pr.rider_type FROM policy_master pm JOIN policy_rider pr USING(policy_number) WHERE pr.rider_type = 'Disability Income';</pre>	policy_master, policy_rider/policy_number, rider_type
What is average policy duration by coverage type?	Analyze persistency by product	<pre>SELECT coverage_type, AVG(DATEDIFF(CURRENT_DATE, issue_date) / 365.25) as avg_years FROM policy_master pm JOIN product_master prod USING(product_id) WHERE policy_status = 'Active' GROUP BY coverage_type;</pre>	policy_master, product_master/coverage_type, issue_date
How many policies were reinstated	Track policy restoration activity	<pre>SELECT COUNT(DISTINCT policy_number) FROM reinstatement_transaction WHERE YEAR(reinstatement_date) = YEAR(CURRENT_DATE) AND</pre>	reinstatement_transaction/policy_number, reinstatement_date

User Query	Business Intent	SQL/Logic	Table(s)/Columns
ed last month?		MONTH(reinstatement_date) = MONTH(CURRENT_DATE) - 1;	

2.4.2 Underwriting & Risk Queries

User Query	Business Intent	SQL/Logic	Table(s)/Columns
What is our approval rate this month ?	Measure underwriting acceptance	<pre>SELECT (COUNT(CASE WHEN decision_type = 'Approved' THEN 1 END) * 100.0 / COUNT(*)) as approval_rate FROM underwriting_decision WHERE YEAR(decision_date) = YEAR(CURRENT_DATE) AND MONTH(decision_date) = MONTH(CURRENT_DATE);</pre>	underwriting_decision/decision_type, decision_date
List all declined applications	Review rejection reasons	<pre>SELECT application_id, declination_reason, decision_date FROM underwriting_decision WHERE decision_type = 'Declined' ORDER BY decision_date DESC;</pre>	underwriting_decision/application_id, declination_reason, decision_type
What percentage of policies are preferred risk?	Analyze risk distribution	<pre>SELECT (COUNT(CASE WHEN risk_class = 'Preferred Plus' OR risk_class = 'Preferred' THEN 1 END) * 100.0 / COUNT(*)) as preferred_pct FROM underwriting_decision WHERE decision_type = 'Approved';</pre>	underwriting_decision/risk_class, decision_type
Average underwriting turnaround time by	Measure individual productivity	<pre>SELECT underwriter_id, AVG(DATEDIFF(decision_date, application_date)) as avg_days FROM underwriting_decision ud JOIN application_master am USING(application_id) GROUP BY underwriter_id;</pre>	underwriting_decision, application_master/underwriter_id, decision_date,

User Query	Business Intent	SQL/Logic	Table(s)/Columns
under writer			application_date
Applications pending medical exams	Track underwriting bottlenecks	<pre>SELECT am.application_id, am.application_date FROM application_master am LEFT JOIN medical_exam me USING(application_id) WHERE am.exam_required = 1 AND me.exam_date IS NULL;</pre>	application_master, medical_exam/application_id, exam_required, exam_date
How many substandard risks were issued last quarter?	Analyze higher-risk approvals	<pre>SELECT COUNT(*) FROM underwriting_decision WHERE risk_class = 'Substandard' AND decision_type = 'Approved' AND decision_date BETWEEN '2024-07-01' AND '2024-09-30';</pre>	underwriting_decision/risk_class, decision_type, decision_date
What is the average table rating for substandard cases?	Measure risk premium loading	<pre>SELECT AVG(table_rating) FROM underwriting_decision WHERE risk_class = 'Substandard' AND table_rating IS NOT NULL;</pre>	underwriting_decision/table_rating, risk_class
List applications postponed	Track incomplete	<pre>SELECT application_id, postponement_reason, decision_date FROM underwriting_decision WHERE</pre>	underwriting_decision/application_id,

User Query	Business Intent	SQL/Logic	Table(s)/Columns
need for additional requirements	to applications	decision_type = 'Postponed' ORDER BY decision_date DESC;	postponement_reason, decision_type
Approval rate by age group	Analyze age-base risk acceptance	<pre>SELECT CASE WHEN cm.age < 30 THEN 'Under 30' WHEN cm.age BETWEEN 30 AND 50 THEN '30-50' ELSE 'Over 50' END as age_group, (COUNT(CASE WHEN ud.decision_type = 'Approved' THEN 1 END) * 100.0 / COUNT(*)) as approval_rate FROM underwriting_decision ud JOIN application_master am USING(application_id) JOIN customer_master cm USING(customer_id) GROUP BY age_group;</pre>	underwriting_decision, application_master, customer_master/decision_type, age
Which underwriter has the highest declination rate?	Compare underwriter performance	<pre>SELECT underwriter_id, (COUNT(CASE WHEN decision_type = 'Declined' THEN 1 END) * 100.0 / COUNT(*)) as decline_rate FROM underwriting_decision GROUP BY underwriter_id ORDER BY decline_rate DESC;</pre>	underwriting_decision/underwriter_id, decision_type

2.4.3 Premium & Billing Queries

User Query	Business Intent	SQL/Logic	Table(s)/Columns
Total outstanding premium across all policies	Calculate uncollected revenue	<pre>SELECT SUM(outstanding_balance) FROM premium_schedule WHERE payment_status = 'Unpaid' AND due_date < CURRENT_DATE;</pre>	premium_schedule/outstanding_balance, payment_status, due_date
Premium collection rate for last month	Measure payment compliance	<pre>SELECT (COUNT(CASE WHEN payment_date <= due_date THEN 1 END) * 100.0 / COUNT(*)) as collection_rate FROM premium_schedule ps LEFT JOIN payment_transaction pt USING(schedule_id) WHERE YEAR(ps.due_date) = YEAR(CURRENT_DATE) AND MONTH(ps.due_date) = MONTH(CURRENT_DATE) - 1;</pre>	premium_schedule, payment_transaction/payment_date, due_date
List policies with outstanding loans	Track policy loan portfolio	<pre>SELECT policy_number, loan_amount, loan_date FROM policy_loan WHERE loan_status = 'Active' ORDER BY loan_amount DESC;</pre>	policy_loan/policy_number, loan_amount, loan_status
What is average premium by payment	Analyze modal premium distribution	<pre>SELECT premium_mode, AVG(premium_amount) as avg_premium FROM premium_schedule GROUP BY premium_mode;</pre>	premium_schedule/ premium_mode, premium_amount

User Query	Business Intent	SQL/Logic	Table(s)/Columns
frequency?	button		
How many policies paid via annual mode?	Understand payment preferences	<pre>SELECT COUNT(DISTINCT policy_number) FROM premium_schedule WHERE premium_mode = 'Annual';</pre>	premium_schedule/policy_number, premium_mode
Total premiums collected year-to-date	Calculate premium revenue	<pre>SELECT SUM(payment_amount) FROM payment_transaction WHERE YEAR(payment_date) = YEAR(CURRENT_DATE);</pre>	payment_transaction/payment_amount, payment_date
Policies with premiums overdue by more than 30 days	Identify lapse risk	<pre>SELECT ps.policy_number, ps.due_date, ps.outstanding_balance FROM premium_schedule ps WHERE ps.payment_status = 'Unpaid' AND DATEDIFF(CURRENT_DATE, ps.due_date) > 30;</pre>	premium_schedule/policy_number, due_date, outstanding_balance, payment_status
Average cash value growth rate	Measure policy value accuracy	<pre>SELECT AVG((pv_current.cash_value - pv_prior.cash_value) * 100.0 / pv_prior.cash_value) as avg_growth FROM policy_value pv_current JOIN policy_value pv_prior ON pv_current.policy_number = pv_prior.policy_number WHERE</pre>	policy_value/cash_value, valuation_date, policy_number

User Query	Business Intent	SQL/Logic	Table(s)/Columns
	mulation	pv_current.valuation_date = CURRENT_DATE AND pv_prior.valuation_date = DATE_SUB(CURRENT_DATE, INTERVAL 1 YEAR);	
What is total policy loan outstanding?	Calculate loan liability	SELECT SUM(loan_amount) FROM policy_loan WHERE loan_status = 'Active';	policy_loan/loan_amount, loan_status
Reinstatement success rate last quarter	Track policy restoration effectiveness	SELECT (COUNT(CASE WHEN reinstatement_status = 'Completed' THEN 1 END) * 100.0 / COUNT(*)) as success_rate FROM reinstatement_transaction WHERE reinstatement_date BETWEEN '2024-07-01' AND '2024-09-30';	reinstatement_transaction/reinstatement_status, reinstatement_date

2.5 Technical Metadata

2.5.1 Table Metadata

Table Name	Description	Business Area	Data Volume	Update Frequency	Owner
policy_master	Core policy information including policy number, holder, face amount, status	Policy Administration	~2.4 M rows	Real-time	Policy Operations
customer_master	Policyholder demographic and contact information	Customer Management	~2.0 M rows	Real-time	Customer Service
product_master	Insurance product catalog with coverage types and features	Product Management	~150 rows	Monthly	Product Development
premium_schedule	Premium billing schedule and payment tracking	Premium Management	~15M rows	Daily	Billing Operations
payment_transaction	Record of all premium payments received	Payment Processing	~50M rows	Real-time	Finance
policy_value	Cash value, surrender value for permanent policies	Policy Valuation	~1.2 M rows	Monthly	Actuarial
policy_rider	Additional coverage riders attached to policies	Policy Administration	~3M rows	Real-time	Policy Operations
beneficiary_m	Beneficiary information for	Beneficiary	~3.5 M	Real-time	Policy Opera

Table Name	Description	Business Area	Data Volume	Update Frequency	Owner
aster	death benefit payment	Management	rows		tions
application_master	Insurance applications submitted for underwriting	Underwriting	~500 K rows/year	Real-time	Underwriting
underwriting_decision	Underwriting outcomes and risk classifications	Underwriting	~500 K rows/year	Real-time	Underwriting
medical_exam	Medical examination results for underwriting	Medical Underwriting	~300 K rows/year	Daily	Medical Services
medical_records	Attending physician statements and health records	Medical Underwriting	~200 K rows/year	Weekly	Medical Services
actuarial_tables	Mortality rates and pricing tables	Actuarial Science	~10K rows	Annually	Actuarial
policy_loan	Loans taken against policy cash values	Policy Loans	~400 K rows	Real-time	Policy Operations
reinstatement_transaction	Policy reinstatement after lapse	Policy Administration	~50K rows/year	Real-time	Policy Operations

2.5.2 Data Dictionary - policy_master Table

Column Name	Data Type	Nullble	Description	Business Term	Valid Values / Constraints
policy_number	VARCHAR(20)	NOT NULL	Unique identifier for insurance policy (PK)	Policy Number	Format: POL-XXXXXXX
policy_holder_id	VARCHAR(15)	NOT NULL	Foreign key to customer_master.customer_id	Policy Holder	FK to customer_master.customer_id
product_id	INT	NOT NULL	Foreign key to product_master.product_id	Coverage Type	FK to product_master.product_id
face_amount	DECIMAL(12,2)	NOT NULL	Death benefit amount	Face Amount	> 0, typically \$50K - \$10M
policy_term_years	INT	NULL	Duration of coverage in years	Policy Term	10, 15, 20, 25, 30 for term; NULL for permanent
policy_status	VARCHAR(20)	NOT NULL	Current status of policy	Policy Status	Active, Lapsed, Paid-Up, Surrendered, Matured, Death Claim
issue_date	DATE	NOT NULL	Date policy was issued	Issue Date	>= application_date
maturity_date	DATE	NULL	Date policy reaches end of term	Maturity Date	NULL for permanent life

Column Name	Data Type	Nul lable	Description	Business Term	Valid Values / Constraints
lapse_date	DATE	NULL	Date policy lapsed due to non-payment	Lapse	NULL if never lapsed
surrender_date	DATE	NULL	Date policy was voluntarily terminated	Surrender Value	NULL if not surrendered
paid_up_date	DATE	NULL	Date policy became paid-up	Paid-Up Insurance	NULL if not paid-up
grace_period_days	INT	NOT NULL	Days allowed after due date	Grace Period	Default 30 or 31
created_date	TIME STAMP	NOT NULL	Record creation timestamp	N/A	System generated
updated_date	TIME STAMP	NOT NULL	Last update timestamp	N/A	System generated

2.5.3 Data Dictionary - underwriting_decision Table

Column Name	Data Type	Nullable	Description	Business Term	Valid Values / Constraints
decision_id	INT	NOT NULL	Unique identifier (PK, auto-increment)	N/A	Auto-generated
application_id	VARCHAR(20)	NOT NULL	Foreign key to application_master	Application	FK to application_master.application_id
underwriter_id	VARCHAR(10)	NOT NULL	ID of underwriter making decision	Underwriter	FK to employee_master.employee_id
decision_type	VARCHAR(20)	NOT NULL	Final underwriting decision	Underwriting Decision	Approved, Declined, Postponed, Counter-offer
decision_date	DATE	NOT NULL	Date decision was made	N/A	>= application_date
risk_class	VARCHAR(20)	NULL	Risk classification assigned	Risk Class	Preferred Plus, Preferred, Standard, Substandard; NULL if declined
table_rating	INT	NULL	Numerical rating for substandard risks	Table Rating	1-16 (represents additional mortality percentage)
risk_premium	DECIMAL(8,2)	NULL	Additional premium percentage	Risk Premium	0-200% additional

Column Name	Data Type	Nullable	Description	Business Term	Valid Values / Constraints
_loading					
flat_extra_amount	DECIMAL(8,2)	NULL	Fixed additional premium per \$1000 coverage	Flat Extra Premium	0-50 per thousand
declination_reason	VARCHAR(200)	NULL	Reason for application decline	Declination	NULL if not declined
postponement_reason	VARCHAR(200)	NULL	Reason for postponement	N/A	NULL if not postponed
decision_notes	TEXT	NULL	Additional underwriter comments	N/A	Free text
created_date	TIMESTAMP	NOT NULL	Record creation timestamp	N/A	System generated

2.5.4 Data Dictionary - premium_schedule Table

Column Name	Data Type	Null able	Description	Business Term	Valid Values / Constraints
schedule_id	INT	NOT NULL	Unique identifier (PK, auto-increment)	N/A	Auto-generated
policy_number	VARCHAR(20)	NOT NULL	Foreign key to policy_master	Policy Number	FK to policy_master. policy_number
premium_amount	DECIMAL(10,2)	NOT NULL	Amount due for this billing period	Premium Amount	> 0
premium_mode	VARCHAR(15)	NOT NULL	Payment frequency	Premium Mode	Monthly, Quarterly, Semi-Annual, Annual
due_date	DATE	NOT NULL	Date payment is due	Premium Due Date	Based on issue_date + frequency
payment_status	VARCHAR(15)	NOT NULL	Current payment status	N/A	Paid, Unpaid, Partial
outstanding_balance	DECIMAL(10,2)	NOT NULL	Unpaid amount remaining	Outstanding Balance	>= 0
created_date	TIME STAMP	NOT NULL	Record creation timestamp	N/A	System generated
updated_date	TIME STAMP	NOT NULL	Last update timestamp	N/A	System generated

2.5.5 Table Joins and Relationships

Primary Relationships:

-- Policy to Customer

policy_master:policy_holder_id → customer_master:customer_id

-- Policy to Product

policy_master:product_id → product_master:product_id

-- Policy to Premium Schedule

policy_master:policy_number → premium_schedule:policy_number (1:many)

-- Policy to Payment Transactions

premium_schedule:schedule_id → payment_transaction:schedule_id (1:many)

-- Policy to Policy Value

policy_master:policy_number → policy_value:policy_number (1:many with effective dates)

-- Policy to Beneficiaries

policy_master:policy_number → beneficiary_master:policy_number (1:many)

-- Application to Underwriting Decision

application_master:application_id → underwriting_decision:application_id (1:1)

-- Application to Medical Exam

application_master:application_id → medical_exam:application_id (1:many)

-- Application to Customer

application_master:customer_id → customer_master:customer_id

Section 3: Domain 2 - Claims & Customer Service

3.1 Domain-Subdomain-Glossary Mapping

Domain	Subdomain	Glossary
Claims & Customer Service	Claims Intake & Registration	Claims Processing Glossary
Claims & Customer Service	Claims Assessment & Investigation	Claims Processing Glossary
Claims & Customer Service	Claims Settlement & Payment	Claims Processing Glossary
Claims & Customer Service	Customer Service Operations	Customer Service Glossary
Claims & Customer Service	Policyholder Communication	Customer Service Glossary

3.2 Business Metadata

3.2.1 Claims Processing Glossary - Business Terms

Business Term	Description	Physical Table(s)	Column(s)
Claim Number	Unique identifier for each insurance claim	claim_master	claim_number
Claimant	Person filing the claim (beneficiary or policyholder)	claim_master, beneficiary_master	claimant_id , beneficiary_id
Claim Type	Category of claim (Death, Disability, Maturity, Surrender)	claim_master	claim_type
Claim Status	Current state of claim processing	claim_master	claim_status
Date of Loss	Date of insured event occurrence	claim_master	loss_date
Claim Filed Date	Date claim was submitted	claim_master	filed_date
Claim Amount	Total amount being claimed	claim_master	claim_amount
Approved Amount	Final amount approved for payment	claim_settlement	approved_amount
Settlement Date	Date claim payment was issued	claim_settlement	settlement_date
Claim Adjuster	Professional reviewing and processing claim	claim_master	adjuster_id
Death Certificate	Official document certifying death	claim_documentation	death_certificate_file
Proof of Loss	Documentation supporting claim	claim_documentation	proof_of_loss_file
Beneficiary Payment	Amount paid to beneficiary	claim_settlement	payment_amount

Business Term	Description	Physical Table(s)	Column(s)
Outstanding Claims	Claims not yet settled	claim_master	claim_status
Claim Denial	Rejection of claim	claim_settlement	denial_reason
Investigation Required	Flag indicating fraud or complexity review	claim_master	investigation_flag

3.2.2 Customer Service Glossary - Business Terms

Business Term	Description	Physical Table(s)	Column(s)
Service Request	Customer inquiry or request for assistance	service_request	request_id
Request Type	Category of service request	service_request	request_type
Service Agent	Representative handling customer inquiry	service_request	agent_id
Request Status	Current state of service request	service_request	status
Resolution Time	Time taken to resolve customer request	service_request	created_date, resolved_date
Customer Satisfaction Score	Rating provided by customer after service	service_feedback	satisfaction_score
Policy Change Request	Request to modify policy details	policy_change_request	change_request_id
Address Change	Update to policyholder address	policy_change_request	new_address
Beneficiary Change	Update to beneficiary designation	beneficiary_change	change_date
Customer Complaint	Formal complaint from policyholder	customer_complaint	complaint_id
Escalation	Transfer of issue to higher authority	service_request	escalation_flag
First Call Resolution	Issue resolved on first contact	service_request	first_contact_resolution

Business Term	Description	Physical Table(s)	Column(s)
Call Duration	Length of customer service call	service_interaction	call_duration_seconds
Email Inquiry	Customer question via email	service_interaction	interaction_type
Chat Session	Online chat with customer	service_interaction	interaction_type

3.3 Key Performance Indicators (KPIs)

3.3.1 Claims Processing KPIs

KPI Name	Definition	Business Terms Involved	Table(s)	Column(s)	Calculation Logic
Total Claims Registered	Number of new claims filed in period	Claim Number, Filed Date	claim_master	claim_number, filed_date	COUNT(DISTINCT claim_number) WHERE filed_date in period
Claims Settlement Ratio	Percentage of claims approved and paid	Claim Status, Settlement Date	claim_master, claim_settlement	claim_status, settlement_date	(Settled claims / Total claims) × 100
Average Claim Settlement Time	Mean days from filing to payment	Filed Date, Settlement Date	claim_master, claim_settlement	filed_date, settlement_date	AVG(DATEDIF(settlement_date, filed_date))
Claim Denial Rate	Percentage of claims denied	Claim Status, Claim Denial	claim_settlement	denial_reason	(Denied claims / Total claims) × 100
Outstanding Claims Value	Total amount of unsettled claims	Claim Amount, Claim Status	claim_master	claim_amount, claim_status	SUM(claim_amount) WHERE claim_status IN ('Pending', 'In Review')
Claims Paid	Total settlement amount	Approved Amount, Settlement Date	claim_settlement	approved_amount, settlement_date	SUM(approved_amount) WHERE settlement_date in period

KPI Name	Definition	Business Terms Involved	Table(s)	Column(s)	Calculation Logic
	disbursed			ent_date	
Average Claim Amount	Mean claim payout	Approved Amount	claim_settlement	approved_amount	AVG(approved_amount)
Claim Frequency Rate	Claims per 1000 policies	Claim Number, Policy Count	claim_master, policy_master	claim_number, policy_number	(Total claims / Active policies) × 1000
Investigation Rate	Claims requiring detailed investigation	Investigation Required	claim_master	investigation_flag	(Investigated claims / Total claims) × 100
Death Claim Settlement Time	Days to settle death benefit claims	Claim Type, Filed Date, Settlement Date	claim_master, claim_settlement	claim_type, filed_date, settlement_date, ent_date	AVG(DATEDIF(F(settlement_date, filed_date)) WHERE claim_type = 'Death')

3.3.2 Customer Service KPIs

KPI Name	Definition	Business Terms Involved	Table(s)	Column(s)	Calculation Logic
Total Service Requests	Number of customer inquiries in period	Service Request	service_request	request_id, created_date	COUNT(request_id) WHERE created_date in period
Average Resolution Time	Mean hours to resolve service request	Service Request, Resolution Time	service_request	created_date, resolved_date	AVG(DATEDIF(F(HOUR, created_date, resolved_date)))
First Call Resolution Rate	Percentage resolved on first contact	First Call Resolution	service_request	first_contact_resolution	(First contact resolved / Total requests) × 100
Customer Satisfaction Score	Average satisfaction rating	Customer Satisfaction Score	service_feedback	satisfaction_score	AVG(satisfaction_score)
Open Service Requests	Number of unresolved requests	Request Status	service_request	status	COUNT(request_id) WHERE status IN ('Open', 'In Progress')
Service Request by Type	Volume breakdown by request category	Request Type	service_request	request_type	COUNT(request_id) GROUP BY request_type

KPI Name	Definition	Business Terms Involved	Table(s)	Column(s)	Calculation Logic
Escalation Rate	Percentage of requests escalated	Escalation	service_request	escalation_flag	(Escalated requests / Total requests) × 100
Average Call Duration	Mean length of phone interactions	Call Duration	service_interaction	call_duration_seconds	AVG(call_duration_seconds) WHERE interaction_type = 'Phone'
Policy Change Processing Time	Days to complete policy modifications	Policy Change Request	policy_change_request	created_date, completed_date	AVG(DATEDIF F(completed_date, created_date))
Complaint Resolution Rate	Percentage of complaints resolved	Customer Complaint	customer_complaint	resolution_status	(Resolved complaints / Total complaints) × 100

3.4 Knowledge Base - Natural Language Queries with SQL Mapping

3.4.1 Claims Processing Queries

User Query	Business Intent	SQL/Logic	Table(s)/Columns
How many claims were filed this month?	Track monthly claim volume	<pre>SELECT COUNT(DISTINCT claim_number) FROM claim_master WHERE YEAR(filed_date) = YEAR(CURRENT_DATE) AND MONTH(filed_date) = MONTH(CURRENT_DATE);</pre>	claim_master/claim_number, filed_date
What is total value of outstanding claims?	Calculate pending claim liability	<pre>SELECT SUM(claim_amount) FROM claim_master WHERE claim_status IN ('Pending', 'In Review', 'Documentation Required');</pre>	claim_master/claim_amount, claim_status
List all death claims settled last quarter	Review mortality claims	<pre>SELECT cm.claim_number, cm.policy_number, cs.approved_amount, cs.settlement_date FROM claim_master cm JOIN claim_settlement cs USING(claim_number) WHERE cm.claim_type = 'Death' AND cs.settlement_date BETWEEN '2024-07-01' AND '2024-09-30';</pre>	claim_master, claim_settlement/claim_number, claim_type, settlement_date
Average claim settlement time by claim type	Analyze processing efficiency	<pre>SELECT cm.claim_type, AVG(DATEDIFF(cs.settlement_date, cm.filed_date)) as avg_days FROM claim_master cm JOIN claim_settlement cs USING(claim_number) GROUP BY cm.claim_type;</pre>	claim_master, claim_settlement/claim_type, filed_date, settlement_date
Claims pending	Identify	<pre>SELECT claim_number, filed_date, claim_status FROM claim_master</pre>	claim_master/claim_n

User Query	Business Intent	SQL/Logic	Table(s)/Columns
g for more than 30 days	delayed claim s	WHERE claim_status NOT IN ('Settled', 'Denied') AND DATEDIFF(CURRENT_DATE, filed_date) > 30;	umber, filed_date, claim_status
What is our claim denial rate this year?	Measure claim rejection percentage	SELECT (COUNT(CASE WHEN denial_reason IS NOT NULL THEN 1 END) * 100.0 / COUNT(*)) as denial_rate FROM claim_settlement WHERE YEAR(settlement_date) = YEAR(CURRENT_DATE);	claim_settlement/denial_reason, settlement_date
Total claims paid year-to-date	Calculate claims expense	SELECT SUM(approved_amount) FROM claim_settlement WHERE YEAR(settlement_date) = YEAR(CURRENT_DATE);	claim_settlement/approved_amount, settlement_date
Claims requiring investigation	Track fraud detection activity	SELECT claim_number, claim_type, investigation_reason FROM claim_master WHERE investigation_flag = 1 AND claim_status = 'Under Investigation';	claim_master/claim_number, investigation_flag, investigation_reason
Which adjuster has the highest settlement rate?	Compare adjuster performance	SELECT cm.adjuster_id, (COUNT(CASE WHEN cs.settlement_date IS NOT NULL THEN 1 END) * 100.0 / COUNT(*)) as settlement_rate FROM claim_master cm LEFT JOIN claim_settlement cs USING(claim_number) GROUP BY cm.adjuster_id ORDER BY settlement_rate DESC;	claim_master, claim_settlement/adjuster_id, settlement_date

User Query	Business Intent	SQL/Logic	Table(s)/Columns
Average payout amount for death claims	Analyze death benefit payments	<pre>SELECT AVG(approved_amount) FROM claim_settlement cs JOIN claim_master cm USING(claim_number) WHERE cm.claim_type = 'Death';</pre>	claim_settlement, claim_master/approve d_amount, claim_type

3.4.2 Customer Service Queries

User Query	Business Intent	SQL/Logic	Table(s)/Columns
How many service requests are currently open?	Track pending workload	<pre>SELECT COUNT(request_id) FROM service_request WHERE status IN ('Open', 'In Progress');</pre>	service_request/request_id, status
What is our average resolution time?	Measure service efficiency	<pre>SELECT AVG(TIMESTAMPDIFF(HOUR, created_date, resolved_date)) as avg_hours FROM service_request WHERE resolved_date IS NOT NULL;</pre>	service_request/created_date, resolved_date
First call resolution rate last month	Evaluate service quality	<pre>SELECT (COUNT(CASE WHEN first_contact_resolution = 1 THEN 1 END) * 100.0 / COUNT(*)) as fcr_rate FROM service_request WHERE YEAR(created_date) = YEAR(CURRENT_DATE) AND MONTH(created_date) = MONTH(CURRENT_DATE) - 1;</pre>	service_request/first_contact_resolution, created_date
Customer satisfaction scores this quarter	Assesses customer feedback	<pre>SELECT AVG(satisfaction_score) as avg_score FROM service_feedback WHERE feedback_date BETWEEN '2024-07-01' AND '2024-09-30';</pre>	service_feedback/satisfaction_score, feedback_date
Most common service request types	Identify frequent inquiries	<pre>SELECT request_type, COUNT(*) as request_count FROM service_request WHERE YEAR(created_date) = YEAR(CURRENT_DATE) GROUP BY request_type;</pre>	service_request/request_type, created_date

User Query	Business Intent	SQL/Logic	Table(s)/Columns
		request_type ORDER BY request_count DESC;	
Requests escalated to management	Track escalation volume	SELECT COUNT(request_id) FROM service_request WHERE escalation_flag = 1 AND YEAR(created_date) = YEAR(CURRENT_DATE);	service_request/request_id, escalation_flag
Average call duration by agent	Measure agent efficiency	SELECT agent_id, AVG(call_duration_seconds) as avg_seconds FROM service_interaction WHERE interaction_type = 'Phone' GROUP BY agent_id;	service_interaction/agent_id, call_duration_seconds, interaction_type
Policy changes pending approval	Track change request backlog	SELECT COUNT(change_request_id) FROM policy_change_request WHERE status = 'Pending Approval';	policy_change_request/change_request_id, status
Open complaints by priority	Prioritize complaint resolution	SELECT priority_level, COUNT(complaint_id) FROM customer_complaint WHERE resolution_status = 'Open' GROUP BY priority_level ORDER BY priority_level;	customer_complaint/priority_level, complaint_id, resolution_status
Beneficiary changes	Track beneficiary	SELECT COUNT(DISTINCT policy_number) FROM beneficiary_change WHERE	beneficiary_change/policy_num

User Query	Business Intent	SQL/Logic	Table(s)/Columns
processed this month	updates	YEAR(change_date) = YEAR(CURRENT_DATE) AND MONTH(change_date) = MONTH(CURRENT_DATE);	ber, change_date

3.5 Technical Metadata

3.5.1 Table Metadata

Table Name	Description	Business Area	Data Volume	Update Frequency	Owner
claim_master	Core claim information including claim number, type, status	Claims Processing	~150K rows/year	Real-time	Claims Operations
claim_settlement	Settlement details including approval, payment, denial	Claims Processing	~150K rows/year	Real-time	Claims Operations
claim_documentation	Supporting documents for claims (certificates, proof)	Claims Processing	~300K rows/year	Real-time	Claims Operations
service_request	Customer service inquiries and requests	Customer Service	~1M rows/year	Real-time	Customer Service
service_interaction	Individual customer interactions (calls, emails, chats)	Customer Service	~3M rows/year	Real-time	Customer Service
service_feedback	Customer satisfaction ratings and feedback	Customer Service	~500K rows/year	Real-time	Customer Service
policy_change_request	Requests to modify policy details	Policy Administration	~250K rows/year	Real-time	Policy Operations
beneficiary_ch	Beneficiary designation	Policy Admini	~100K rows/	Real-time	Policy Opera

Table Name	Description	Business Area	Data Volume	Update Frequency	Owner
change	changes	stratification	year		tions
customer_complaint	Formal complaints from policyholders	Customer Service	~50K rows/year	Real-time	Customer Service

3.5.2 Data Dictionary - claim_master Table

Column Name	Date Type	Nullable	Description	Business Term	Valid Values / Constraints
claim_number	VARCHAR(20)	NOT NULL	Unique identifier for claim (PK)	Claim Number	Format: CLM-XXXXXXX
policy_number	VARCHAR(20)	NOT NULL	Foreign key to policy_master	Policy Number	FK to policy_master.policy_number
claimant_id	VARCHAR(15)	NOT NULL	Foreign key to beneficiary or customer	Claimant	FK to beneficiary_master or customer_master
claim_type	VARCHAR(20)	NOT NULL	Category of claim	Claim Type	Death, Disability, Maturity, Surrender, Critical Illness
claim_status	VARCHAR(30)	NOT NULL	Current processing status	Claim Status	Pending, Documentation Required, In Review, Under Investigation, Approved, Denied, Settled
claim_amount	DECIMAL(12,2)	NOT NULL	Total amount being claimed	Claim Amount	> 0
loss_date	DATETIME	NOT NULL	Date of insured event	Date of Loss	<= filed_date

Column Name	Date Type	Nullable	Description	Business Term	Valid Values / Constraints
filed_date	DATE	NOT NULL	Date claim was submitted	Claim Filed Date	>= loss_date
adjuster_id	VARCHAR(10)	NOT NULL	Claims adjuster assigned	Claim Adjuster	FK to employee_master.employee_id
investigation_flag	BOOLEAN	NOT NULL	Indicates if investigation required	Investigation Required	0 = No, 1 = Yes
investigation_reason	VARCHAR(200)	NULL	Reason for investigation	N/A	NULL if investigation_flag = 0
created_date	TIMESTAMP	NOT NULL	Record creation timestamp	N/A	System generated
updated_date	TIMESTAMP	NOT NULL	Last update timestamp	N/A	System generated

3.5.3 Data Dictionary - service_request Table

Column Name	Data Type	Nullable	Description	Business Term	Valid Values / Constraints
request_id	INT	NOT NULL	Unique identifier (PK, auto-increment)	Service Request	Auto-generated
policy_number	VARCHAR(20)	NULL	Related policy if applicable	Policy Number	FK to policy_master.policy_number; NULL for general inquiries
customer_id	VARCHAR(15)	NOT NULL	Customer making request	N/A	FK to customer_master.customer_id
request_type	VARCHAR(50)	NOT NULL	Category of request	Request Type	Policy Information, Address Change, Beneficiary Change, Premium Inquiry, Loan Request, General Inquiry, Complaint
status	VARCHAR(20)	NOT NULL	Current request status	Request Status	Open, In Progress, Resolved, Closed
agent_id	VARCHAR(10)	NOT NULL	Service agent handling request	Service Agent	FK to employee_master.employee_id
first_contact_resolution	BLOB	NOT NULL	Resolved on first interaction	First Call Resolution	0 = No, 1 = Yes

Column Name	Date Type	Nullable	Description	Business Term	Valid Values / Constraints
escalation_flag	BOOLEAN	NOT NULL	Escalated to management	Escalation	0 = No, 1 = Yes
created_date	TIMESTAMP	NOT NULL	Request creation timestamp	N/A	System generated
resolved_date	TIMESTAMP	NULL	Resolution timestamp	Resolution Time	NULL if not resolved; >= created_date
resolution_notes	TEXT	NULL	Details of resolution	N/A	Free text

3.5.4 Table Joins and Relationships

Primary Relationships:

-- Claim to Policy

claim_master.policy_number → policy_master.policy_number

-- Claim to Settlement

claim_master.claim_number → claim_settlement.claim_number (1:1)

-- Claim to Documentation

claim_master.claim_number → claim_documentation.claim_number (1:many)

-- Claim to Beneficiary

claim_master.claimant_id → beneficiary_master.beneficiary_id

-- Service Request to Policy

service_request.policy_number → policy_master.policy_number

-- Service Request to Customer

service_request.customer_id → customer_master.customer_id

-- Service Request to Interactions

service_request.request_id → service_interaction.request_id (1:many)

-- Service Request to Feedback
service_request.request_id → service_feedback.request_id (1:1)

-- Policy Change to Policy
policy_change_request.policy_number → policy_master.policy_number

Section 4: Implementation Considerations

4.1 Data Quality Requirements

For NLQ service effectiveness, the following data quality standards must be maintained:

1. **Completeness:** All required fields must be populated (NULL values minimized in key business terms)
2. **Accuracy:** Regular reconciliation between source systems and data warehouse
3. **Consistency:** Standardized code values and naming conventions across tables
4. **Timeliness:** Real-time updates for transactional data; daily refresh for analytical tables
5. **Validity:** Referential integrity maintained across all foreign key relationships

4.2 Security and Access Control

Metadata access should be role-based:

- **Business Users:** Access to glossaries, business terms, KPIs, knowledge base
- **Analysts:** Full access to technical metadata, table structures, joins
- **Administrators:** Complete metadata management capabilities
- **NLQ Service:** Read-only access to all metadata layers

4.3 Metadata Maintenance

To ensure NLQ service remains current and accurate:

1. **Quarterly Review:** Business terms and KPI definitions reviewed with domain experts
2. **Monthly Update:** Knowledge base expanded with new frequently asked queries
3. **Real-time Sync:** Technical metadata automatically updated from schema changes
4. **Annual Audit:** Comprehensive metadata quality assessment

4.4 NLQ Service Integration Points

The metadata maps to NLQ service components as follows:

Metadata Component	NLQ Service Usage
Business Terms	Natural language entity recognition
KPIs	Pre-built analytical query templates
Knowledge Base	Query-to-SQL training data
Table Metadata	Schema understanding for query generation
Joins	Automatic relationship inference
Data Dictionary	Column-level semantic understanding

Appendix A: Additional Glossaries (For Future Implementation)

Guardian Life may expand NLQ coverage to these domains:

- 1. Investment & Asset Management Domain**
 - Investment Portfolio Management Glossary
 - Asset Allocation & Performance Glossary
 - 2. Agent & Distribution Domain**
 - Agent Performance & Commissions Glossary
 - Sales & Distribution Channel Glossary
 - 3. Compliance & Regulatory Domain**
 - Regulatory Reporting Glossary
 - Compliance Monitoring Glossary
 - 4. Group Benefits Domain**
 - Employer Group Management Glossary
 - Group Benefits Administration Glossary
-

Appendix B: Data Lineage Examples

Example 1: Policy Count KPI

Source Systems → ETL Process → Data Warehouse → NLQ Service

[Policy Admin System] → [Daily Batch] → [policy_master table] → [Policy Count query]

Example 2: Claim Settlement Ratio KPI

[Claims System] → [Real-time Stream] → [claim_master, claim_settlement] → [Settlement Ratio calculation]

Document Version Control

Ver sio n	Date	Author	Changes
1.0	November 25, 2025	NLQ Implementation Team	Initial release - 2 domains, 5 glossaries, 40+ KPIs, 40+ knowledge base queries

End of Document