

Chanwoo Song

Plan / Design / Build / Evaluate



Product planning

Requirements / scope
Rules / acceptance criteria



Build and release

AI-assisted build / QA
Tago Write & Voca releases



Team and client work

Requirements / delivery scope
Data authoring / review



AI system design

Ontology / RAG / memory
Agent workflows



Evaluation

Benchmarks / failure analysis
Cost, latency, reliability



Technical communication

Proposals / overseas demos
Hackathon pitches / wins



SF Demo Night / San Francisco / 2026.05

Projects and capabilities

Each case covers the background, objective, solution, system design and result.

Also included
Chatbot improvement, product design, NCSOFT language data

01	AI dietitian Domain discovery / rules / acceptance criteria	03
02	Utility chatbot Ontology engineering / integration / operations	08
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AI dietitian

Client project / domain knowledge and business rules

BACKGROUND

- Menu planning combined nutrition, budget, supply and kitchen limits.
- Ingredient changes triggered substitution and cost reviews.
- Experienced dietitians held much of the required judgment.
- That knowledge needed reuse across sites and junior staff.

OBJECTIVE

- Reduce repeated planning and review work.
- Share expertise through recommendations suited to each site.

MY ROLE

- Joint discovery of the business need and planning problems.
- Structured data and rules; aligned scope and acceptance criteria.

AI 식단 옵션

< 1 / 1 >

주 평균 재료비 (목표재료비 준수율%)

3,495.793,500100%

Business Logic Compliance Status

0

0

<		2025-03-10 - 2025-03-16						>													
끼니	코너	03/10 월		03/11 화		03/12 수		03/13 목		03/14 금											
조식 4,067원	코너 A 4,067원	식수 150	세트 구성 재료비 2,502(71.49%)	식수 150	세트 구성 재료비 6,238(178.23%)	식수 150	세트 구성 재료비 2,240(64.00%)	식수 150	세트 구성 재료비 4,595(131.29%)	식수 150	세트 구성 재료비 4,760(136.00%)										
		함나물무침	538	주꾸미볶음	2,463	치커리무침	431	유자해산물세비체	2,376	생선까스윙킨기	883										
		숙달이국	794	백짬뽕탕	949	홍합어묵탕	783	시골완장짜개	913	쪽발냉채	1,845										
		크레미글소스볶음밥	915	칠리새우	1,443	콩조림	193	상추쌈	533	오곡잡곡밥	591										
		알파피클	255	고치어묵김치우동	1,383	뽕콩국물	833	세송이양념구이	773	어묵전	707										
										치킨너겟	734										
		C 66.94%	P 14.78%	F 16.91%	746	C 65.42%	P 21.86%	F 25.23%	910	C 49.94%	P 32.08%	F 18.45%	331	C 44.60%	P 33.26%	F 44.28%	355	C 60.90%	P 23.47%	F 53.34%	946
중식 3,551원	코너 A 3,243원	식수 200	세트 구성 재료비 1,842(52.63%)	식수 200	세트 구성 재료비 3,581(102.31%)	식수 200	세트 구성 재료비 1,922(54.91%)	식수 200	세트 구성 재료비 3,245(92.71%)	식수 200	세트 구성 재료비 5,627(160.77%)										
		부추양파무침	442	마라우육탕면	1,922	뽕나물	504	맛살야채볶음	504	오징어튀김	1,575										
		무생채	499	김가루주먹밥	548	평이장국	213	오꼬노미해물파전	698	햄야채볶음	636										
		석박지	550	고기튀김	712	야채볶음밥	580	사천자장면	1,510	면지카츠	1,507										
		팔국수육수	179	돌깨미역국	399	궁중떡볶이	625	계란볶음밥	533	막대감자튀김	647										
		일식치자단무지	172							전주식계란말국수	1,262										
		C 80.12%	P 11.45%	F 10.28%	128	C 68.15%	P 14.46%	F 34.74%	1,013	C 69.84%	P 10.89%	F 19.44%	857	C 54.90%	P 13.25%	F 33.61%	1,026	C 55.27%	P 20.81%	F 83.79%	1,186
	코너 B 3,858원	식수 200	세트 구성 재료비 6,312(180.34%)	식수 200	세트 구성 재료비 3,399(97.11%)	식수 200	세트 구성 재료비 3,585(102.43%)	식수 200	세트 구성 재료비 3,183(90.94%)	식수 200	세트 구성 재료비 2,810(80.29%)										
		대패삼겹달걀밥	2,451	타워함박스테이크	2,208	함박오므라이스	2,152	다시마냉채	316	콩비지감자전	443										
		불고기밀라프	2,029	미트볼케첩조림	706	미소시루	201	파언예물볶음밥	399	우영채볶음	561										
		새알미역국	420	멸치고추장볶음	263	단무지야채볶음밥	1,042	시금치국	472	김말이튀김	557										
		바삭한제육불고기	1,412	콩나물국	222	단무지	190	간짜장면	1,996	두부김치	704										
										맛살냉채	545										
		C 52.56%	P 15.21%	F 29.72%	1,906	C 56.45%	P 36.80%	F 161.35%	339	C 54.81%	P 9.48%	F 34.10%	1,598	C 66.36%	P 14.97%	F 22.95%	1,051	C 53.51%	P 14.70%	F 95.16%	469
석식 2,778원	코너 A 2,778원	식수 150	세트 구성 재료비 3,686(105.31%)	식수 150	세트 구성 재료비 2,810(80.29%)	식수 150	세트 구성 재료비 2,216(63.31%)	식수 150	세트 구성 재료비 2,076(59.31%)	식수 150	세트 구성 재료비 3,104(88.69%)										
		감자옹심이칼국수	1,804	고기완자조림	895	뿌리채소버섯영양밥	1,205	김치콩나물국	435	콘치즈구이	504										
		치커리사과무침	468	얼무비빔밥 (오색비빔)	1,343	[한촌설렁탕]한촌떡갈비	97	세발나물생채	338	호박채맑은국	427										
		포자만두쌈	585	육수II	186	비엔나야채볶음	693	우영채고추장무침	338	김치볶음밥	1,314										
		튀나물밥	829	완자어묵볶음	386	평이미소시루	221	치킨가라아게	965	짜개치	859										
		C 74.46%	P 10.90%	F 13.67%	1,343	C 49.66%	P 12.95%	F 35.95%	1,119	C 64.69%	P 18.10%	F 51.47%	783	C 35.96%	P 36.80%	F 138.35%	287	C 58.36%	P 14.64%	F 41.25%	1,460

80% less menu-design time

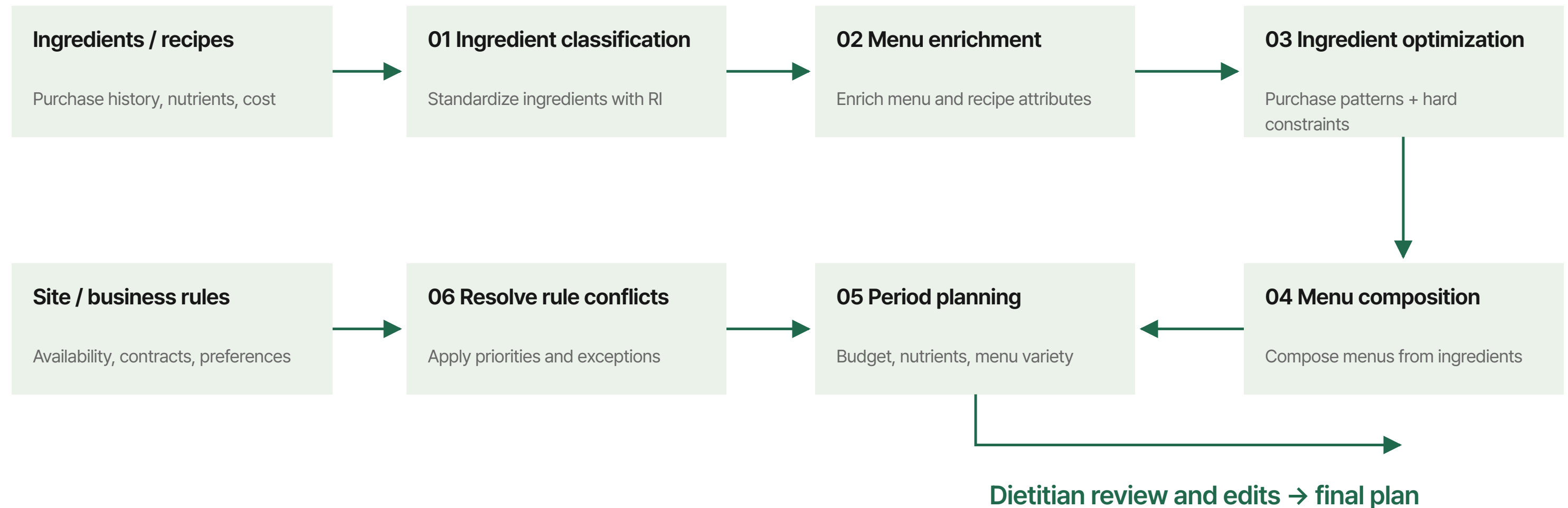
Reported in the project presentation

Six functions for constrained menu planning

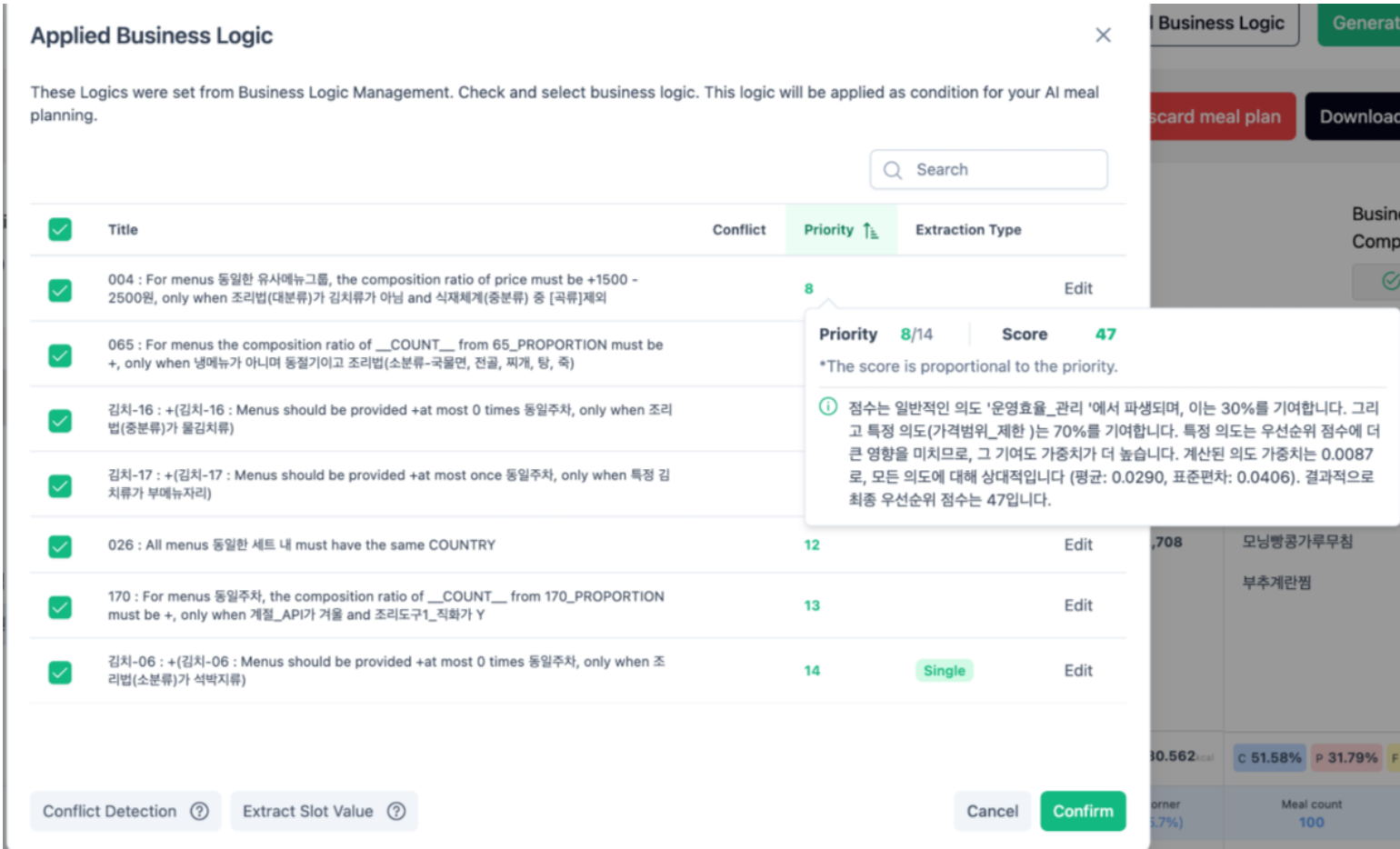
Solution / make domain judgment explicit in data, rules and review

INPUT DATA

RECOMMENDATION AND PLANNING MODULES



Editable priorities and rule exceptions



01

Constraints and preferences

Apply restrictions and availability;
use site preferences to rank candidates.

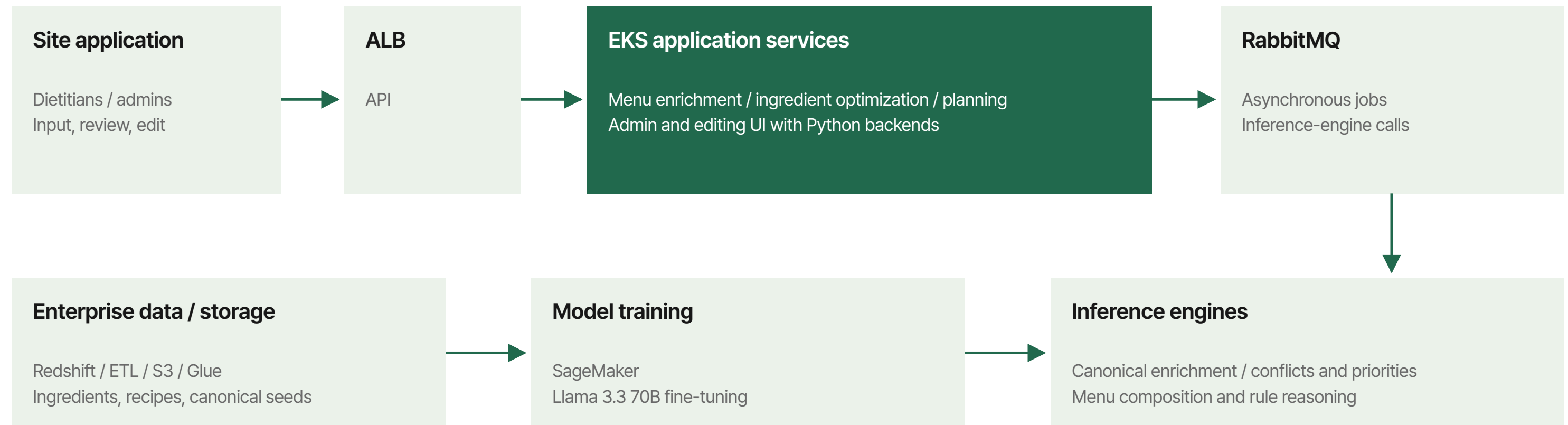
02

Explicit conflict handling

Handle priorities and exceptions;
align acceptance criteria with the team.

Services, asynchronous inference and data

Deployment design / distinguish application services from inference jobs



My contribution / translated domain rules, admin interfaces and recommendation outputs into scope and acceptance criteria.

Menu-design time

80%

reduction

The product shows cost, nutrition and rule compliance alongside recommendations, with edits by the dietitian.

My contribution: rules, slots and validation scenarios from domain expertise.

95%

Ingredient recommendation accuracy

99%

Meal plans within budget

Utility chatbot

Client project / launched May 2024

BACKGROUND

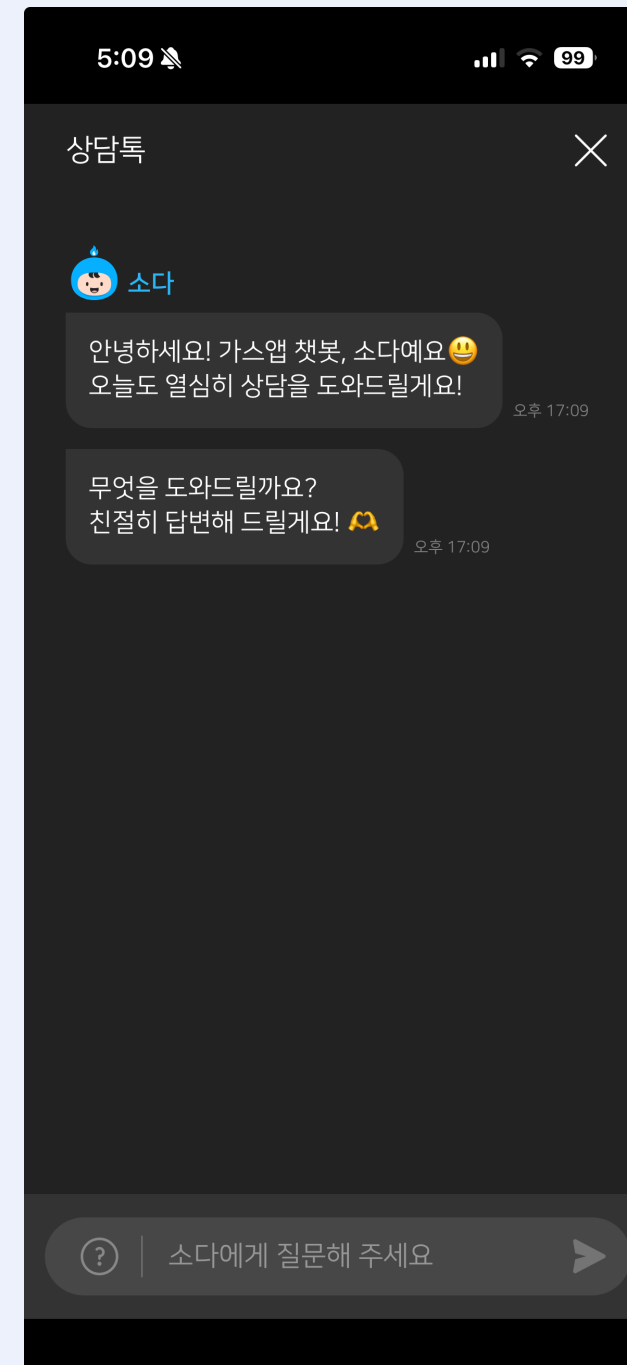
- Billing, meter-reading and moving tasks required menu knowledge.
- Everyday requests did not match service categories.
- Actions varied by household, contract, date and enrollment.
- The client needed in-app help for routine service requests.

OBJECTIVE

- Let customers reach services using everyday language.
- Route each context to lookup, requests or human support.

MY ROLE

- Co-defined scenarios and scope; directly built the ontology.
- Configured and tested dialogs; coordinated service integration.



Utility app chat service

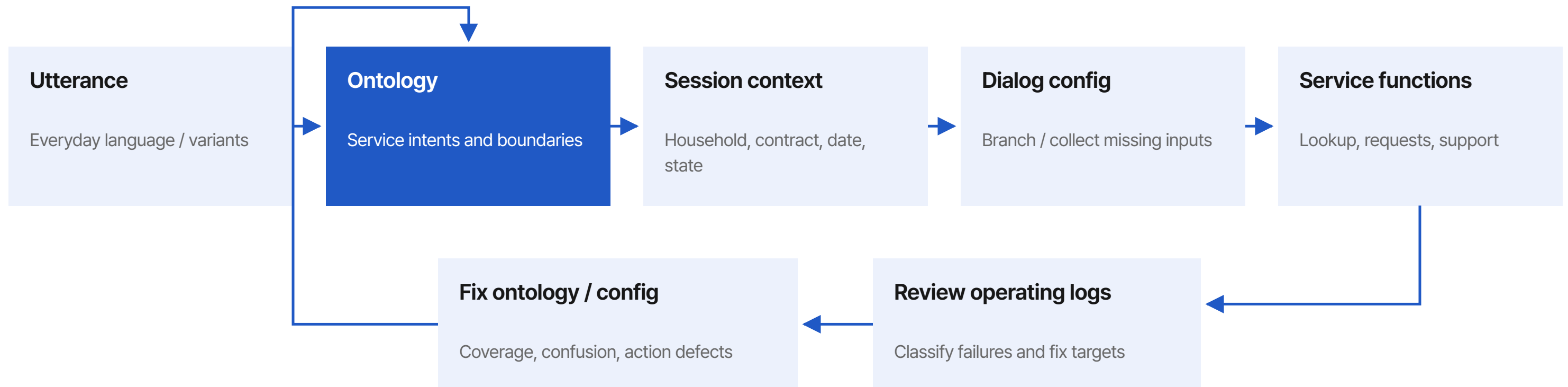
Actual service conversation entry

595,658

All conversation records, including opening messages

From intent recognition to service actions

Solution / ontology + session context + dialog configuration + service integration



MY CONTRIBUTION

- Defined intent boundaries and built the ontology.

VALIDATION

- Regression-tested conversations and response-card actions.

2024.05 — 2026.04

OPERATING LOG PERIOD

595,658

conversation records / including opening messages

349,087

conversation sessions

96%

utterance recognition

Operating utterance review
Ontology / configuration diagnosis
Iterative fixes and regression tests

Automotive documentation

Client project / requirements and solution proposal

BACKGROUND

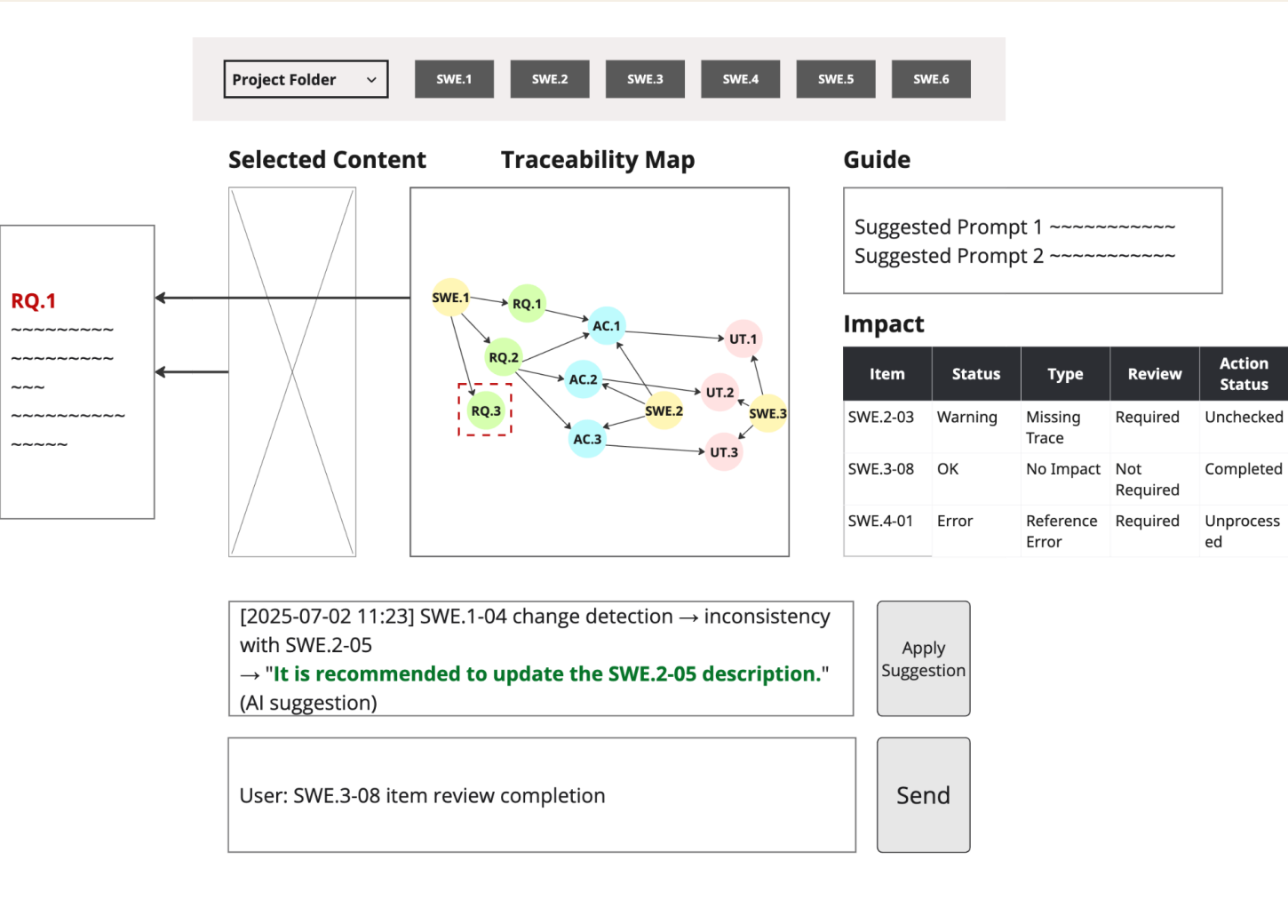
- Documentation spanned requirements, design, code and tests.
- Changes required a way to identify affected artifacts.
- Generated documents also needed links to source and tests.
- The design had to fit on-premises, Git and Markdown workflows.

OBJECTIVE

- Make document creation and change review repeatable.
- Propose generation, traceability and expert review as one flow.

MY ROLE

- Defined requirements, operating scenarios and module boundaries.
- Scoped functions, deliverables and the implementation roadmap.



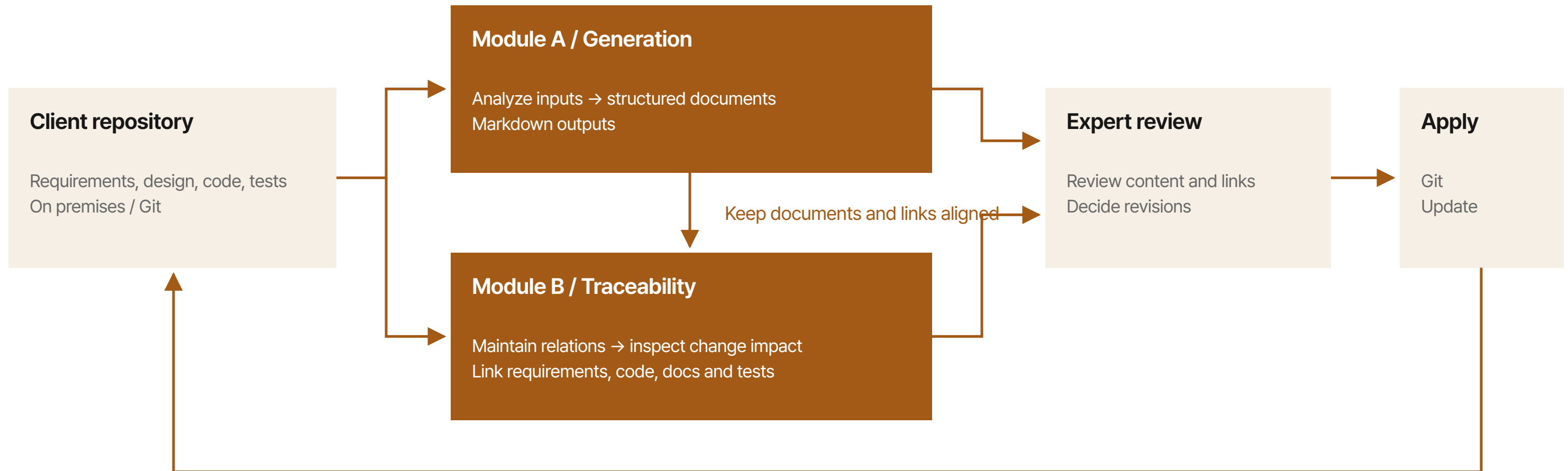
Traceability screen design / links, change impact and review status

Generation + traceability

Requirements, solution proposal and screen design

Two modules: generation and traceability

Solution / incorporate the client's on-premises, Git and Markdown constraints



Repeat generation, traceability checks and review as inputs change.

Turned operating constraints into implementation scope.

CONSTRAINT	DESIGN DECISION	DELIVERABLE
On-premises operation	Processing within the client environment	Environment constraints and scope
Git-based collaboration	Maintain relations as inputs change	Operating scenarios and traceable artifacts
Markdown documents	Define output format and expert review	Output structure and functional requirements
Implementation scope	Separate generation and traceability	Two-module scope and phased roadmap

Agent optimization

Company product / CPO · product, experiments, implementation

BACKGROUND

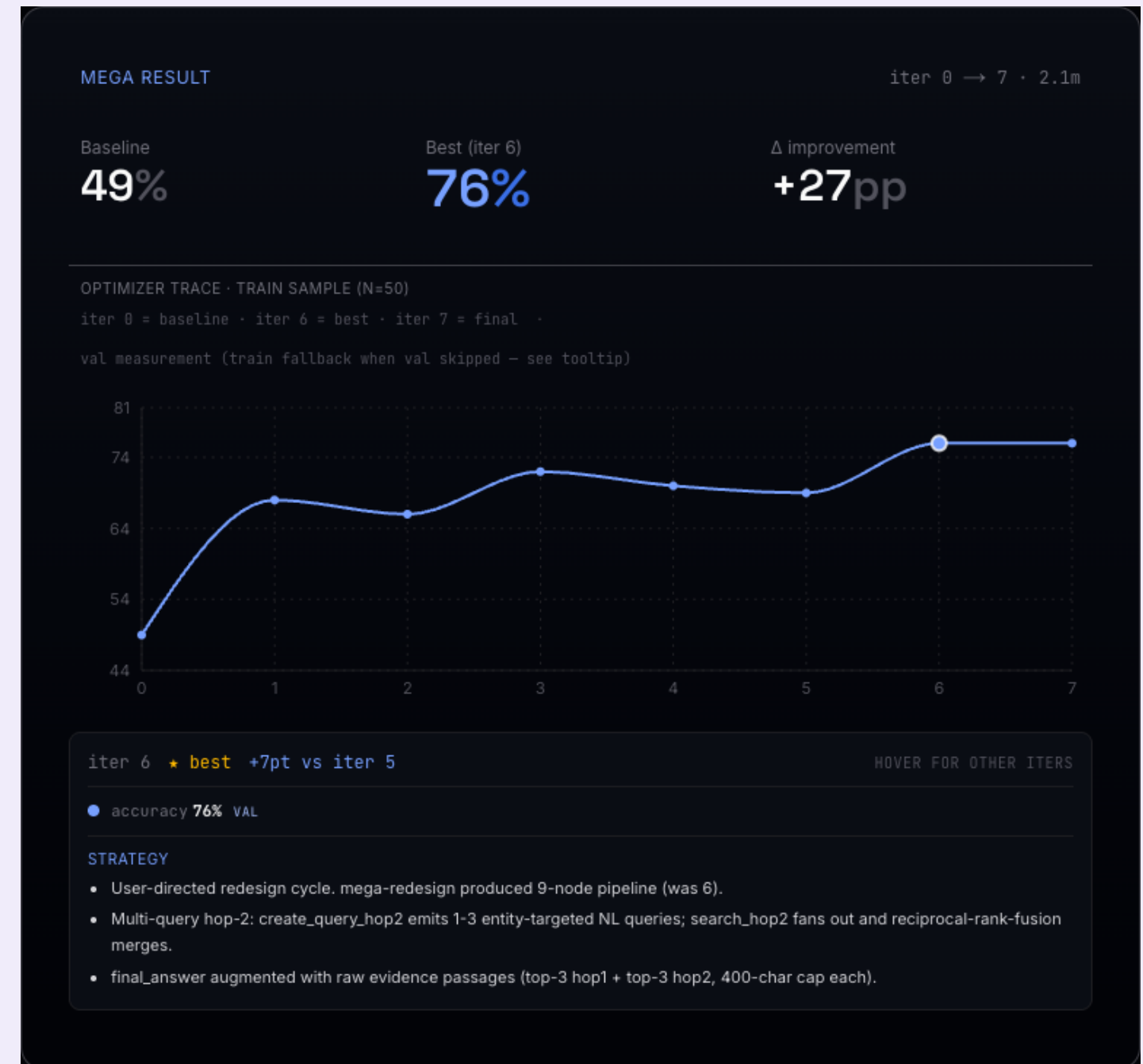
- Prompt and skill fixes did not prevent recurring failures.
- Developers still had to diagnose and correct each run.
- More memory added duplicate instructions and retrieval noise.
- Optimization had to account for quality, cost and complexity.

OBJECTIVE

- Reuse the reasons for success and failure across tasks.
- Retain workflow changes supported by evaluation.

MY ROLE

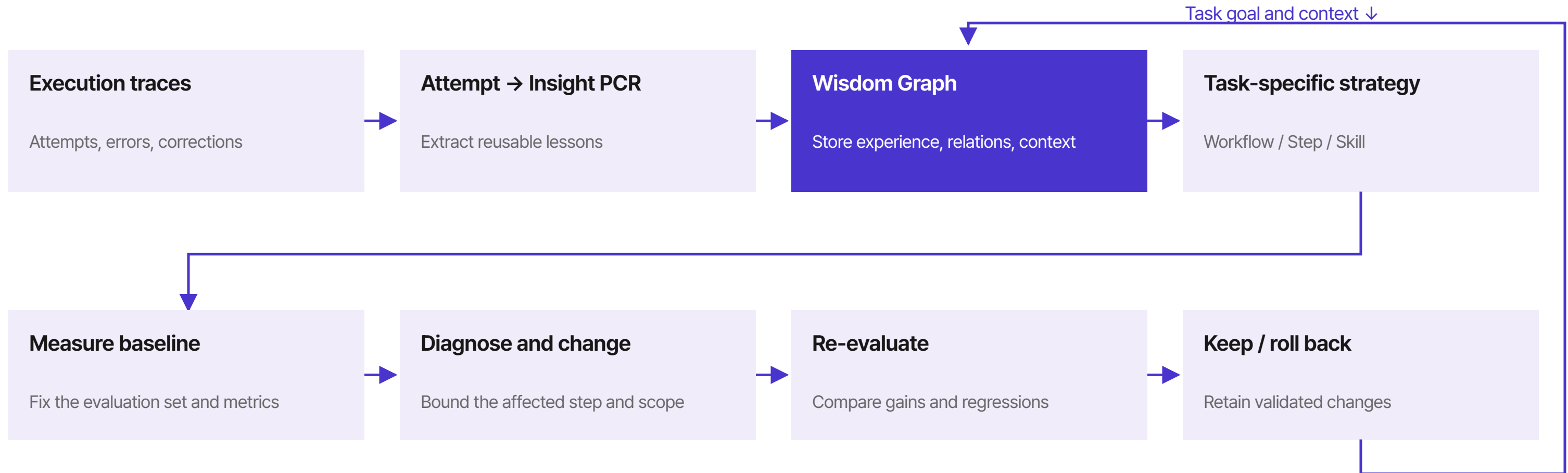
- CPO / direction, evaluation criteria and experiment design.
- Contributed to implementation, experiments and product decisions.



HotpotQA optimization demo / iteration scores and changes

Learn from execution; evaluate every change

Solution / knowledge generation → task curation → evaluation-driven optimization



Validated results and lessons update shared knowledge for reuse.

Aggregate score

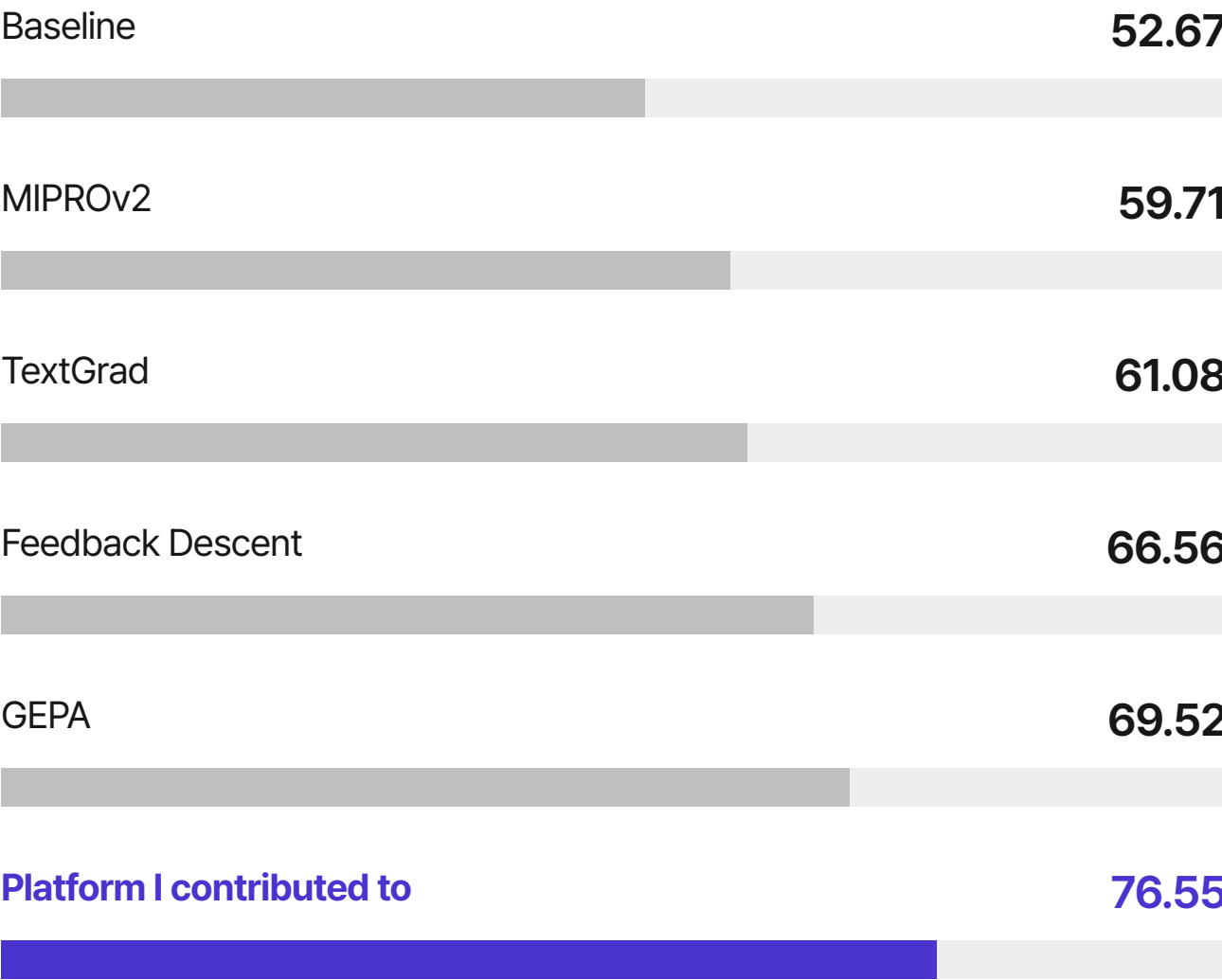
52.67

→ 76.55

+23.88 points vs baseline

+7.03 points vs GEPA

HotpotQA / IFBench / HoVer / PUPA
Team results within the same evaluation.



Tago Write

Independent app / released July 2026

BACKGROUND

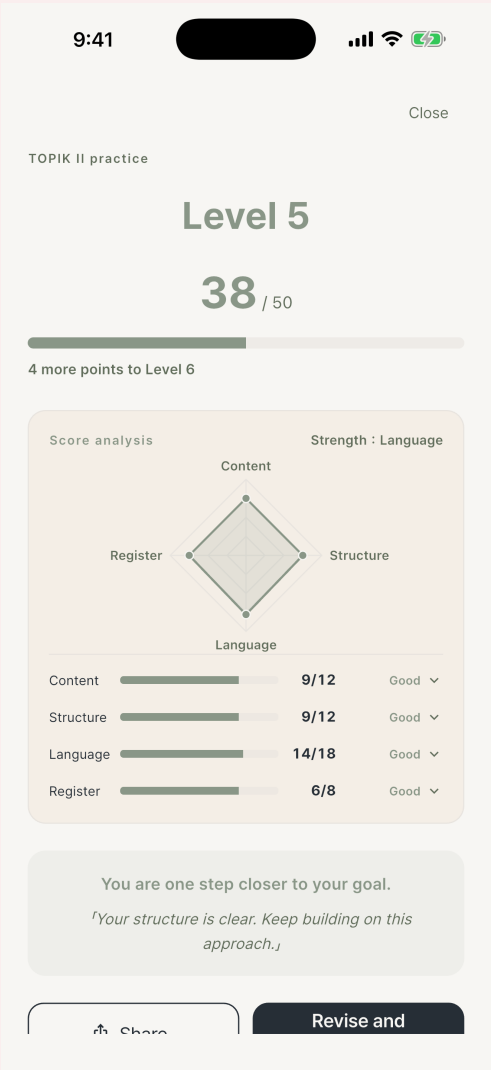
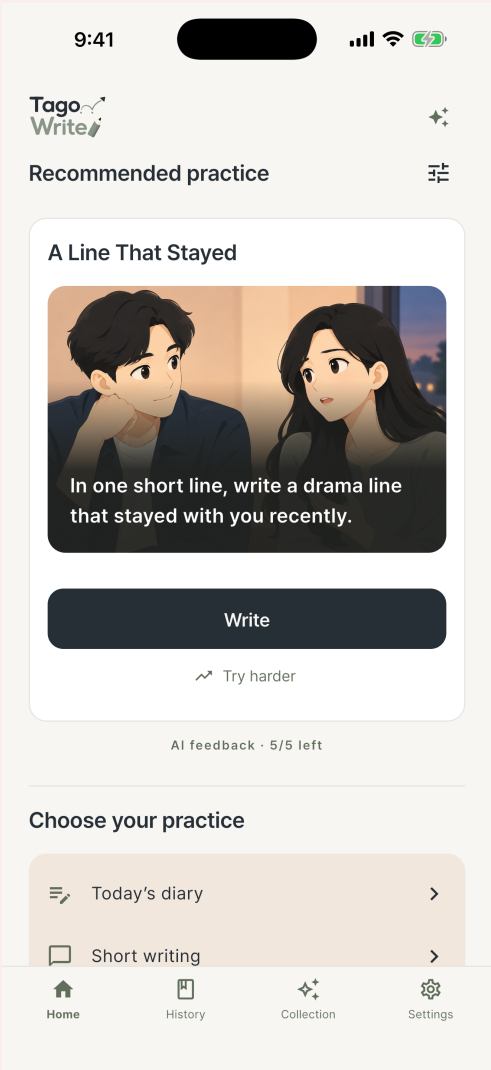
- A writing score did not tell learners how to revise.
- Casual writing and TOPIK tasks needed different criteria.
- Feedback had to match language and level, with draft comparison.
- AI requests also required recovery, deduplication and cost controls.

OBJECTIVE

- Connect understandable assessment with the next writing attempt.
- Combine scoring, localized feedback, revision and saved expressions.

MY ROLE

- Independent product / planning, AI-assisted development and QA.
- Implemented server jobs and cost controls; shipped and updated the app.

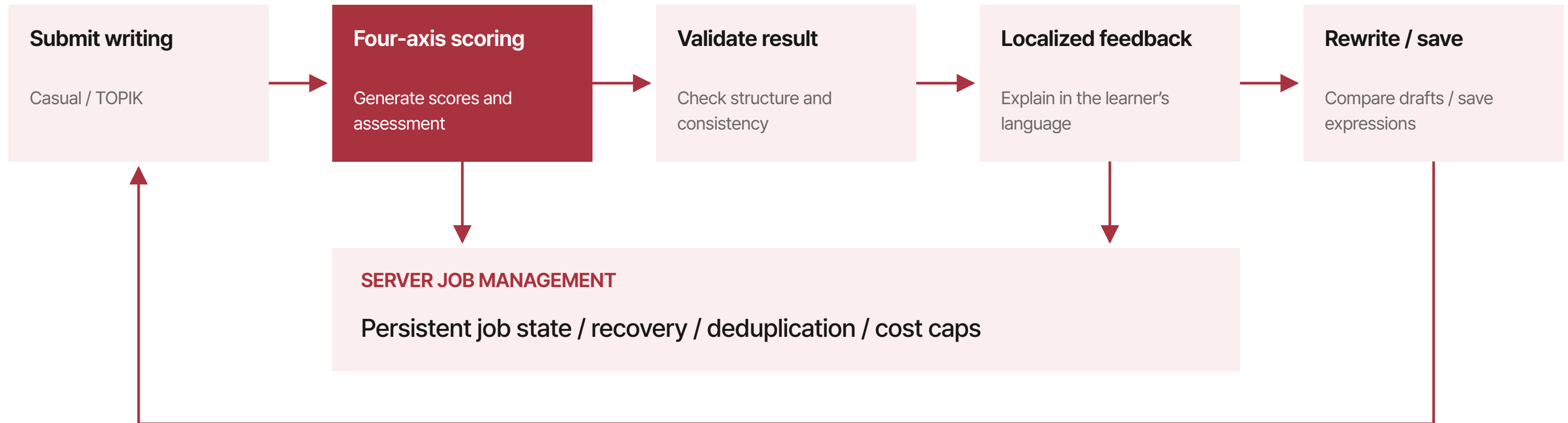


4 scoring axes · 5 UI languages

Feature scope / not a learning-outcome measure

Separated scoring from feedback generation.

Solution / explain validated scores in the learner's language, then support revision and saved expressions



Read feedback → revise → evaluate again

Tago Voca

Independent app / released September 2026

BACKGROUND

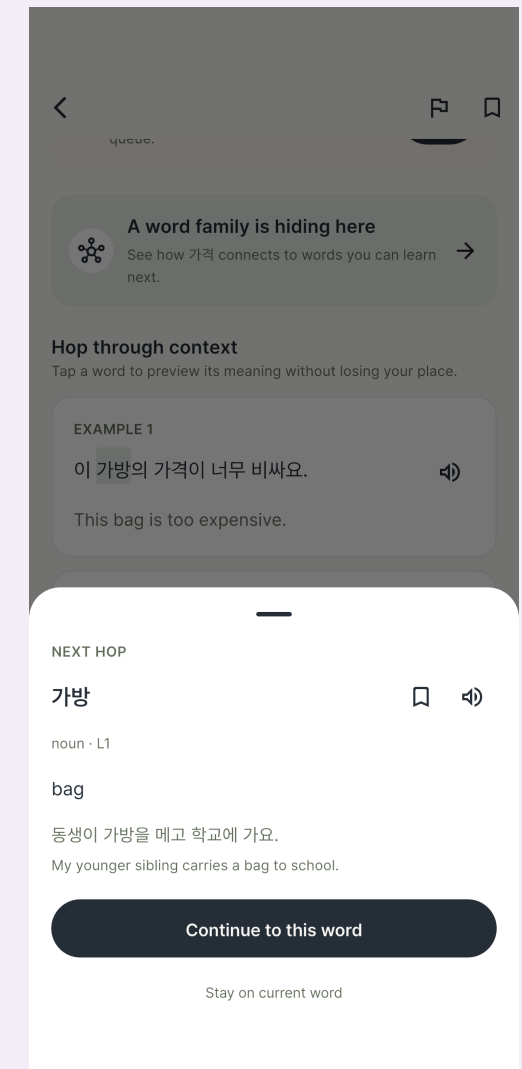
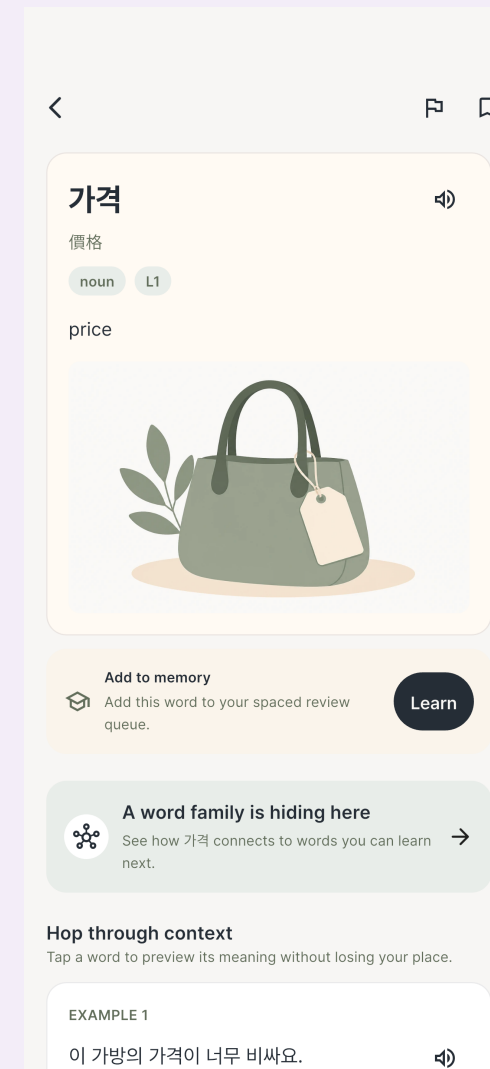
- External lookups interrupted exploration of unfamiliar words.
- Definitions, examples, audio and review needed a continuous flow.
- Runtime generation would add waiting time and recurring cost.
- The app needed validated content available without a network.

OBJECTIVE

- Explore word → example → another word, up to 20 levels.
- Support local exploration, listening and review with verified content.

MY ROLE

- Independent product / content architecture and AI-assisted build.
- Owned word links, data/audio validation, packaging and release.



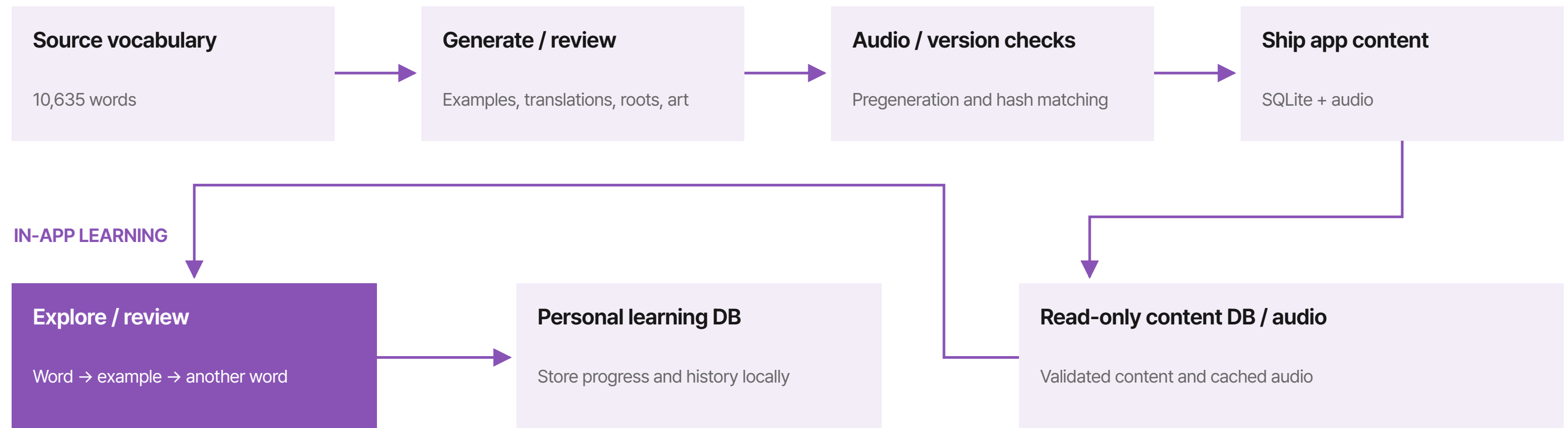
12,464

Learning entries / built from 10,635 source words

Generate content ahead; run learning locally

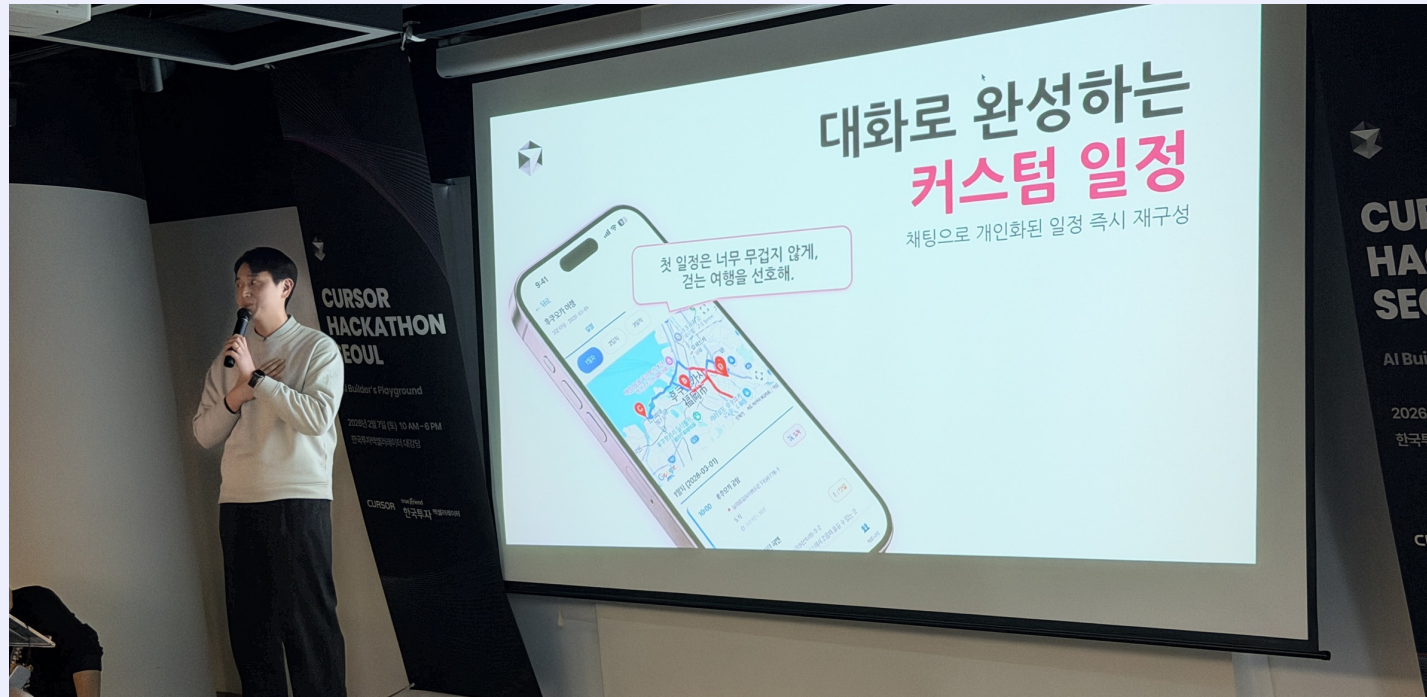
Solution / separate content production and validation from personal learning data

CONTENT PRODUCTION / RELEASE



Optional account sync / personal learning data and shipped content stay separate.

Hackathon wins



Wonderline

Cursor Hackathon Seoul / 2026.02

Trip planning agent that validates constraints and replans.
Contributed to product, implementation, demo and pitch; awarded.



SeoulMate

AI for Good / 2026.09

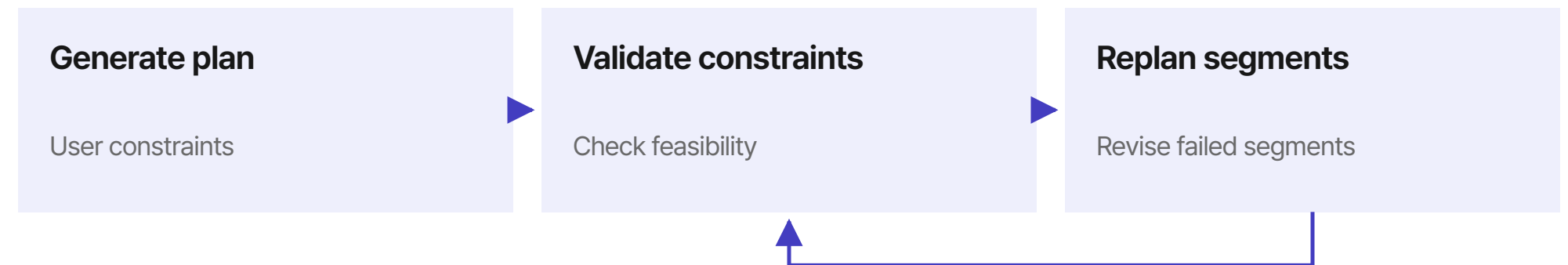
AI assistance for medication guidance and claims.
Built, demonstrated and pitched with the team; awarded.

What we built in the two team projects

Wonderline

BACKGROUND / OBJECTIVE

- Generated trips require constraint checks.
- Validate one-to-three-night plans; replan failed segments.

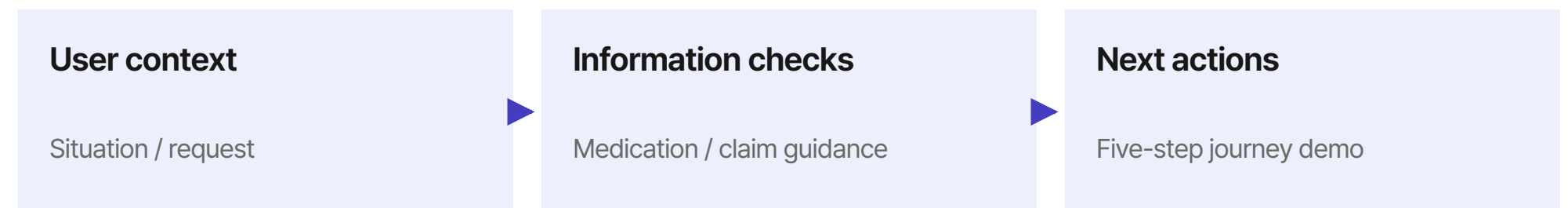


After the award / did not continue: willingness to pay and the business model were insufficient.

SeoulMate

BACKGROUND / OBJECTIVE

- A continuous flow for medication information and claim-related next steps.

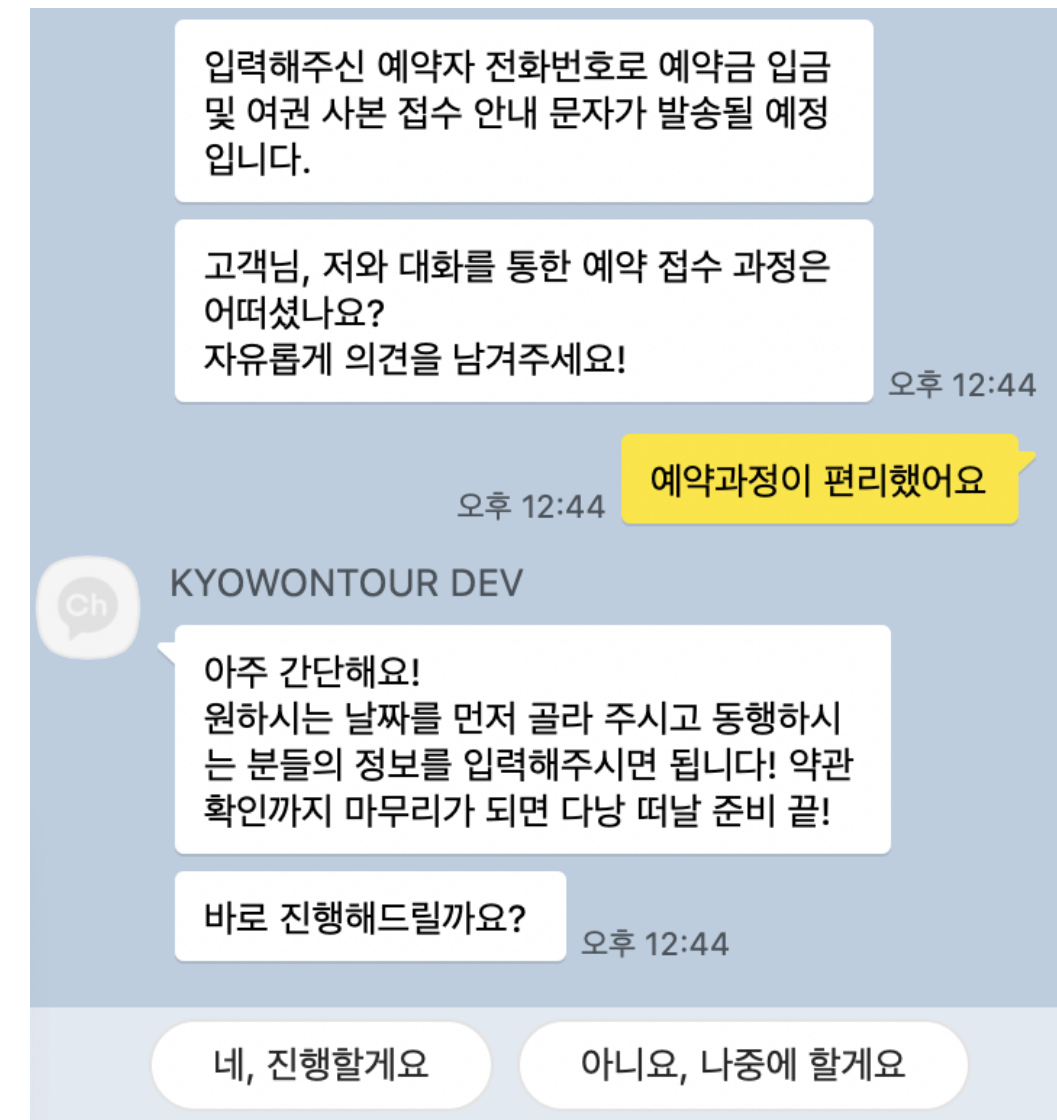


Validation scope / synthetic-data demo, before real institutional integration.

Reference examples for travel-chatbot intent routing

- SYSTEM**
- A chatbot routing travel requests to booking, cancellation and refund services.
- BACKGROUND**
- A new classifier required a review of existing sentences used as reference examples.
- OBJECTIVE**
- Shared criteria for retaining or adding examples and for peer review.
- MY ROLE**
- Designed ten test types covering example count, length, synonyms and word order; analyzed routing results.
- OUTPUT**
- Recommendations on short-query coverage, longer examples and false triggers from particular words.

Booking feedback mistaken for a new booking request



Intent-routing error captured during development testing

Product demos and field conversations

SF Demo Night

A three-minute demo of the agent optimization product.

KIC Silicon Valley

Explained the product rationale and demonstrated the system.

Plug and Play

Discussed reliability, evaluation and debugging with builders.



Agent Memory

Long-term memory: extraction, updates and retrieval across conversations

BACKGROUND

- Sparse memory lost context; dense storage added duplicates, conflicts and retrieval noise.
- Connections across time and validity checks for changed information.

OBJECTIVE

- Build the memory context needed for a query.
- Account for time and conflicting information.

MY ROLE

- Reviewed product needs, evaluation and design changes.
- Compared retrieval approaches and future application.

Conversation → memory

Extract facts and context

Duplicates, conflicts, time

Track changes and validity

Store memory and links

Connect context across memories

Retrieve query evidence

Build context from relevant memory

89.2%

Answerable Success / 446 of 500

LATER DESIGN DECISION

Reviewed entity-retrieval latency and complexity.
Moved toward atomic facts (TCR) and LLM links.

Generative AI Creative Studio

A workflow for generating and revising selected planning, image and video nodes

BACKGROUND

- Frequent movement between planning, images and video.
- Fixed stages required earlier steps even for image-only tasks.
- Clear editing scope, transitions and feedback rules.

OBJECTIVE

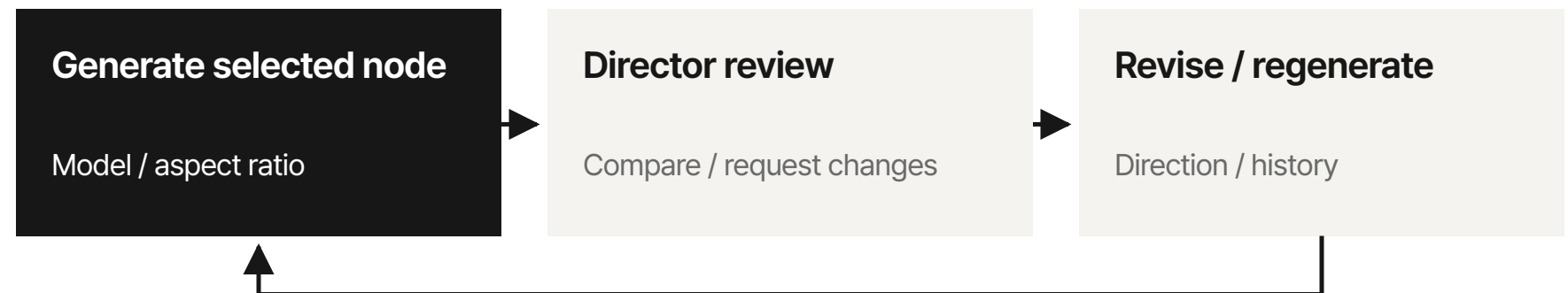
- Start directly from existing plans or references.
- Preserve edit scope and history during iteration.

MY ROLE

- Specifications and priorities for transitions and node editing.
- Director feedback, QA and improvement planning.



Direct generation from selected character, location or cut nodes



Later design / capture and retrieve the reasons behind edits for future generation

Health data platform

BACKGROUND

- Health data scattered across institutions.
- Consent, verification and incentives needed.
- Clear rules needed for data use.

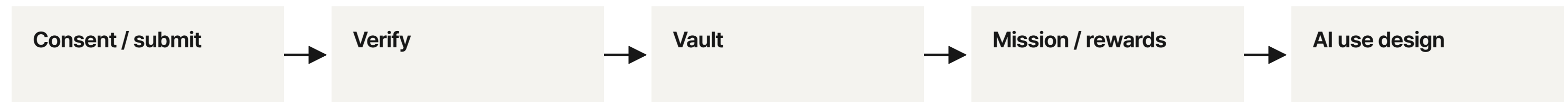
OBJECTIVE

- Data collection with consent, verification and rewards.
- Phased app, data and AI services for personal and institutional use.

MY ROLE

- Defined journeys and mission/reward states.
- Mapped AI needs and partner dependencies.
- Scoped features and a phased roadmap.

Solution / define states and responsibilities from data contribution to use



Deliverables / journeys, policies, state definitions and roadmap, with Memory/RAG/Agent features phased separately.

Evaluation, data and domain work

WG RAG	Propositions, PCR relations and graph retrieval	Internal medical QA combined mean: 0.88 Graph RAG 0.71 / Hippo RAG 0.79
CCA	Prioritizing logs for review	Review efficiency +22.55% / small pilot
Document parser	Preserving headings, tables, images and positions	Structured JSON PoC and evaluation plan / Aug 2025
Tourism, booking and product guidance	Travel intent, recognition boundaries and MVP scope	Gangwon tourism / travel booking / Hyundai IONIQ 6
Conversational saju	Separating calculation from Graph RAG explanations	One-pager, scope and schedule / proposal and PoC



NCSoft

Language AI training and evaluation data

Authored reference data for retrieval, classification and dialog tasks.
Reviewed context, consistency and labeling criteria.

IRQA / question relevance

News/question matching, summaries and queries

Aspect-based sentiment

Entity aspects and sentiment polarity

English financial NER

Contextual entity tagging

Game / web spam

Spam judgments for utterances and web content

Dialog contradiction

Contradiction and causes across up to four turns

FAQ question creation

Questions matched to supplied answers

chanwoosong92@gmail.com / [linkedin.com/in/chanwoo-song](https://www.linkedin.com/in/chanwoo-song)