Hello…..

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Structuring Intelligence

Claim Assistant

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Use Case: Claim Assistant

📄 What: Is the problem statement

Every day, thousands of claims come to insurance companies ie car accidents, health treatments, house damage, etc. Each claim may have variety of supporting documents span across multiple systems

Some information are already inside our analytical system like
- Policy number, premium, claim amount, reserve

But the most important information is still outside:
- What the doctor wrote
- What the police report says
- What the surveyor found
- What the adjuster observed
- So the adjuster has to open 4–5 systems and read PDFs / text files etc manually.

Customer calls and asks "What did the doctor say?" → we say "Please wait, we will check and call back."

🔗 Why: This is a big problem:

Because of this gap, there is no single place to see the full claim. So every time someone asks a new question:

- Adjuster has to open 4–5 systems and read files manually
- Manager wants a report → has to wait for IT or operations team to pull data
- Customer calls → "Sir, we will check and call back"
- Fraud team needs to see medical notes → again wait for someone to extract

Result:
- Good amount of manual work for the files sitting outside
- Every new request = dependency on IT & operations
- Self-service is missing : no one can get instant answers

🎛 How : What changes with this solution

We did something very simple:

1. We kept all numbers in Snowflake (no change)
2. We just uploaded the unstructured files into Snowflake (no new system)
3. We turned on two Snowflake features:
   - Cortex Analyst → understands the numbers
   - Cortex Search → reads the actual text files

Now one single chatbot can answer in ~3-5 seconds:
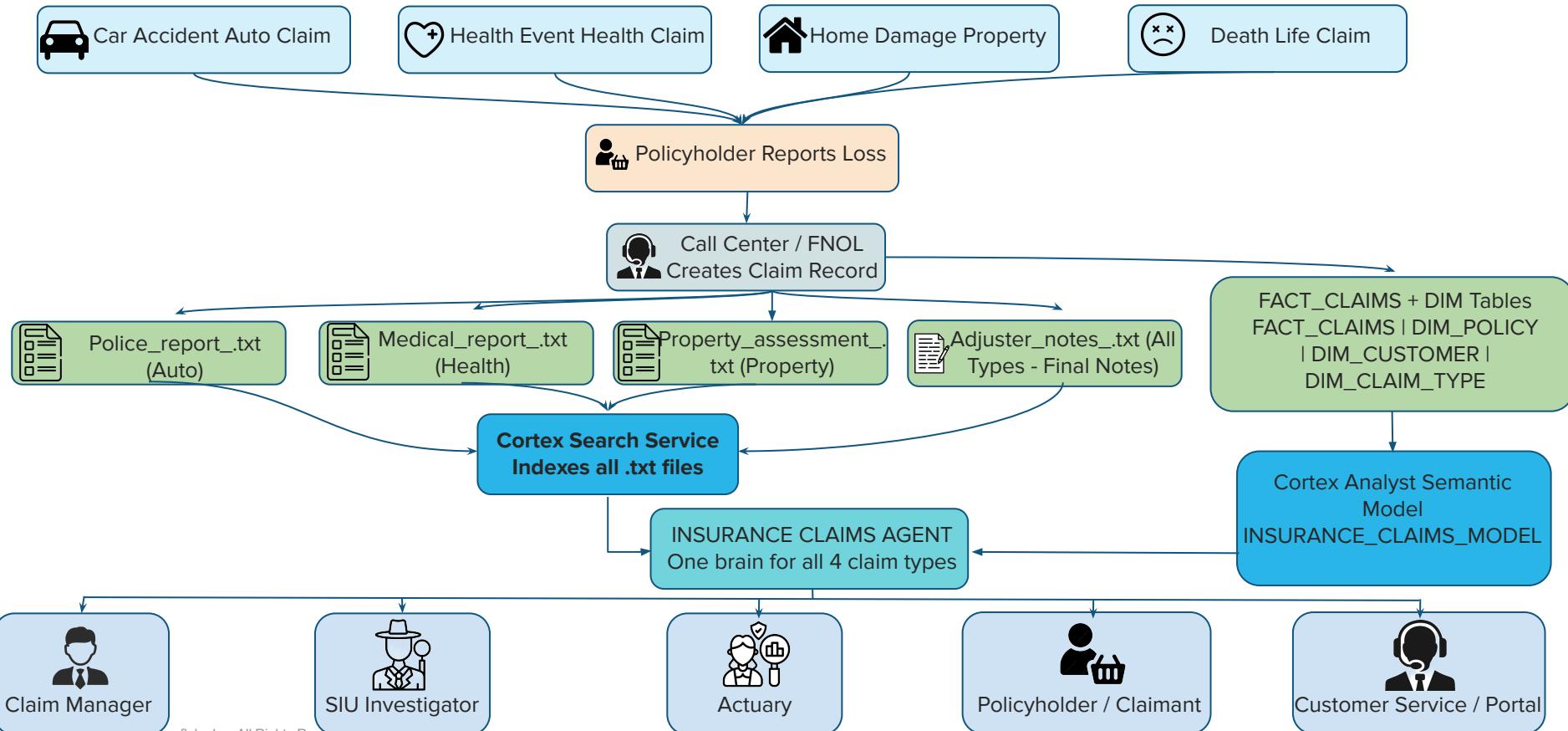
1. Customer: "What did the doctor write about my injury?"
2. Adjuster: "Show reserve + read police report fault"
3. Manager: "Loss ratio + quote surveyor comment on roof damage"
4. Fraud team: "Show claims with 'pre-existing condition' in medical report"

Benefits:
- No extra software.
- No data leaves Snowflake.
- Same chatbot works for customer, adjuster, manager, fraud team ie multiple stakeholders
- This is not just a chatbot. This is the first time anyone can talk to the full claim and supporting documents in seconds.

Claims Flow For This Use Case

Car Accident Auto Claim

Health Event Health Claim

Home Damage Property

Death Life Claim

Policyholder Reports Loss

Call Center / FNOL Creates Claim Record

Police_report_.txt (Auto)

Medical_report_.txt (Health)

Property_assessment_.txt (Property)

Adjuster_notes_.txt (All Types - Final Notes)

FACT_CLAIMS + DIM Tables
FACT_CLAIMS | DIM_POLICY | DIM_CUSTOMER | DIM_CLAIM_TYPE

Cortex Search Service Indexes all .txt files

Cortex Analyst Semantic Model
INSURANCE_CLAIMS_MODEL

INSURANCE CLAIMS AGENT
One brain for all 4 claim types

Claim Manager

SIU Investigator

Actuary

Policyholder / Claimant

Customer Service / Portal

Claims Key Stakeholders – "Who Does What"

| Role / Entity	Action / Responsibility	Example in Scenario
Policyholder / Claimant	Person involved in the incident	Eg: Sarah Patel the injured driver
Call Center / FNOL Intake	Captures first notice of loss and creates the claim record	Creates claim CLM-2025-001590
Police Department	Documents incident details	Writes police_report_CLM-2025-001590.txt
Treating Physician	Provides medical diagnosis and treatment information	Writes medical_report_CLM-2025-001590.txt
Field Adjuster	Investigates scene, gathers facts, documents findings	Writes adjuster_notes.txt
Desk Adjuster	Evaluates claim, sets reserves, negotiates settlement	You decides reserve & settlement
Claims Manager	Manages team, monitors outcomes and loss ratios	Oversees team performance & loss ratio
SIU Investigator	Investigates potential fraud	Hunts fraud (early claims, inconsistent stories)
Actuary	Performs statistical analysis for reserves and loss ratios	Calculates ultimate loss ratio & reserves
Customer Service / Portal	Provides status updates to customers	Answers "Where's my check?" calls

Data Overview

*Unstructured Files
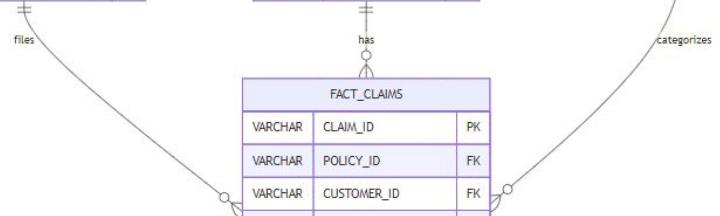
1. **Police_Report_<Claim Number> : <Click Here>**
   (~8 sample reports)

1. **Property_Assessment_<Claim Number> : <Click Here>**
   (~6 sample reports)

1. **Medical_Report_<Claim Number> : <Click Here>**
   (~10 sample reports)

1. **Adjuster_Notes_<Claim Number> : <Click Here>**
   (~ for 6 distinct claims, hence overall 6 sample)

* tentative and the content may change

*Structured : Data Model

DIM_CUSTOMER

VARCHAR	CUSTOMER_ID	PK
VARCHAR	CUSTOMER_NAME	
DATE	DATE_OF_BIRTH	
VARCHAR	GENDER	
VARCHAR	RISK_PROFILE	
VARCHAR	LOSS_LOCATION_CITY	
BOOLEAN	COASTAL_PROPERTY	

DIM_POLICY

VARCHAR	POLICY_ID	PK
VARCHAR	CUSTOMER_ID	FK
DATE	START_DATE	
DECIMAL	PREMIUM_AMOUNT	
DECIMAL	COVERAGE_BI	
DECIMAL	DEDUCTIBLE	
VARCHAR	POLICY_TYPE	

DIM_CLAIM_TYPE

VARCHAR	CLAIM_TYPE	PK
VARCHAR	DESCRIPTION	

FACT_CLAIMS

VARCHAR	CLAIM_ID	PK
VARCHAR	POLICY_ID	FK
VARCHAR	CUSTOMER_ID	FK
VARCHAR	CLAIM_TYPE	FK
DATE	CLAIM_DATE	
DATE	LOSS_DATE	
DECIMAL	CLAIM_AMOUNT	
DECIMAL	SETTLEMENT_AMOUNT	
VARCHAR	CLAIM_STATUS	
INT	PROCESSING_DAYS	
BOOLEAN	WEATHER_RELATED	
VARCHAR	ADJUSTER_ID	
VARCHAR	LOSS_LOCATION_CITY	

files   has   categorizes

DEMO

Persona	Prompt	Structured	UnStructured
Claim Adjuster	For claim CLM-2025-001590 show claim amount, settlement amount, processing days and quote the exact diagnosis from the medical report	Yes	Yes
Claim Adjuster	summarize the notes from the adjuster on CLM-2024-002827	No	Yes
Claim Manager	Show top 5 largest property claims by claim amount and quote the surveyor's comment on damage cause from the property assessment report.	Yes	Yes
Claim Manager	Show Denial Rate and average settlement ratio for auto claims this year.	Yes	No
SIU Investigator	Find customers with 3 or more claims in the last 2 years and for the top one, quote any mention of 'pre-existing condition' from their medical reports	Yes	Yes
Actuary	Calculate Ultimate Loss Ratio for 2025 (settlement + 80% of unsettled claim amount ÷ earned premium) and quote the adjuster's liability opinion from the top 3 largest open claims	Yes	Yes
Policy Holder / Claimant	Hi, this is customer for claim CLM-2025-000898. How much has been approved and read me what the police officer wrote about who was at fault	Yes	Yes

THANK YOU

Appendix