



Principal UX designer

Yuhan Guo

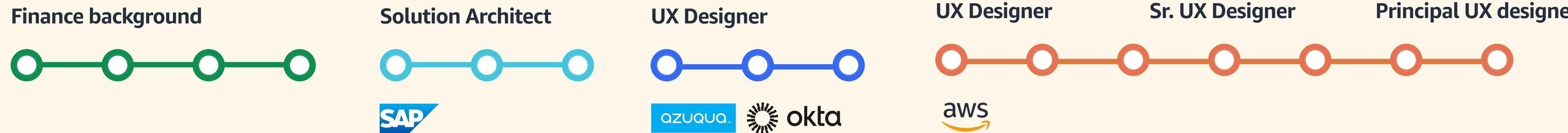
Portfolio presentation

Start

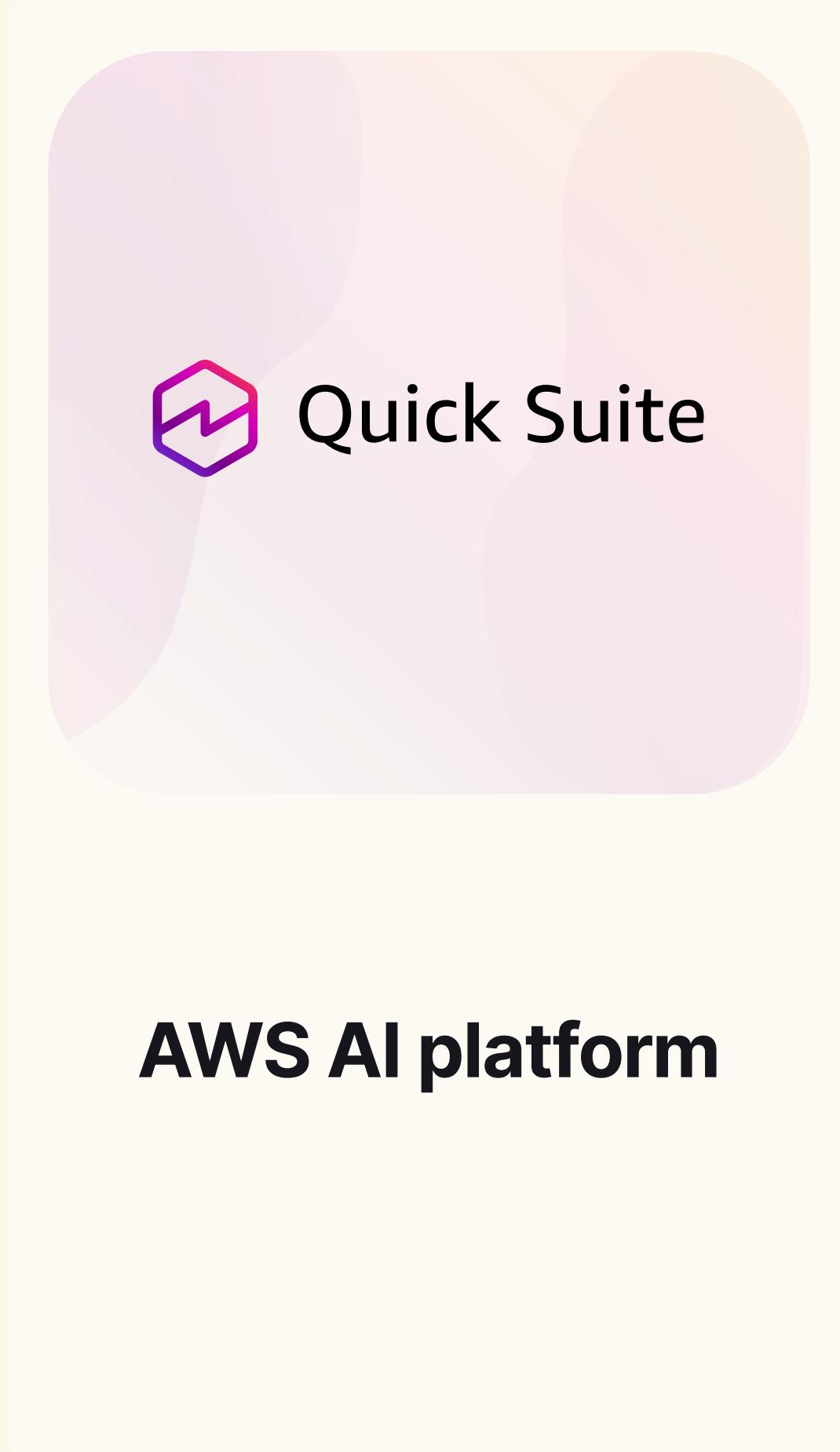
WHO AM I

👋 I'm Yuhang

10+ years UX design experience specializing in AI/ML,
currently leading AWS AI-powered enterprise product
design.



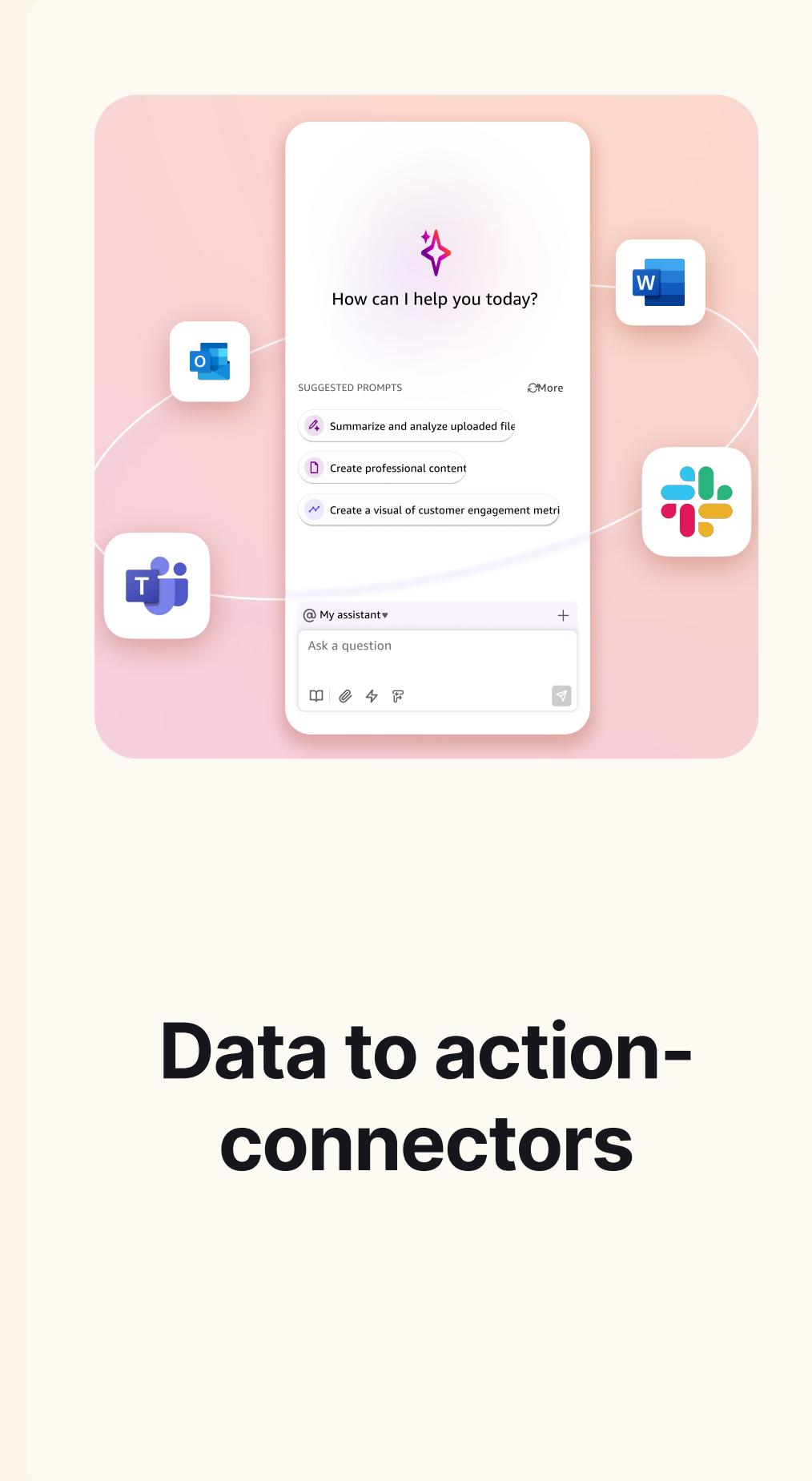
PROJECT GALLERY



Quick Suite

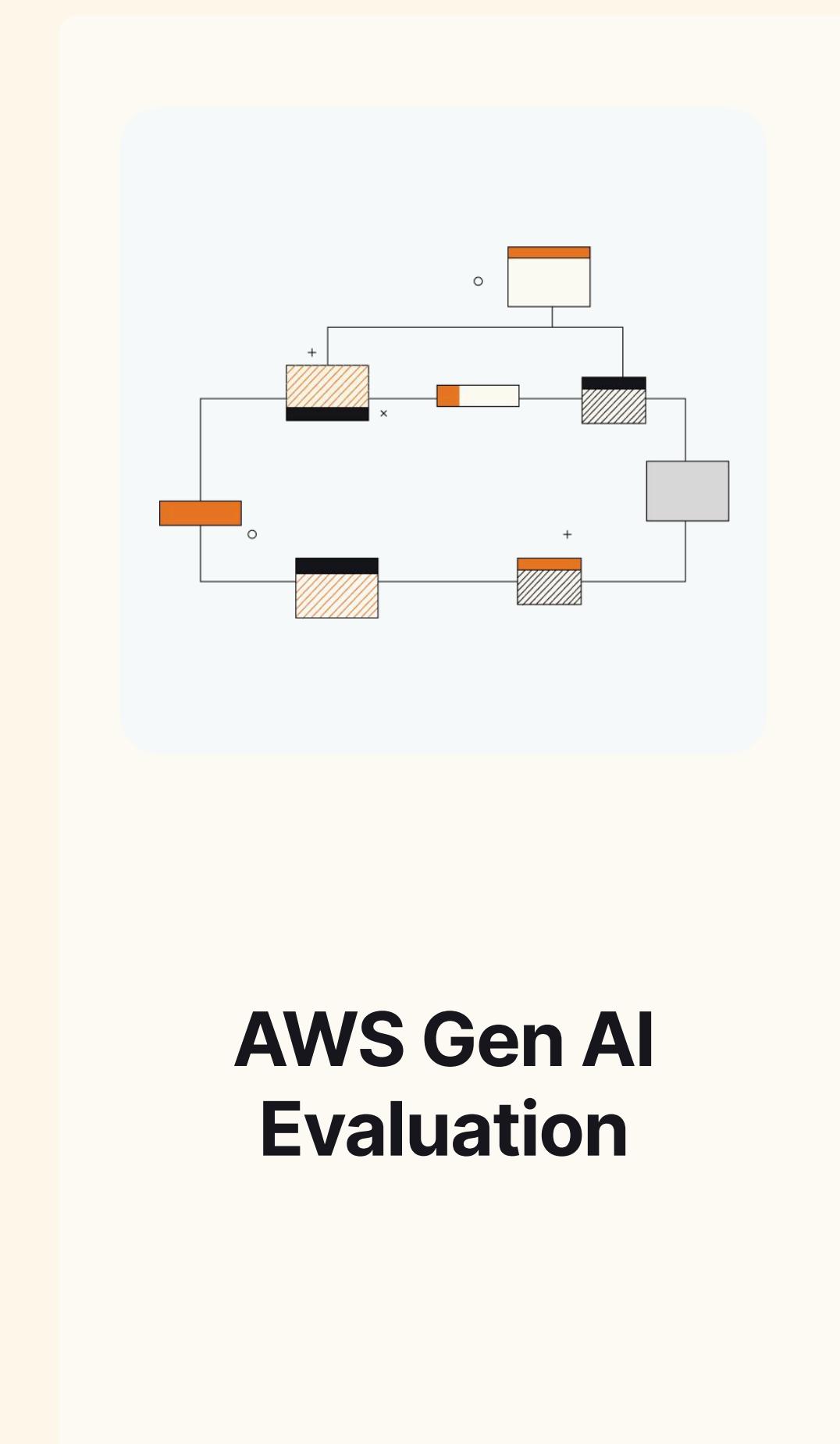
AWS AI platform

The Quick Suite interface displays AI-generated content. At the top, there's a purple header with a lightning bolt icon and the text "Quick Suite". Below it is a white card with a blue border containing a purple starburst icon and the question "How can I help you today?". Underneath, there's a section titled "SUGGESTED PROMPTS" with three items: "Summarize and analyze uploaded file", "Create professional content", and "Create a visual of customer engagement metri". At the bottom, there's a text input field with the placeholder "@ My assistant" and a button labeled "Ask a question".



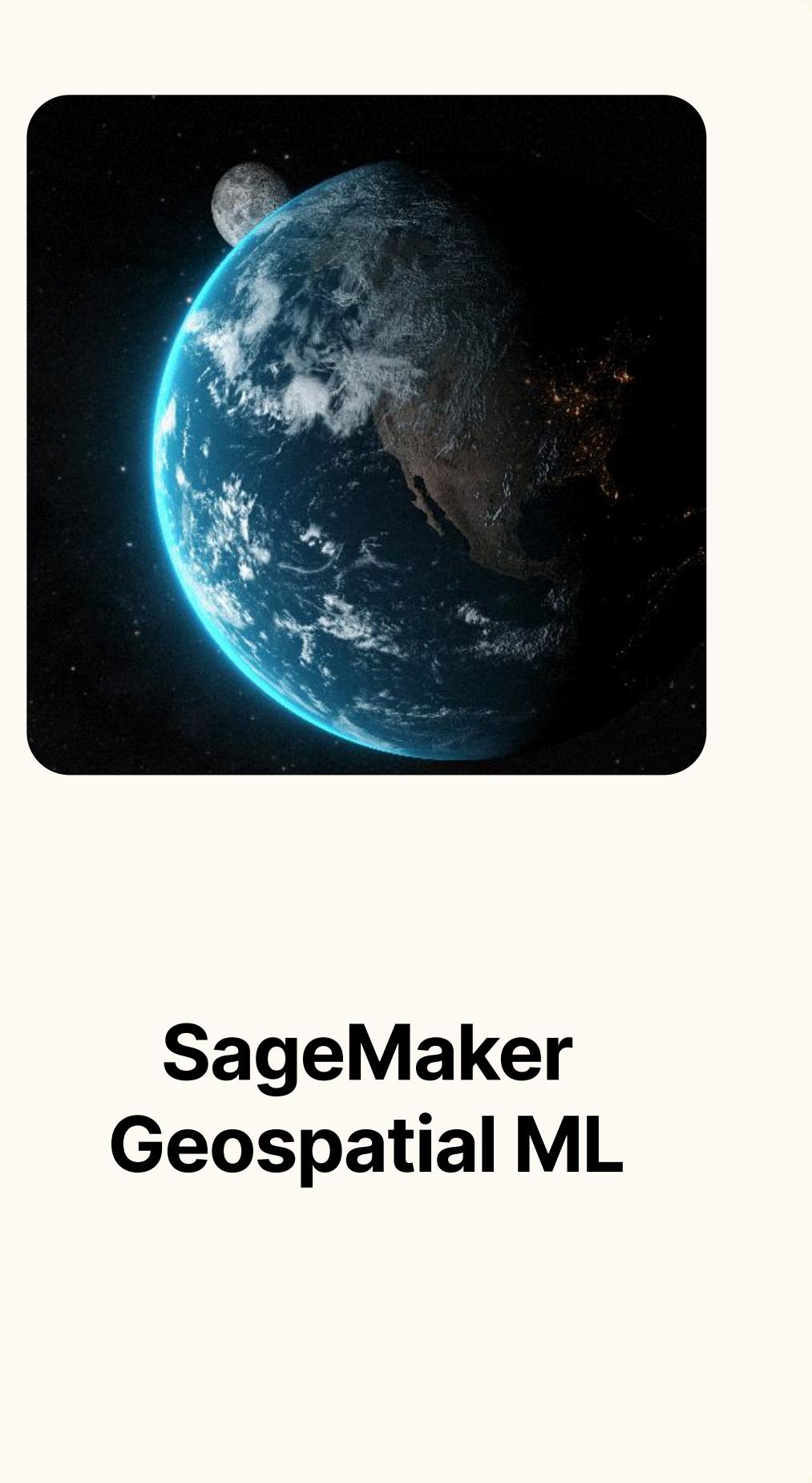
Data to action-connectors

This screenshot shows the Data to action-connectors interface. It features a central white card with a purple border containing a purple starburst icon and the question "How can I help you today?". Below it is a section titled "SUGGESTED PROMPTS" with three items: "Summarize and analyze uploaded file", "Create professional content", and "Create a visual of customer engagement metri". At the bottom, there's a text input field with the placeholder "@ My assistant" and a button labeled "Ask a question". Surrounding the central card are four icons representing Microsoft Office applications: OneDrive (blue square), Word (white square with a blue 'W'), Microsoft Teams (purple square with a white 'T'), and Microsoft Power BI (green square with a white 'P').



AWS Gen AI Evaluation

This screenshot shows the AWS Gen AI Evaluation interface. It features a central white card with a blue border containing a purple starburst icon and the question "How can I help you today?". Below it is a section titled "SUGGESTED PROMPTS" with three items: "Summarize and analyze uploaded file", "Create professional content", and "Create a visual of customer engagement metri". At the bottom, there's a text input field with the placeholder "@ My assistant" and a button labeled "Ask a question". To the right of the central card is a decision tree diagram with various colored nodes (orange, grey, black) and symbols (+, -, x).



SageMaker Geospatial ML

This screenshot shows the SageMaker Geospatial ML interface. It features a large image of the Earth from space, showing continents and city lights at night. The image is set against a dark background with stars and a small moon.

Amazon Quick- from fragmented AI tools to a unified AI operating system

How I unified five enterprise AI products through a single conversational assistant and shared human-AI interaction model.



2024. 09 - Present

Lead principal designer, end-to-end owner of conversational AI and cross-product interaction patterns.

- 1000+ App integrations
- Cross-platform unification
- Strategic UX leadership

CASE STUDY 1

 **Amazon Quick Suite** is enterprise agentic AI platform, strategically designed to help enterprise employees find insights, conduct deep research, automate tasks, visualize data, and take actions across applications.

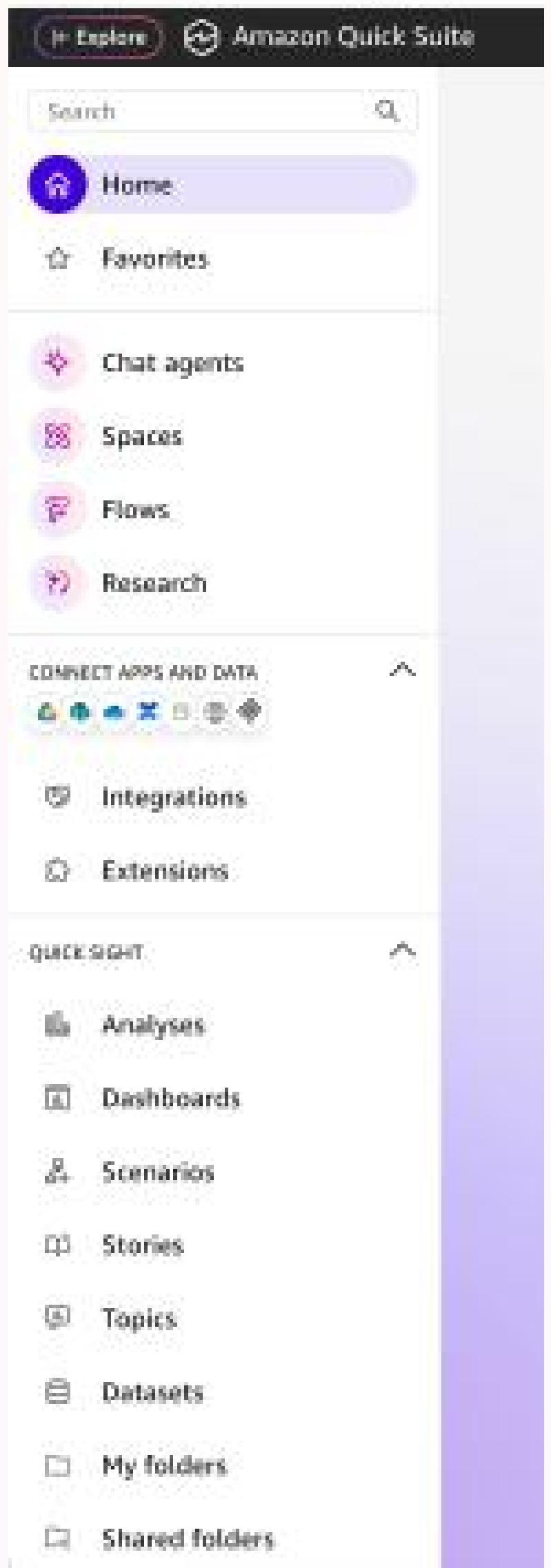


Challenge

The crisis of unification

Amazon Quick Suite launched as a powerhouse of agentic AI capabilities. However, the tool was fragmented. My core challenge was to integrate disparate, complex engines into a seamless user journey.

-  **Quick Sight** BI & Analytics siloed in dashboards.
-  **Quick Flow** AI-powered workflows for repetitive tasks
-  **Quick Integration** Index unstructured data with external apps
-  **Quick research** Generate comprehensive research reports.
-  **Quick space** Generate comprehensive research reports.



The real problem

Users weren't struggling with AI capability – they were struggling with coherence.

PRODUCT FRAGMENTATION

- BI, research, workflows, integrations, spaces all lived separately
- Users had to decide which tool before deciding what to do

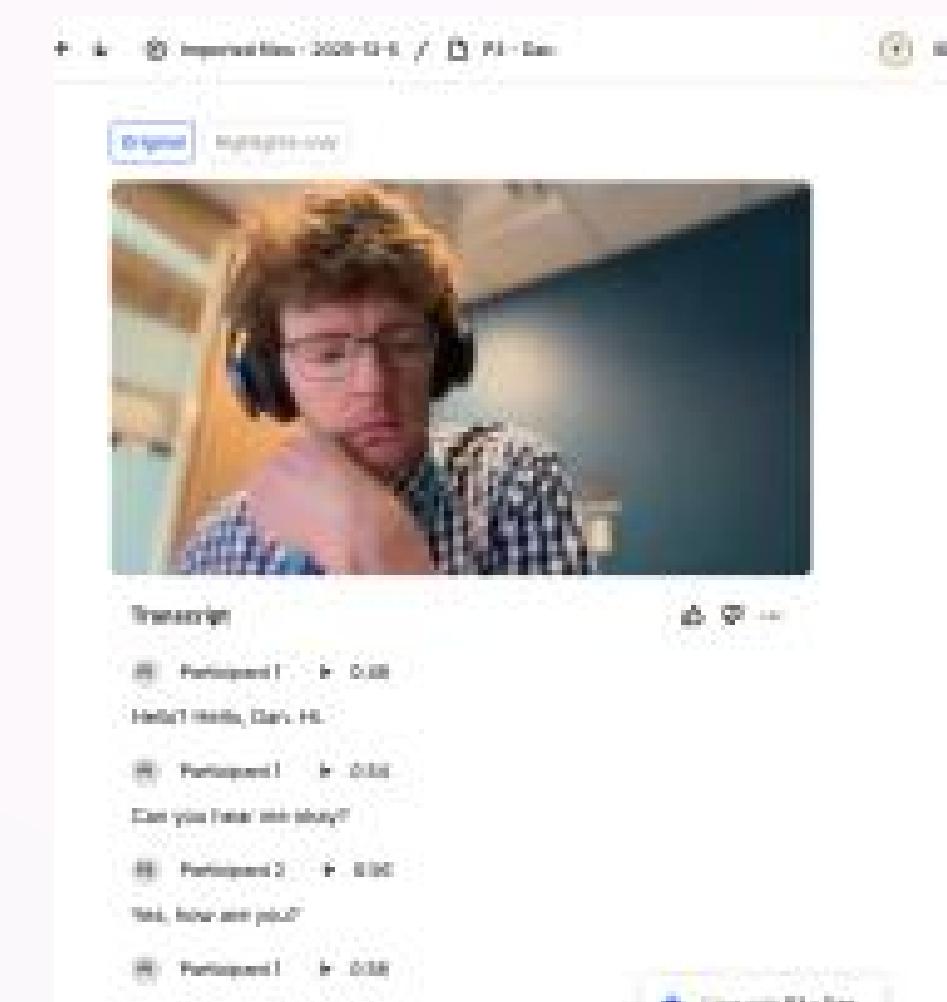
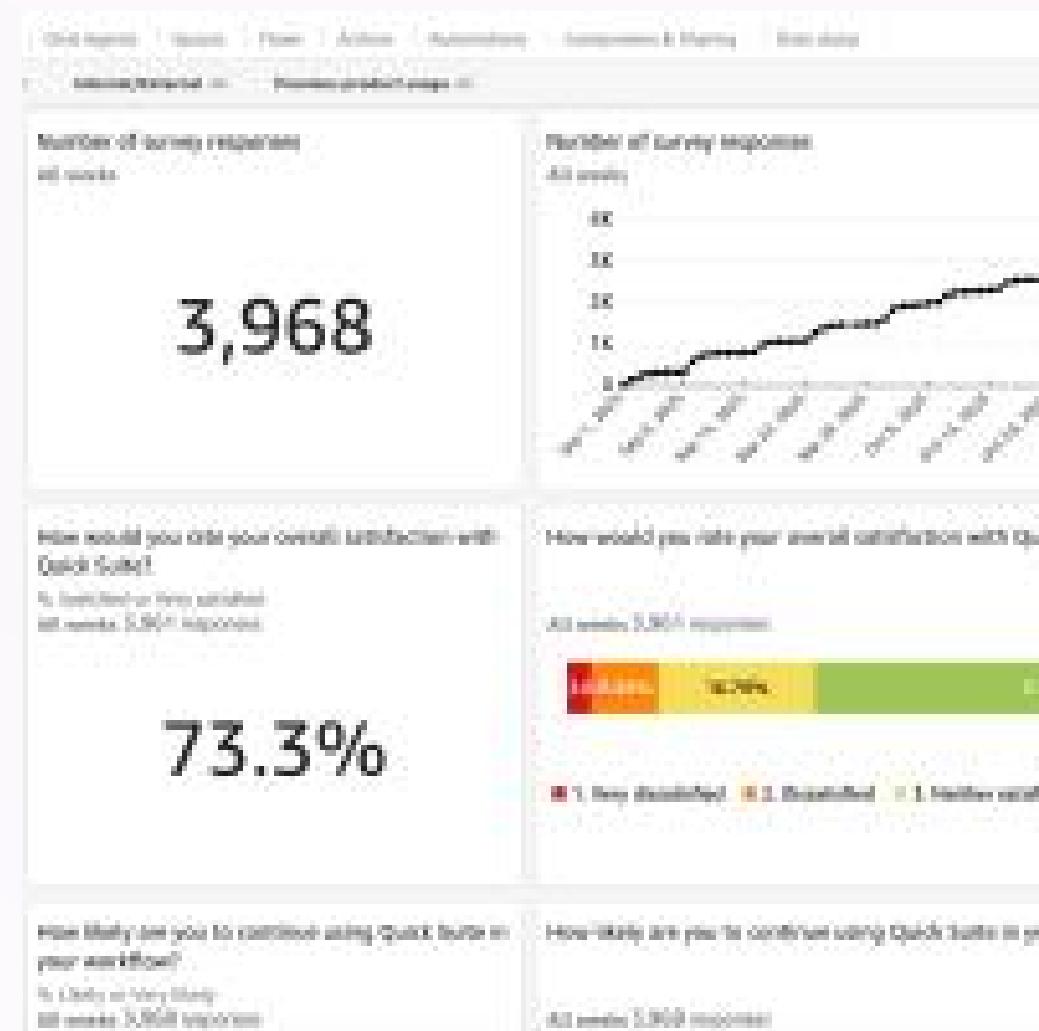
COGNITIVE OVERHEAD

- Users thought in intent, products demanded tool selection
- Context was constantly lost across surfaces

EPHEMERAL AI

- Chat produced value, but not lasted
- Insights died the moment the conversation ended

Research study



A message from the 'Answers quicksuite internal' bot in a Slack channel. The message asks if anyone has access to the Quick Suite API and provides a link to a GitHub repository for configuration files.

SURVEY

Built dashboard tracking weekly sentiment across 3,968 responses, allowing us to rigorously measure CSAT trends and validate design decisions with statistical significance.

USER INTERVIEW

Conducted deep-dive 1:1 sessions to map workflows, uncovering hidden friction points and "context-switching" gaps invisible to quantitative data.

SLACK CHANNEL & AGENT

Cultivated an internal community of 25,000+ employees on Slack. To manage this scale, we built a custom Slack Agent to autonomously answer questions and collect structured feedback.

Research Insights

FEATURE OVERLOAD

Users are overwhelmed by discrete features and inconsistent patterns. Users struggle with "blank slate" paralysis; they need role-based guidance to understand where to start.

ARTIFACT VALUE

There is a high demand for transitioning ephemeral chat data into persistent, actionable knowledge artifacts.

THE 'SETUP TAX' BARRIER

Invoking data and action connectors involves high friction and complexity, primarily due to cumbersome authentication and configuration steps that deter users from integrating their tools.

Goal

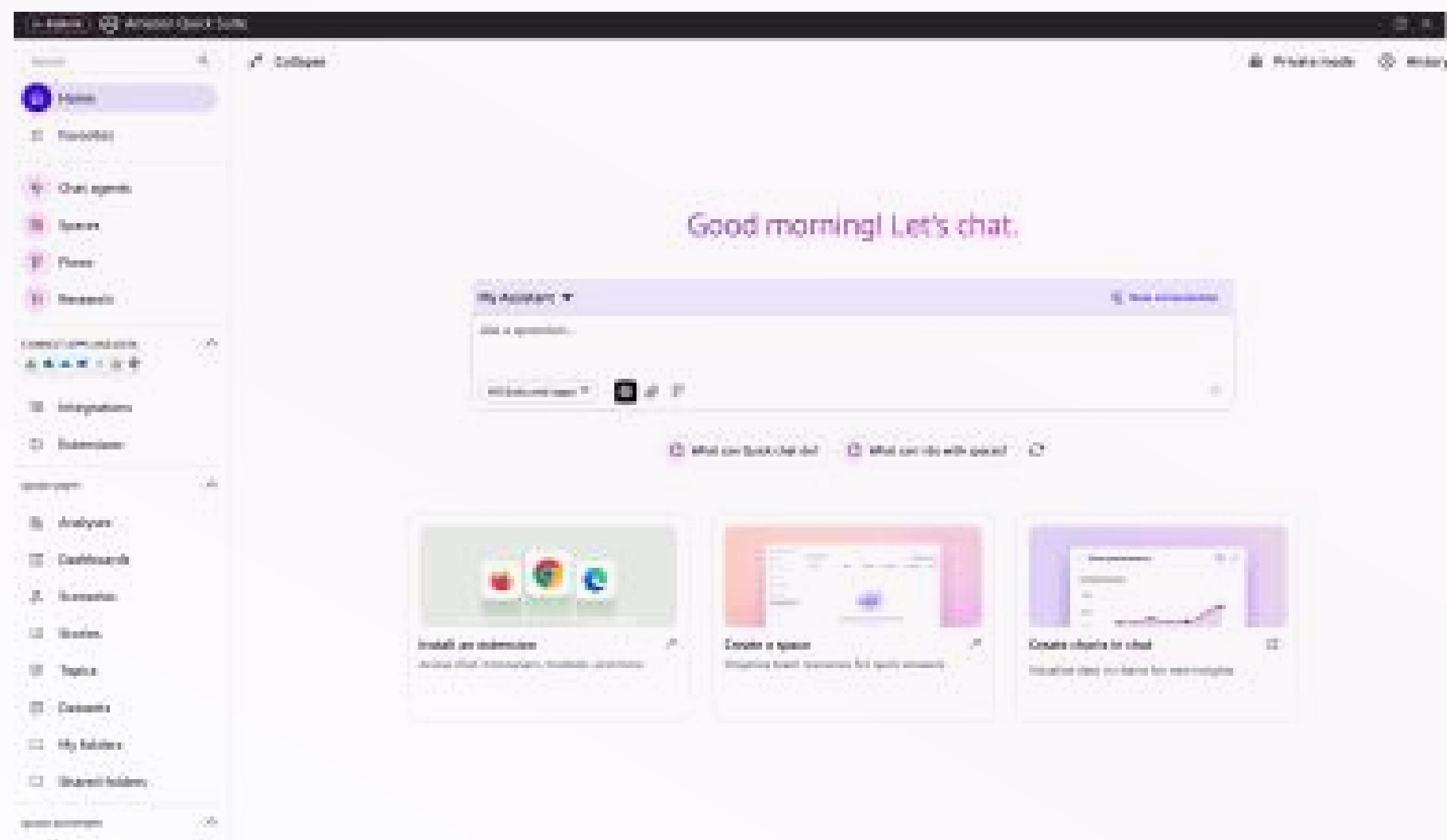
From features to flows

Define a unified mental model that connects discrete features (Chat, Agents, Data, Artifacts) into seamless workflows, and establish a progressive disclosure strategy for onboarding.

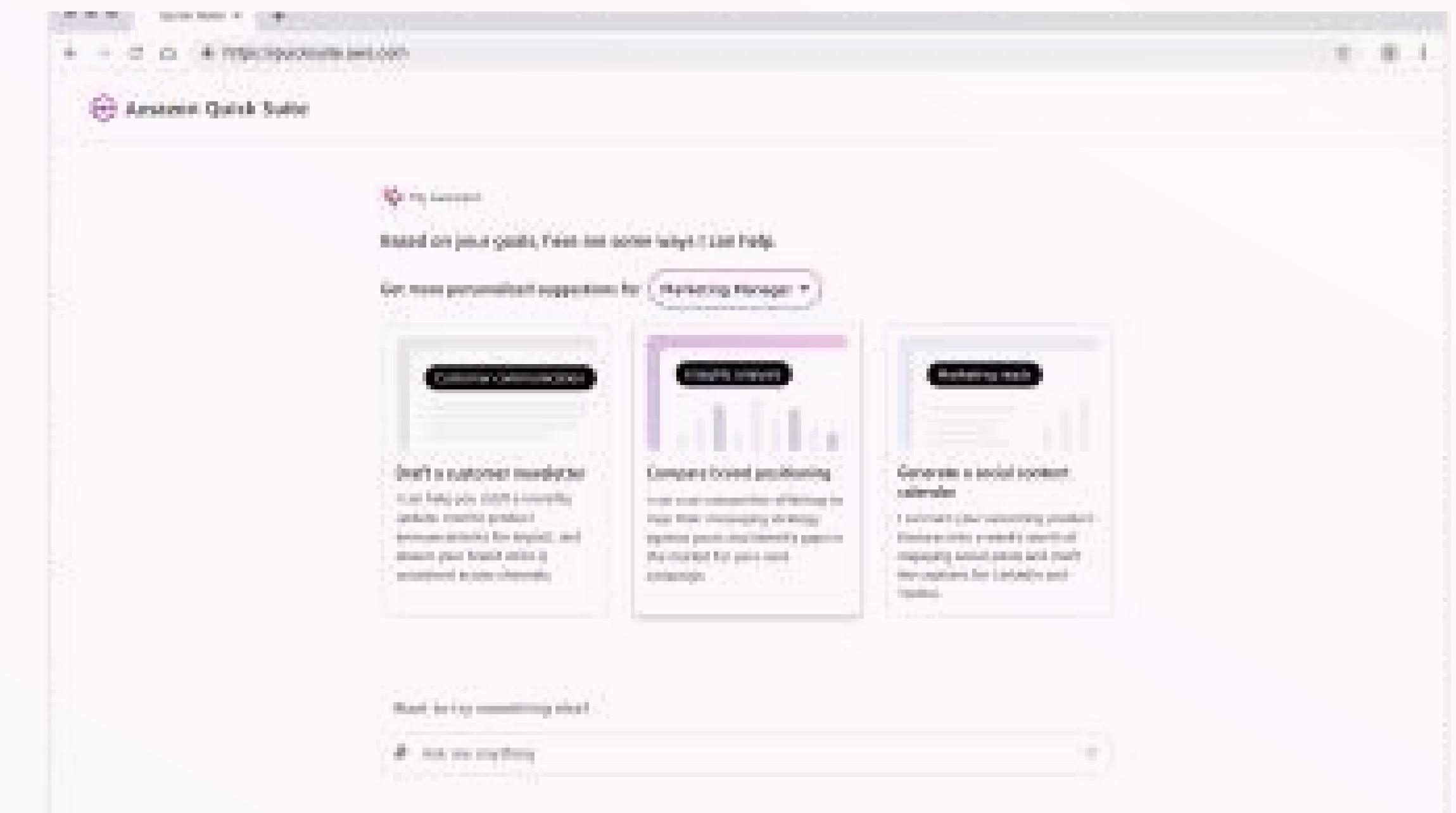
Deep dive : First time UX

From Feature Overload to Guided Flow

Before



After



Deep dive : First time UX

Step 1: Capture intent & context

Step 2: Curated pathways, reducing decision paralysis

Step 3: < 5 mins 'WoW' moment, generate high-quality starter artifact with either a research report, or a functional automation flow.

Deep dive : First time UX

From Feature Overload to Guided Flow

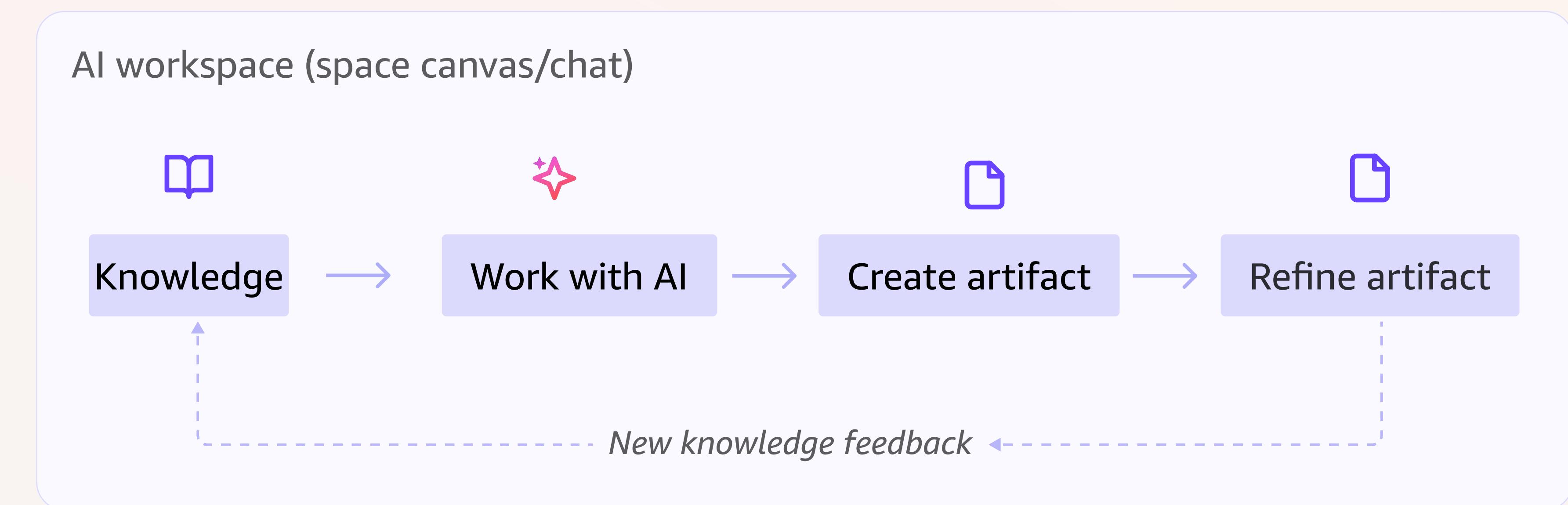
Define a unified mental model that connects discrete features (Chat, Agents, Data, Artifacts) into seamless workflows, and establish a progressive disclosure strategy for onboarding.

The screenshot shows the Amazon Quick Suite homepage. At the top, there's a navigation bar with the Amazon logo, the text "Amazon Quick Suite", and links for "Features", "Pricing", "Learn More", and a highlighted "Sign in" button. The main content area features a large, friendly message: "Hi, I'm Quick - your agentic teammate". Below this, a subtext reads: "I can help you conduct research, analyze complex data, and even automate workflows - from the simplest to the most complex". A search bar contains the placeholder "What can I do in Quick?". Below the search bar, there are four cards with icons and descriptions: "Accelerate research" (Create comprehensive professional reports on any topic.), "Automate workflows" (Build workflows to streamline daily, routine tasks.), "Power conversations with AI" (Build custom chat agents for specific tasks.), and "Organize workspaces" (Create focused environments to share knowledge and insights.). At the bottom, there are two calls-to-action: "Sign up for free" and "Learn about Enterprise pricing".

Deep dive : The artifact lifecycle

The "Chat-to-Artifact" Pipeline

Research shows 60% of business user activity involves creating, refining, and sharing documents. We needed to make this heavy lifting feel weightless.



Deep dive : The artifact lifecycle

1. Initiation (Chat):

It starts naturally in chat. User asks for a 'Q4 marketing strategy.' It's messy, fast and iterative.

Deep dive : The artifact lifecycle

2. Crystallization (Canvas):
When the idea matures, it transitions
to an Artifact on the canvas. This is a
deep-work surface.
The user can edit manually or use AI
—like 'Append customer quotes'—
which pull from trusted data sources.

Explore ▾ Amazon Quick Suite | Research > ★ AI Market Growth & Outlook 2025-2034

AI Market Growth & Outlook 2025-2034 Version 1

Research

What are the worldwide trends for Data and AI within the global IT landscape over the last year and what do anticipate will...

Outline Sources • 10 Artifacts • 4

Executive summary

Global Data and AI Market Overview

Customer Buying Behavior in Data and AI Solutions

Global Data and AI Market Growth Trends

Regional Analysis of Data and AI Adoption

Consumer Behavior and Target Segmentation

Technological Innovations and Startups in Data and AI

Emerging Technologies Impact on Data and AI

Future Outlook Data and AI Trends for 2026-2028

Customer and Partner Behavior Drivers Through 2028

2025 Echo Customer Behavior & Seasonal Adoption Study

Rate report: ★ ★ ★ ★ ★ Take a 2 minute survey

Executive Summary

The global artificial intelligence and data market is experiencing unprecedented growth, characterized by rapid technological advancement and increasing adoption across industries. Market projections indicate exceptional expansion, with the AI sector expected to surpass \$1 trillion by 2029, demonstrating a remarkable compound annual growth rate (CAGR) of 37.3%. In the immediate term, the market is projected to reach approximately \$190.61 billion by 2025.

A significant development shaping the market landscape is the emergence of agentic AI, with this segment expected to reach \$30.89 billion in 2024 and demonstrate an annual growth rate of 31.68%. This growth is primarily driven by increasing adoption of advanced AI systems capable of autonomous operation and decision-making, reflecting a broader trend toward more sophisticated AI applications.

The regulatory environment is becoming increasingly complex and influential in shaping market development. Major economies are implementing comprehensive regulatory frameworks, with the European Union's AI Act in May 2024 and the United States' executive order on AI setting new standards for global AI governance. Research indicates that 68% of executives in AI-driven industries view regulatory compliance as a growing challenge, with over 1,000 companies facing fines in 2024 for failing to meet data protection and AI transparency standards.

The competitive landscape continues to evolve rapidly, with organizations increasingly leveraging AI tools for market intelligence and strategic decision-making. Healthcare, finance, and retail sectors are leading AI adoption, indicating broad-based integration across industries. Companies are utilizing advanced algorithms and data analytics to gain competitive advantages and optimize operations.

Looking ahead to 2028, the market is expected to be shaped by several key factors: increasing regulatory maturity, advancement in AI capabilities, and growing integration of AI across business processes.

Comments (1)

Research

I'll queue all the comments to change upon revision, as they'll require deeper investigation.

Comment history

Edit in Space Share Summarize

Deep dive : The artifact lifecycle

3. Collaboration (Space)

The artifact doesn't live in isolation. It lives in a Space—a shared environment where the team can iterate together.

The screenshot shows the Echo Marketing Space in Amazon Quick Suite. The left sidebar displays 'Knowledge' (12 pieces), 'Knowledge bases' (5), 'Researches' (2), and 'Files' (7). The main area shows 'Artifacts' (refreshed just now) with two items: 'Q4 Echo Marketing Strategy & GTM Plan — 2025 Insight-Driven Update' and 'Q4 Echo Marketing Strategy & Go-To-Market Plan'. The 'Sessions' section lists five sessions, all created by Amy, with the most recent being '2025 Echo Study exploration' (Created by Amy, Last updated 12:46 PM 12/11/2025).

Session name	Created by	Last updated	Action
2025 Echo Study exploration	Amy	12:46 PM 12/11/2025	⋮
2025 Echo brand exploration	Sarah	10:30 AM 12/10/2025	⋮
Smart Home Compatibility Guide	Amy	09:30 AM 12/4/2025	⋮
Smart Home Compatibility Guide	Amy	09:30 AM 12/4/2025	⋮
2025 Marketing Activation Kit...	Sarah	02:52 PM 12/4/2025	⋮

Deep dive : The artifact lifecycle

4. The feedback loop

A finished artifact can be 'Pinned as Knowledge.' This turns today's output into tomorrow's context, making the AI smarter for the next task.

The screenshot shows the Echo Marketing Space in the Amazon Quick Suite. The interface is divided into several sections:

- Knowledge:** Shows 12 pieces, including Knowledge bases (5), Researches (2), and Files (1). Examples include Sales Enablement Toolkit, Retail Associate Training Guide, Partner Integration Playbook, Smart Home Compatibility Guide, Field Marketing Activation Kit, 2025 Echo Customer Behavior & Seasonal Ad..., 2025 Market Landscape Overview, Echo Brand Overview, Brand Positioning Framework, and Persona Library (Families, Pros, Seniors, Tech En...).
- Artifacts:** Refreshed just now. It lists two artifacts:
 - Q4 Echo Marketing Strategy & GTM Plan — 2025 Insight-Driven Update**: Just now. Description: "The Q4 Echo Marketing Strategy & GTM Plan — 2025 Insight-Driven Update incorporates key findings from the 2025 Echo Customer Behavior & Seasonal Adoption Study to refine our approach for the upcoming holiday season. By gr...". Added by Amy | Last updated 12:46 PM 12/11/2025. Exported 23 | Used by chat 127 | Edits 2.
 - Q4 Echo Marketing Strategy & Go-To-Market Plan**: Just now. Description: "This Q4 Marketing Strategy outlines the key initiatives, messaging priorities, and channel plans designed to drive Echo device adoption during the highest-demand season of the year. The strategy focuses on three core pillars—Holid...". Added by Amy | Last updated 12:10 PM 11/01/2025. Exported 1 | Used by chat 0 | Edits 0.
- Sessions:** Shows a table of sessions with columns: Session name, Created by, Last updated, and Action. Examples include 2025 Echo Study exploration (Amy, 12:46 PM 12/11/2025), 2025 Echo brand exploration (Sarah, 10:30 AM 12/10/2025), Smart Home Compatibility Guide (Amy, 09:30 AM 12/4/2025), Smart Home Compatibility Guide (Amy, 09:30 AM 12/4/2025), and 2025 Marketing Activation Kit... (Sarah, 02:52 PM 12/4/2025).

At the bottom right, there are buttons for 'Items per page' (5), navigation arrows (< 1 >), and a search bar.

Deep dive : Frictionless connectivity

Democratizing access to enterprise data and actions within the AI workflow.

How might we enable non-technical business users to connect complex enterprise apps in seconds, so they can move from chatting to doing?

I don't know i can connect to those integrations



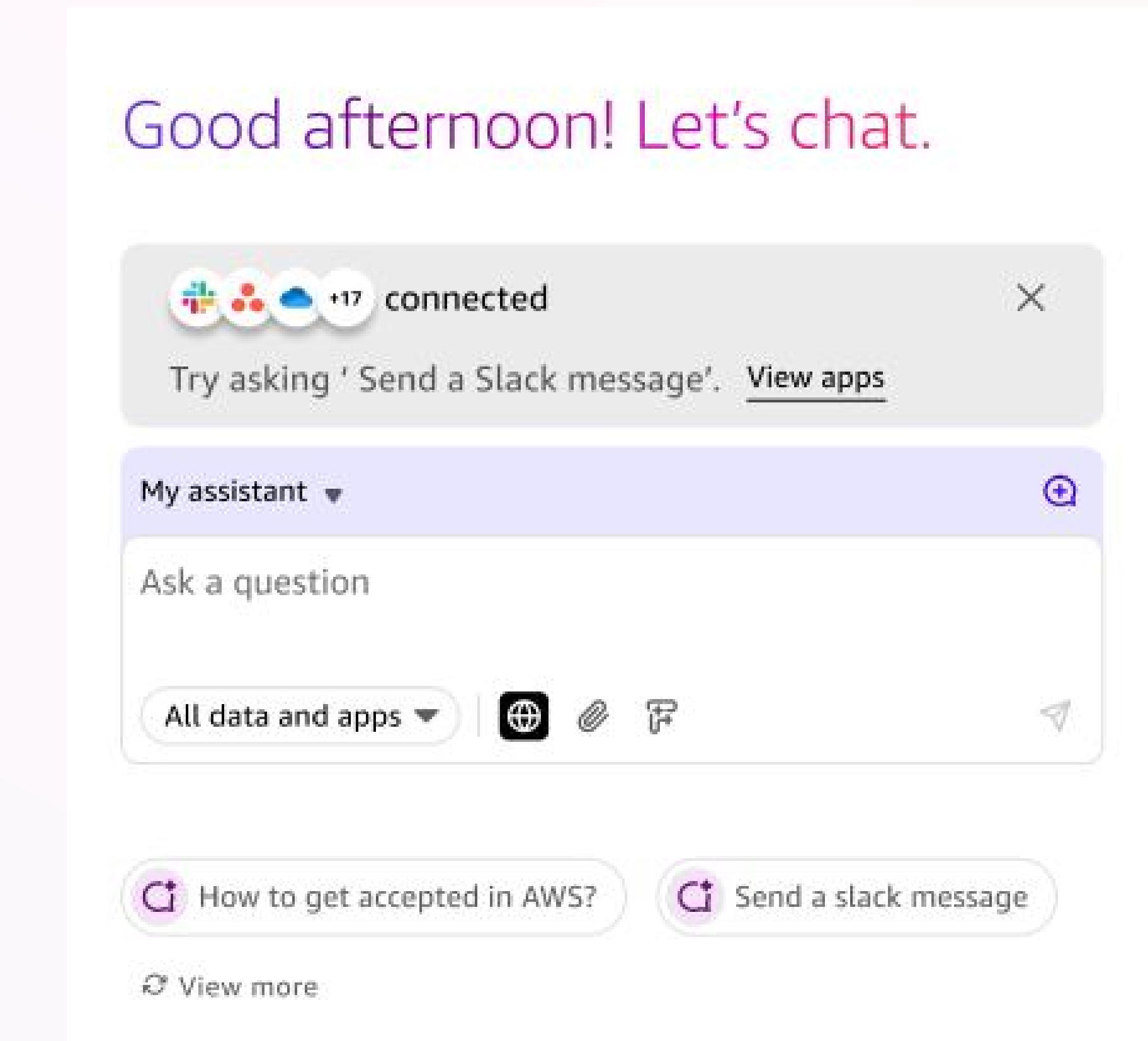
I don't have the API key or the technical know-how

Deep dive : Frictionless connectivity

Democratizing access to enterprise data and actions within the AI workflow.

1. Abstracting Authentication

- For complex authentication apps: Shifted the setup to the Admin. The Admin configures the OAuth/API handshake once. The business user simply sees a "Connect" toggle that "just works".
- For Personal Productivity (e.g., G-Drive): We built a Managed OAuth flow. Just a standard "Sign in with Google" modal that users are already comfortable with.

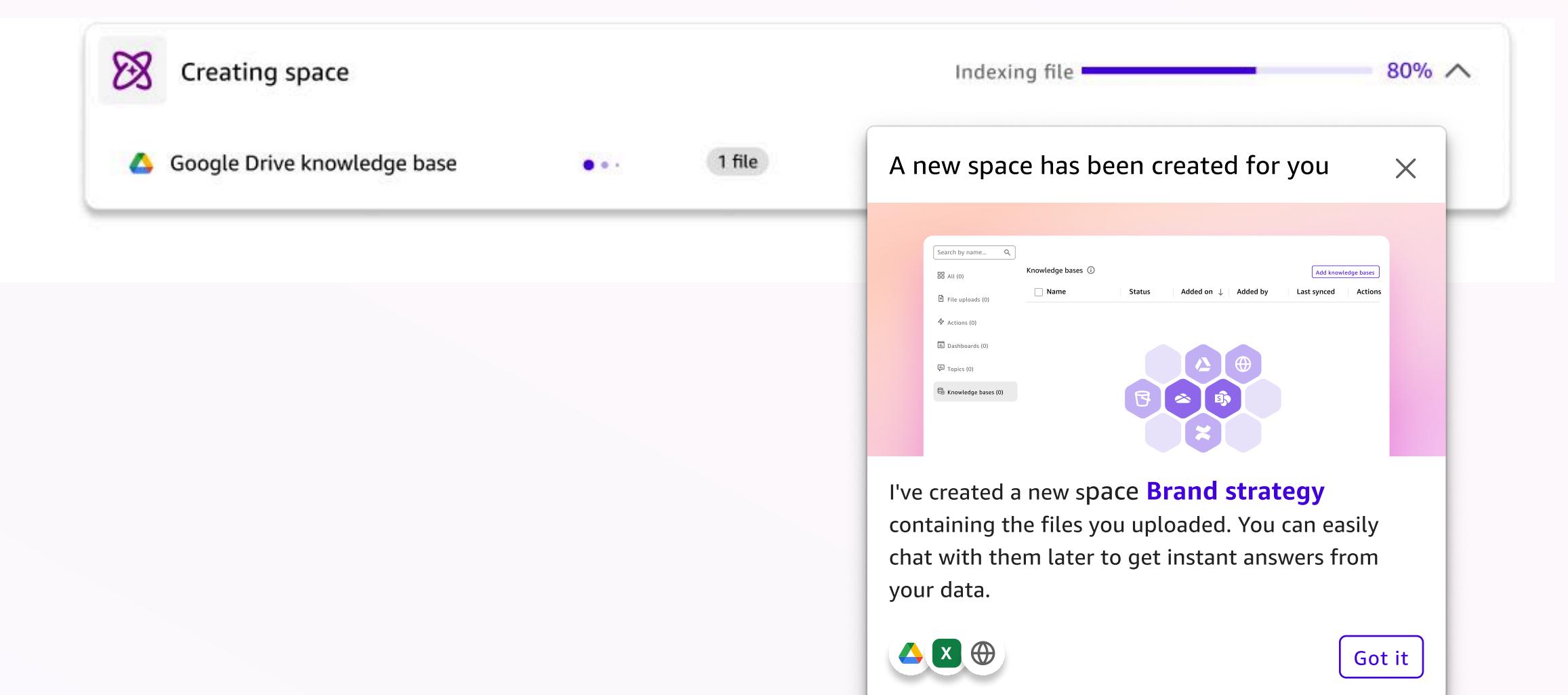


Deep dive : Frictionless connectivity

Democratizing access to enterprise data and actions within the AI workflow.

2. Ephemeral to persistent

- Ephemeral (Chat): Allow users to "chat with data" immediately for one-off tasks.
- AI nudge user to index this datasource into a Space for real-time streaming.

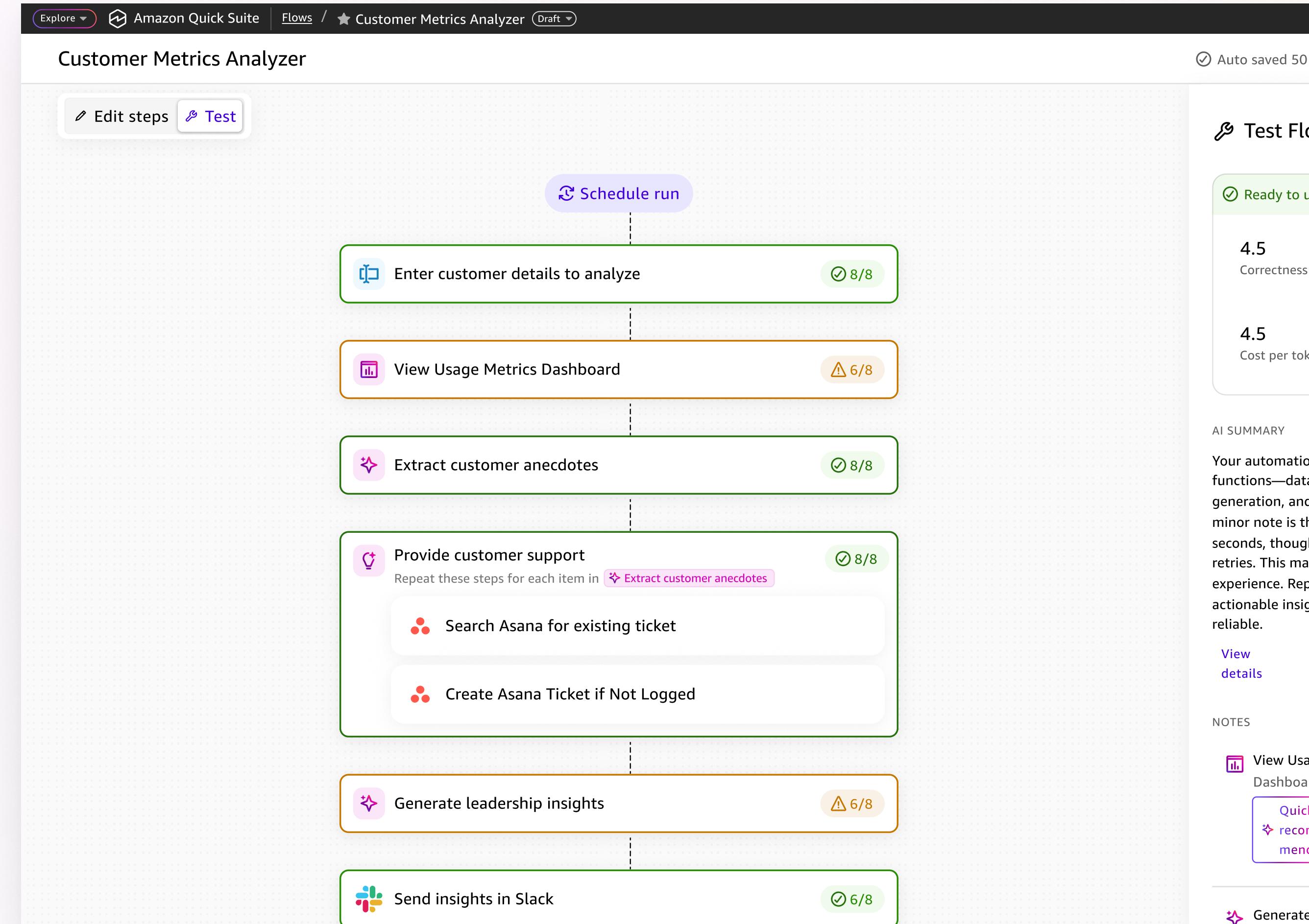


Deep dive : Frictionless connectivity

Democratizing access to enterprise data and actions within the AI workflow.

3. Implicit action invocation

- Removed the need for users to manually "select a tool" before acting. Instead, we map Intent to Action.



Deep dive : Build with AI pattern unification

Ambient intelligence & presence

The collage consists of four main sections:

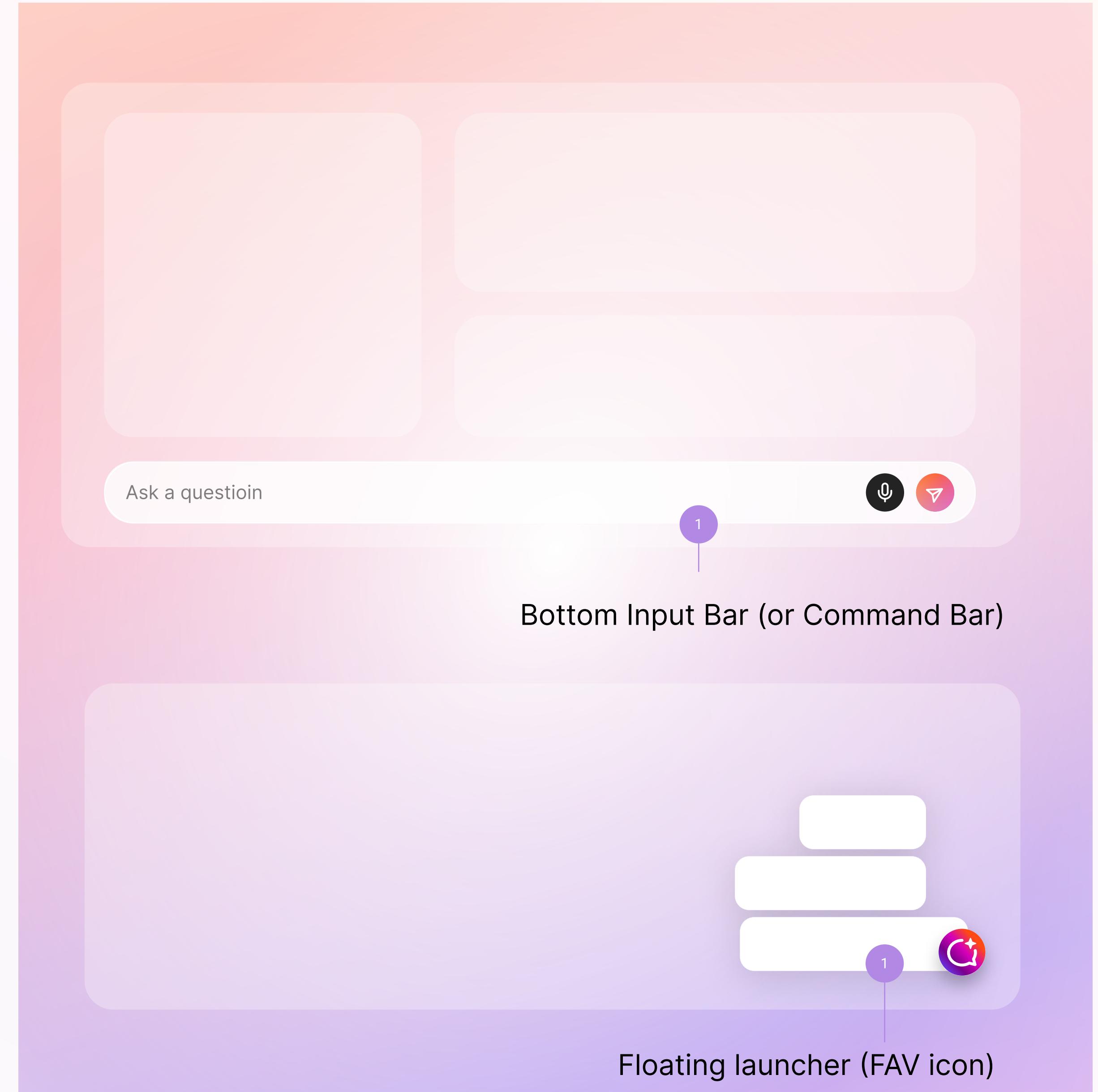
- Shortcuts**: A screenshot of a desktop interface showing a "Shortcuts" panel with a card titled "Identify today's top 6 stories in Bloomberg US and group them by topics".
- Amazon Quick**: A central promotional image for Amazon Quick with the tagline "AI everywhere." and a "Flexible forms" section below it.
- Adaptable input configurations**: A screenshot of a workspace showing multiple windows and a floating input field with options like "Ask Quick", "Copy", "Add", etc.
- Quick prompts**: A screenshot of a browser interface with a "Draft a reply" button and a "Summarize my inbox" button.
- Inline editing**: A screenshot of a code editor with AI toolbars at the bottom for "Suggest functions", "Add null handling", "Fix error", and "Simplify expression".

Deep dive : AI everywhere

Ambient intelligence & presence

Quick access

- These patterns provide on-demand access to the AI without permanently altering the main content layout. They are best for quick queries and "fire-and-forget" tasks.

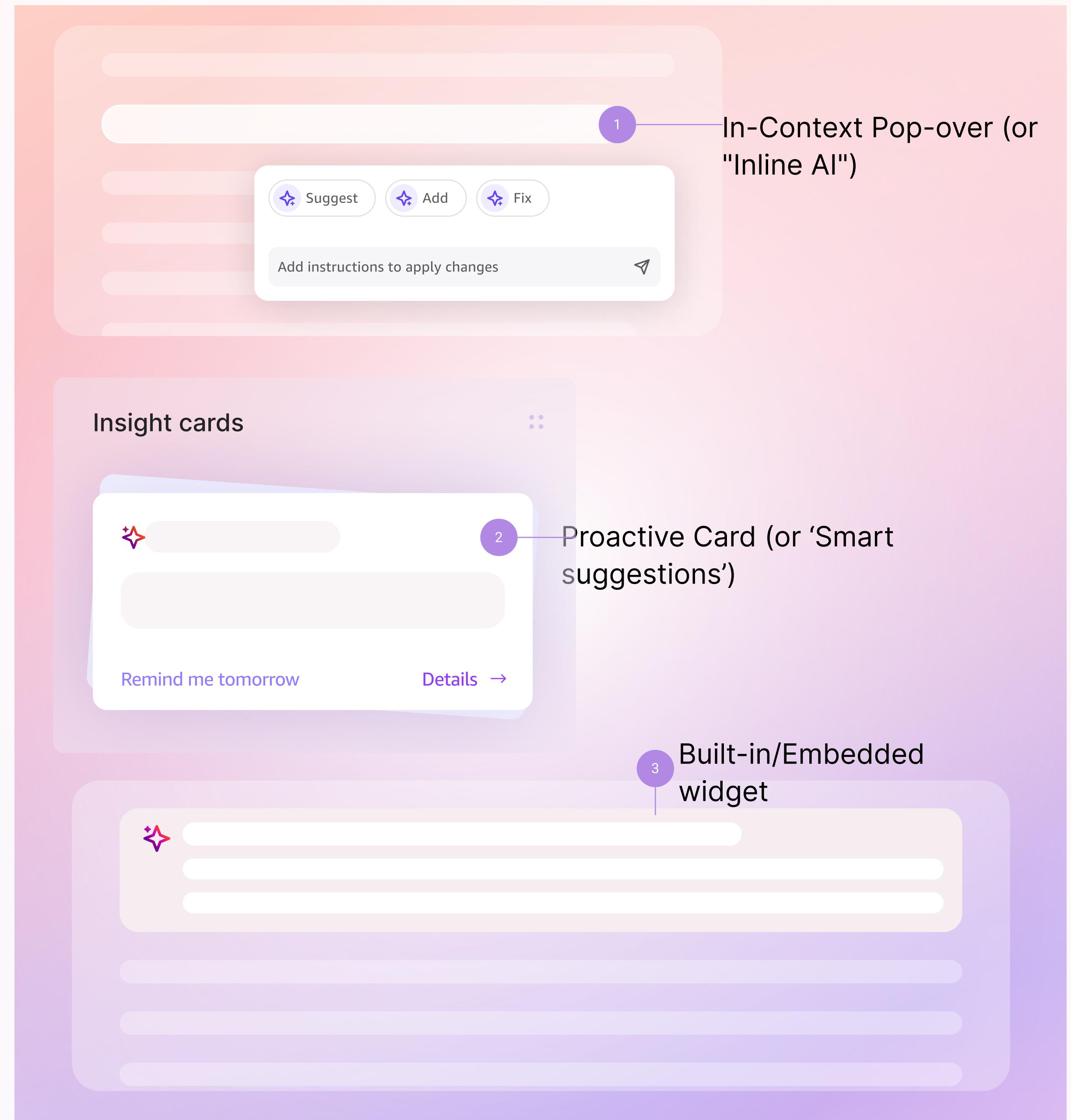


Deep dive : AI everywhere

Ambient intelligence & presence

Contextual & Embedded

- These patterns integrate the AI directly into the user's workflow, appearing only when relevant to a specific piece of content or task.

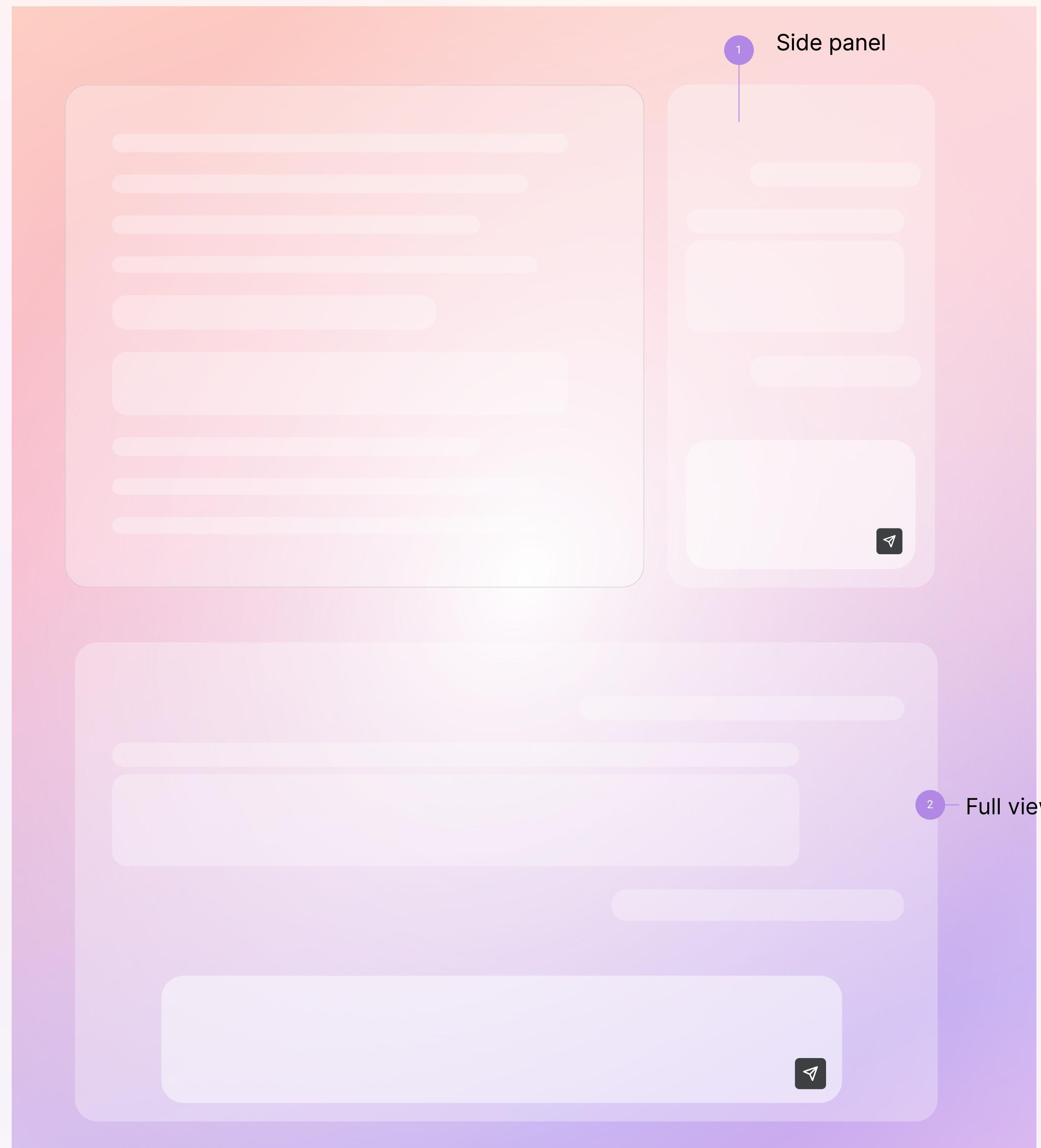


Deep dive : AI everywhere

Ambient intelligence & presence

Immersive

- These patterns are for deep, continuous interaction, where the AI is a primary part of the user experience.



Pro-active insights

Explore Amazon Quick Suite Spaces / Customer insights

Customer insights

Collaboration canvas Space knowledge

Space summary
1 day ago

The Customer Insight space centralizes everything we know about our users and business performance for Project Aurora, our intelligent workspace platform launched in Q1 2024. It connects qualitative research with quantitative data—helping teams link customer behavior, feedback, and revenue outcomes to inform product and go-to-market decisions.

What You'll Find Here

- Team Roadmap Alignment – Insights mapped to roadmap initiatives so everyone sees how research and data influence upcoming priorities.
- Salesforce Opportunities – Summaries of active deals, customer profiles, and emerging themes from the sales pipeline.
- Product Usage Dashboard – Metrics on engagement, adoption, and feature usage across customer segments.
- Revenue per Customer – Breakdown of top accounts by usage depth and contribution to ARR, with patterns tied back to customer needs.
- User Research & Feedback – Interview summaries, survey results, and key pain points shaping future releases.

Added by Amy | Refresh weekly

Customer asks + supporting data

Customer top asks
3 days ago

Here are the top customer asks from this week's Asana board:

Top Customers' Asks	Detailed Asks	Number of C
Enhanced User Experience and...	A common ask is for more intuitive interfaces and greater...	18
Improved Integration and...	Users often request better integration with other tools and...	21
Cross-Platform Accessibility	Customers frequently desire access to full functionality ac...	15
Users consistently ask for		

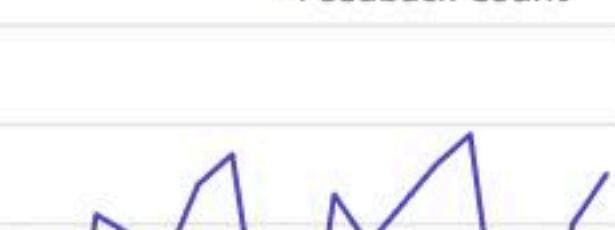
Customer feedback and requests

Added by Priya | Refreshed 1 hour ago | Refresh weekly

UX-related negative user feedback overtime
2 days ago

UX-related negative user feedback overtime

Feedback Count



UX-related n

UX-related n

View all discussions

Welcome back.

Since your last visit yesterday:

Summary

The [Q4 Launch Plan](#) (pinned doc) has been approved by @Anna and @Mark. Overall project risk has been lowered from 'Medium' to 'Low'.

Key changes

1 New Outcome: [Launch Homepage v2](#) was added by @David.

2 Docs Updated: [Q4 Launch Plan](#) and [Competitor Analysis](#).

3 Key Discussions: A new comment thread about the [Pricing Page](#) was started on the Launch Plan.

[View all discussions](#)

Pro-active insights

Amazon Quick Suite Dashboards / Weekly Business Review Dashboard

Ask a question about Weekly Business Review Dashboard

One Pager Account 360 View Account Pro User Revenue Top & Bottom Movers Top N Accounts Usage User YoY Visual for alerts

Executive Summary Project Health Customer Impact

Executive Summary

Total Issue
1,247 +12 (+0.97%)

Completion Rate
25% - 0.12 (-0.50%)

Customer Commitments
156 +3 (+1.96%)

Project Status Distribution

Status distribution across all projects

By project type By location

Behind Completed On Hold On Track

Status	Count
Behind	~18
Completed	~10
On Hold	~10
On Track	~12

High-Priority Tracker for Major Account

Issue distribution by high priority level across major accounts

Account	Value
Nasdaq	86
Apple	75

Sales Pipeline Velocity Last 7 days 22 days

↓ 3 (25 days) vs. previous week Unusual

The site is categorized under "Artificial Intelligence" on Craftwork's inspiration gallery, suggesting it incorporates AI features for medical record organization.

Based on 600 pieces of VOC Refresh daily

Set up monitor alert

Ask a followup question...

50

Assistive creation/onboarding guidance

The screenshot shows the Amazon Quick Suite Spaces interface for creating a "Q1 Marketing plan".

Top Bar: Explore, Amazon Quick Suite, Spaces / Name your space, and various icons for settings and sharing.

Title: Q1 Marketing plan

Collaboration canvas: A workspace for collaboration, currently empty.

Summary: Just now. A placeholder for connecting knowledge from Quick, productivity apps, or local files. It includes a message: "Your space summary will appear here once you connect your Space to knowledge from Quick, your productivity apps, or local files." Below this is a callout box stating "20 connected apps, 12 quick assets are available to generate insights and power your Space summary." with a "View" button.

Team: Just now. A placeholder for adding colleagues. It shows four placeholder profile icons.

Start your "Q1 Marketing Plan" space: A guide to setting up the space. It asks: "Describe to me in a few sentences what you are looking for and I can finish setting up your Space. Or, try these templates:". It lists three templates:

- Team onboarding space:** Quickly set up your new team with essential resources and widgets for a smooth start. (Last updated Sales, 500+)
- Brainstorming session:** A structured space for creative ideation, complete with a voting flows. (Last updated Sales, 228)
- Project kickoff:** Tell me more about the space.

Bottom Bar: Navigation icons (back, forward, search), Data, Add, and a toolbar with various icons like T, F, and a list icon, followed by a "Use templates" dropdown.

In-line edit

Built in widget

Explore Amazon Quick Suite Spaces / James onboarding space

James onboarding space

[Share](#) [More](#)

[Collaboration canvas](#) [Space knowledge](#) [Search](#) [+](#)

Pinned Q&A
Just now

Question: What's the process for starting a new project?
Answer:

1. Draft a short project proposal (use the [Project Proposal Template]).
2. Share in the weekly team sync for feedback.
3. Once aligned, the PM will create a Jira epic and assign initial tasks...

Added by Quick | Refresh weekly

Onboarding guide
2 days ago

Onboarding guide

The global artificial intelligence and data market is experiencing unprecedented growth, characterized by rapid technological advancement and increasing adoption across industries. Market projections indicate exceptional expansion, with the AI sector expected to surpass \$1 trillion by 2029, demonstrating a remarkable compound annual growth rate (CAGR) of 37.3%. In the immediate term, the market is projected to reach approximately \$190.61 billion by 2025.

A significant development shaping the market landscape is the emergence of agentic AI, with this segment expected to reach \$30.89 billion in 2024 and demonstrate an annual growth rate of 31.68%. This growth is primarily driven by increasing adoption of advanced...

Added by Quick | Refresh weekly

Suggestions

Hi James, based on your existing widgets, I recommend you to add a space summary to better keep track of your space updates and progress:

Space summary
2 days ago

This wiki is our team's central hub for knowledge, processes, and resources.

Added by Quick | Refresh weekly

Ask a followup question... [Ask](#)

WBR update
Just now

WBR update - Week of Oct 6

Highlights

- Completed first audit of team onboarding templates — identified 3 duplicate flows and 2 outdated resources now queued for cleanup.
- Met with Ravi (Design Ops) and Elena (Research) to align on shared taxonomy for documentation tags.
- Early prototype of the "Request a Resource" form is live in sandbox; initial feedback shows strong clarity on submission flow.

Next Week

- Finalize template consolidation proposal for review with Marcus's automation team.
- Start drafting success metrics for process adoption (e.g., time to find docs, duplicate reduction).

[Weekly Business Report](#)

Added by Amy | Refresh weekly

Team KPIs - Q4 2025
2 days ago

KPI Performance

Process Efficiency	Template Adoption
High	Medium

Built in widget - ISV

The screenshot displays a dashboard for managing customer feedback and performance metrics. On the left, a sidebar contains filters for Date range (Last 30 days), Company properties, VOC properties, Product hierarchy, Experience integrity, IXP cohort, Saved queries, and Advanced filtering. The main area features two tabs: VOC (selected) and Trends. Under Metrics, it shows percent change over the last 30 days for Total VOC (11% up), PRS (30, -6%), CES (34%, -7%), tNPS (68, -1%), and Call contact rate (6.61%). A pink-highlighted AI Summary section details an issue about payment processing delays, mentioning 47 mentions and a real customer quote: "Our payment processing takes 3-5 business days when it should be instant. This is killing our customer experience." A note states the site is categorized under "Artificial Intelligence". Below this is a table of VOC data.

Date	Sentiment	Content	VOC type
Jul 24, 2025 at 9:32 AM	-	Difficult to scroll through pending transactions. It is hard to click the scroller for the transactions and it moves too quickly, making it easy to lose my place in the list. Why is there even a second scroller for the transactions anyway? Is the scroller on the side of the screen not enough? Either make the transaction scroller easier to click and drag, or remove it and make the scroller on the right side of the screen the one for scrolling through transactions.	uservoice
Jul 24, 2025 at 9:32 AM	-	can you please add the function to be able to see the timesheets in quarters as well as minutes in QB classic time	uservoice
Jul 24, 2025 at 9:30 AM	-	cant copy a check..cant create a template for the same day and have it pop up..so much damn time waste	uservoice
Jul 24, 2025 at 9:30 AM	-	Just wanted to wait a while contactMe, isDecomp, US, singlePaySchedule, Invalid date, other [Realm id: 9130357760867416]	uservoice
Jul 24, 2025 at 9:30 AM	-	Prefer old layout	uservoice

Extension- Quick action

The screenshot displays a user interface for monitoring customer experience metrics and AI-generated insights.

Search and filter: Includes Date range (Last 30 days), Company properties, VOC properties, Product hierarchy, Experience integrity, IXP cohort, Saved queries, and Advanced filtering.

VOC Metrics: Shows percent change over duration equivalent to selected date range. Key metrics include:

- Total VOC: 2,247,034 (11% ↑)
- PRS: 30 (-6% ↓)
- CES: 34% (-7% ↓)
- tNPS: 68 (-1% ↓)
- Call contact rate: 6.61%

AI Summary: An issue titled "Payment Processing Delays" is highlighted. Details:

- Total count of mentions: 47
- Issue Description: Customers experience significant delays when processing payments, leading to cash flow disruptions and customer dissatisfaction.
- Key issue bullet points:
 - Payment gateway timeouts (23 mentions)
 - Manual approval bottlenecks (15 mentions)
 - Integration failures with banking systems (9 mentions)
- Real customer quote: "Our payment processing takes 3-5 business days when it should be instant. This is killing our customer experience."
- Company ID: ACME-2024-001

The site is categorized under "Artificial Intelligence" on Craftwork's inspiration gallery, suggesting it incorporates AI features for medical record organization.

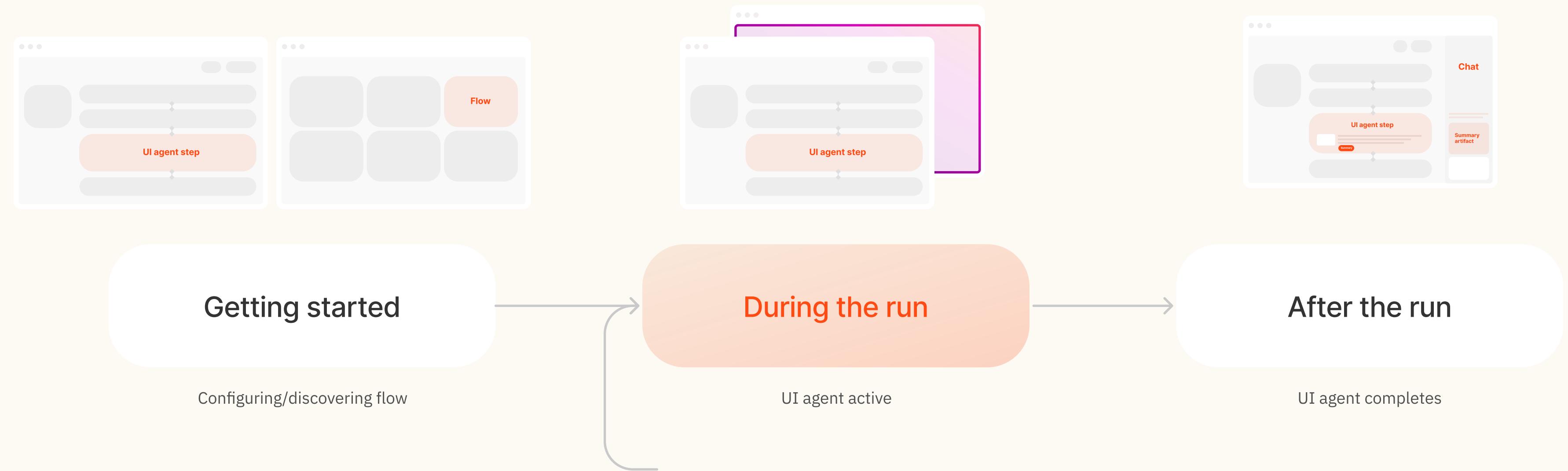
Added by Quick | Refresh daily

VOC Data: A table showing recent VOC entries:

Date	Sentiment	Content	VOC type
Jul 24, 2025 at 9:32 AM	-	Difficult to scroll through pending transactions. It is hard to click the scroller for the transactions and it moves too quickly, making it easy to lose my place in the list. Why is there even a second scroller for the transactions anyway? Is the scroller on the side of the screen not enough? Either make the transaction scroller easier to click and drag, or remove it and make the scroller on the right side of the screen the one for scrolling through transactions.	uservoice
Jul 24, 2025 at 9:32 AM	-	can you please add the function to be able to see the timesheets in quarters as well as minutes in QB classic time	uservoice
Jul 24, 2025 at 9:30 AM	-	cant copy a check..cant create a template for the same day and have it pop up..so much damn time waste	uservoice
Jul 24, 2025 at 9:30 AM	-	Just wanted to wait a while contactMe, isDecomp, US, singlePaySchedule, Invalid date, other] [Realm id: 9130357760867416]	uservoice
Jul 24, 2025 at 9:30 AM	-	Prefer old layout	uservoice

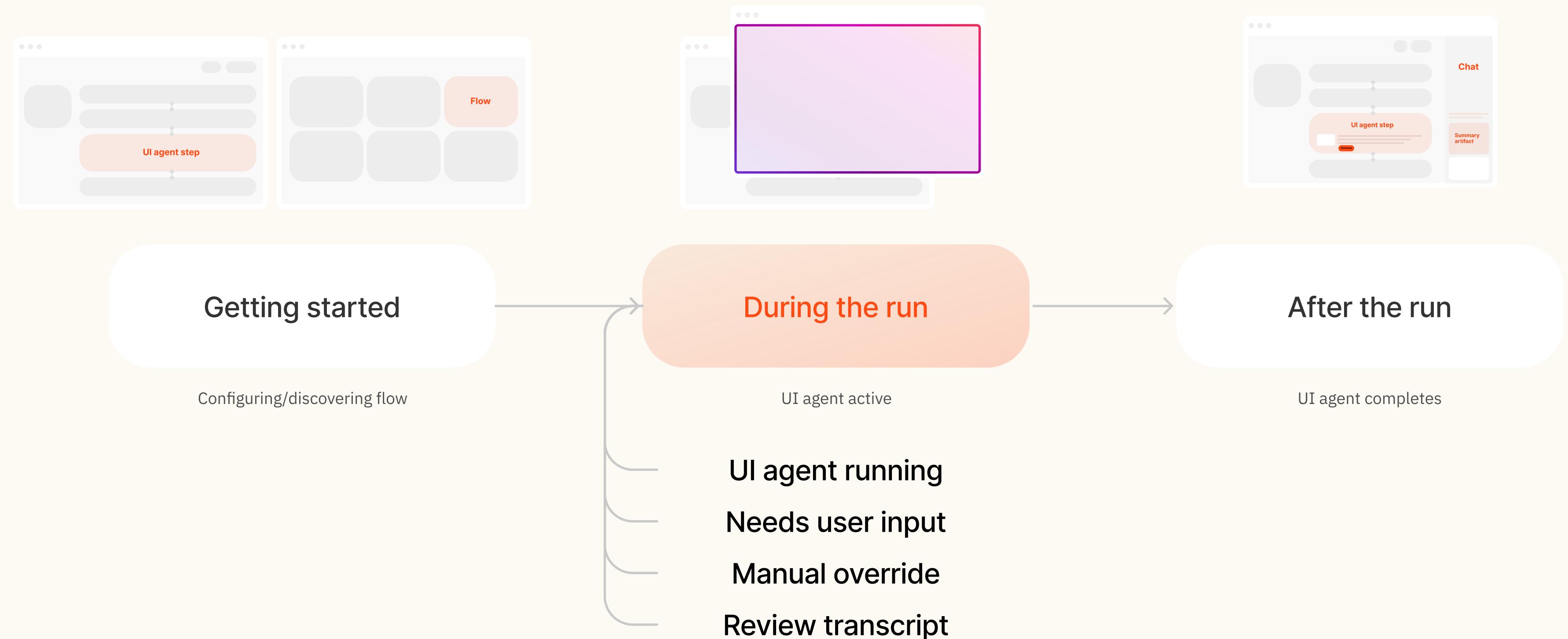
Deep dive : Autonomous AI agent

Ambient intelligence & presence

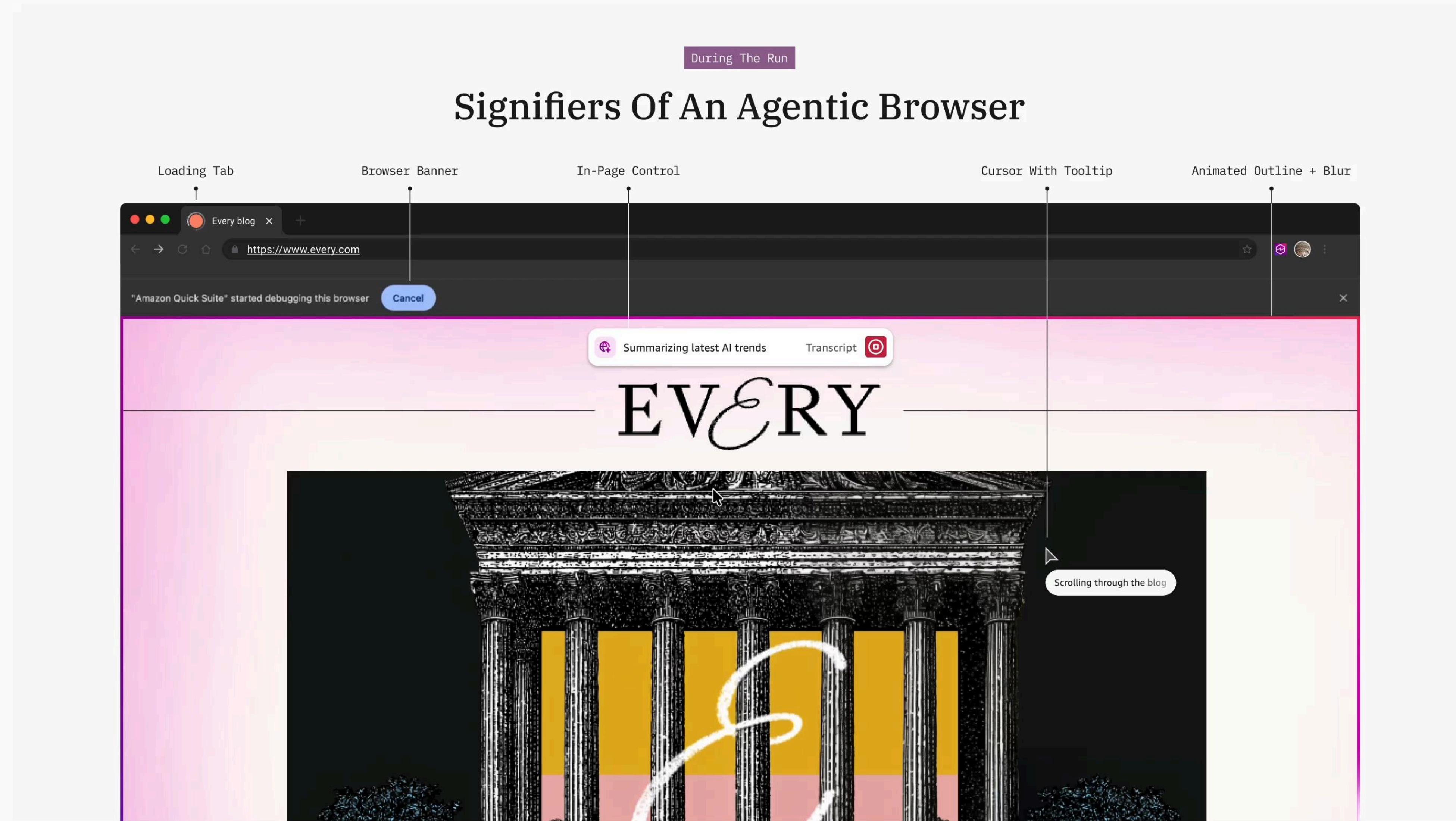


Deep dive : Autonomous AI agent

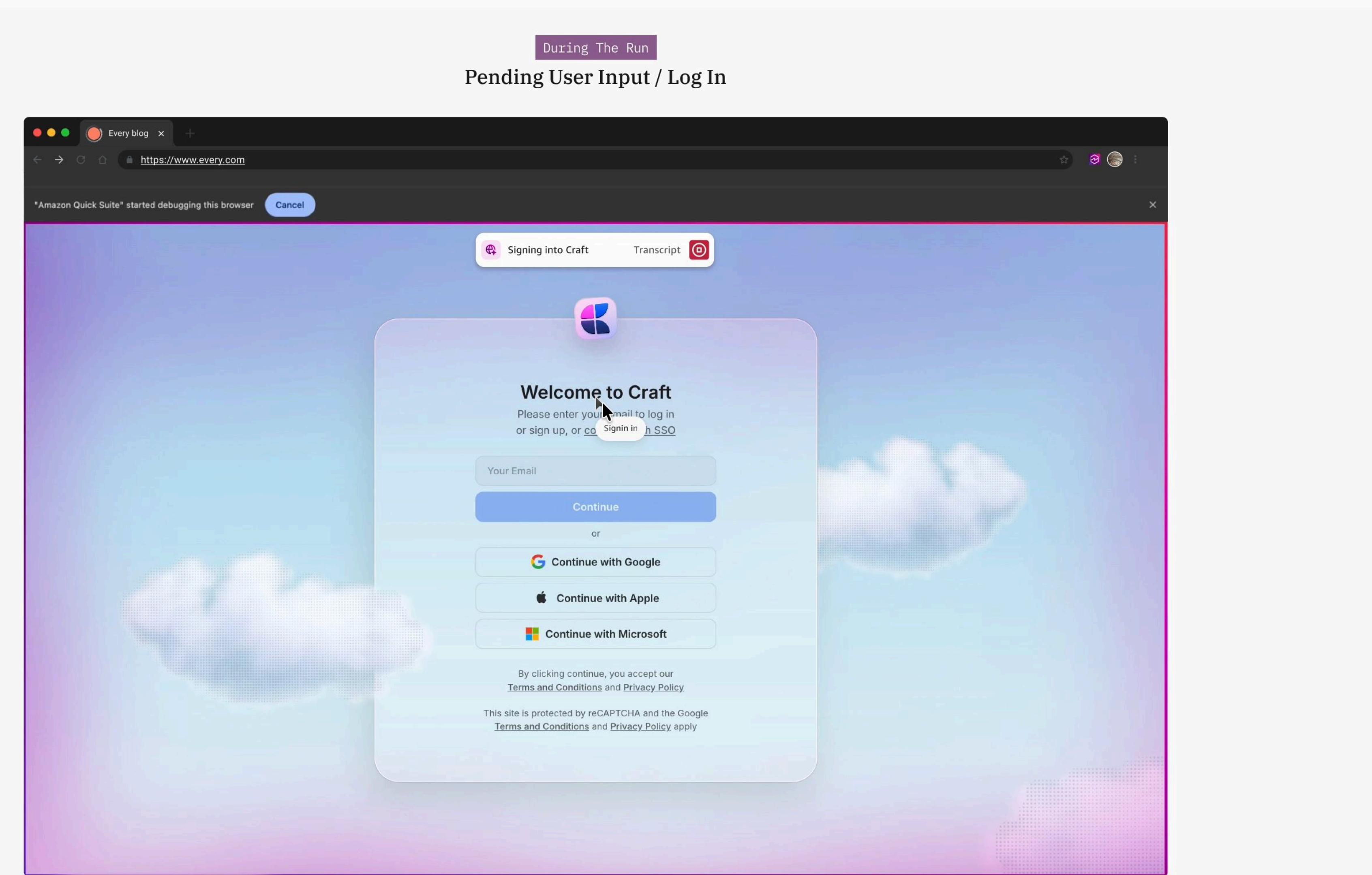
Ambient intelligence & presence



Agent running



Agent needs user input



View transcript

After The Run
UI Agent Wrapping Up

The screenshot shows a web browser window with a dark theme. The address bar says <https://www.every.com>. A message at the top left says "'Amazon Quick Suite' started debugging this browser". The main content area is a social media feed. At the top right of the feed, there's a purple button labeled "Transcript". Below the feed, there's a sidebar with sections for "What's happening" (listing trending topics like "PREDATOR: BADLANDS", "#CelebrityTraitors", and "Sidney Poitier") and "Who to follow" (listing users like "LayerAkira", "SaaS Shots", and "Asanshay Gupta"). At the bottom of the sidebar, there are links for "Terms of Service", "Privacy Policy", "Cookie Policy", "Accessibility", "Ads Info", and "More ...".

Metrics

Since launching in October 2025, Amazon Quick Suite has reached 607,000 users with an exceptional 84.3% weekly retention rate.



+607K

users

84.3%

weekly retention rate

93.0%

users using AI features

The impact

40%

Faster time to value

Reduced onboarding setup from 12 mins to 5 mins

3.2 X

Feature discovery

Adoption of 'Action connectors' via FTUX

85%

Artifact retention

User returning to space within 7 days

Before I felt like a database administrator. Now, I feel like a strategist. The flow just happens.

Jonathan - Lead marketing manager

CASE STUDY 2

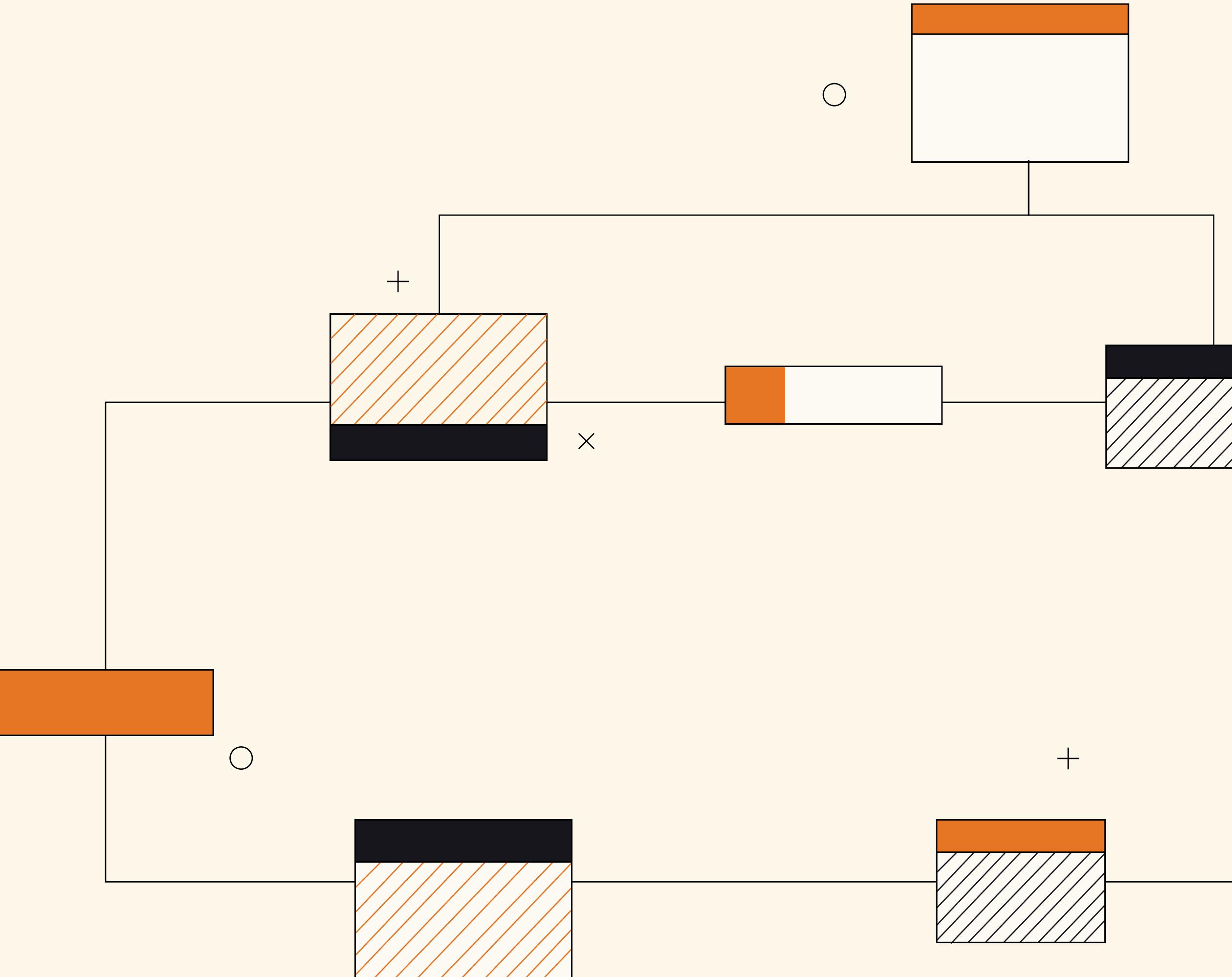
Envisioning unified GenAI application evaluation

Time

2024 Q1 - 2024 Q2

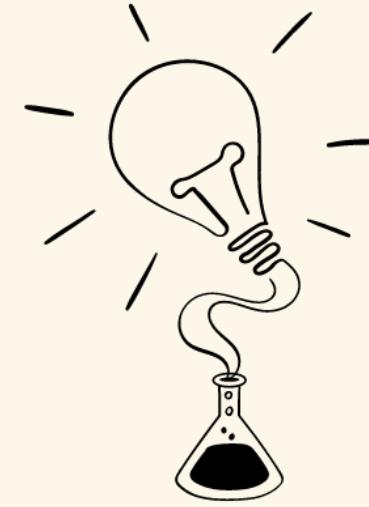
My role

Lead designer to drive
AWS GenAI application
evaluation initiative



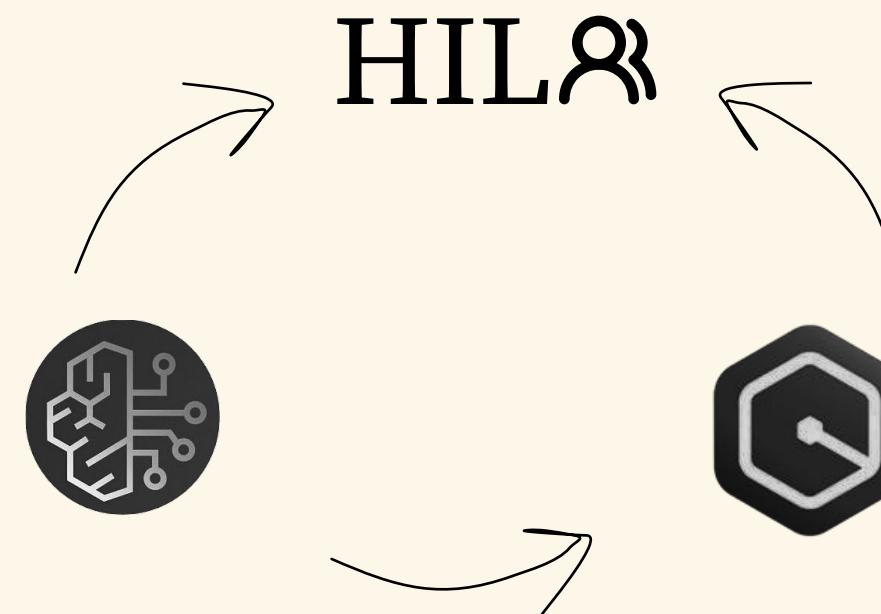
CASE STUDY 1

Key achievement



Strategic vision

- Designed a 4-component GenAI evaluation framework
- Transforming HIL roadmap
- Led to a Q Business app eval PRFAQ and secure a resource team on delivering it



Cross-team alignment

- Aligned Q Business, Bedrock, and HIL teams under a shared vision
- Drove the joint launch plan between Q Business and Bedrock



Feature deliverables

- Influenced 4 Tier 2 features launch in Bedrock and Q Business
- Influenced 3 features on roadmap in Q1 and Q2 2025

PROBLEM

In late 2023, AWS faced a critical inflection point in our GenAI journey. While our Bedrock infrastructure and Q Business were powering major enterprises to create GenAI applications, we lacked a systematic way to evaluate these applications.

How good is my Gen-ai application?



Emm....

PROBLEM

The GenAI app evaluation Wake-Up call

Q4 2023, AtoZ app (powered by Q Business) shows inconsistent response, HIL (human in the loop) team partnered with Q Business to evaluate the AtoZ application.

Multiple challenges in evaluation process are revealed, prompting creating an universal evaluation framework for AWS GenAI apps.

The screenshot shows the A to Z Assistant (Beta) interface. At the top, it says "A to Z Assistant BETA" with a "Creative Mode" toggle switch. Below that is a search bar containing the question "What is the upcoming event in Seattle?". A purple circular icon with a plus sign is next to the question. To the right, a message states: "Based on the provided data source, I cannot find any information about 'What is the upcoming event in Seattle'". Below this, a yellow smiley face icon indicates "No answer is found." At the bottom, there's a "Was this helpful?" button with thumbs up and down icons, and a "Ask A to Z Assistant" input field. A small note at the bottom right says "A to Z Assistant (Beta) may be inaccurate. Terms and Conditions."

PROBLEM

The GenAI app evaluation Wake-Up call

Q4 2023, AtoZ app (powered by Q Business) shows inconsistent response, HIL (human in the loop) team partnered with Q Business to evaluate the AtoZ application.

Multiple challenges in evaluation process are revealed, prompting creating an universal evaluation framework for AWS GenAI apps.

Q1 2024, I was brought in by HIL team to design this end-to-end solution.

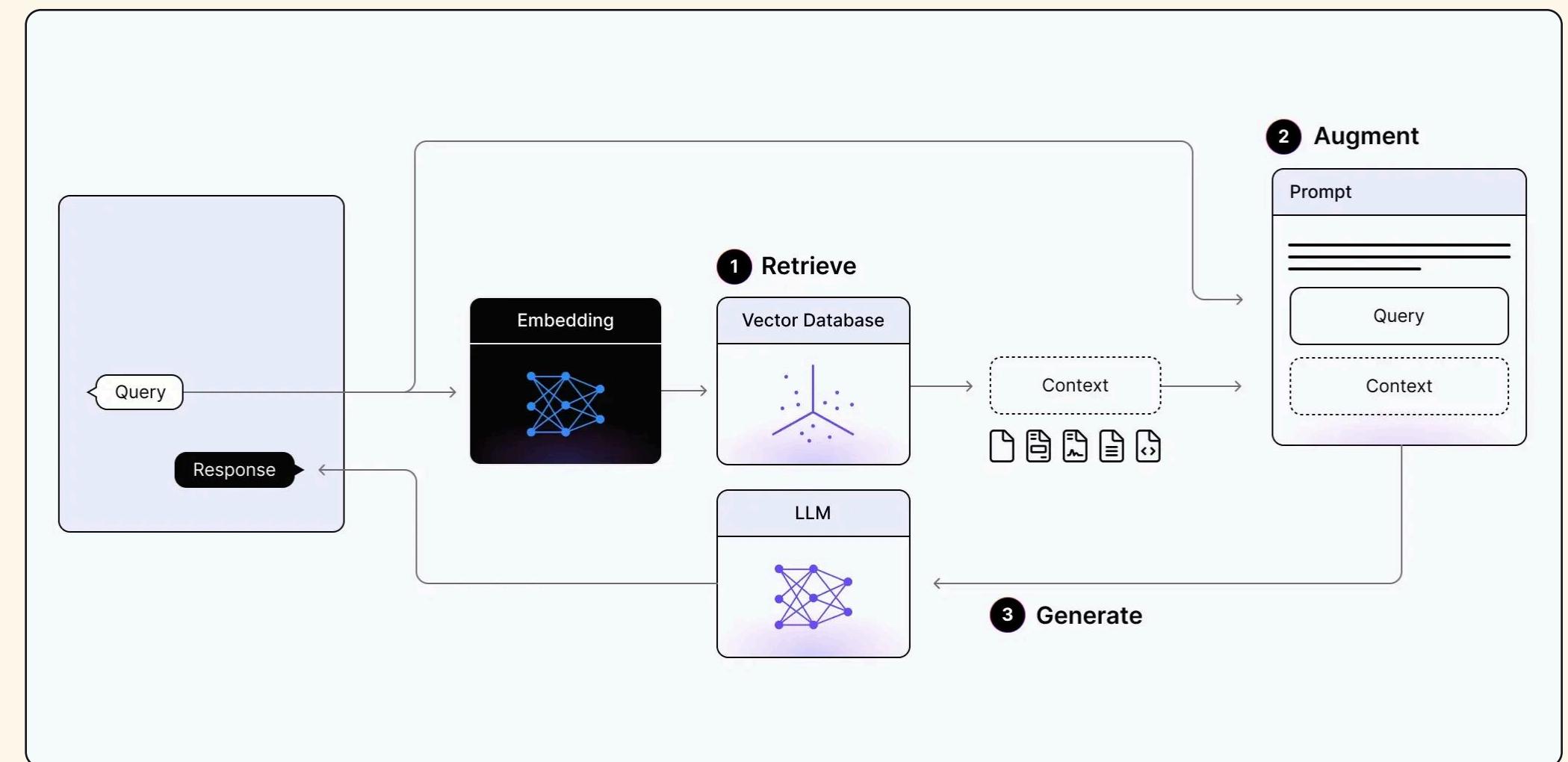
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CHALLENGE

Challenge 1:

Navigating uncharted territory

- Rapidly evolving field with limited established industry standards.
- Traditional ML vs GenAI Evaluation
Traditional ML: Linear testing path
GenAI: Continuous, iterative evaluation cycle
- Complex Multi-Component System
Multiple components working together (RAG, plugins, guardrails); Need to validate entire system.



Retrieval-augmented generation (RAG) system

CHALLENGE

Challenge 2:

Diverging product ideas within AWS

- Teams working in silos with different approaches
- Lack of common understanding of GenAI app evaluation
- Disconnected roadmap

Q1	Q2	Q3	Q4
<ul style="list-style-type: none"> Margaret: Model Evaluation in SageMaker 	<ul style="list-style-type: none"> Q Model Eval API Messi: Model Evaluation in Bedrock Ginsburg: Augment Human Eval using LLMs (Bedrock, SM, Q): PRFAQ Curated Experts: PRFAQ 	<ul style="list-style-type: none"> Ginsburg: Augment Human Eval using LLMs Fine Tuning: Q&A Pairs (SFT), Text Ranking (RLHF) Curated Experts - Private Preview Eleanor: E2E App Eval with Prompt Dataset Management, RAG, Guardrails (Bedrock, SM): PRFAQ 	<ul style="list-style-type: none"> Eleanor: E2E App Eval and Prompt Dataset Management (SM, Bedrock, Q) Curated Experts
	<ul style="list-style-type: none"> Fetch AWS Credentials Lock pre-signed URLs Support Auth via OIDC IDP 	<ul style="list-style-type: none"> Workflow Management Multiple Labeling Portals 	<ul style="list-style-type: none"> Task Routing and Prioritization
	<ul style="list-style-type: none"> Batch and Group Objects with an Object Detection Model to increase batch size from 4 scenes to 10 scenes (Torc) 	<ul style="list-style-type: none"> QuickTile: Video Classification Keypoint annotation for 2D-3D linking Point Cloud (Support for 15 cameras/frame) 	<ul style="list-style-type: none"> Minerva: FM based labeling - Science and Engineering Exploration

HIL 2024 Roadmap

Amazon Q – Response Quality Evaluations | March 05, 2024 [DRAFT – STILL WIP]

Purpose

Following the public preview launch of Amazon Q for Business in November 2023, it became clear that in order to improve the quality of Q answers and provide a state-of-the-art user experience for our customers, a robust, end-to-end, science-based evaluation methodology needed to be implemented. This methodology has now proven to be instrumental to quickly identify and solve a wide range of accuracy related issues. In fact, customers have asked us if Q allowed customers to perform their own evaluations on their own data. This document focuses on a proposal to offer the same robust evaluation methodology to our customers, empowering them to understand their unique accuracy challenges and prioritize their improvement activities based on clear actionable insights, all accessible from their Q admin console. We seek to (1) provide the background and motivation for this offering, (2) present an outline of the approach and why it can deliver high value to our customers, and (3) win leadership support to prioritize implementation.

Background

Amazon Q is a generative AI-powered assistant that can answer questions, provide summaries, generate content, and complete tasks based on data and information in enterprise systems. Setting up and deploying a Q application requires no ML or GenAI expertise; customers can configure everything in the Q AWS console without writing a line of code, dealing with embeddings, RAG, or orchestrating complex components typically required to build these GenAI applications. To deliver this experience, however, the Q team had to build many underlying components, including an intent classifier, toxicity and safety detection, RAG, relevance boosting, and a fully functional web UI, in order to provide the core functionality customers needed. Even though at the Q component level the science team had developed robust model performance evaluation methods, evaluating the system end-to-end (Q response quality) could only be done through limited anecdotal qualitative testing by the team. We needed a robust and scalable evaluation solution.

Evaluation Criteria

Before talking about the evaluation methods, let's cover what we are trying to measure to understand the motivation behind each metric. The current evaluation criteria recommended by science and product teams consists of the following metrics: (1) **correctness**: the metric that captures the most essential qualities of a Q answer and by which an end-user would rate the quality as "pass" / "fail". Other high-priority metrics focus on specific facets of the answer: (2) **faithfulness**: how faithful is the answer relative to the supporting Q citations,

Bedrock Knowledge Base Evaluation

Overview **List** **Board** **Timeline** **Dashboard** **Calendar** **Workflow** **...**

Add task

Task name	Assignee
Create subset of docs/questions	Abey John
Create an S3 bucket with filtered AWS IP data from prod/sou	Abey John
Create list of questions for evaluation steps	Brett Beattie
Create a Bedrock KB using AWS IP data	Abey John
Connect with Bedrock ROC to speed up data ingestion	Abey John
Set up the evaluation pipeline	Brett Beattie
Create a 1-page doc on evaluation	Brett Beattie
Obtain evaluation dataset (including subset used for prior eval)	Brett Beattie
Obtain RAG and LLM responses from Mynah on evaluation dr	Abey John
Obtain RAG and LLM responses from Bedrock KB on evaluati	Abey John
Gather information on automated evaluation pipeline	Brett Beattie

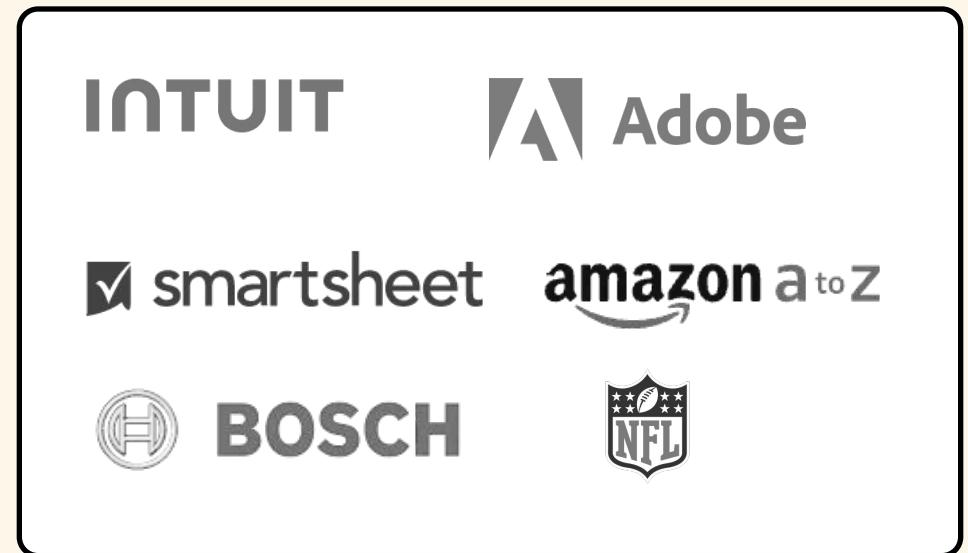
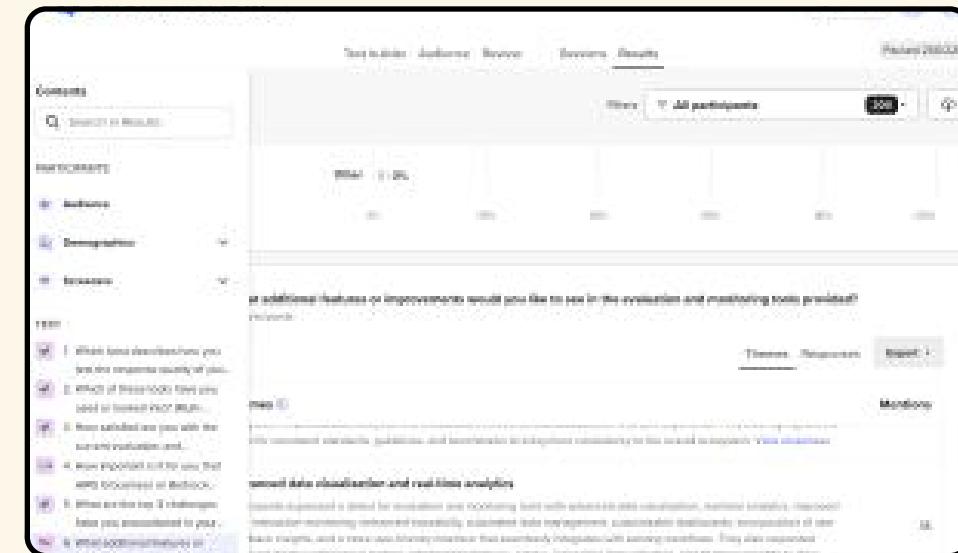
Q Business eval PRFAQ

Bedrock KB eval roadmap

Goal

Design a unified GenAI application evaluation framework that serves multiple AWS teams.

Comprehensive research

A screenshot of a survey interface titled "Describe how do you want to evaluate your application". It includes sections for "Accuracy and Usability" (Correctness, Easefulness, Helpfulness), "Consistency" (Consistency), "Usability" (Usability), and "Safety" (Safety). Each section has a checkbox and a brief description. A "Add custom metrics" button is at the bottom.

18

customer exploratory
studies

9

prototype testings
studies

330

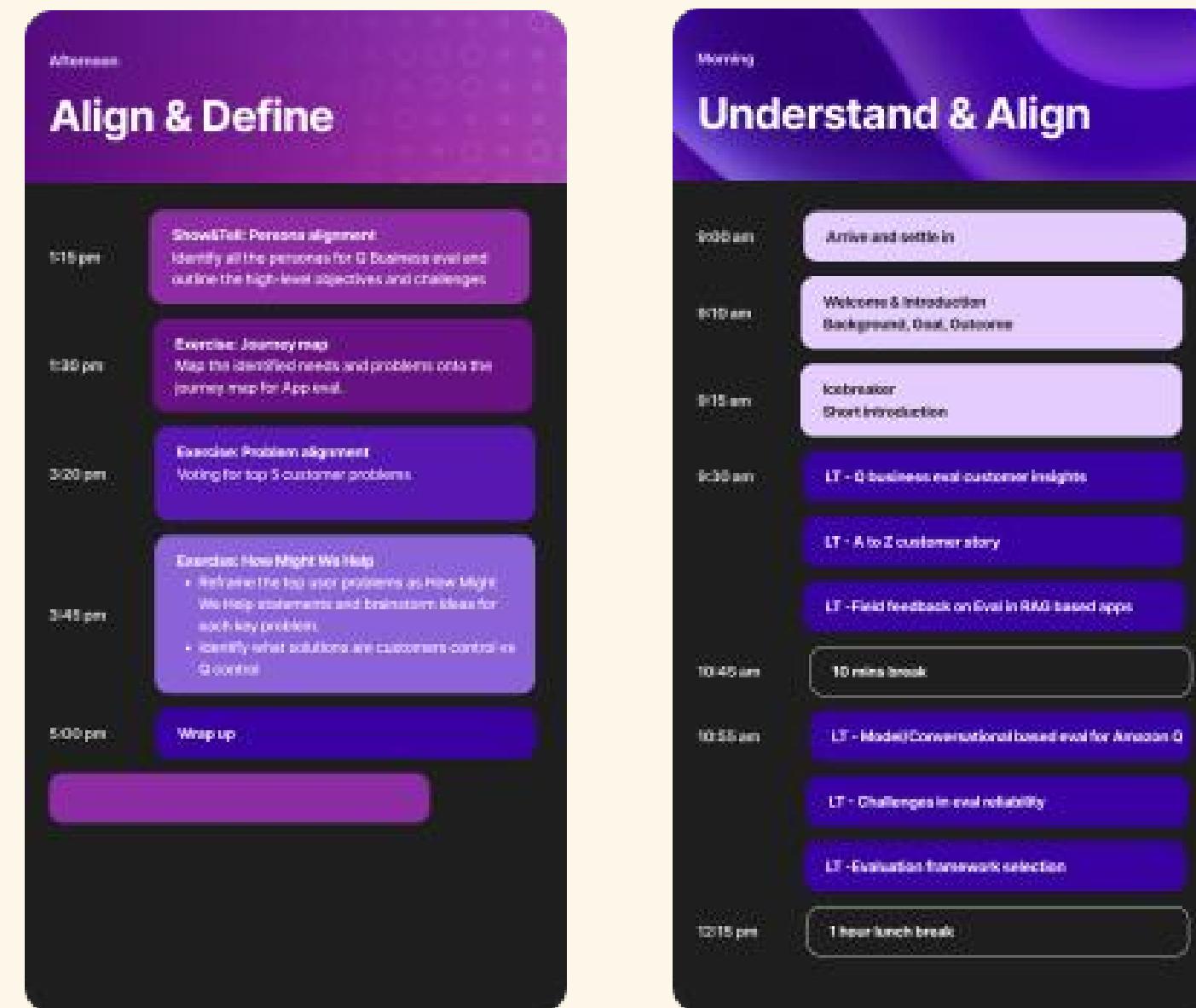
responses survey

2-day workshop

Co-hosted a 2 day workshop with Bedrock principle designer

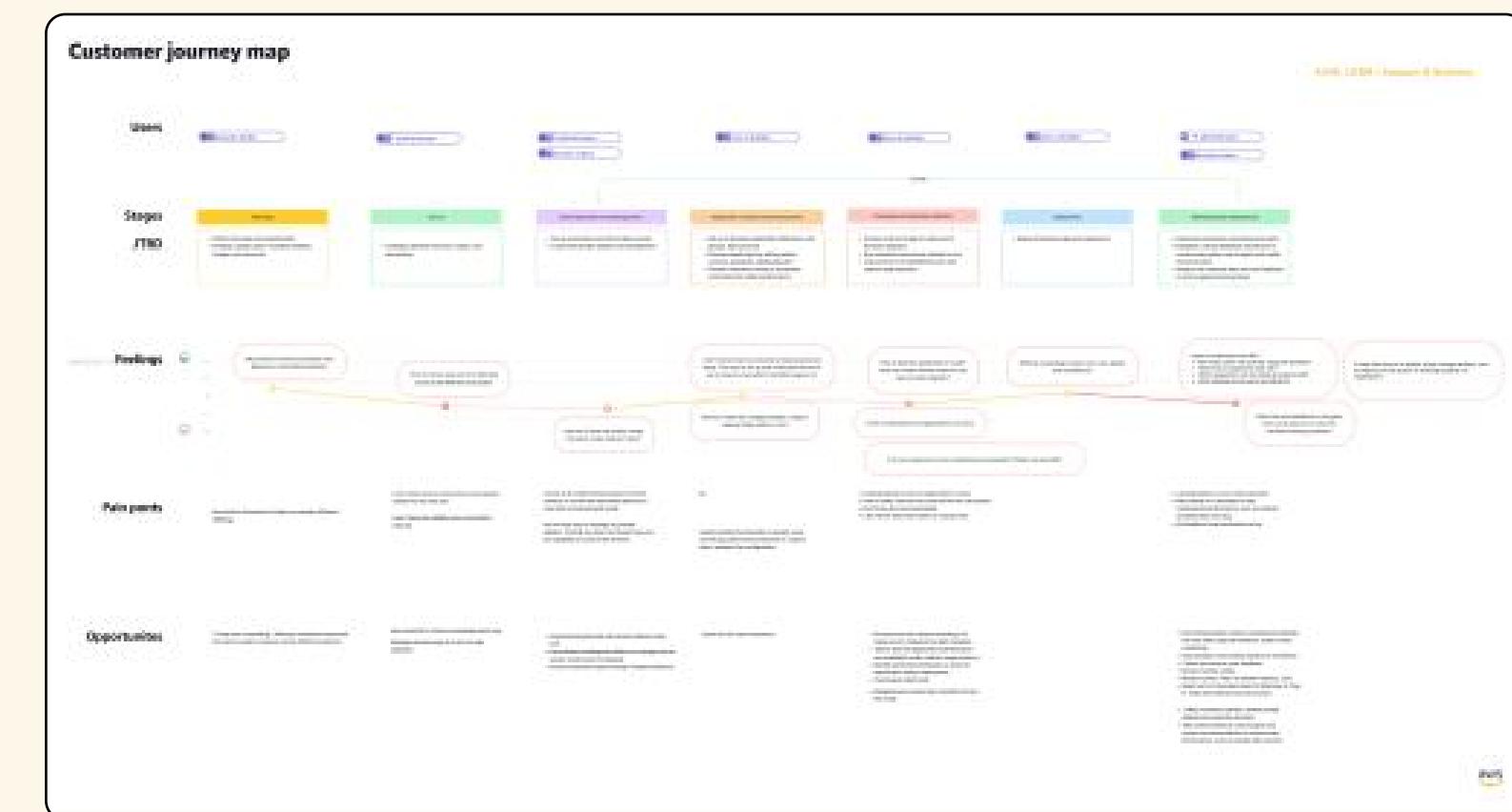
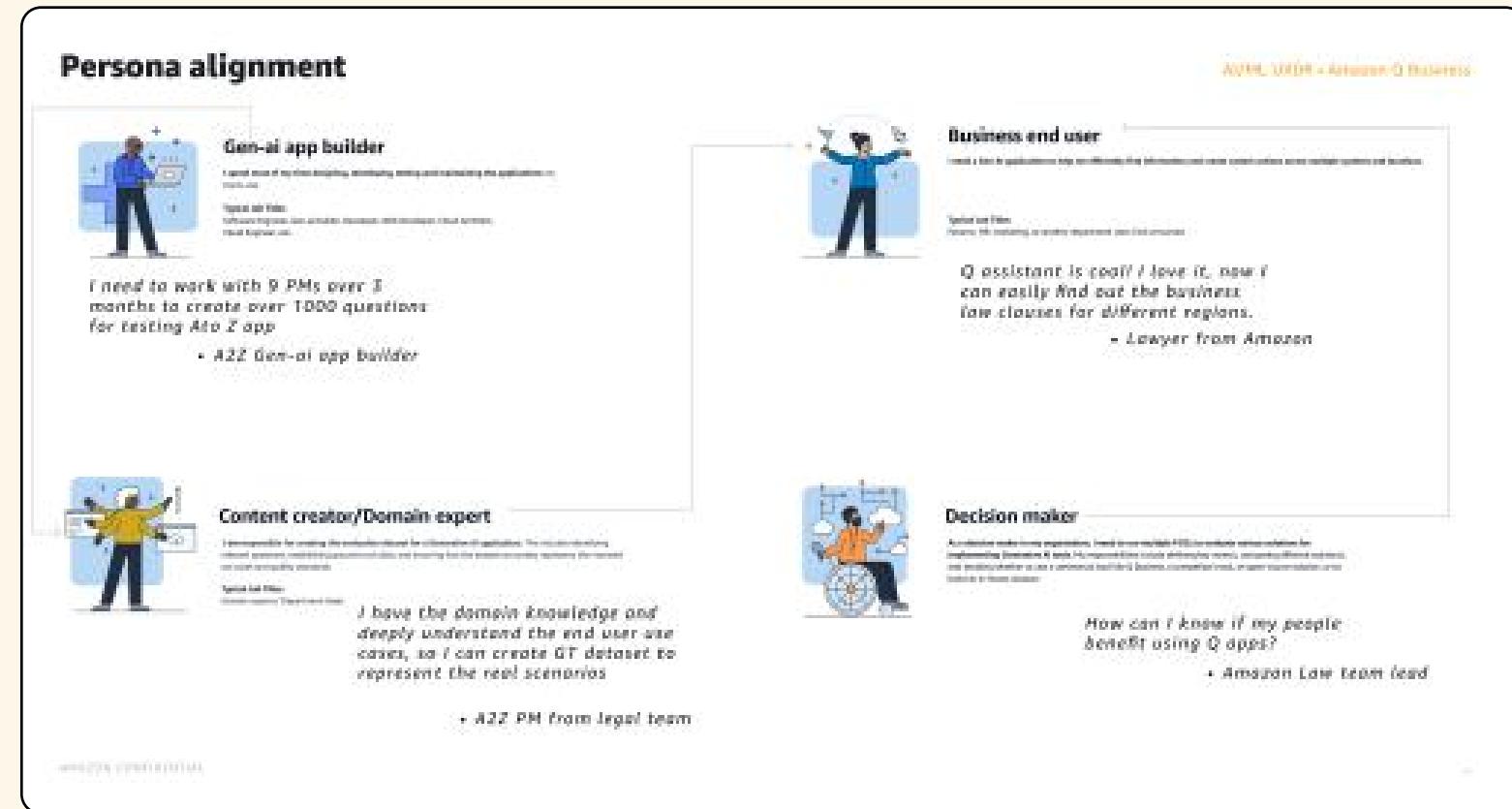
80+

Participants joined
across HIL, Q Business,
Bedrock, Data science
team



2-day workshop outcome

- Understanding our customer personas and their evaluation journeys
 - Identifying key pain points in current evaluation processes
 - Exploring potential solutions and defining clear team ownership



2-day workshop outcome:

Thanks for hosting this workshop. I've learned a lot during those two days. My knowledge of GenAI evaluation raised from 10 to 80.



Niral Trivedi- Devops Engineer (L6 Q Business)

I truly learned a lot about how this feature impacts multiple users from a real-world perspective. Having worked with many designers, your ability to connect user needs with technical solutions is top notch.



Alex Williams- Sr. Applied scientist (L6 Bedrock)

Your presentation was stellar - the session was incredibly informative, thank you for bringing us together.



Jonathan Buck - Senior Research Engineer (L6 Bedrock)

Key Insights: The four pillars of GenAI app evaluation



Prompt data management

Create and manage prompt and ground truth datasets.



Pre-production evaluation

Define evaluation metrics and methods.



Accuracy traceability

Provide trace views to inspect the data flow across each components in the application.



Post-production monitoring

Analyze live user feedback and app responses to refine testing prompts and app configs.



Prompt data management

Problem:

Who As the Gen-AI builder, I'm working on generating a Ground Truth
Goal
dataset to evaluate my application. However, the process is takes
Problem
weeks or month over multiple iterations, because I'm unsure of
the most relevant questions to prepare. Additionally, finding
Feeling
content owners to create this dataset is time-consuming, which
makes me feel like my productivity is hindered.

Solution:

- **AI+Human:** Collaborate AI with human to generate the “ground truth” data
- **Dataset versioning management**

AI/ML UXDR • Amazon Q Business

Conceptual design

AI+Human GT dataset generation

AMAZON CONFIDENTIAL



DESIGN FRAMEWORK

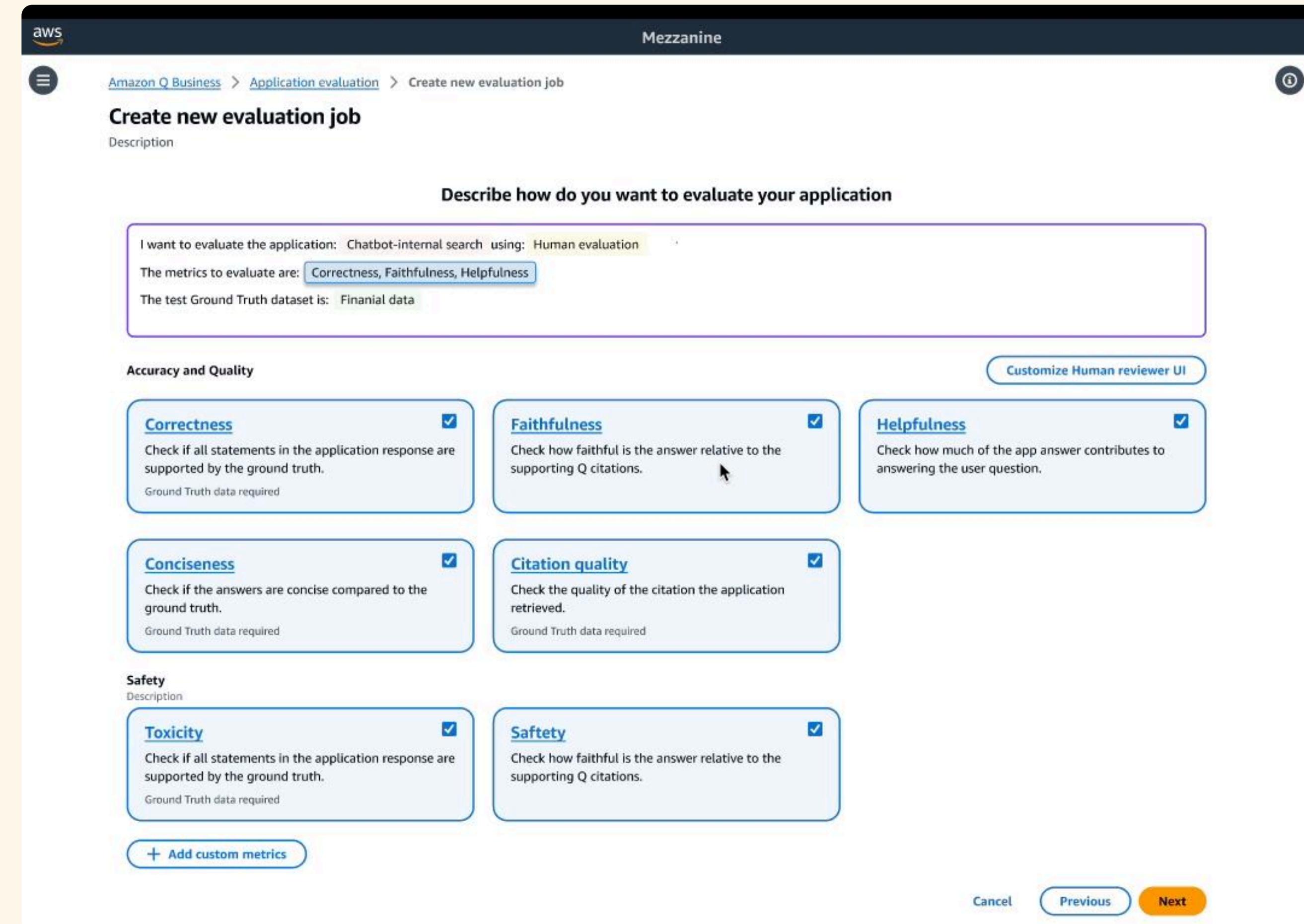
△ Pre-production evaluation

Problem:

Who
As the Gen-AI builder, I'm trying to evaluate my application's
Problem
performance. However, I'm new to this area and unsure of the
best metrics to choose for my use case. I find it challenging to
understand the meaning of each criterion and determine which
Feeling
works best. This makes me worry that I might not be measuring
the most important metrics and may end up with less insightful
results.

Solution:

- **Standard Metrics:** Offer a set of recommended metrics.
- **Custom Metrics:** Allow customers to define their own metrics.
- **Metric Definitions:** Provide clear and detailed definitions of each metric.
- **Review UI:** Enhance the review UI instruction.



DESIGN FRAMEWORK

🔗 Accuracy traceability

Problem:

Who As the Gen-AI builder, I'm trying to troubleshoot why my application's accuracy is low. However, it feels like a black box because I lack visibility into how the Q business set up the entire workflow, the components involved, and the traceability. This makes me feel at a loss to find the root cause of the problem.

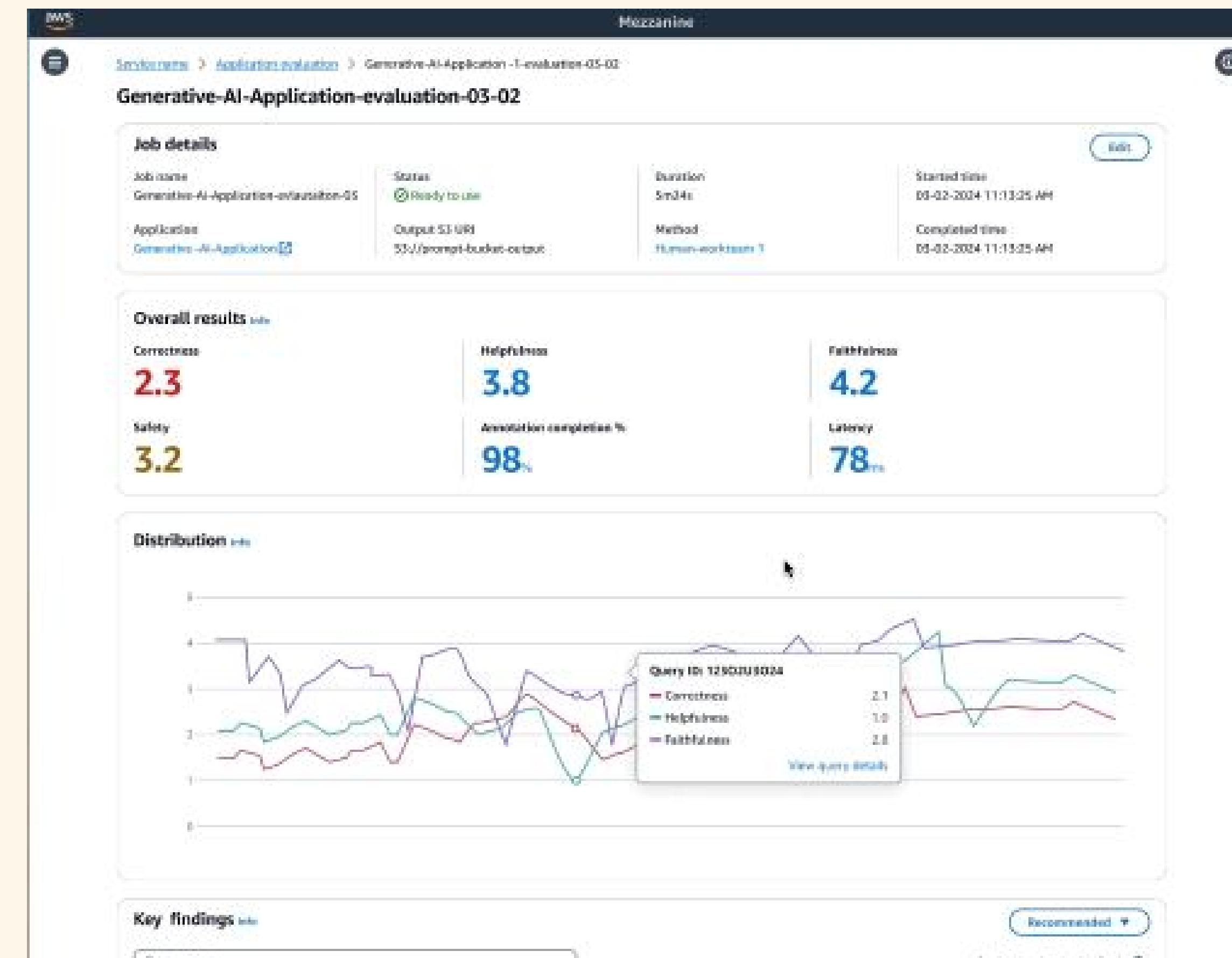
Goal

Problem

Feeling

Solution:

- **Traceability view** to show the app execution flow.
 - **Evaluate each key component** of the entire flow (Guardrail, Retriever, Plug in etc).
 - **Root cause analysis** for live data/ test data.
 - **Recommendations** or insights to improve performance.
 - **Dynamic/ live debugging UI**



DESIGN FRAMEWORK

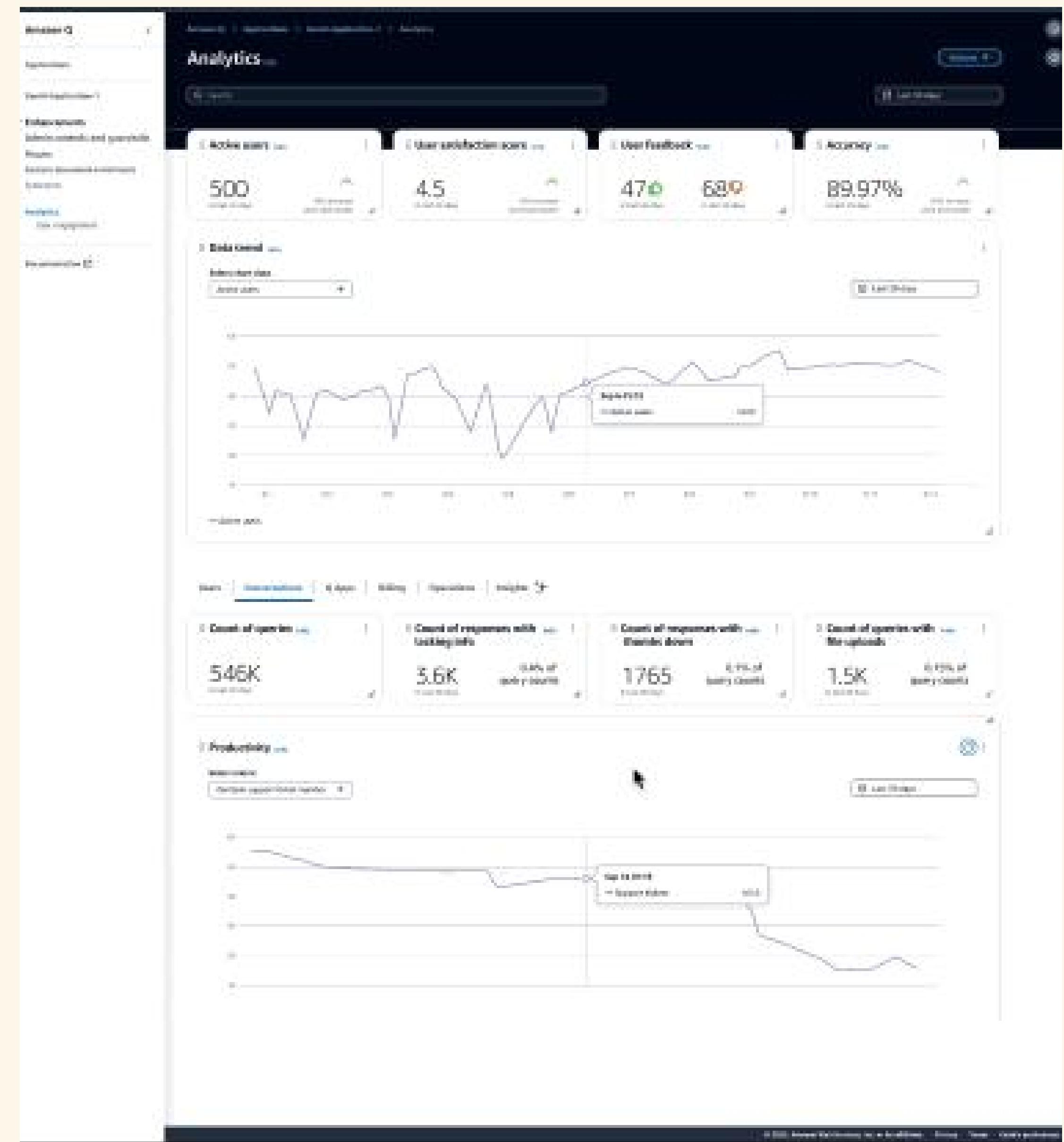
Post-production monitoring

Problem:

As the decision maker, I'm trying to calculate the ROI on investing in Q business. However, I find it challenging to understand if adopting the Gen-AI solution has increased productivity because I lack visibility into productivity metrics and user engagement and satisfaction. This makes it difficult for me to scale the solution effectively.

Solution:

- **Workflow Integration:** Connect with customer existing workflow/platform and set up metrics to compare productivity improvements.
 - **Analytics Dashboard:** to track user engagement, satisfaction and productivity.
 - **Feedback Mechanism:** Encourage users to provide feedback through the UI
 - **User Telemetry:** Track user telemetry to understand their intentions and signals.



DESIGN ITERATION

Detailed design with research validation

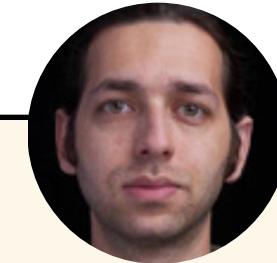
- Designed **18** workflows for the generic evaluation framework
 - Tailored designs for Q Business IT admin context and Bedrock Knowledge Base, creating specialized workflows within each platform



Leadership presentation

HIL team Director Ammar Chinoy (L8)

Fantastic work! We should definitely share this in the all-hands meeting and use the design to estimate resource needs.



Ammar Chinoy- Director (L8)

Q Business Director Omar Zarka (L8)

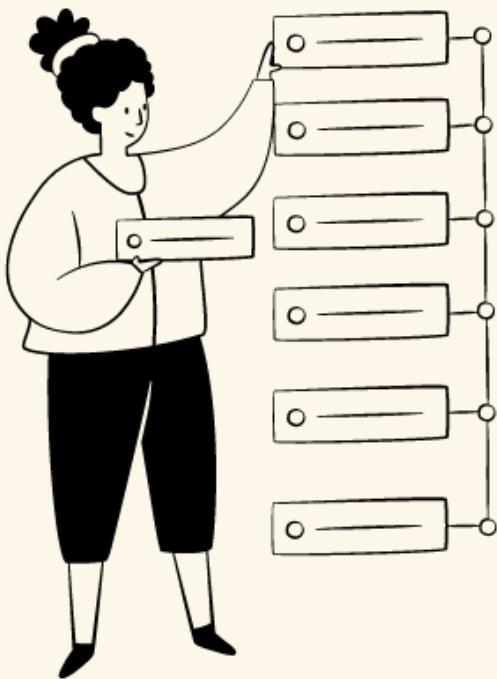
Bedrock PM Shipra Kanoria (L7) and Paras Mehra (L6)

This deserves an OP1 and a PRFAQ. I'd love to partner with Yuhan and use her visuals for sure.



Watson Srivathsan PTM (L7)

Roadmap & Resource impact



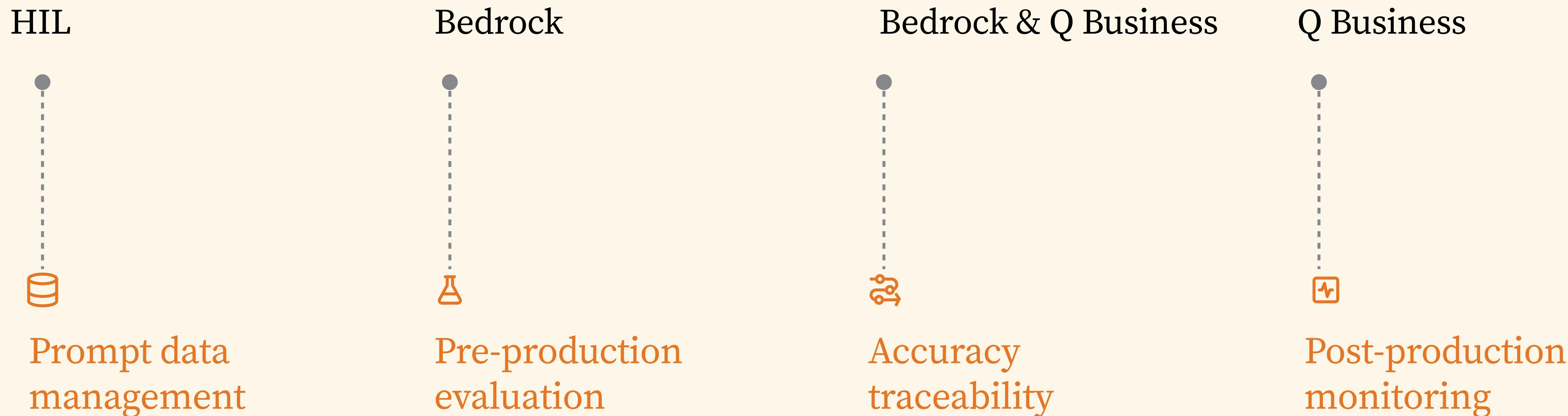
HIL: Reshaped 2024 roadmap

- Prioritizing LLM as a judge and Curated Workforce
- Delegating core evaluation to Bedrock/Q Business

Q Business: Funding a dedicated team

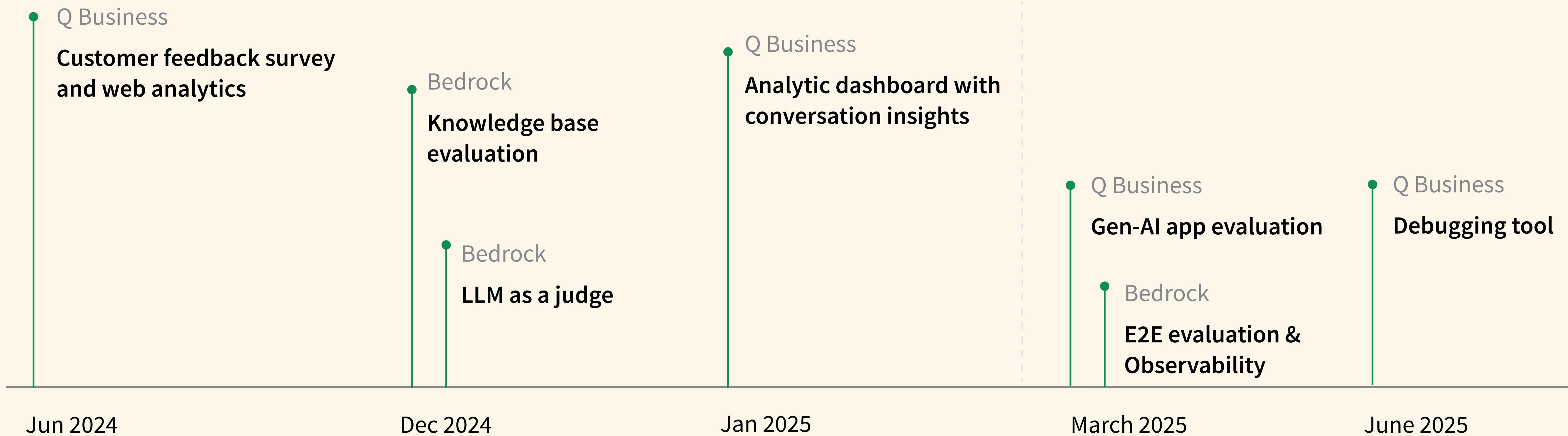
- Selected as top 3 Op1 idea and led to a PRFQA
- Secure funding for 1 PM, 1 SDM, and 9 engineers, with additional data science partnership support

A unified vision with strategic launch plan across teams



Force-multiplier

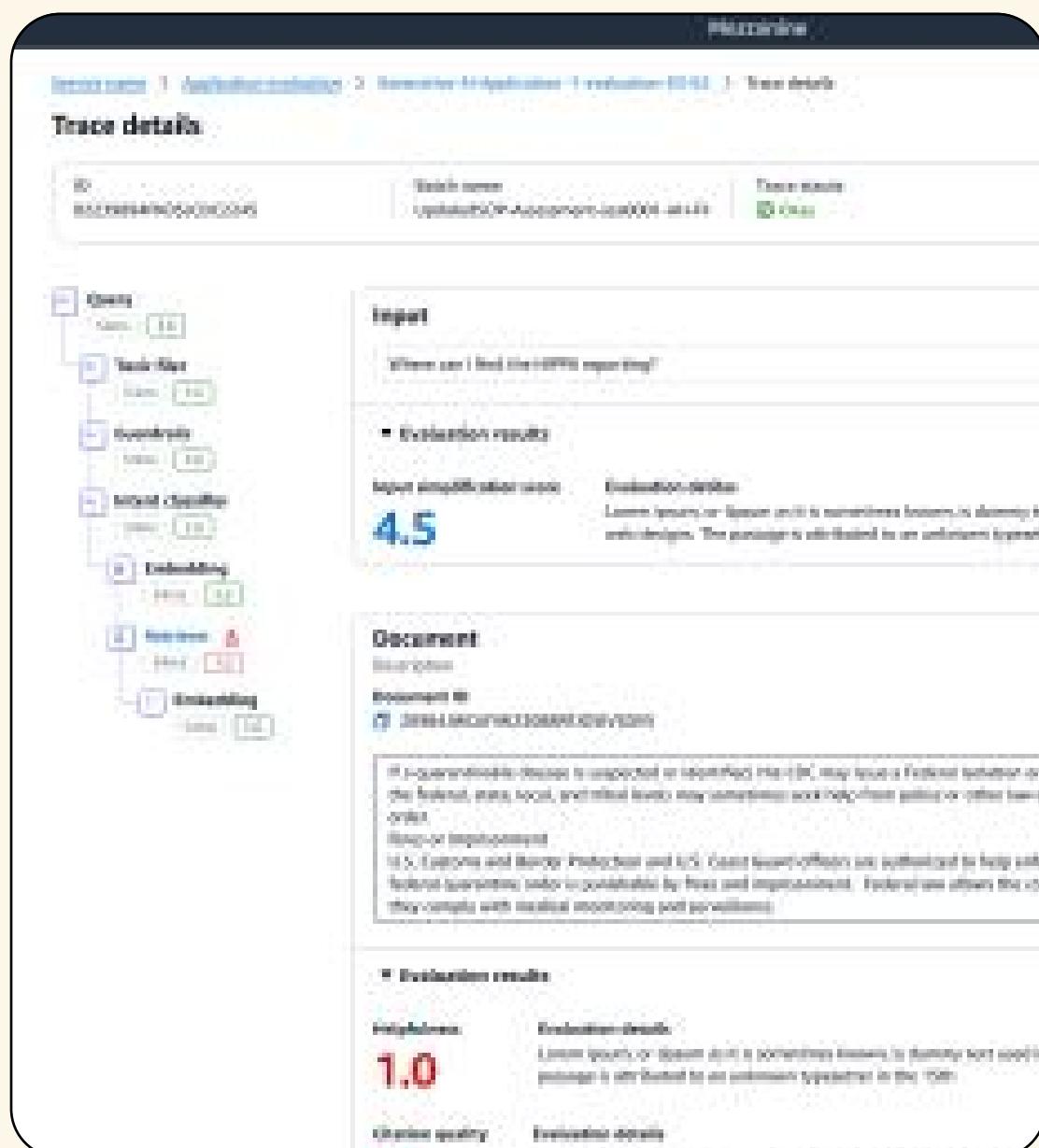
Influenced delivery of 4 Tier 2 projects and 3 Tier 2 roadmap items across Bedrock and Q Business team



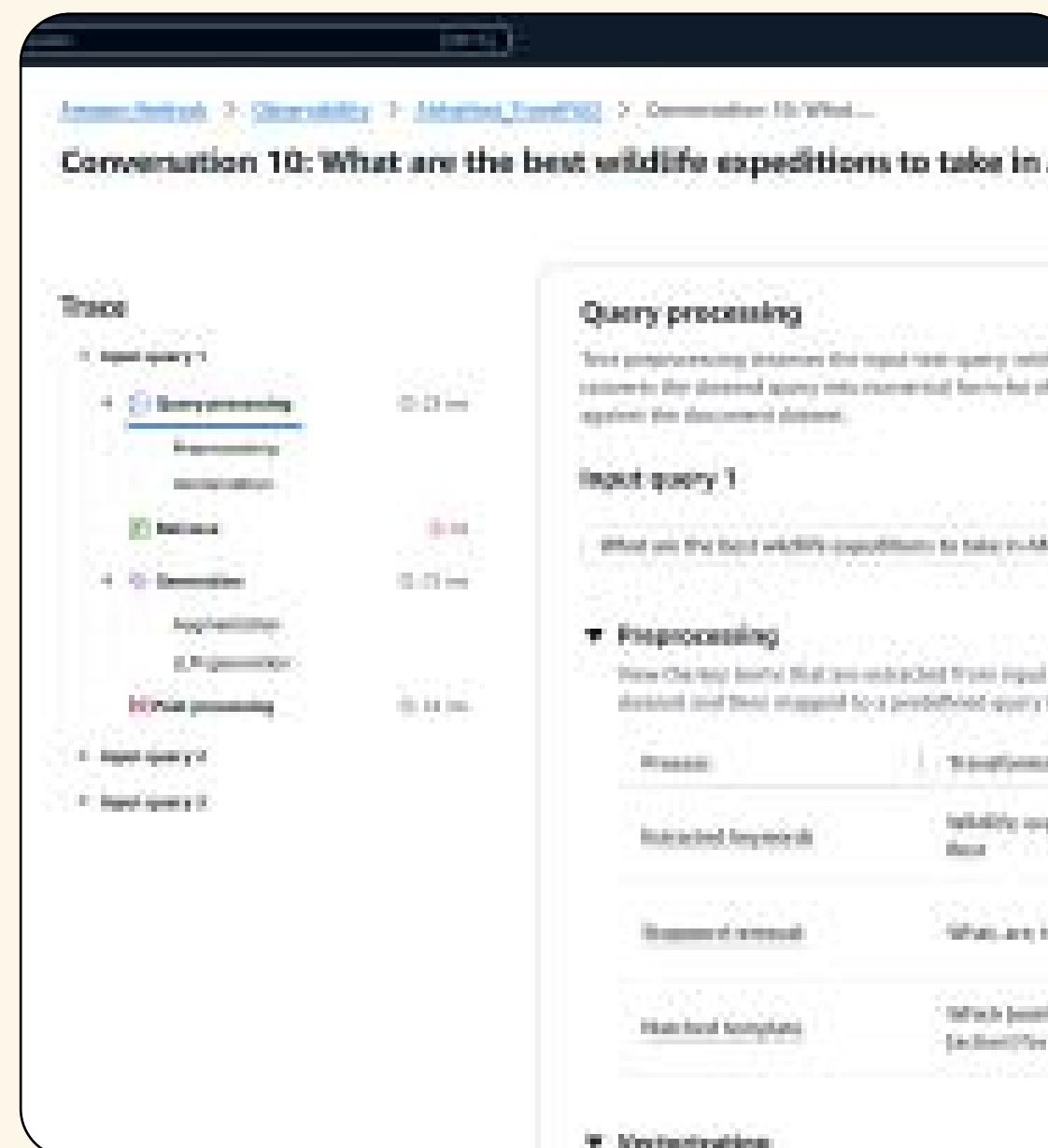
IMPACT

Pattern scalability

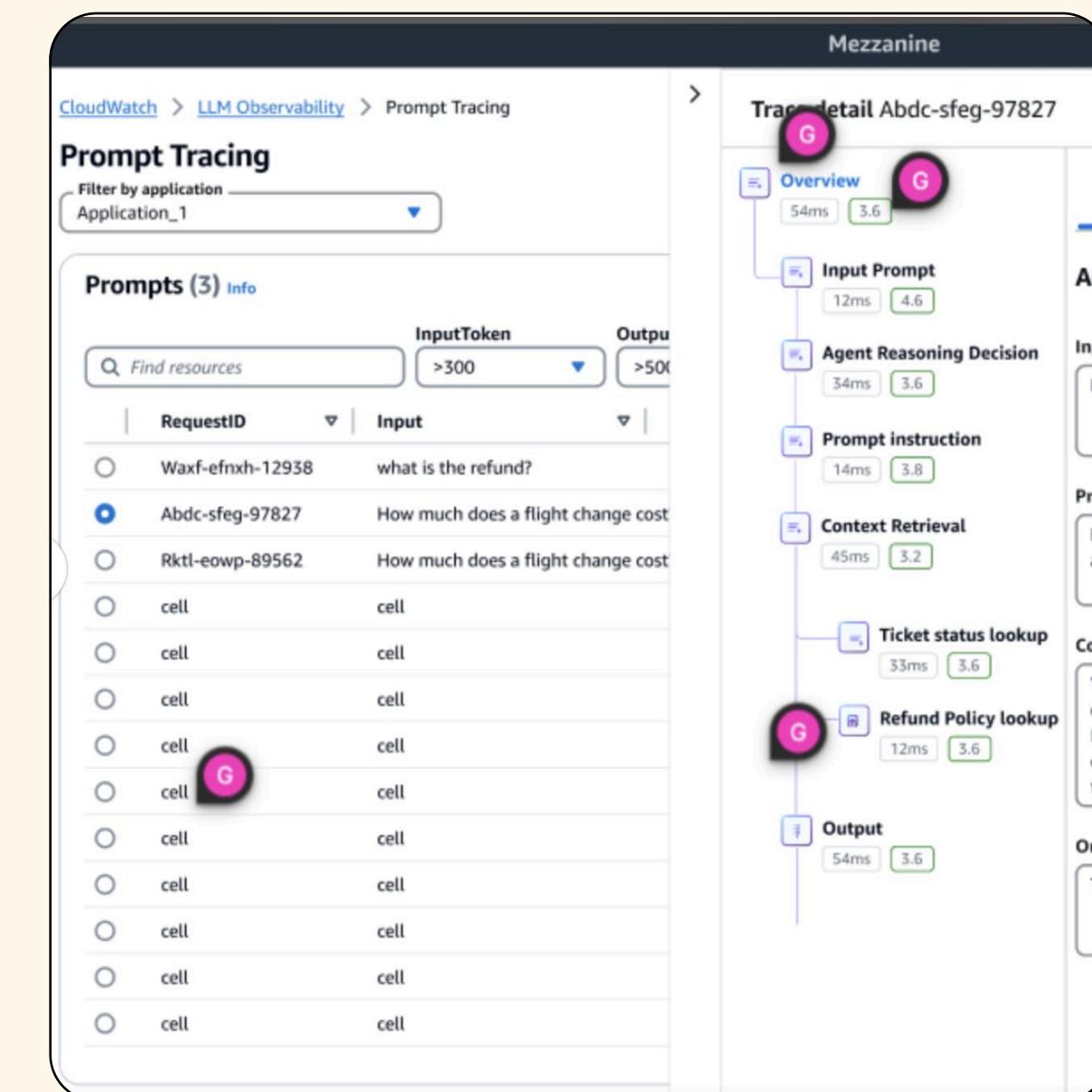
Traceability design pattern was adopted by Bedrock, Q Business and CloudWatch team for tracing features.



Q Business- Trace details



Bedrock- Observability



CloudWatch- Prompt tracing

QUOTE

“

Yuhan and I collaborated on a strategic work-stream focussed on evaluations, integrating efforts across the Human-in-the-Loop, Bedrock, and Business Q teams. Over 3 months, Yuhan conducted in-depth customer research that clarified key problems, opportunities, and requirements, forming the foundation for what needed to be delivered and why. This groundwork informed a cross-team workshop we organized to align priorities, define a clear roadmap, and improve delivery efficiency. **Yuhan's contributions directly supported the launch of features like RAG and model evaluation and laid the groundwork for future advancements such as tracing and synthetic data generation.**

— SHUBHA, PRINCIPLE UX DESIGNER BEDROCK (L7)

“

Yuhan's leadership in mapping the customer journey was crucial, from prompt management to human-in-the-loop evaluation. Her design encompasses comprehensive evaluation processes, insightful dashboards, and observability frameworks. **This system not only enables real-time performance monitoring but also lays the groundwork for self-tuning applications, creating a feedback flywheel for continuous improvement.** She is the best designer I've ever worked with.

— MORGAN, TPM AMAZON Q BUSINESS (L6)

“

Yuhan's strategic framework aligned cross-functional leadership and laid the foundation for a key Q1 2025 release that addresses this fundamental customer need. **I can easily leverage her design and speed up the whole team for a success delivery.**

— AKANKSHA, SR. UX DESIGNER Q BUSINESS (L6)

“

“

Yuhan's experience on RAG evaluations for Q Business influenced Bedrock's evaluations launched at Reinvent 2024 (LLM as a Judge and RAG evaluations), and will continue to play an inspiring role in Agents evaluations we are launching in 2025, especially the visualization of traces, and elements of visualizing LLM as a Judge. When she first showed me her UX/UI at an all-day workshop in SJC25 that joined Bedrock, SageMaker and Q, she gave me a tour of the experience not just from a visual design elements perspective, but from a real understanding of how customers build apps with our building blocks and how they need to evaluate each piece, and the easiest and most efficient way to do that. Her work reaches beyond her own team, onto other teams, bridging organizational divides.

— JESSE, SR. TPM BEDROCK (L6)

CASE STUDY 2

Q Business Action

Time

Q4 2024

My role

Lead Q Business action GA
launch in re:Invent 2024

The screenshot shows the Amazon Q Business AI interface. At the top, there is a message from a user named 'SV' asking to summarize meeting notes from a PDF file. Below this, the AI provides a summary of the notes, mentioning a new cloud migration project, Acme Corp's interest in their enterprise solution, a budget range of \$500,000 - \$750,000, a timeline to start within 3 months, the main contact John Smith, CTO, and next steps to send a proposal by the end of the week. The AI interface includes standard social media sharing icons (like, unlike, share) and navigation buttons (General knowledge, Company knowledge, i). A text input field allows users to chat with Q or upload files, with a 'Upload' and 'Action' button below it. A note at the bottom states that Amazon Q Business uses generative AI and links to the AWS Responsible AI Policy.

Summarize this meeting notes into Action Items and Discussion Points.

Salesforce meeting notes.pdf X

Certainly. Here's a summary of your meeting notes with Acme Corp:

- Discussion about new cloud migration project
- Acme Corp interested in our enterprise solution
- Budget range: \$500,000 - \$750,000
- Timeline: Looking to start within 3 months
- Main contact: John Smith, CTO
- Next steps: Send proposal by end of week

General knowledge Company knowledge i

Chat with Q about general knowledge or upload a file... ➤

Upload Action

Amazon Q Business uses generative AI. You may need to verify responses for accuracy. [AWS Responsible AI Policy](#)

CUSTOMER PROBLEM

Business users struggle with application overload and repetitive manual tasks, hindering their productivity.

8+ apps daily for basic tasks

40% time on repetitive tasks and content switching

Employees face technology overload



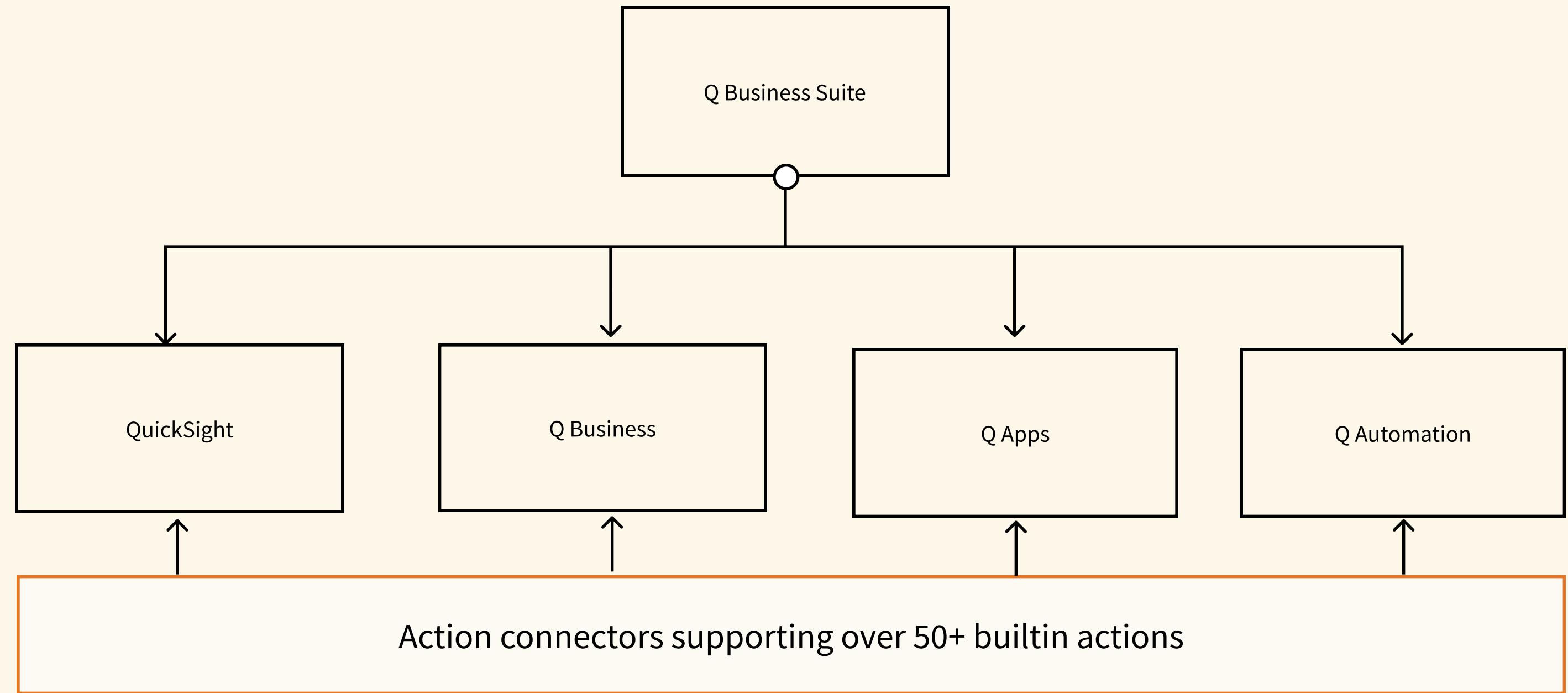
In Q2 2024, Dilip Kumar (VP L10) led a strategic business priority to provide a unified experience where users can use find information, generate insights and **take actions** directly.



BACKGROUND CONTEXT

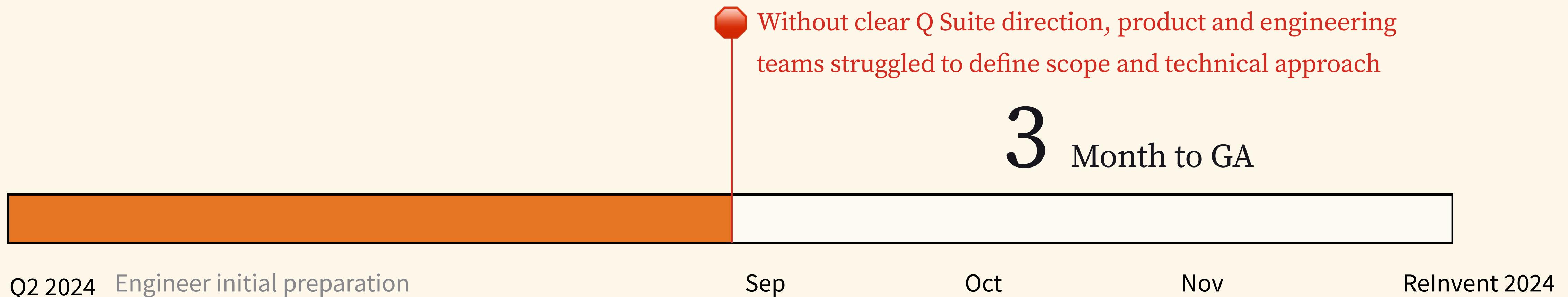
Strategic complexity and challenge

- AWS needed to unify multiple products (QuickSight, Q Business, Q Apps, Q Automation) into Q Business Suite
- Critical requirement to enable 50+ third-party application actions through a unified connector integration experience



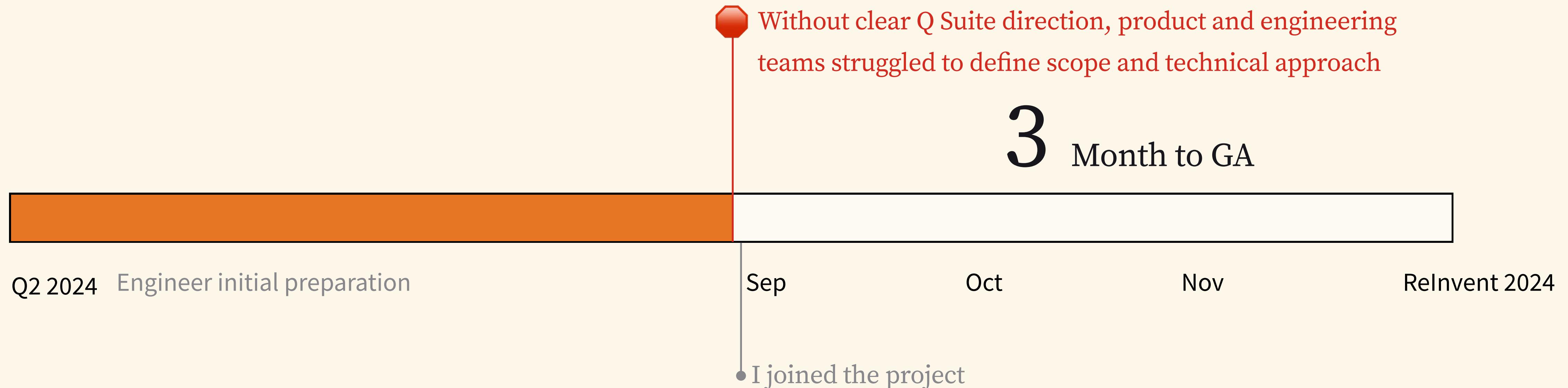
CHALLENGE

- Tight timeline (3 months) to launch GA product at re:Invent
- Significant uncertainty around product vision and technical feasibility
- Engineer and product team was stalled in September



CHALLENGE

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- Significant uncertainty around product vision and technical feasibility
- Engineer and product team was stalled in September



Week 1: Rapid alignment & Vision setting

Actions

- Led **3 working sessions** with 3 principal engineers and 4 PMs **across 3 teams** to align on the user requirement.
- In **2 days**, created **18 key user flows**:
 - 4 action connector setup in QBS flow
 - 8 action execution inside chat assistant flow
 - 6 action execution inside Q Apps flow

Impact

Help **shape the action roadmap and user requirement doc.**

This is so cool to get these mocks out at this rapid pace. Thanks Yuhan, Pratima, Sindhu and team. It's a great first cut.

Krishna Iyer Sr. SDM (L7)



Week 1

Week 2-3

Week 4

Week 5

Week 6

Week 2-3: Strategic Clarity

Actions

- Identified opportunity to leverage existing Q Business plugin

architecture, and **created 2 design approaches:**

- Integration with Q Business
- Integration with QBS

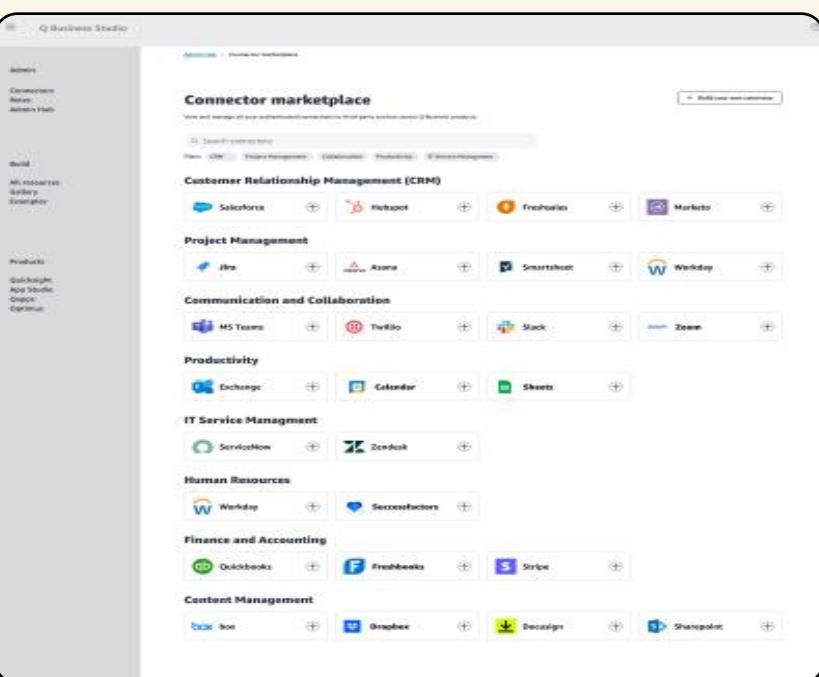
- Research validation in 5 key sessions with:

- 2 SAs (customer needs)
- 2 Engineer teams (feasibility)
- 3 product teams (requirements)

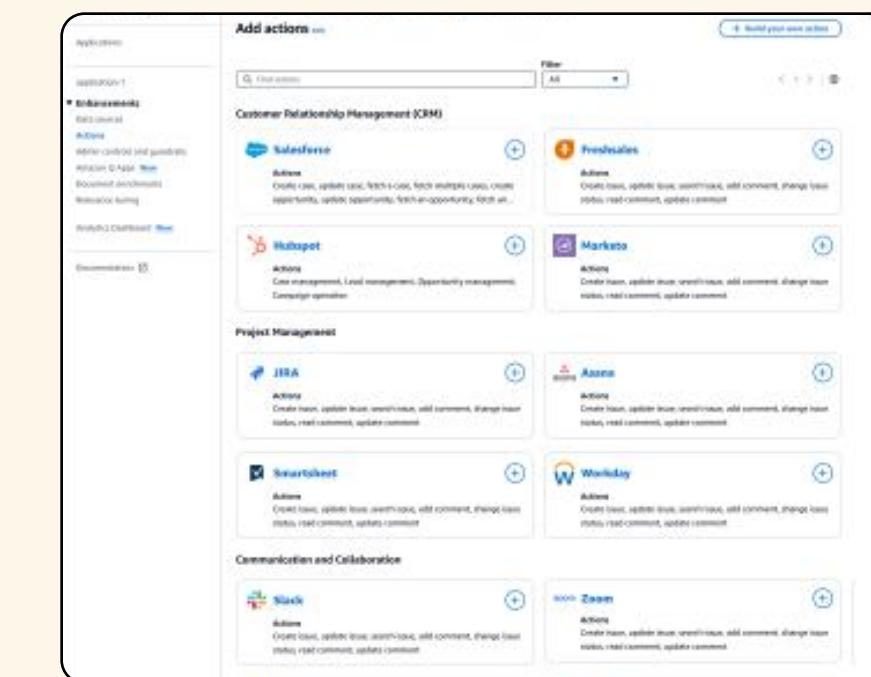
Impact

Informed technical and product feasibility analysis, contributing to a **strategic launch recommendation doc** that secured VP Dilip (L10) approval.

Integration with QBS



Integration with Q Business



Below we compare the two options using nine dimensions and list pros and cons for each:

#	Criteria	Option 1: Launch in Q Business Studio first	Option 2: Launch in Q Business first
1	Potential impact on revenue growth from Q Business	[Con] Customers that are moving to production in Q3/Q4 with 3P source connectors and are good candidates for Actions may not move to Q Business Studio immediately, delaying productivity gains from Actions. E.g., Nasdaq (Confluence, Salesforce source connectors). Mitigation: Prioritize Q BI to Q BI Studio migration plan, gather data point on willingness to move to Q Business Studio and address concerns proactively.	[Pro] Quick delivery of value to existing Q Business customers regardless of whether they move to Q Business Studio. Enabling Actions will need only configuring Action connectors and not moving all users off to Q Business Studio.
2	Actions experience validation and customer feedback gathering	[Con] Will delay customer feedback and is dependent on getting customers to adopt Q Business Studio first. Initially reduces the pool of customers that enable Actions and hence are able to provide prioritization feedback. Mitigation: Actions in Q Apps within Q BI Studio will be prioritized for Actions beta to gather feedback on experience.	[Pro] Enables us to get Actions in the hands of customers quickly (Q4) and to get feedback on admin and invocation experience. Will help validate Actions setup experience before incorporating autonomous intent classification.
3	ISV design partnership and joint GTM	[Con] We delay partnership with ISVs such as Automation Anywhere who want to provide actioning experience to their customers and see it as a joint GTM opportunity. We don't have clear technical requirements for ISVs like ServiceNow who want to release AI-to-AI (QBI - Now Assistant) actions. Mitigation: Improve Custom Plugins capability so that ISVs have relatively frustration-free way of providing actions to their customers. Prioritize finalization of technical requirements for ISVs that want to enable AI-to-AI experiences and set clear expectation on timelines.	[Pro] Will unlock ISVs that want to provide built-in actions to their customers by EOY. Enables us to quickly partner with ISVs like ServiceNow who want to release Assistant-to-Assistant actions.
4	Strategic move to nudge customers to Q Business Studio	[Pro] Emphasizes Q Business Studio's value and will incentivize customers to move to Q Business Studio. Setting up reusable Actions to be natively available in Q BI Studio is the right experience for customers in the long term.	[Con] Disincentivizes customers to move to Q Business Studio if they need to port their Actions configurations. Mitigation: Prioritize Q BI to Q BI Studio migration plan. Ensure migration to Q Business Studio effectively addresses Actions.

Phase 1:
Launch in Q
Business for
ReInvent

Phase 2:
Expand to QBS
in Q1 2025

Week 1

Week 2-3

Week 3

Week 4

Week 5

Week 4: Pivoting to Q Business Integration

Led **10+** Critical Alignment Meetings across 5 teams

Connector team; Q Business; Q Apps; Brio (Orchestrator); Q Business Suite

Created **20** detailed workflows covering

5 admin console set up & management flows

7 end user invoke actions in chat flows

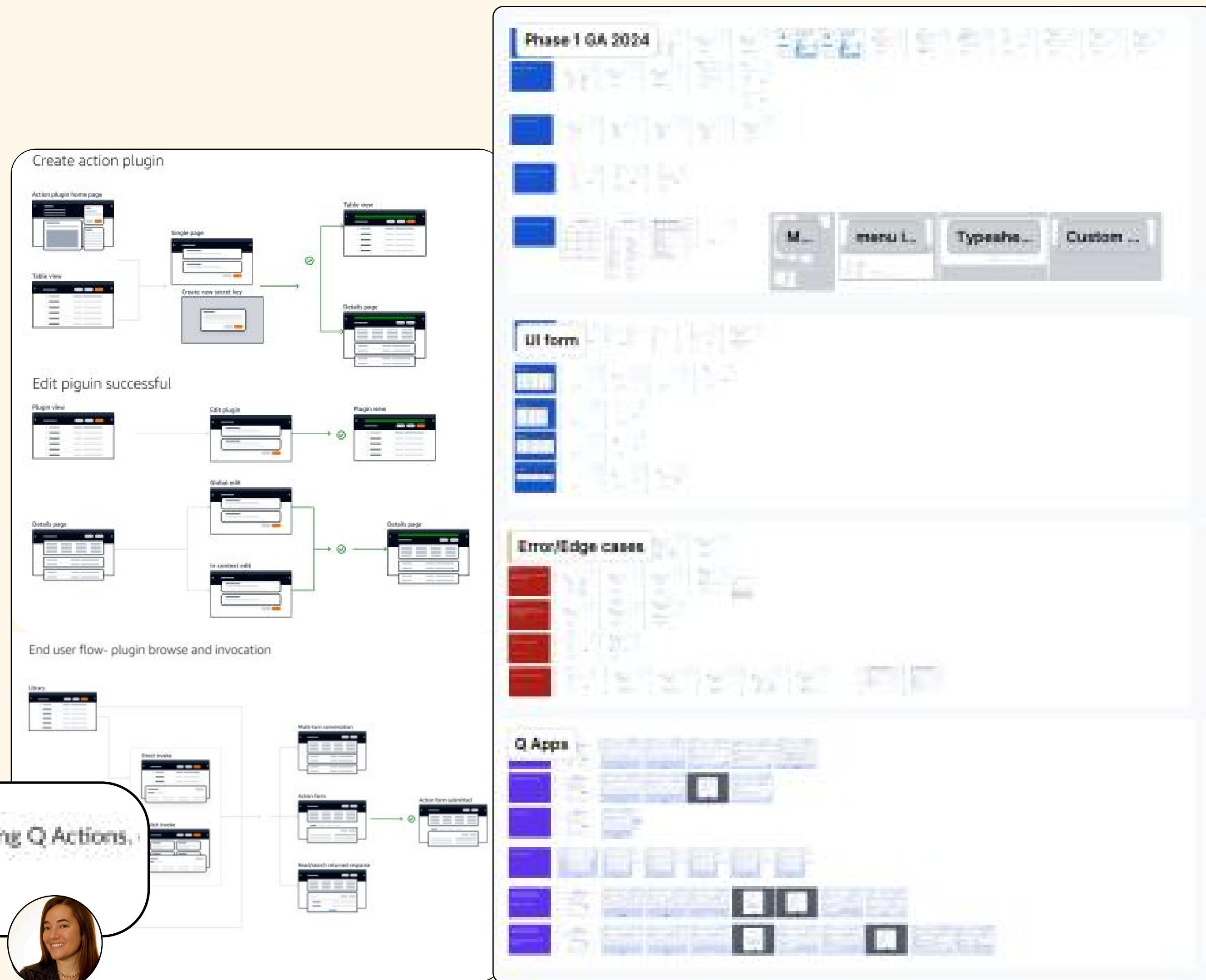
6 app builder run actions in Q Apps flows

2 Q Business Suite connector setup vision flows

Led **5** Leadership reviews in 8 days

2 VP (L10) reviews

3 Director (L8) reviews



Week 1

Week 2-3

Week 4

Week 5

Week 6

Week 5: Design for scale

Challenge

Large scale: 50+ actions requiring design standardization

Action

- Partnered with Principal Engineer to analyze 50+ API types
- Create UX Patterns for core API operations: Search/Read; Post/Create; Put/Update; Delete
- Collaborated with Data Science team to design enhanced forms
- Partnered with data scientists to test and design 10+ fallback scenarios for possible edge/error cases

#	3P Service (PM)	3P App Rank	Actions (PM)	Priority for Enhanced	Action Type	Object	Status
2	Jira	1	Read Comment	P1	GET / Read	Comment	Done
6	Jira	1	Search Issues	P0	GET / Read	Issue	Done
9	Jira	1	Read Sprint	P2	GET / Read	Sprint	Done
16	ServiceNow	2	Read Change Request	P2	GET / Read	Change Request	In Progress
20	ServiceNow	2	Read Incident	P0	GET / Read	Incident	Done
25	Zendesk	3	Fetch Ticket details	P1	GET / Read	Tickets	Done
26	Zendesk	3	Fetch Tickets	P1	GET / Read	Tickets	Done
32	3P Service (PM)	3P App Rank	Actions (PM)	Priority for Enhanced	Action Type	Object	
50	Jira	1	Add Comment	P1	POST / Create	Comment	
52	Jira	1	Create Issue	P0	POST / Create	Issue	
56	Jira	1	Create Sprint	P2	POST / Create	Sprint	
64	ServiceNow	2	Create Approval Workflow	P2	POST / Create	Approval Workflow	
68	ServiceNow	2	Create Change Request	P2	POST / Create	Change Request	
72	ServiceNow	2	Create Incident	P0	POST / Create	Incident	
73	Zendesk	3	Create Ticket	P0	POST / Create	Tickets	
74	Workday	5	Submit a request for PTO for specified dates	P0	POST / Create	PTO	
76	Concur	7	Add Quick Expense	P1	POST / Create	Expenses	
82	Microsoft Teams	8	Send private message	P0	POST / Create	Messages	
	Microsoft Teams	8	Send Channel message (Public / private)	P0	POST / Create	Messages	
	Slack	9	Send Direct message	P0	POST / Create	Messages	
	Slack	9	Send channel message (public and private)	P0	POST / Create	Messages	
	MS Exchange	10	Send Email (w/wo attachments)	P1	POST / Create	Email	
	MS Exchange	10	Reply to Email	P1	POST / Create	Email	
	MS Exchange	10	Forward Email	P1	POST / Create	Email	
	MS Exchange	10	Create Calendar Event	P1	POST / Create	Event	
	MS Exchange	10	Add Attendees to Event	P1	POST / Create	Event	
	Salesforce	11	Create Case	P1	POST / Create	Cases	
	Salesforce	11	Create Lead	P1	POST / Create	Leads	
	Salesforce	11	Create Opportunity	P1	POST / Create	Opportunities	
	Zoom	14	Schedule a Zoom meeting at a specific time	P1	POST / Create	Meeting	

Week 1

Week 2-3

Week 4

Week 5

Week 6

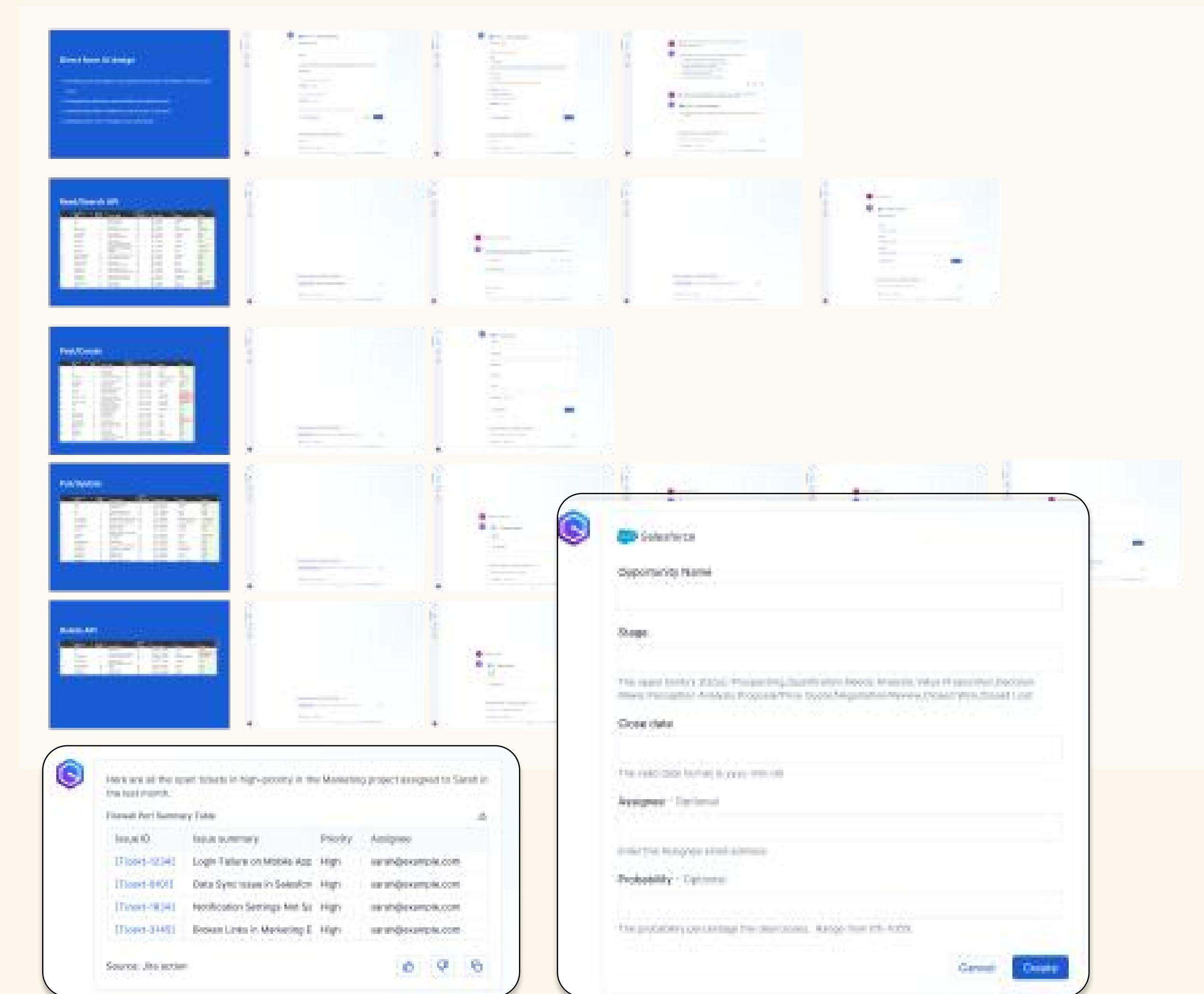
Week 5: Action design framework

Challenge

Large scale: 50+ actions requiring design standardization

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Week 1

Week 2-3

Week 4

Week 5

Week 6

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The screenshot shows a Salesforce Opportunity creation form. At the top, there are several required fields: 'Opportunity Name*' (with placeholder 'Enterprise cloud migration new opportunity'), 'Stage*', and 'Close date*'. Below these, there are optional fields: 'Type - Optional' (set to 'New business') and 'Description - Optional' (containing placeholder text about automatically generated descriptions). A 'View more fields' button is visible. At the bottom right are 'Cancel' and 'Create' buttons. Three orange annotations point to specific elements:

- A vertical line points from the top of the 'Opportunity Name*' field to the text 'Required fields on the top'.
- A vertical line points from the top of the 'Stage*' field to the text 'User mentioned fields in the prompt on the top'.
- A vertical line points from the bottom of the 'View more fields' button to the text 'Collapse other optional fields'.

Week 1

Week 2-3

Week 4

Week 5

Week 6

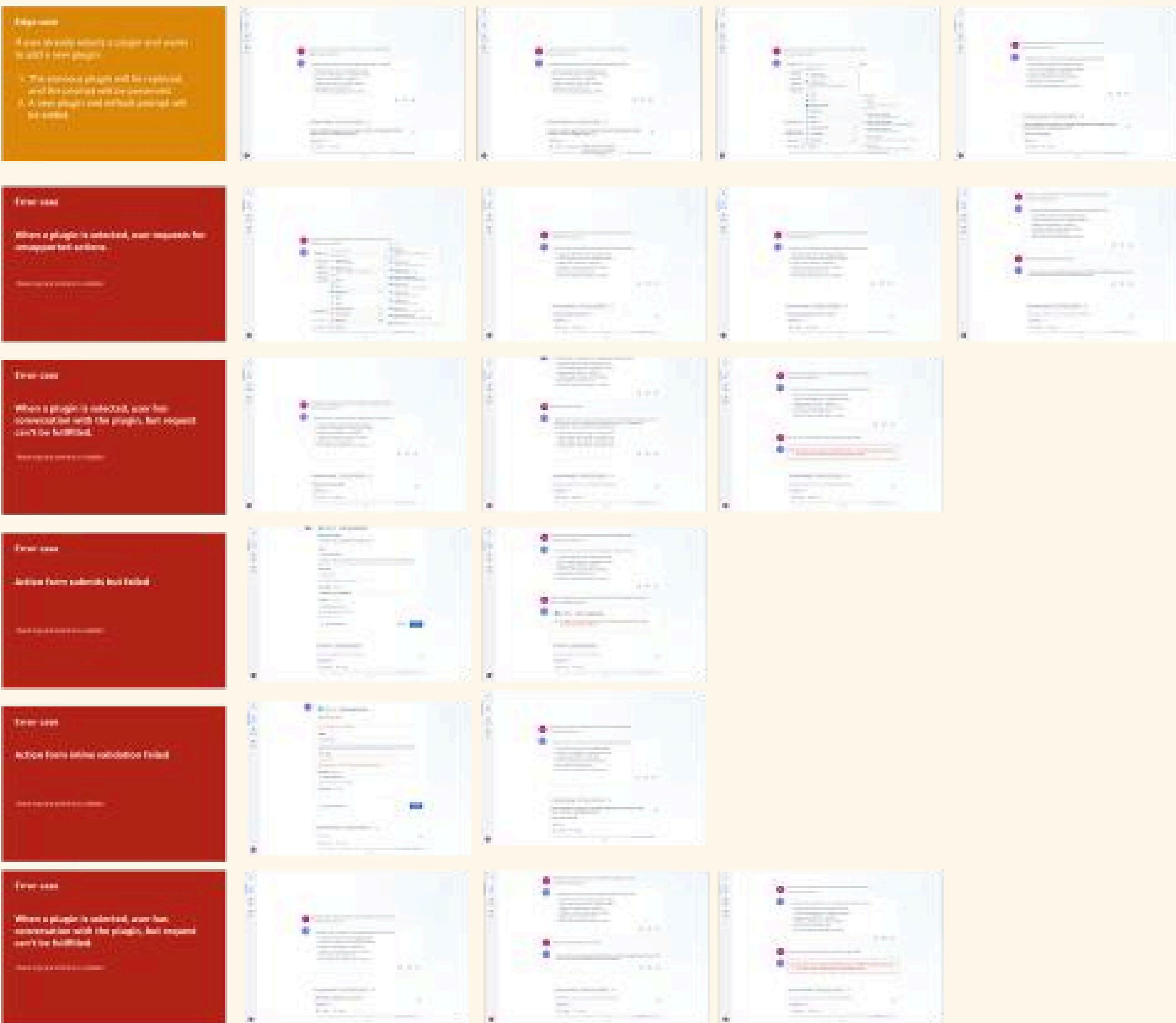
Week 5: Action design framework

Challenge

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Week 1

Week 2-3

Week 4

Week 5

Week 6

Week 6: Critical Problem Resolution

Challenge

- Major API limitation discovered threatening core functionality
- Multiple teams are blocked, risk to launch timeline

Action

Developed innovative frontend solution within 24 hours using:

- Pre-configured prompts + BR agent
- Smart default handling
- Fallback patterns

Solution validation

Passed science vigorous test and successfully support user to directly invoke 50+ actions

P Plugin actions (5)

All supported actions
Take all supported actions

Get incidents
List your assigned incident information

Find similar incidents
Discover incidents with similar patterns or causes

Analyze incident root cause
Investigate incident source

Show incident updates
View incident updates and changes

Find oncall engineer
Find oncall engineer for an accident

Summarize incident status update
Summarize incident updates and progress stat

Update incident
Update incident information

Dataset	Agent	Turn-Level Action Selection Accuracy		Dependent Parameter F1	Response Recall	Dependent Response Success Rate	Turn-Level Action Selection Accuracy (ChainLength=1)	Turn-Level Action Selection Accuracy (ChainLength=2)
		Custom Plugins GA	RC 11 (Brio)					
Confluence	Custom Plugins GA + Sonnet 3.5	96.1	82.1	97.5	79.5	100.0	97.3	50.0
	RC 11 (Brio)	97.6	87.4	100.0	100.0	100.0	97.0	75.0
Google Calendar	Custom Plugins GA + Sonnet 3.5	95.4	68.6	84.8	81.8	69.0	22.0	22.0
	RC 11 (Brio)	86.6	63.7	67.4	100.0	40.0	60.3	60.3
Jira	Custom Plugins GA	50.1	62.4	70.0	50.0	71.0	23.2	23.2
	RC 11 (Brio)	86.2	86.9	91.0	94.7	73.2	55.0	55.0
MS Teams	Custom Plugins GA + Sonnet 3.5	96.9	72.4	75.6	81.9	87.1	34.8	34.8
	RC 11 (Brio)	96.9	95.4	75.6	100.0	100.0	91.4	91.4
MS Exchange	Custom Plugins GA + Sonnet 3.5	74.7	65.2	71.2	75.9	91.9	59.4	59.4
	RC 11 (Brio)	97.8	96.9	98.5	97.4	98.8	98.8	98.8
PagerDuty	Custom Plugins GA + Sonnet 3.5	48.4	88.4	83.7	83.7	60.7	31.2	31.2
	RC 11 (Brio)	89.3	89.9	93.9	100.0	99.9	87.8	87.8
Salesforce	Custom Plugins GA + Sonnet 3.5	62.7	89.4	71.1	60.9	83.2	55.3	55.3
	RC 11 (Brio)	76.7	86.9	90.4	86.3	87.9	60.1	60.1
ServiceNow	Custom Plugins GA + Sonnet 3.5	65.5	65.5	78.4	92.3	94.4	55.9	55.9
	RC 11 (Brio)	84.7	97.2	98.4	97.0	99.0	93.8	93.8
Slack	Custom Plugins GA	27.1	81.1	87.2	76.1	82.8	5.2	5.2
	RC 11 (Brio)	88.3	96.9	97.6	97.5	97.8	95.2	95.2
Zendesk	Custom Plugins GA + Sonnet 3.5	70.3	78.5	88.3	87.8	91.7	38.0	38.0
	RC 11 (Brio)	83.3	85.7	91.5	94.3	89.2	60.0	60.0
Overall (Average)	Custom Plugins GA	56.1	79.3	78.0	66.0	82.8	40.5	40.5
	Custom Plugins GA + Sonnet 3.5	71.5	89.4	90.5	94.0	93.7	65.3	65.3
	RC 11 (Brio)	86.1	97.6	96.3	97.7	96.2	63.8	63.8

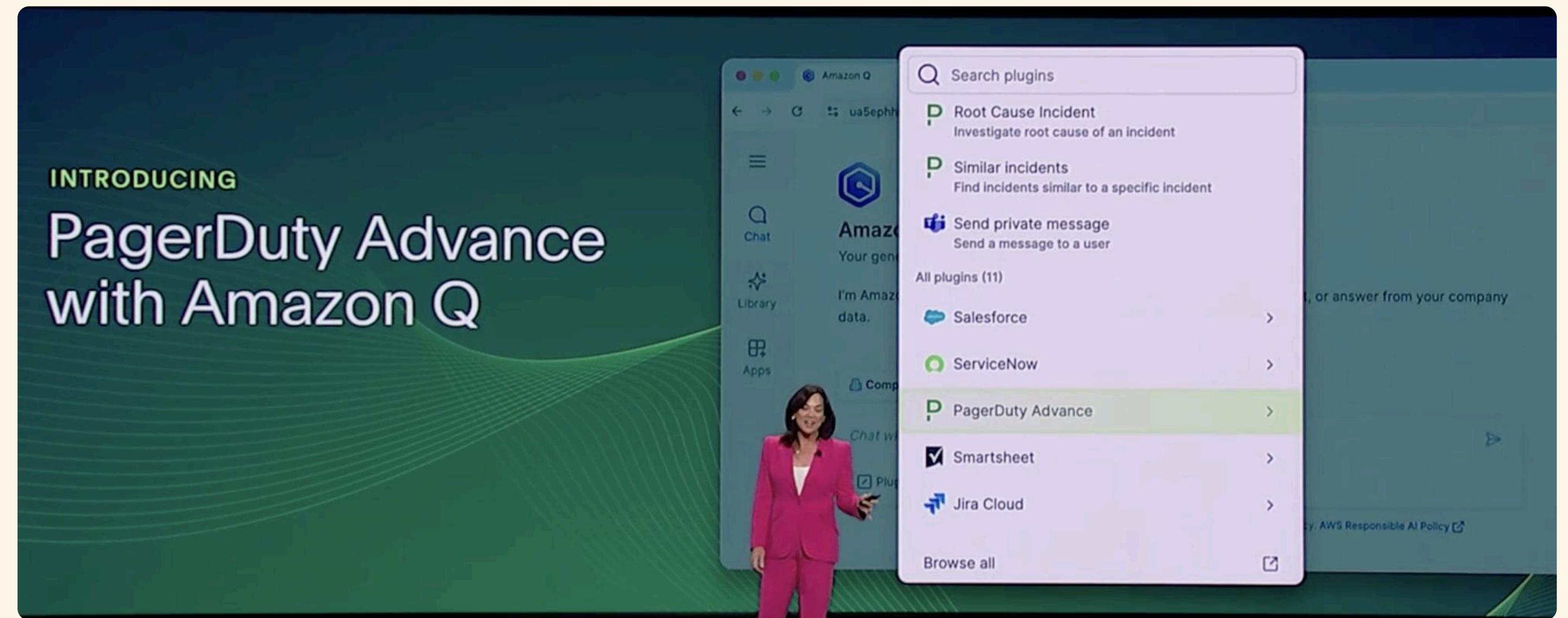
List incidents [incidents detailed info] | 

P PagerDuty Advance ×

Plugins

GA at re:Invent 2024

- GA in 3 months
- Support 50+ actions among 11 applications in Q Business chat and Q Apps
- Featured in Matt Garman's keynote



“

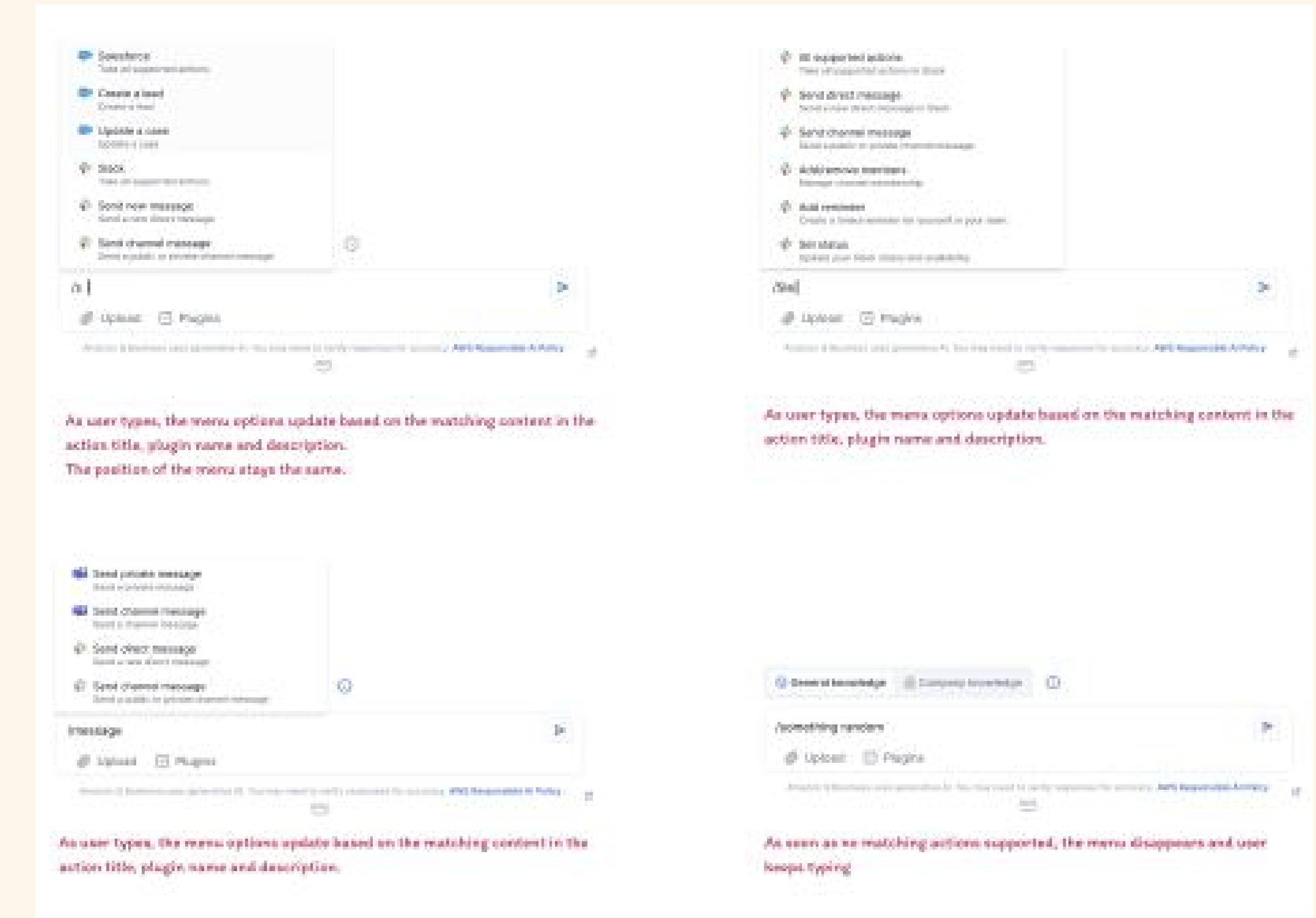
In interviews with PagerDuty Advance early access adopters, customers indicated that they saved on average 30 minutes per incident.

— JENNIFER TEJADA, CHAIRPERSON AND CEO, PAGERDUTY

Design pattern that scales

1. Enriching chat input

- Pioneered typeahead feature to improve usability, earning 3 customer endorsements
- Established unified chat interaction patterns across actions, data sources and file selection



“

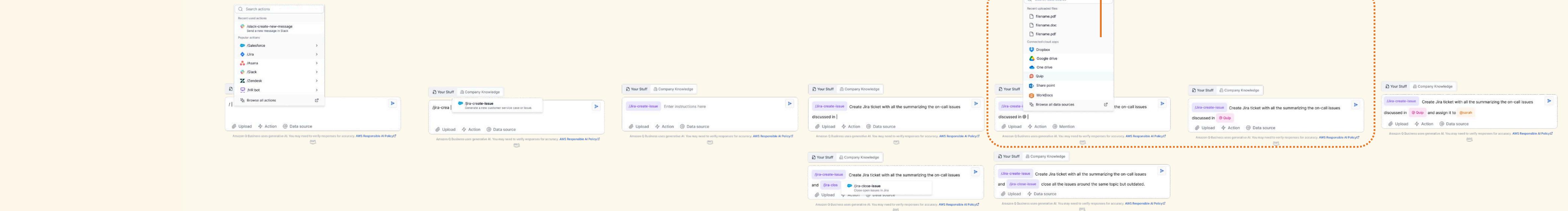
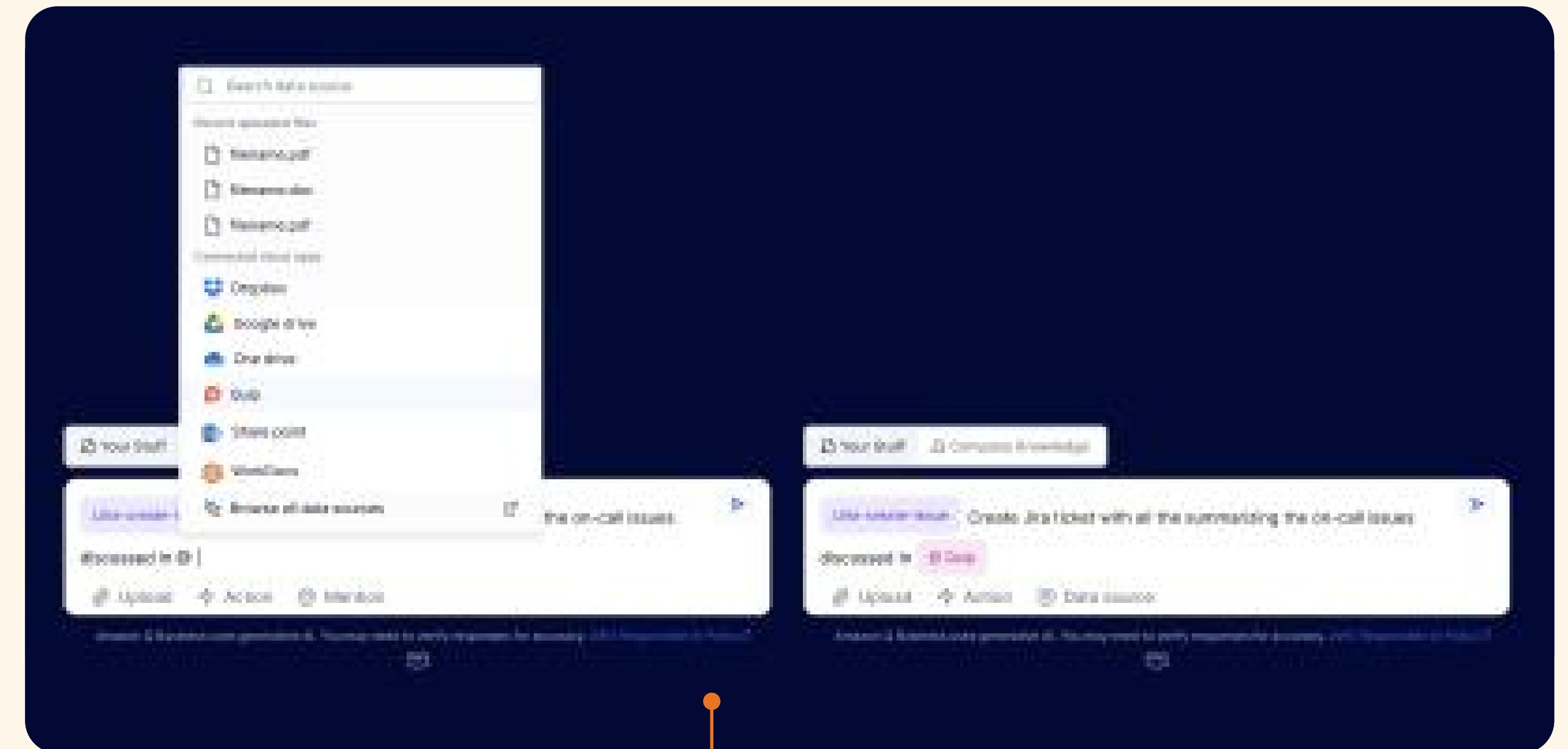
Although we don't use the direct web UI, we definitely want to reuse this typeahead shortcut feature in our workflow.

— Chris, Origin

Design pattern that scales

1. Enriching chat input

- Pioneered typeahead feature to improve usability, earning 3 customer endorsements
- Standardized chat interaction pattern that integrates action invocation, file selection, and data source references.



Design pattern that scales

- ## 2. Side panel: scaling actions beyond chat
- Wrote a detailed doc to analyzed industry patterns (Claude Artifact, ChatGPT Canvas) to inform action panel design
 - Created concept design for multiple use cases: Action; Multi-modal content generation; Q Apps consumption
 - Secured executive buy-in from VP and 3 directors for Q1 2025 roadmap

Side panel design pattern: enhancing Q Business complex interactions

Executive summary

This proposal introduces a side panel design pattern to address the growing complexity of Q Business's advanced features. As Q Business evolves beyond simple conversational interactions to include powerful capabilities like actions, Q Apps, and data visualizations, we need a robust UI pattern that can handle these complex interactions while maintaining the fluid nature of AI conversations.

The proposed side panel pattern introduces a dedicated space adjacent to the chat interface that:

- Appears contextually when users engage with complex features
- Provides adequate space for rich interactions like forms, visualizations, and app interfaces
- Maintains visibility of both conversation and complex content simultaneously
- Scales responsively across different screen sizes and use cases

This pattern has been validated against competitor implementations like Claude Artifact and ChatGPT Canvas and carefully designed to address Q Business's unique enterprise requirements.

Background and current challenges

The current Q Business chat web interface follows a linear conversation model, similar to traditional messaging apps. While this approach works well for simple text exchanges, several key challenges have emerged as our features and use cases expand:

- Limited space utilization & layout
 - Valuable screen real estate is underutilized, with significant white space on both sides (Appendix screenshot 1.0)
 - Complex outputs
 - No flexibility to
- Context loss & info loss
 - Critical information
 - Users lose track
 - No easy way to
- Poor information hierarchy
 - All content is p
 - No clear visual

These challenges have been structured/unstructured do

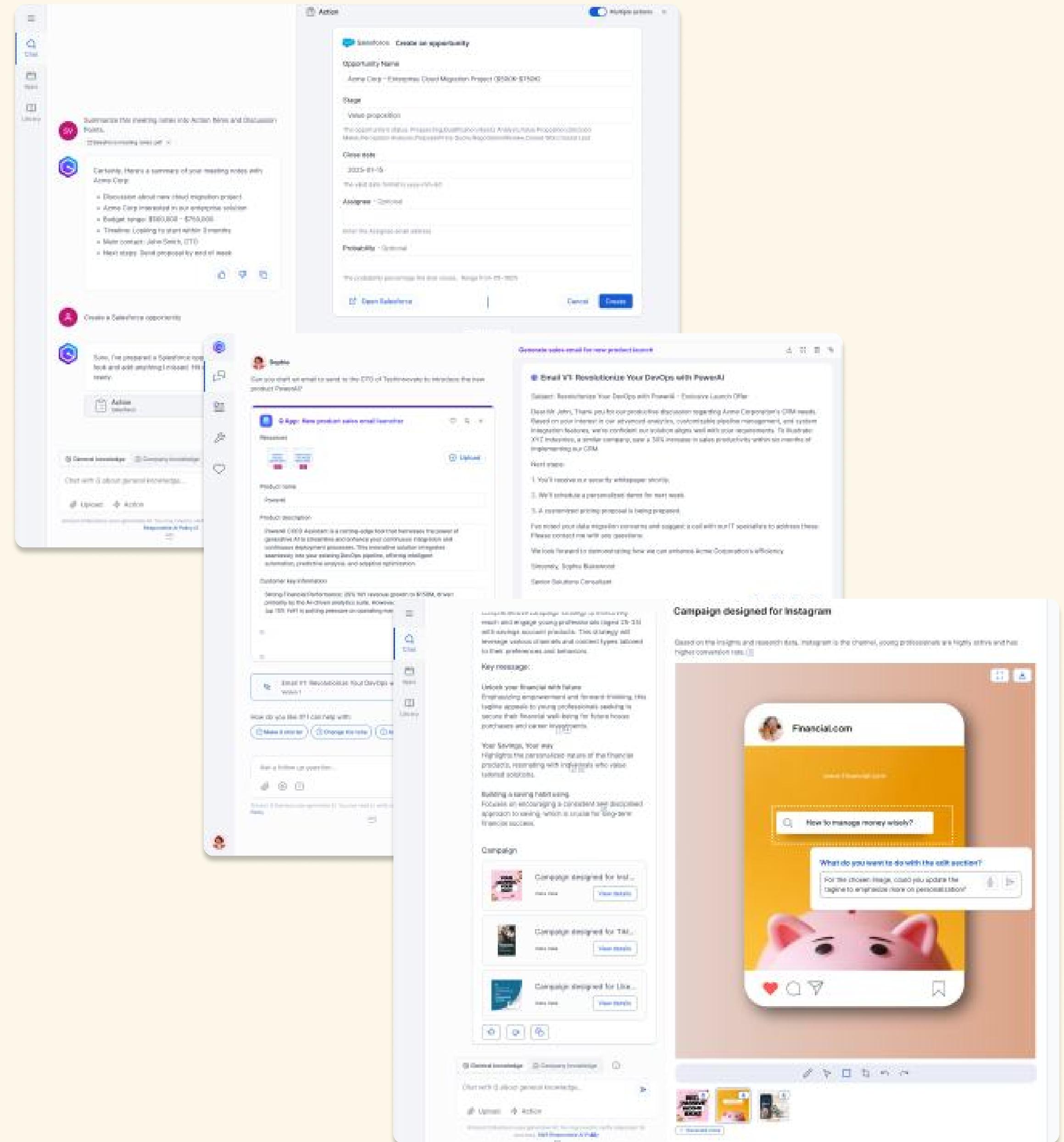
Feature	Claude Artifact	ChatGPT Canvas	Notes
Triggers			
When activated	Significant content, likely to be reused, complex standalone content, etc.	Writing documents or code (> 10 lines)	Claude has broader trigger conditions
Manual activation	🚫	✓	ChatGPT allows open canvas by using prompt "open a canvas" or "open a coding canvas"
Interface			
Side panel default size	50% of screen width	80% of screen width	In responsive mode, ChatGPT works better
Animation feedback	✓	✓	Both provide visual feedback when opening/closing
Edit history	✓	✓	Both maintain edit history
Version control	✓ Uses a dedicated version selector at the bottom with explicit version management	✓ Uses an undo button to view previous version	Claude has a dedicated side panel (slider icon) for viewing all the generated artifacts and all the context documents. User can click on each artifact to view in the same panel with a back button
Chat controls	✓	🚫	ChatGPT offers preset actions (length adjust, reading level tec)
Shortcuts actions	🚫	✓	Both support selective text editing
Pinpoint editing	✓	✓	ChatGPT provides
Targeted comment suggestions	🚫	✓	
Content handling			
Content types supported	Code, documents, SVG, HTML, React, Mermaid diagrams	Text and code only	
Direct editing	✓	✓	Both allow user edits inside the side panel
Code preview	✓	🚫	

Side panel design pattern enhanced...
Executive summary
Background and current challenges
Design Tenets
1. Adaptive content hierarchy 2. Visual hierarchy & focus... 3. Bi-directional interaction & update 4. Visual change communication &...
Side panel implementation considerations
Panel States & Transitions
Common interaction flows
Q Business use cases
1. Plugin actions 2. Q Apps 3. QuickSight Visualizations Other design explorations
Risks and mitigation approaches
1. Synchronization Challenges 2. Governance constraints
Next steps
Phase 1: Foundation (Weeks 1-3)
Phase 2: Core development...
Phase 3: Implementation (Weeks...
Appendix
Implementation details

Design pattern that scales

2. Side panel: scaling actions beyond chat

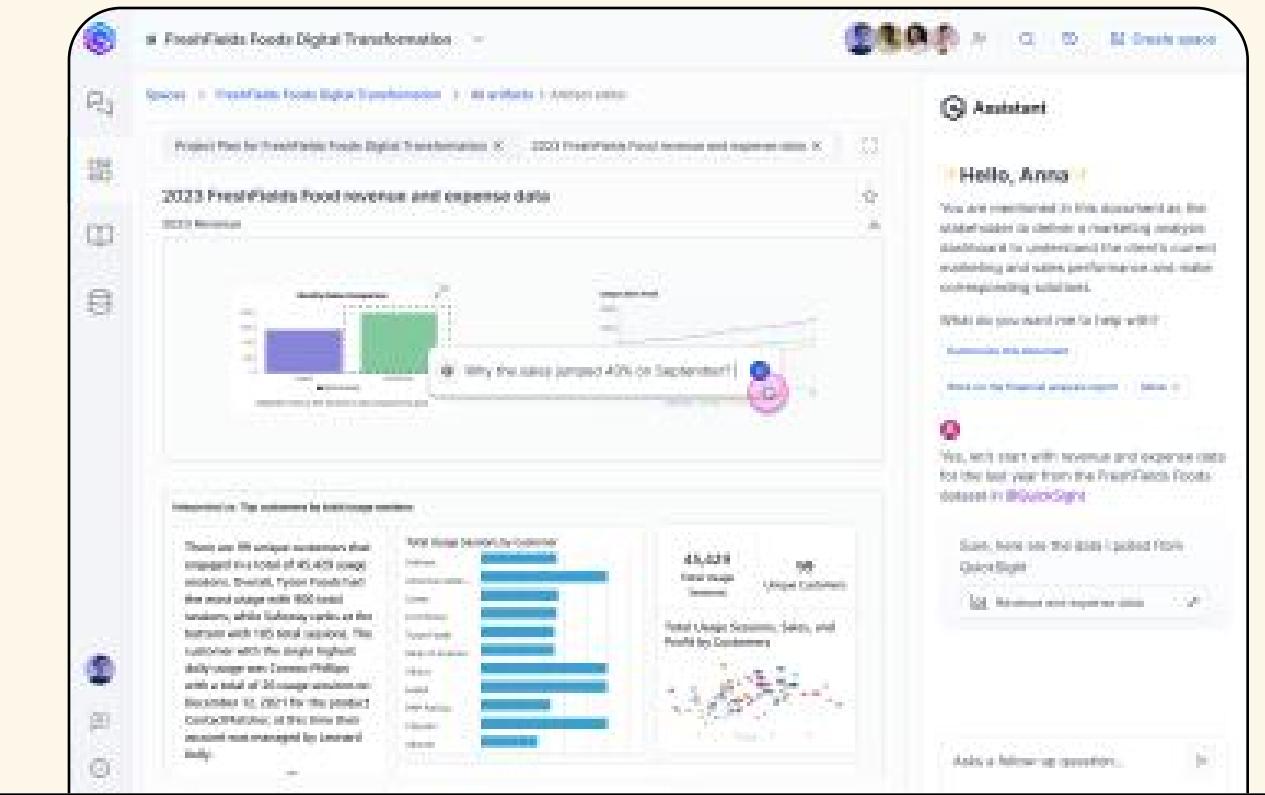
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Design pattern that scales

2. Side panel: scaling actions beyond chat

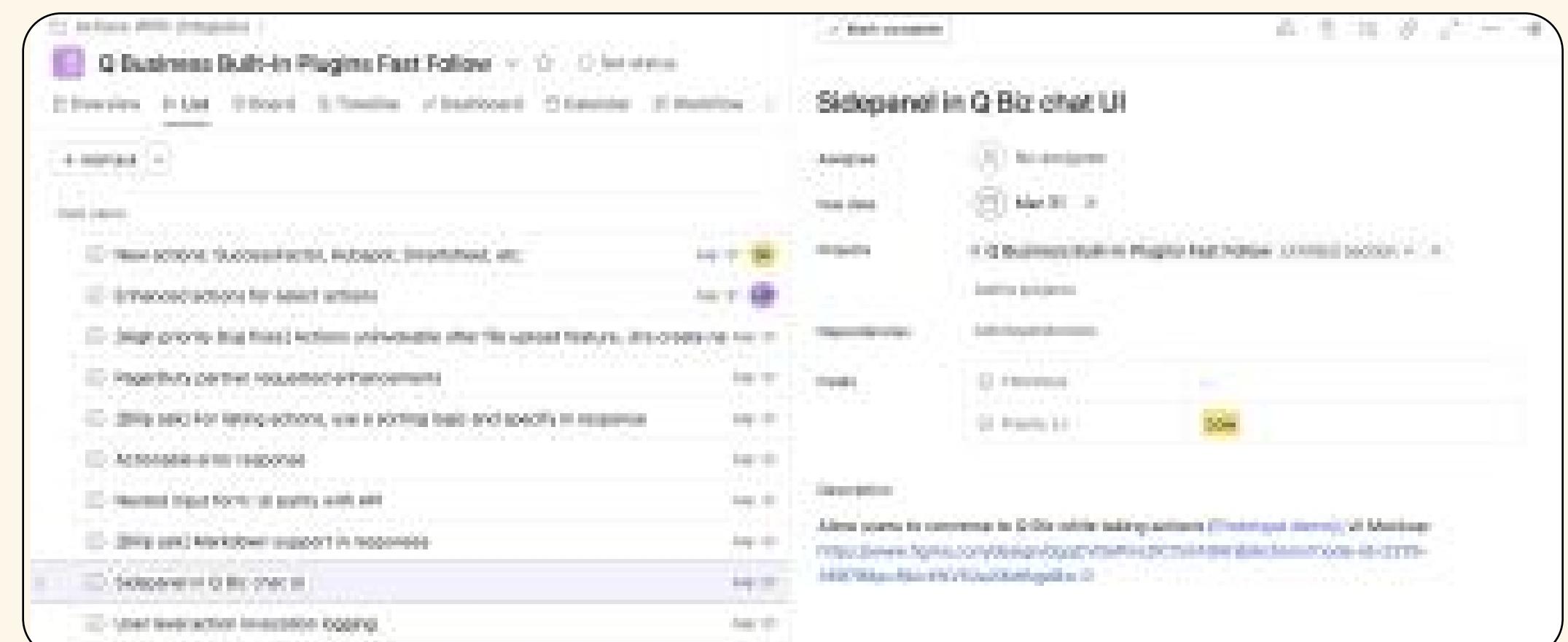
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I really like this interaction idea, I think we should build this pattern.



Zoe Schagrin, Director L8



Design pattern that scales

3. First grid-design system to standardize web app responsive layout

- Fluid grid adaptation across screen sizes without fixed column constraints
- Adopted by 2 teams of Q Apps library and Multi-modal: citation enlarged view

The screenshot shows the Q Business Library interface. At the top right, it says "Q Business Library" and "Explore all that you can do with Q Apps and plugins to increase your efficiency". Below this are two tabs: "Q Apps" (selected) and "Plugins".
The main area displays a "Plugins" section with a modal overlay showing a list of actions: "Root cause incident", "Update incident", "Create issue", "Create issue", "Update a case", and "Get a case". A "Plugins" button is at the bottom of the modal.
Below the modal is a "Available plugins" section with a sub-headline "Explore these ready-to-use plugin actions to improve your productivity.". It lists six plugins in a grid:

- Asana** Productivity: Actions include All supported actions, Create a task, Update a task. View button.
- Atlassian Confluence** Project management: Actions include All supported actions, Search pages. View button.
- Google Calendar** Productivity: Actions include All supported actions, Find Events, List Calendar. View button.
- Jira Cloud** Project management: Actions include All supported actions, Read Issue, Create Issue, Search Issues, Change Issue Status, Delete... View button.
- Microsoft Exchange** Communication: Actions include All supported actions, Get Events from Calendar, Get Email. View button.
- Microsoft Teams** Communication: Actions include All supported actions, Send private message, Send Channel message (Public / private). View button.

On the left side of the interface is a vertical sidebar with icons for Chat, Library, Apps, Feedback, and Info. The "Apps" icon is highlighted.

Can't tell you how happy I am right now ❤️ Engineering followed the guidelines we provided on responsive grid and layouts, and it's turning out so much cleaner.

Ray, Sr. UX designer Design system



Design pattern that scales

4. Improve IAM Error handling for Admin set up flow

When user sets up an action connector, 25% chance user may encounter an error:



Design pattern that scales

4. Improve IAM Error handling for Admin set up flow

When user sets up an action connector, 25% chance user may encounter an error:

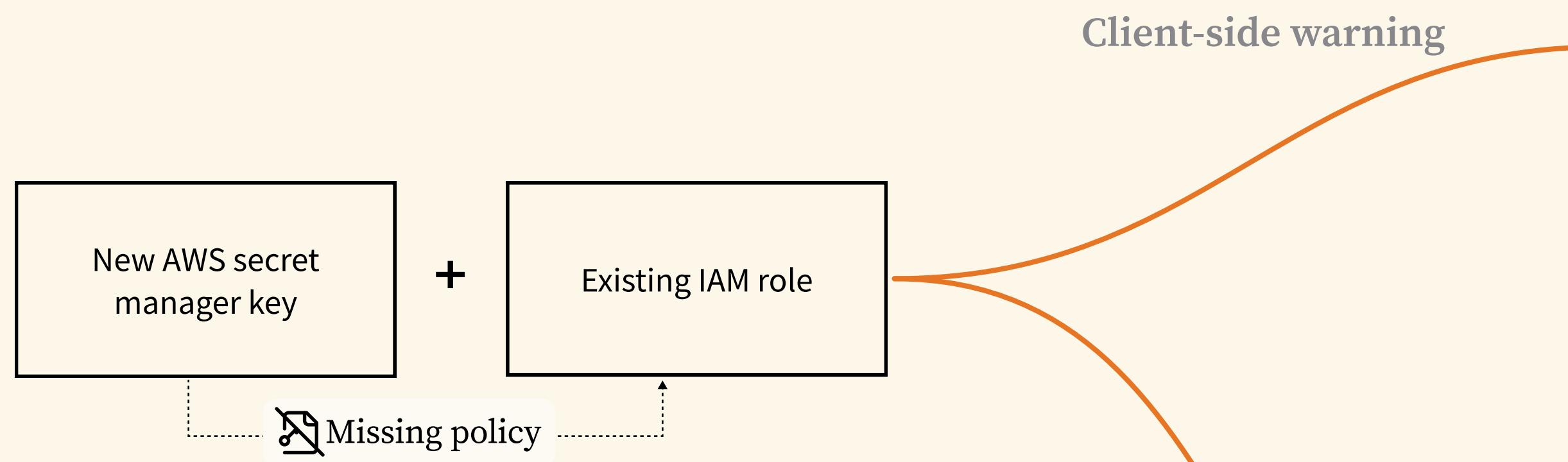


This issue affects 30+flows in Q Business:

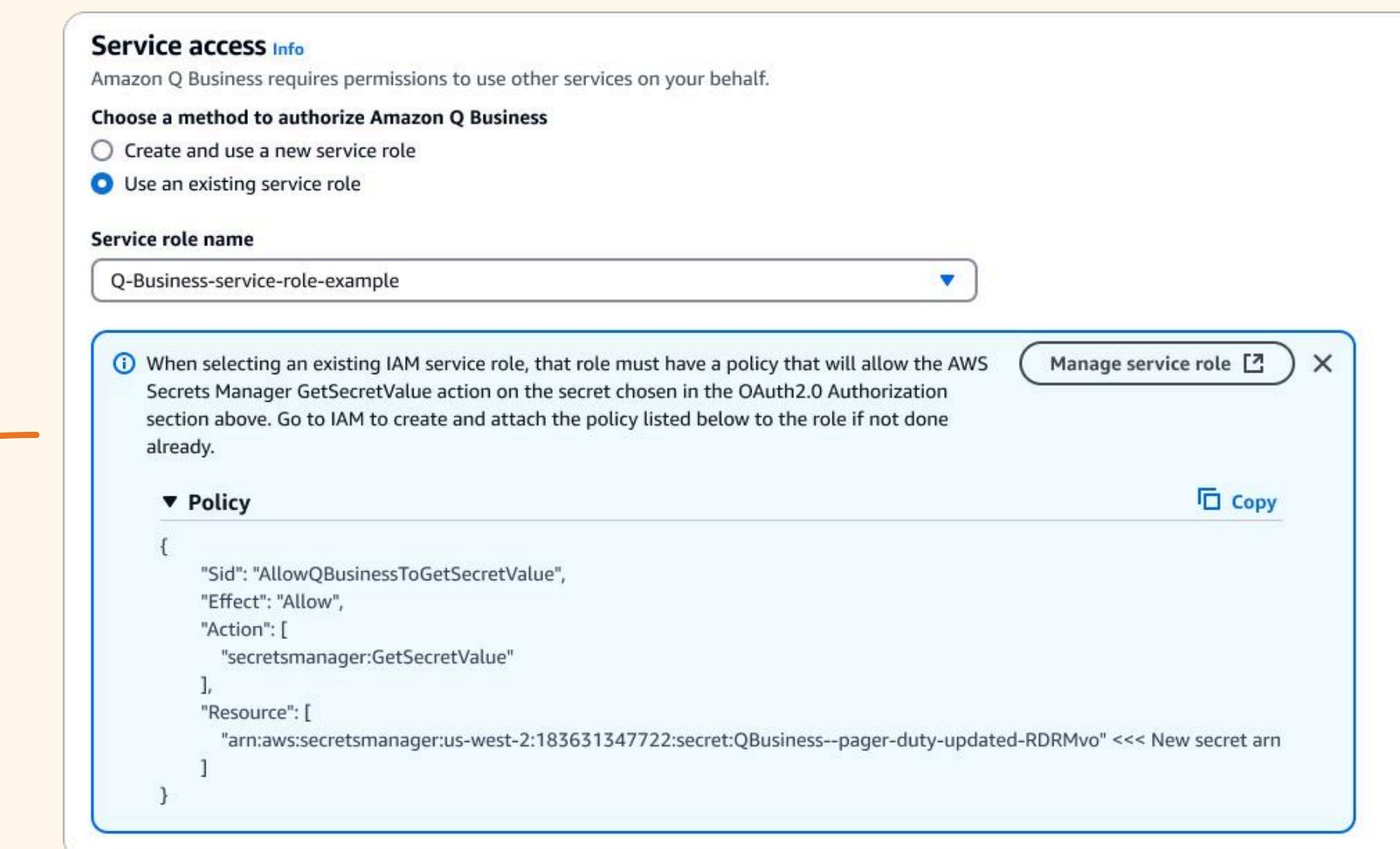
- Create Q Business application (1 flow)
- 30+ Data sources connection for indexing (30+ flow)
- Set up Integrations (2 flows)

Design pattern that scales

4. Improve IAM Error handling for Admin set up flow



Warn user and ask user to attach this policy



Request with error message

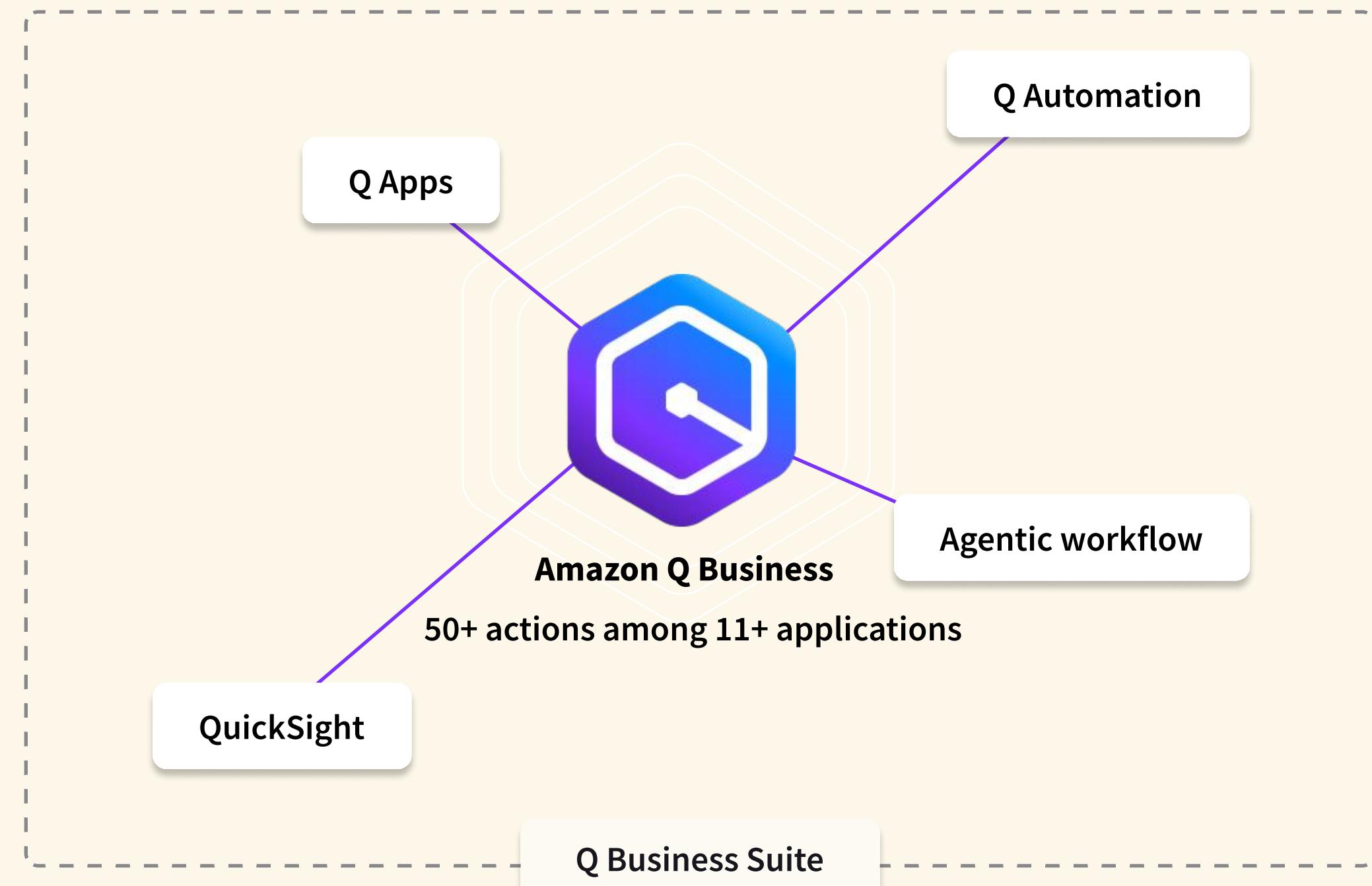
Error message with clear action to fix the issue



3 teams adopted this error message pattern improving over 30+flows in Q Business.

Force multiplier: The Foundation for Q Business Suite Evolution

- Standardized connector setup admin experience across Q Business, QuickSight, Q Apps and Automation.
- Unified action invocation patterns across Chat in Q Business and QuickSight, Q Apps, and automated workflows
- Laid the foundation for Q agent workflow (Q1 2025)



Yuhan's design work was critical to Q Actions in Q Business Suite's delivery and success as it fundamentally informed the design for Q Actions in QBS. I was able build on Yuhan's work and accelerate my design timeline.

Claire Carsley, Sr. UX designer QuickSight



SageMaker Geospatial

Time

2022 Q4 - 2023 Q4

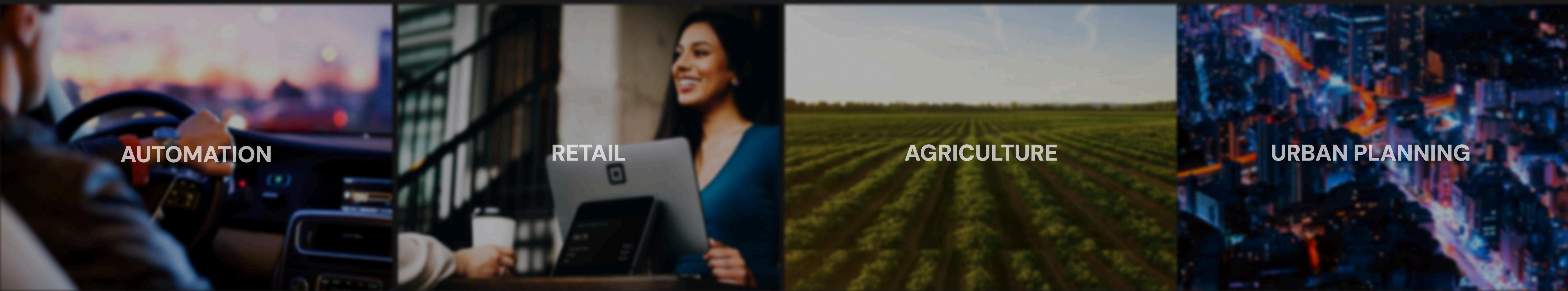
My role

Tier-1 GA launch
6 Tier-2 features
76 usability issues



Over 60% data collected daily contains geospatial information.

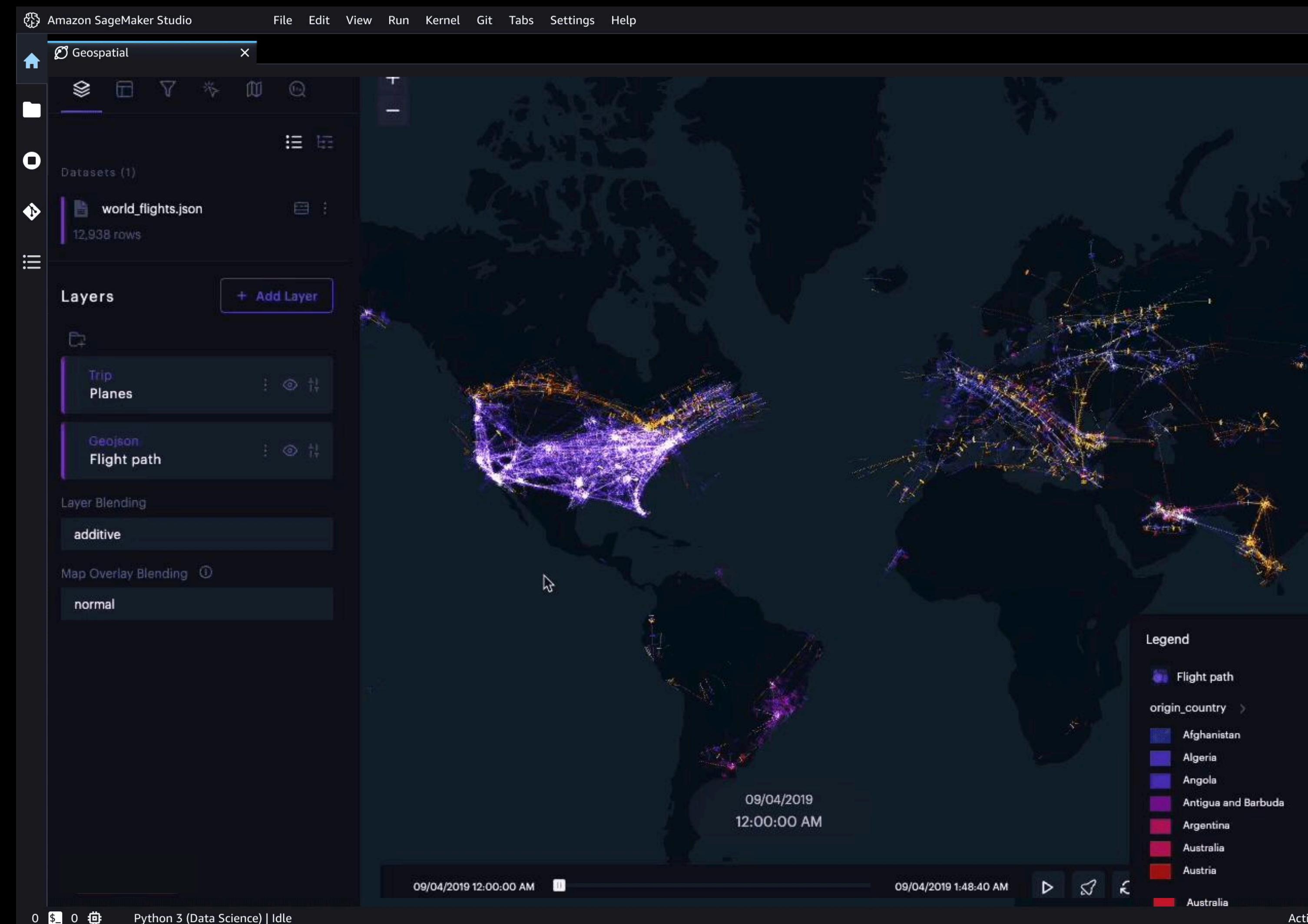
only 3% is used in MachineLearning.



Solution

SageMaker Geospatial

Build, train and deploy ML
models faster using
geospatial data



PROJECT CHALLENGE

Highly specialized domain

80% of data scientists struggling with
geospatial data

4 PM turnovers in one year

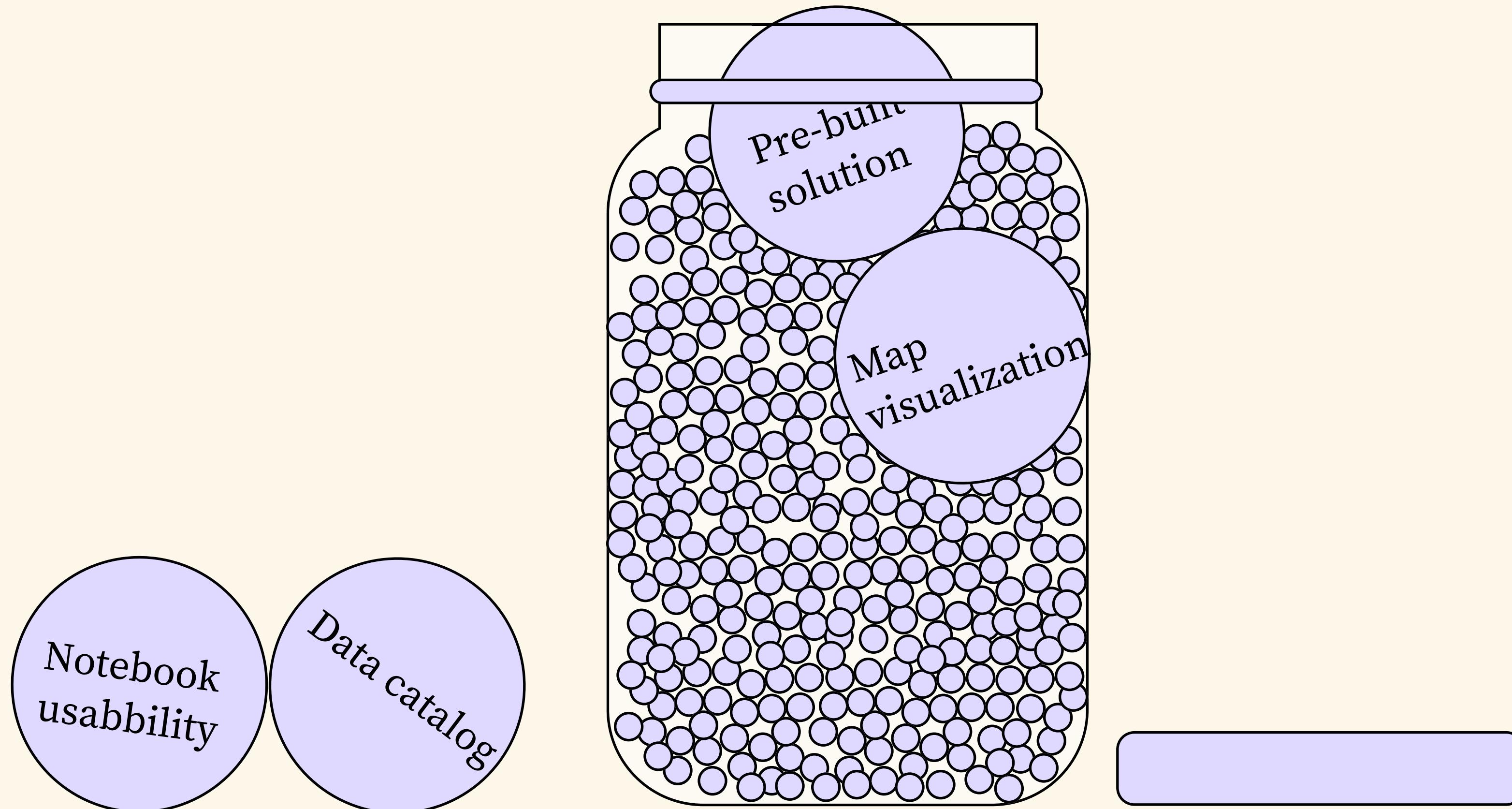
3 PRDs with no cohesive vision

Cross-team collaboration

2 external partners (Foursquare, Planet lab)
3 AWS teams (SageMaker; Amazon Location
Service; Axis)

PROJECT CHALLENGE

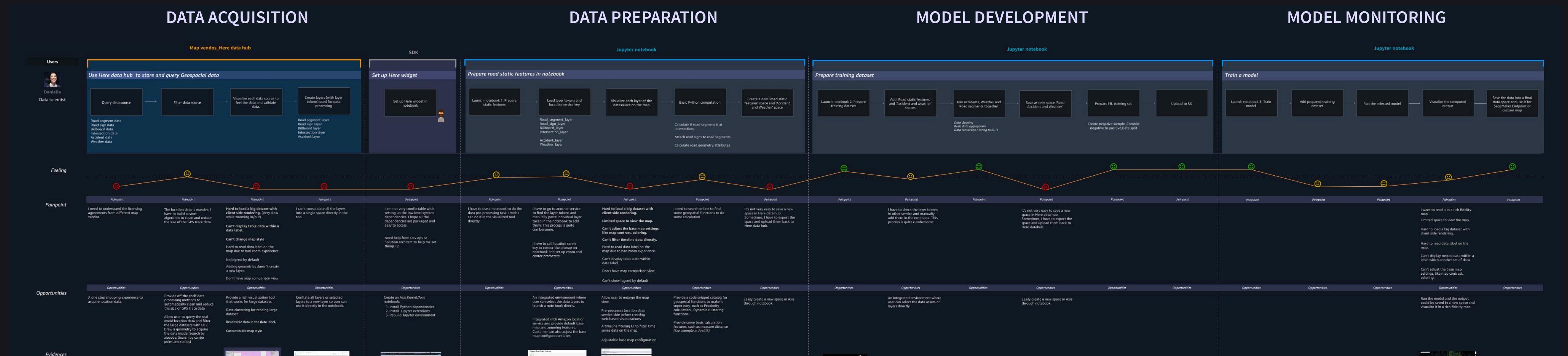
Lack of clear roadmap leads to feature overload and scattered priorities.



RESEARCH

20+ in-depth research sessions
200 surveys

BMW
Planet
arup
AWS geospatial community lead
AWS Machine learning solution lab
Amazon Location service
Usertesting



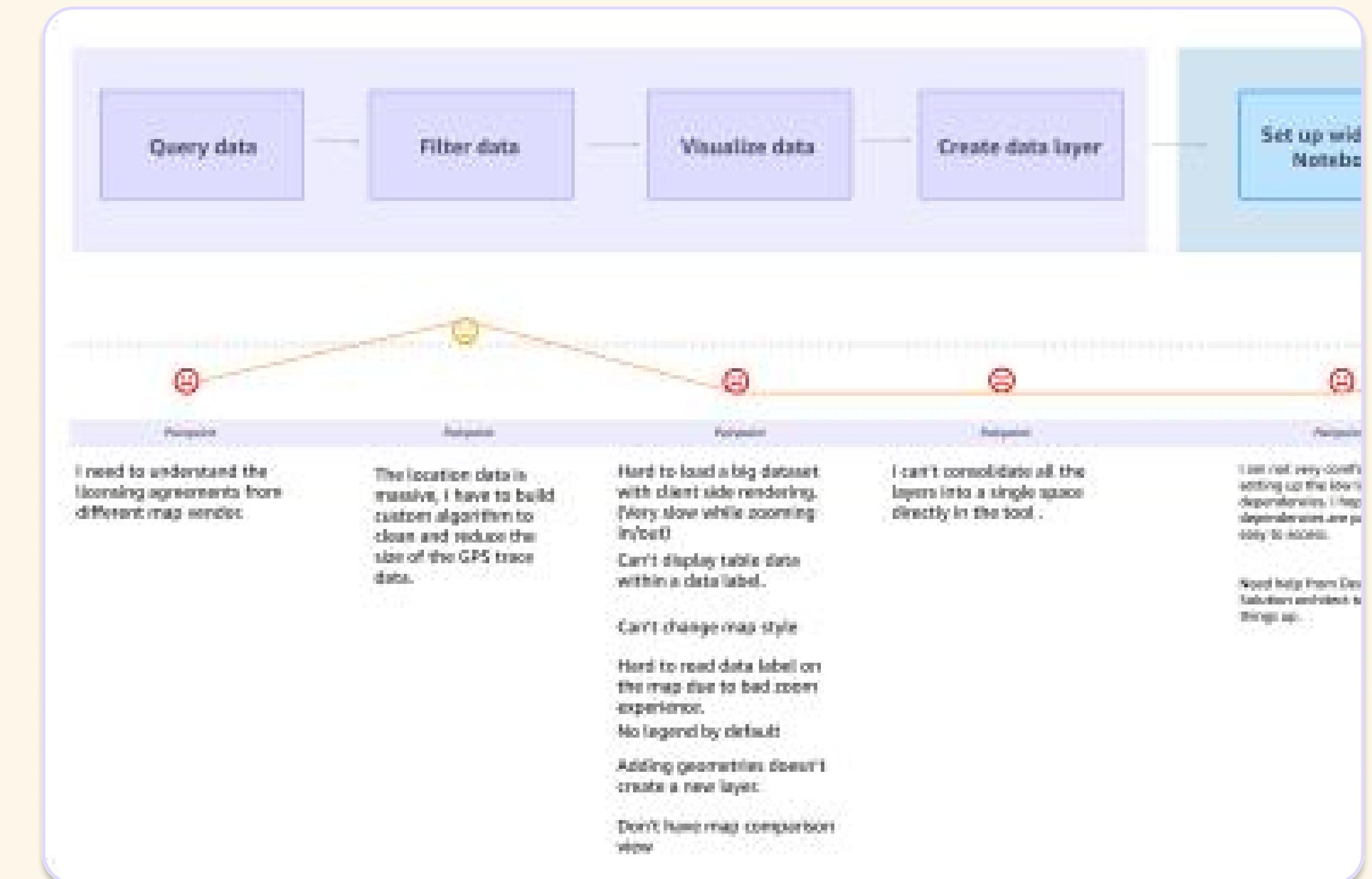
Data exploration roadblock delays ML development

- Hard to access high-quality geospatial data
- Poor usability of various visualization tools

“

It takes me weeks to query through multiple vendors and learn to visualize multiple data layers in different tools before i can actually focus on my development.

— Yunshi, Data scientist Machine Learning solution lab



Pre-trained models can save
tons of time for common tasks.

RESEARCH INSIGHTS

Notebooks are essential for custom work and meeting specific customer needs.

“

The UI is fine for basics, but we need notebooks to do any real custom work.

— Mark , Arup Data scientist

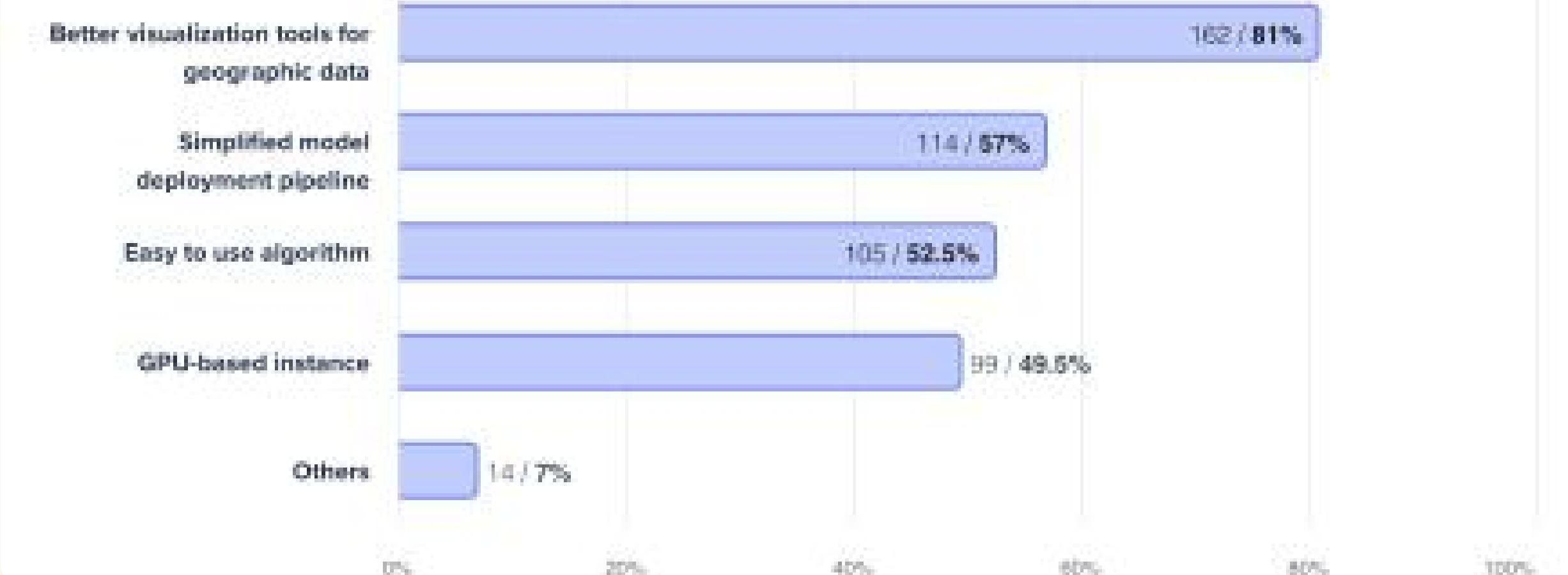
3. If a UI-based platform offered pre-trained geospatial models with job scheduling and data querying capabilities, would you still need to perform notebook-based tasks?
199 participants

Chart Data Export ▾



6. When working with geospatial data and models, what are your biggest pain points with the current notebook experience? (Multi-select)
200 participants

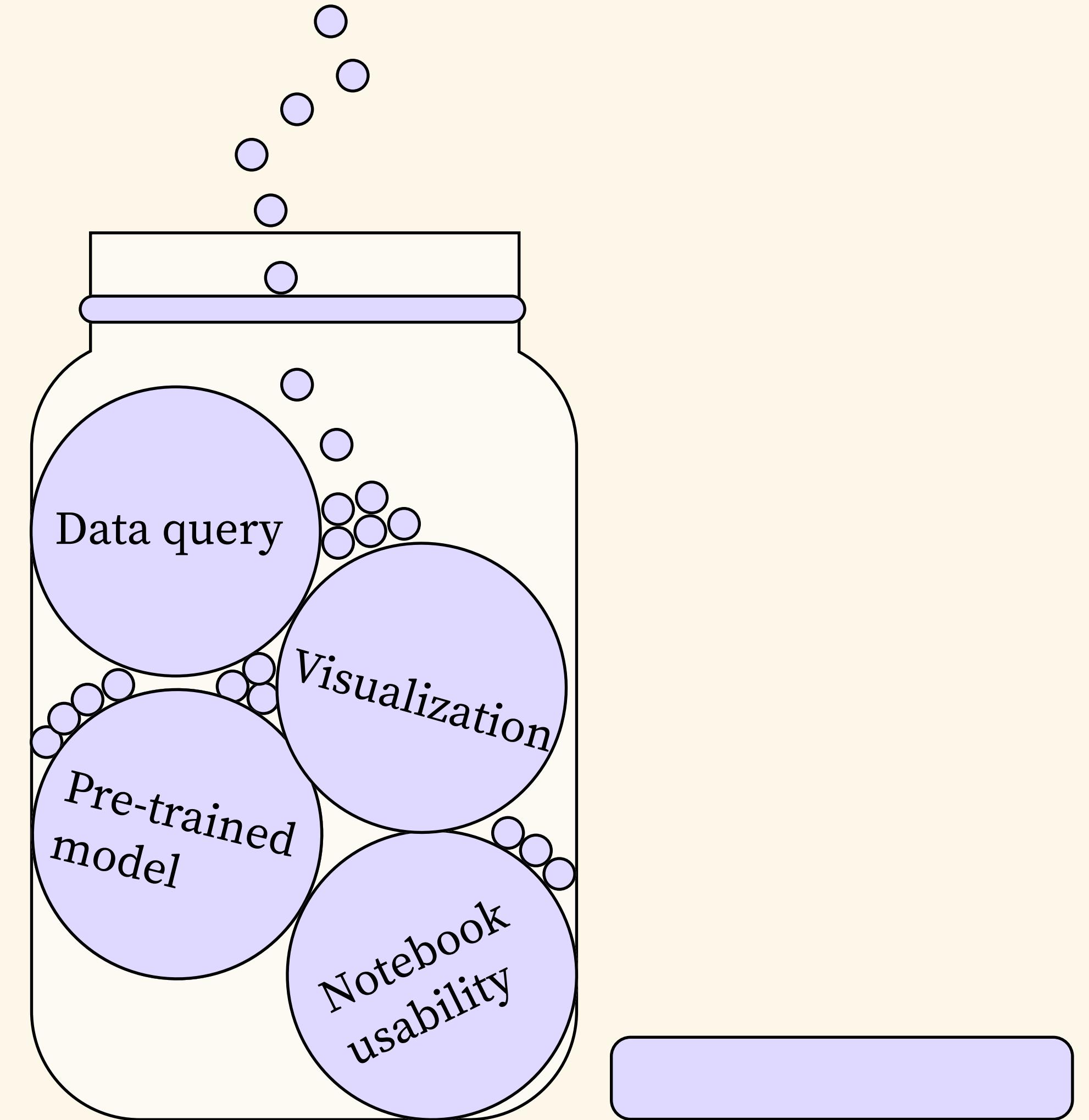
Chart Data Export ▾



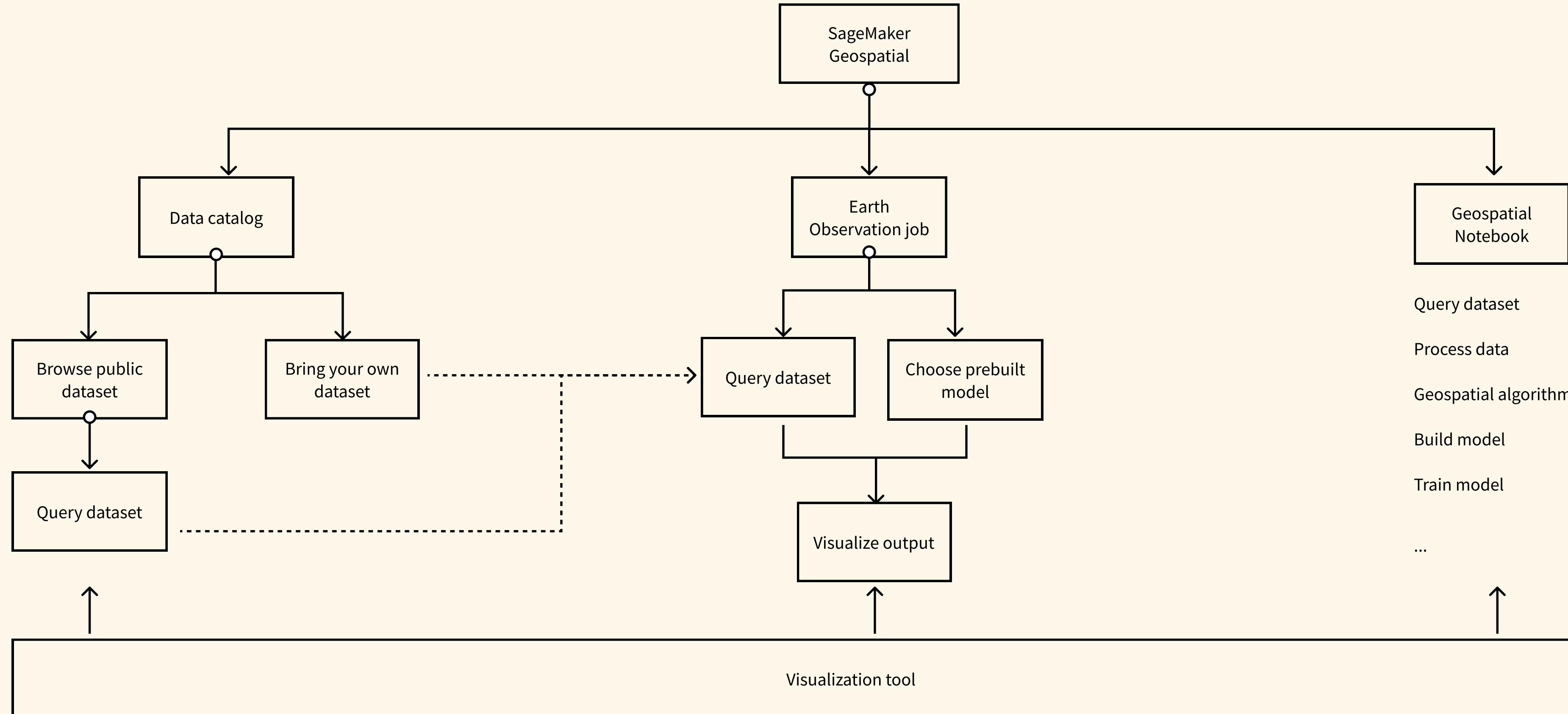
A powerful visualization tool
is needed across the entire
workflow

VISION

Simplify Geospatial ML Workflow



Simplify Geospatial ML Workflow



Data query

Pre-trained model

Visualization

Notebook usability

SOLUTION

Transform data query workflow

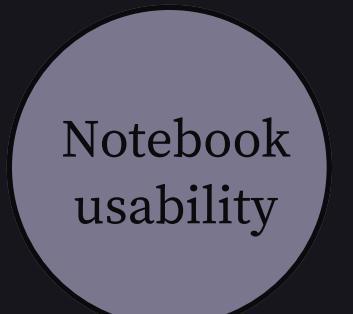
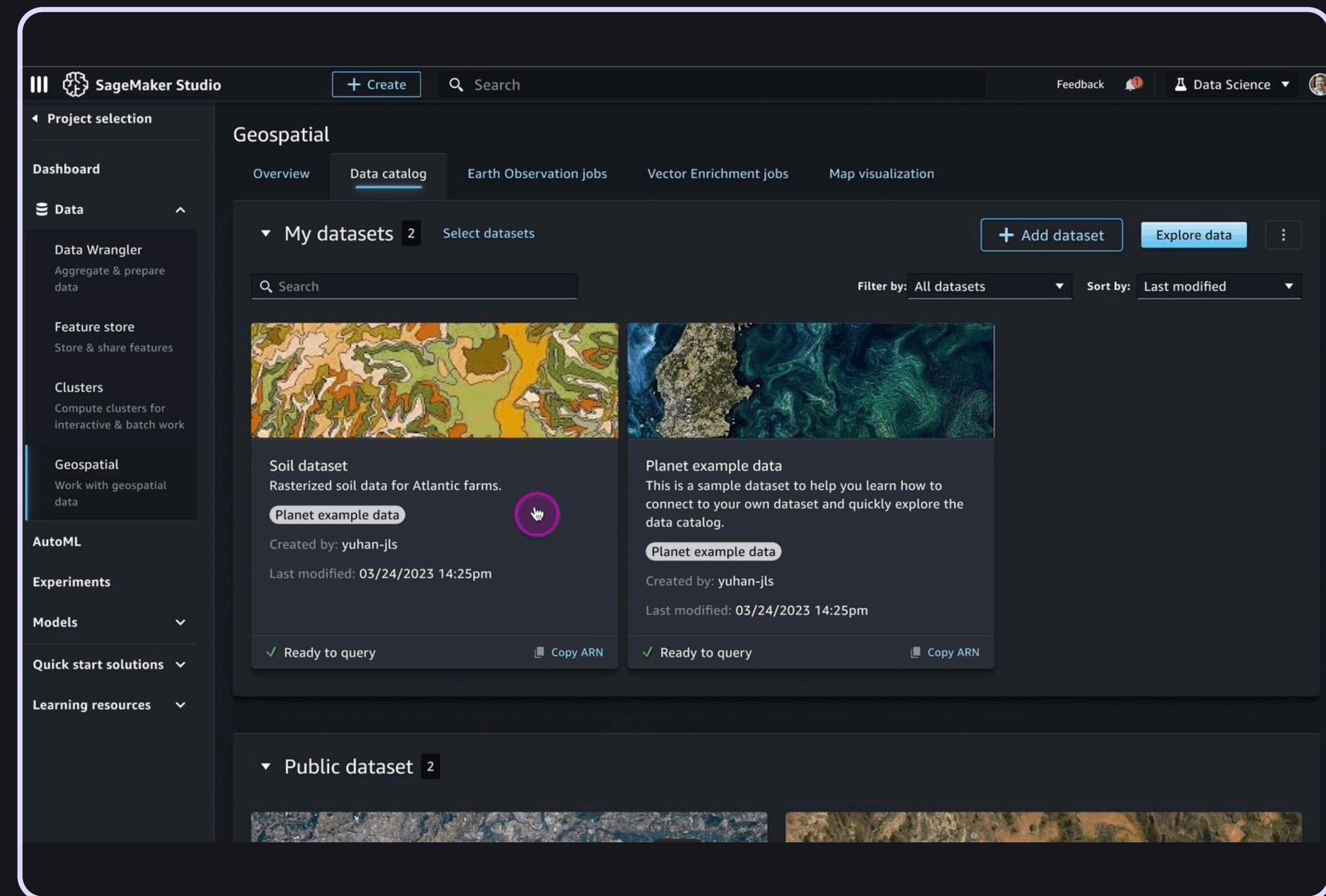
Problem: User needs to go to various places to search for geospatial data and find visualization tools to validate the dataset.

Solution: Provide data catalog to let user query, filter and visualize dataset in one place

“

After the launch of Sentinel-1, you get data ready to process and do inference in about 10 minutes as opposed to a day and a half

—MARK HALLOWS, REMOTE SENSING SPECIALIST,
ARUP

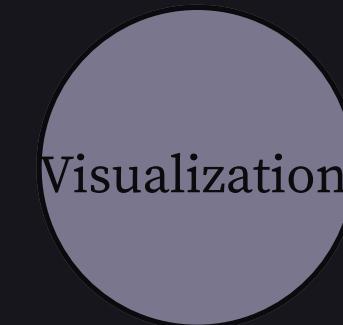
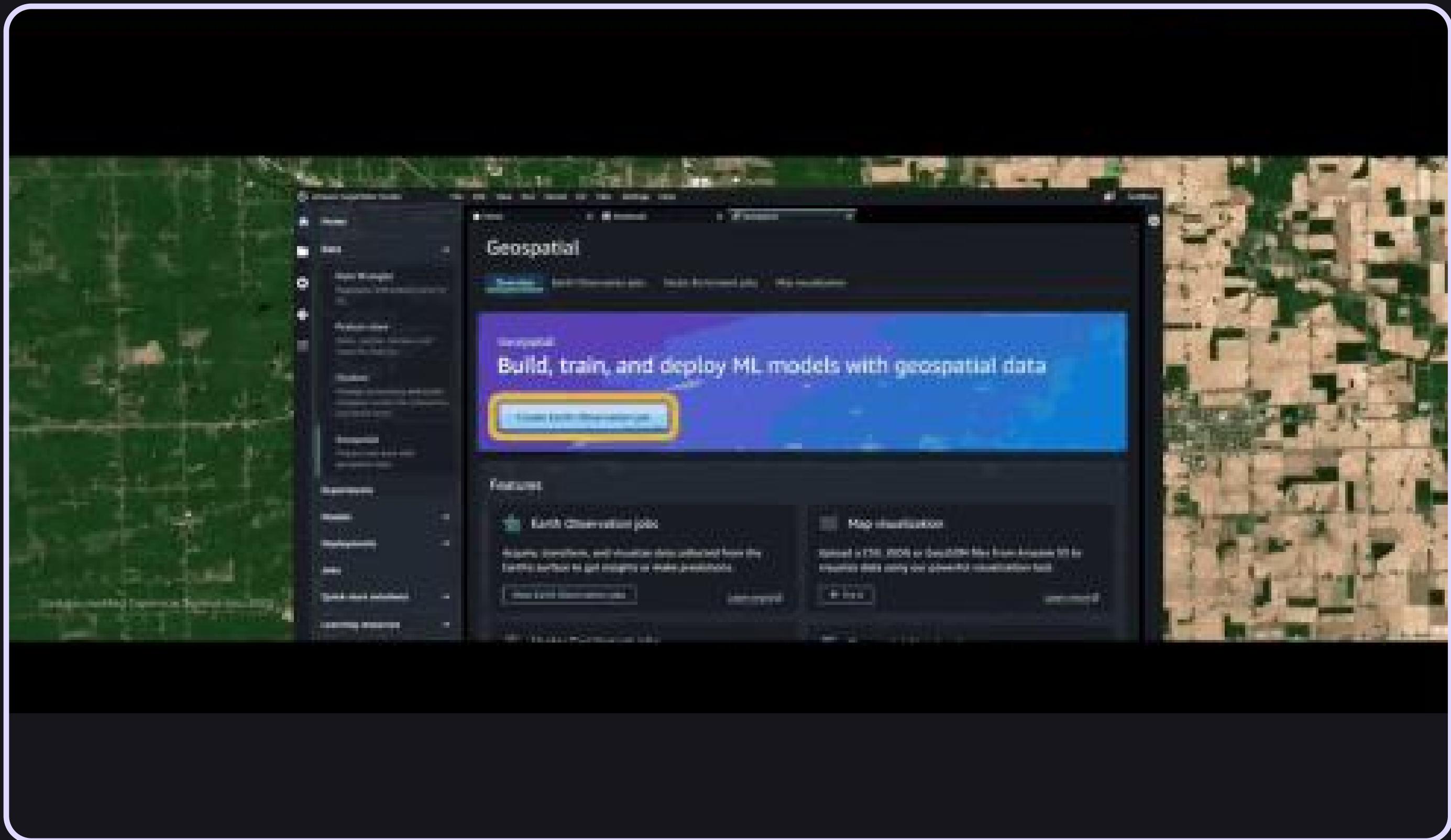


SOLUTION

Earth Observation job powered by pre-trained models

Problem: User spend lots of time to perform common tasks such as chopping large dataset, removing cloud coverage, running NDVI, or extracting road.

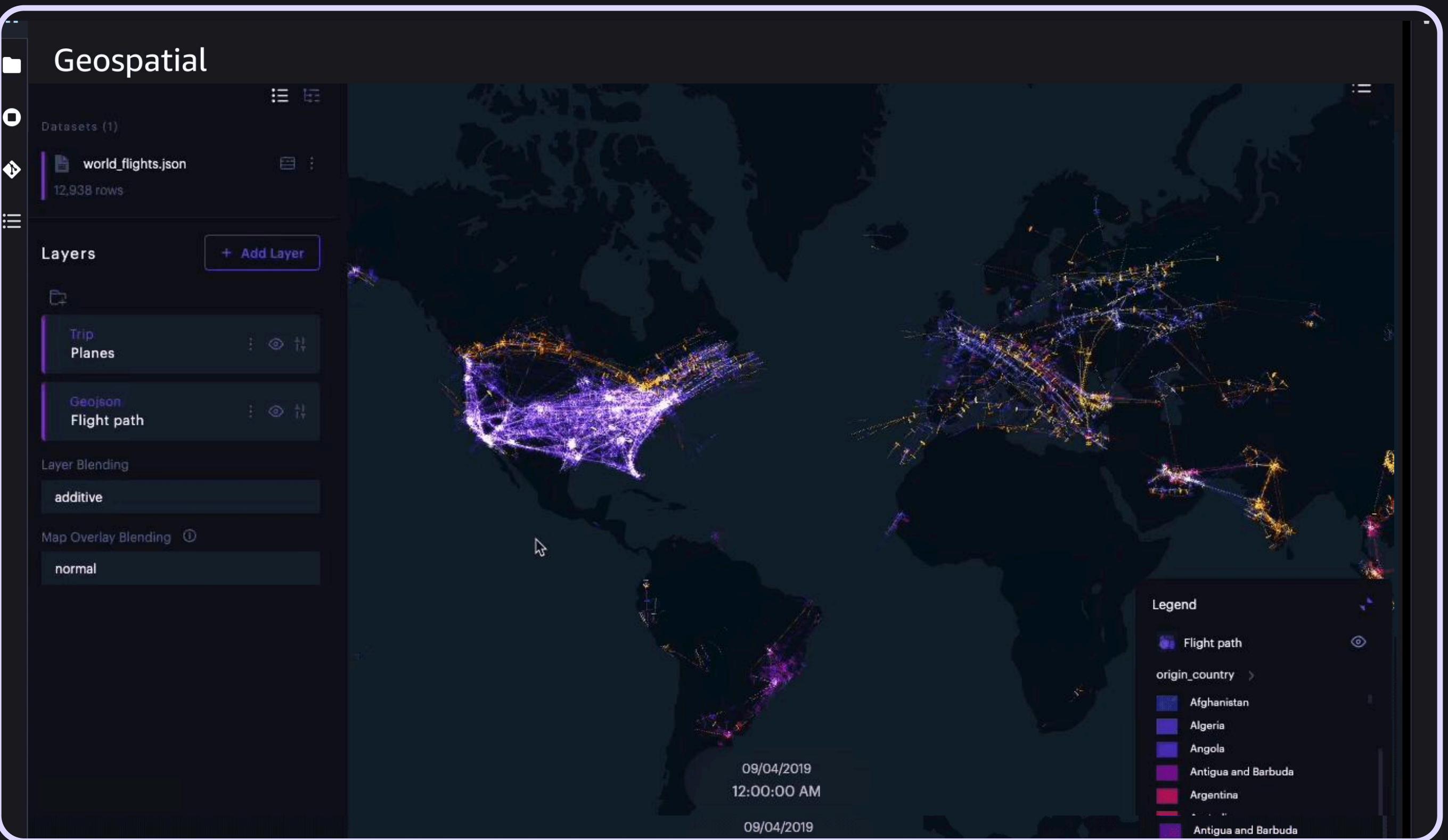
Solution: Provide pre-built model to handle common use cases with chopping and sticking datasets baked inside the solution.



SOLUTION

Interactive map visualization

- 52 meetings with Foursquare team+ AWS location service team
- Detailed documentation for product requirement
- 100+ hours usability testing



Data query

Pre-trained model

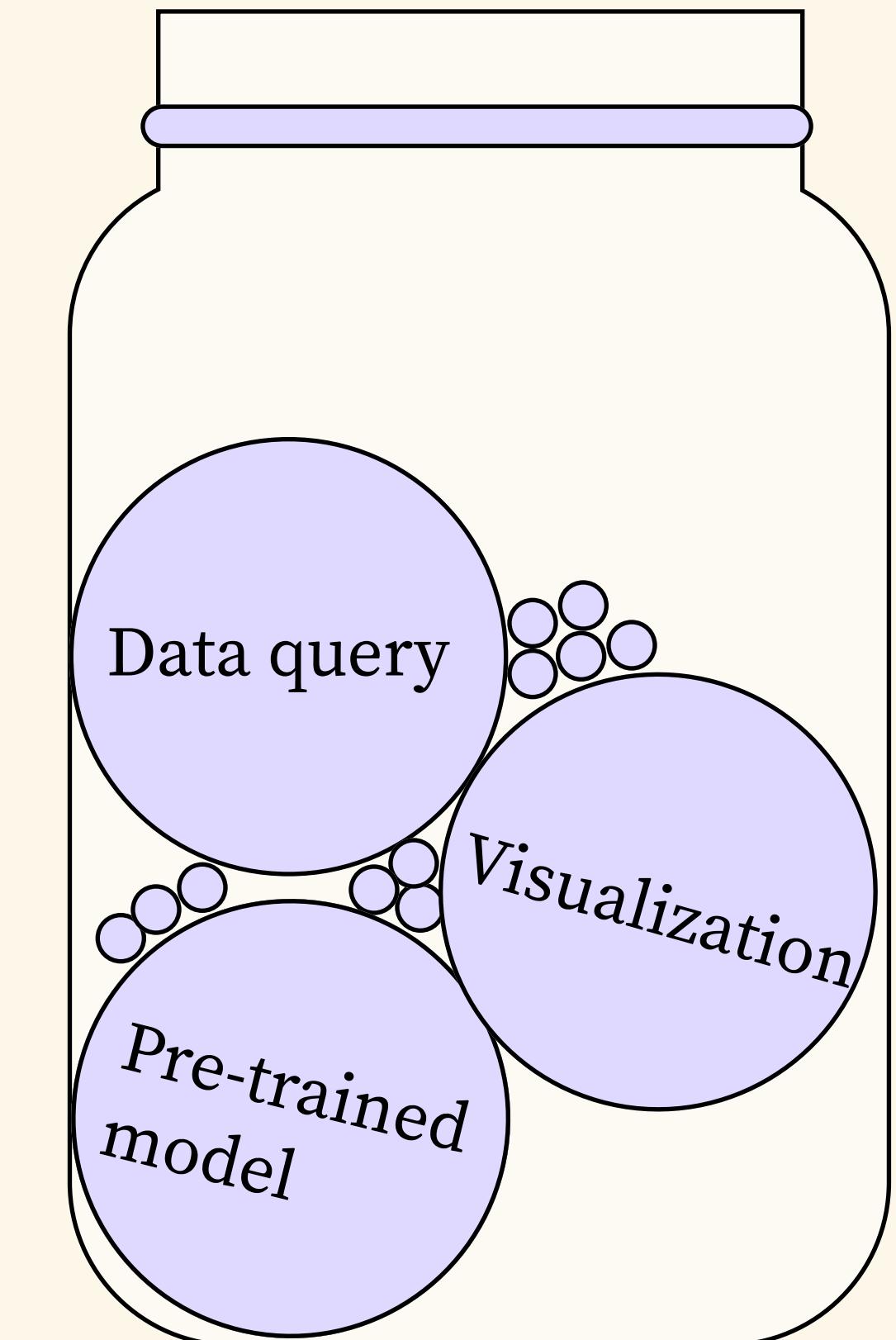
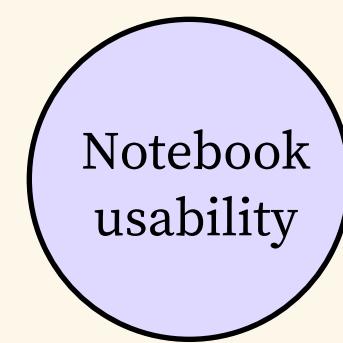
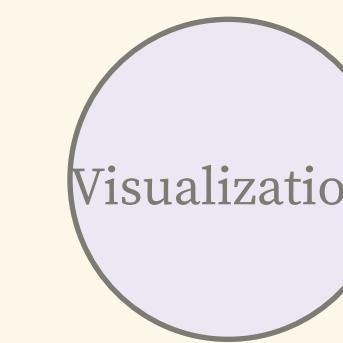
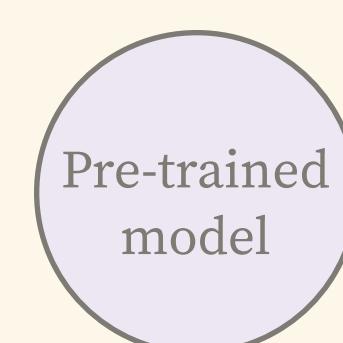
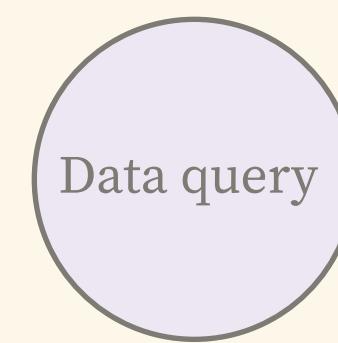
Visualization

Notebook usability

PRODUCT STRATEGY

Strategic product decision

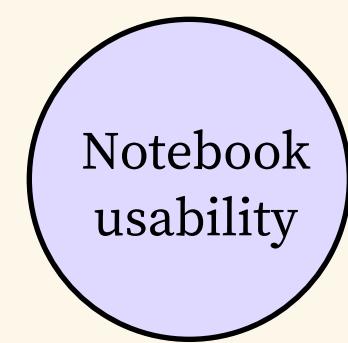
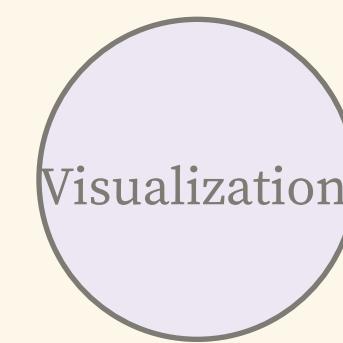
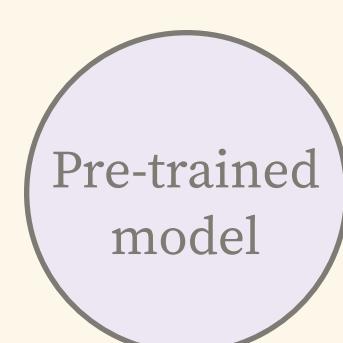
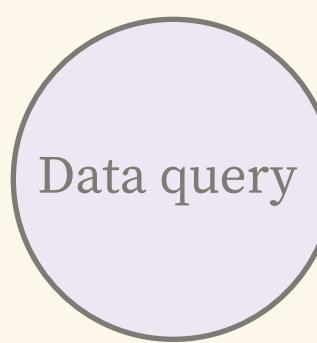
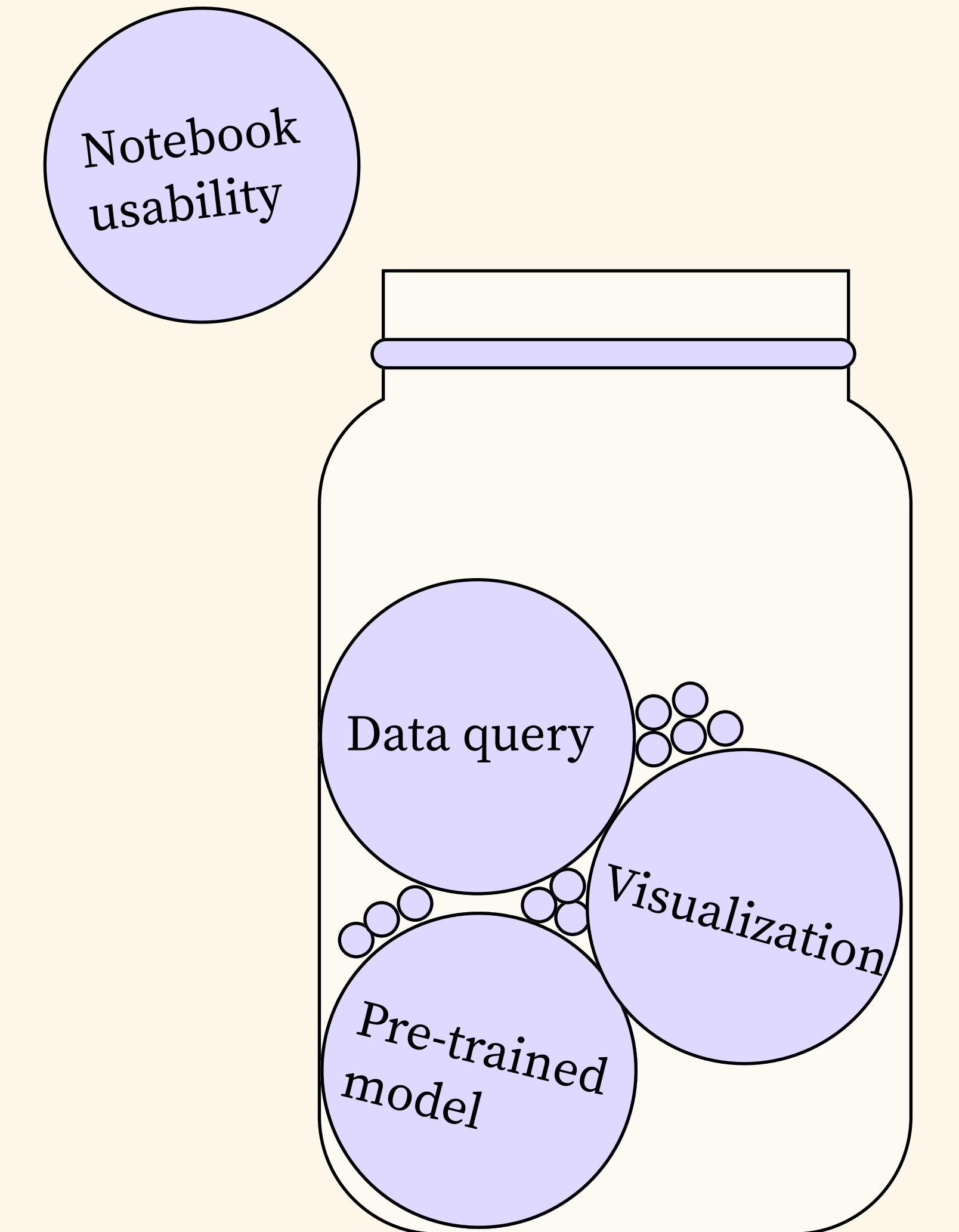
Prioritize geospatial
Notebook offering for
re:Invent



PRODUCT STRATEGY

Strategic product decision

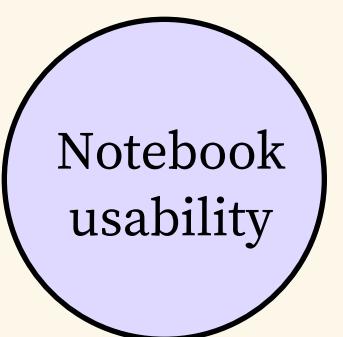
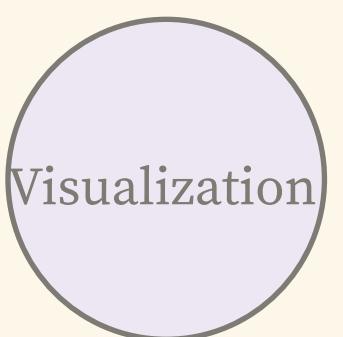
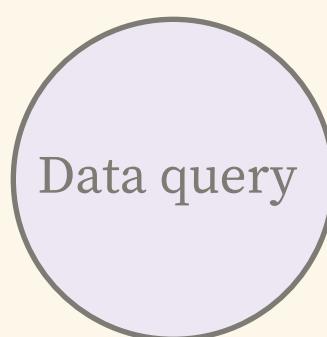
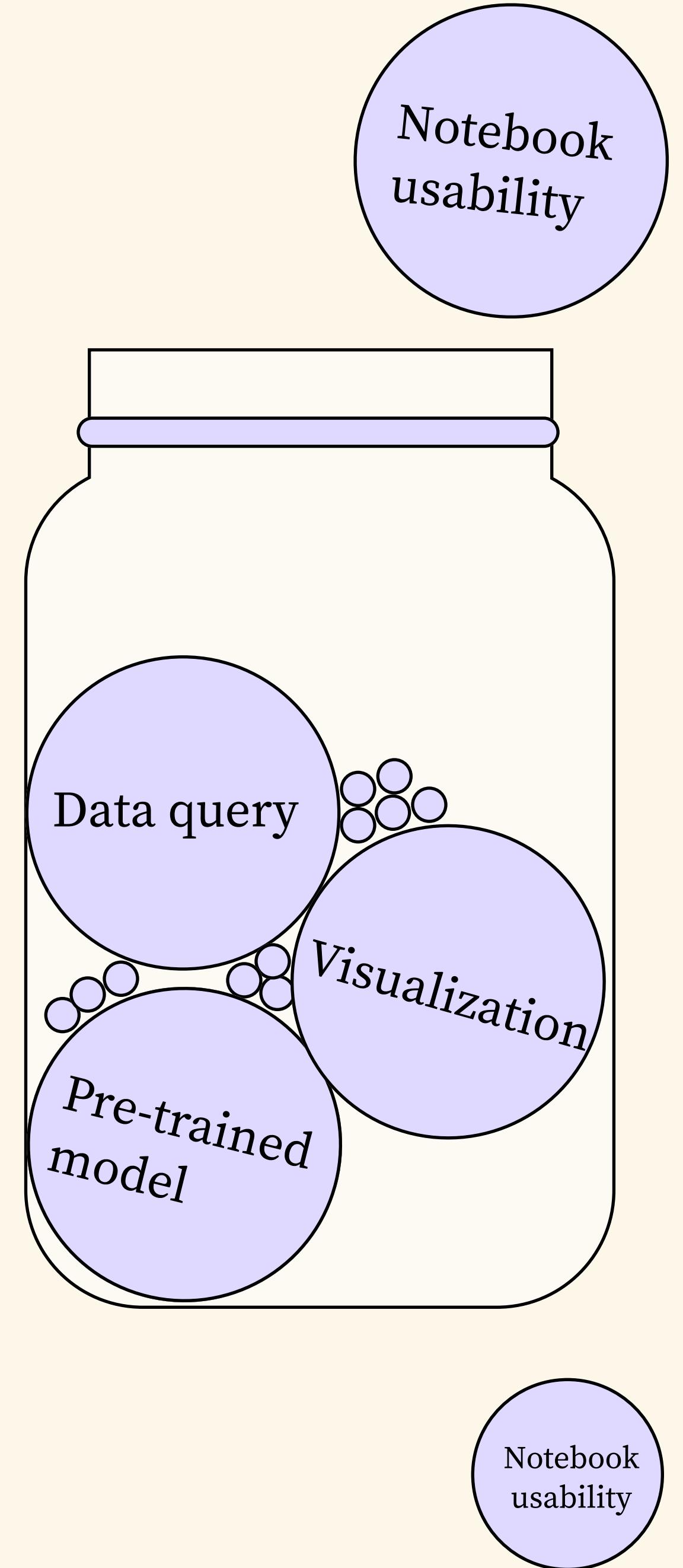
Prioritize geospatial
Notebook offering for
re:Invent



PRODUCT STRATEGY

Strategic product decision

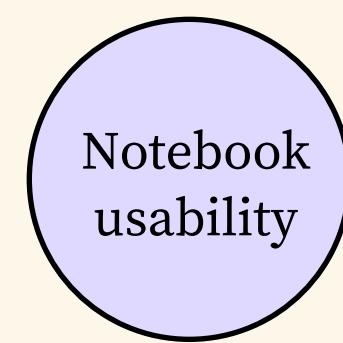
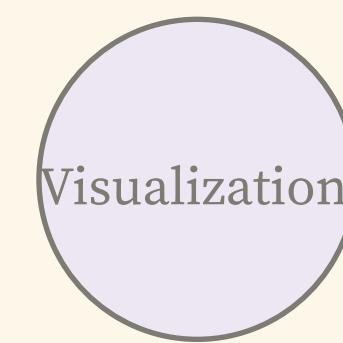
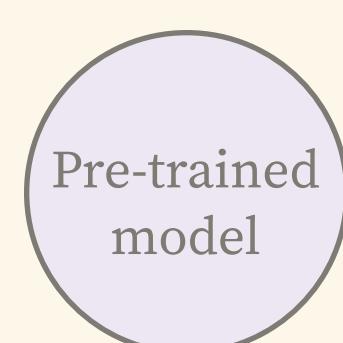
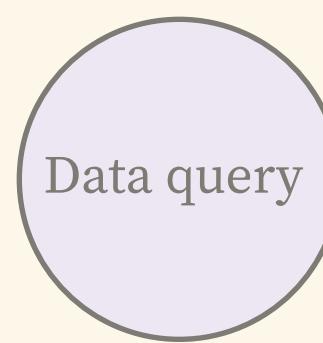
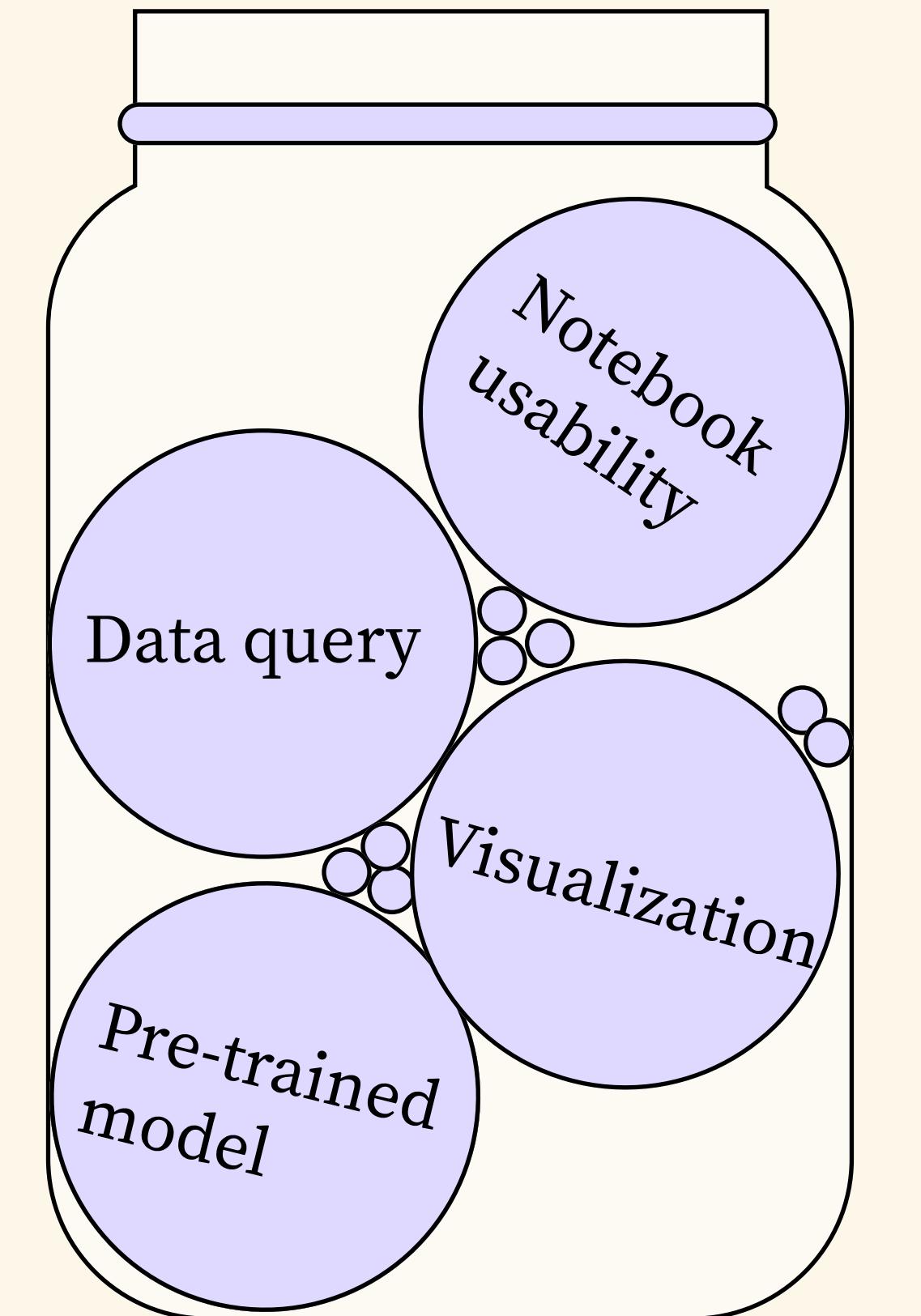
Prioritize geospatial
Notebook offering for
re:Invent



PRODUCT STRATEGY

Strategic product decision

Prioritize geospatial
Notebook offering for
re:Invent



ACTION

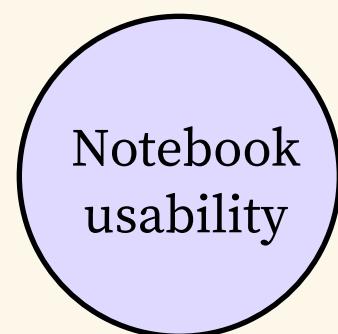
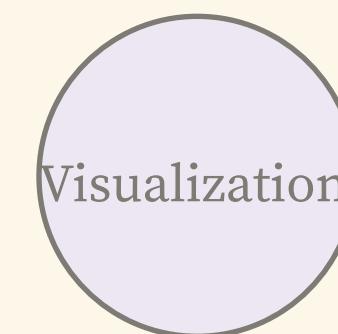
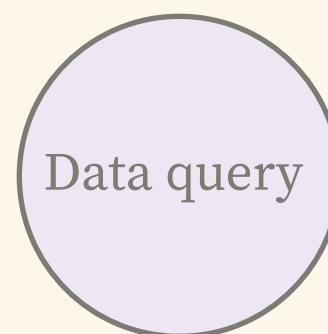
Strategic product decision

Prioritize geospatial Notebook offering for re:Invent

Day 1-2



Hosted 2 cross-team
working sessions to
align on requirements



ACTION

Strategic product decision

Prioritize geospatial Notebook offering for re:Invent

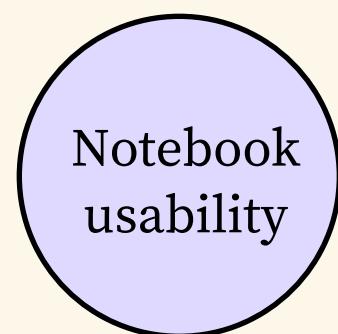
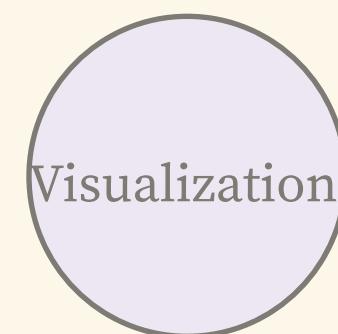
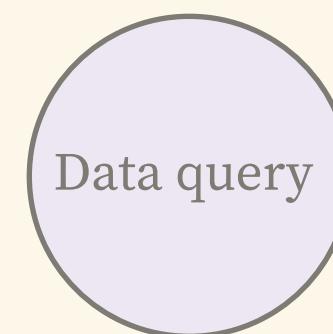
Day 1-2

Day 3-10



Hosted 2 cross-team working sessions to align on requirements

Design iteration 10 key workflows with internal team alignment



ACTION

Strategic product decision

Prioritize geospatial Notebook offering for re:Invent

Day 1-2

Day 3-10

Day 12

Hosted 2 cross-team working sessions to align on requirements

Design iteration 10 key workflows with internal team alignment

Review and aligned with SM team

Data query

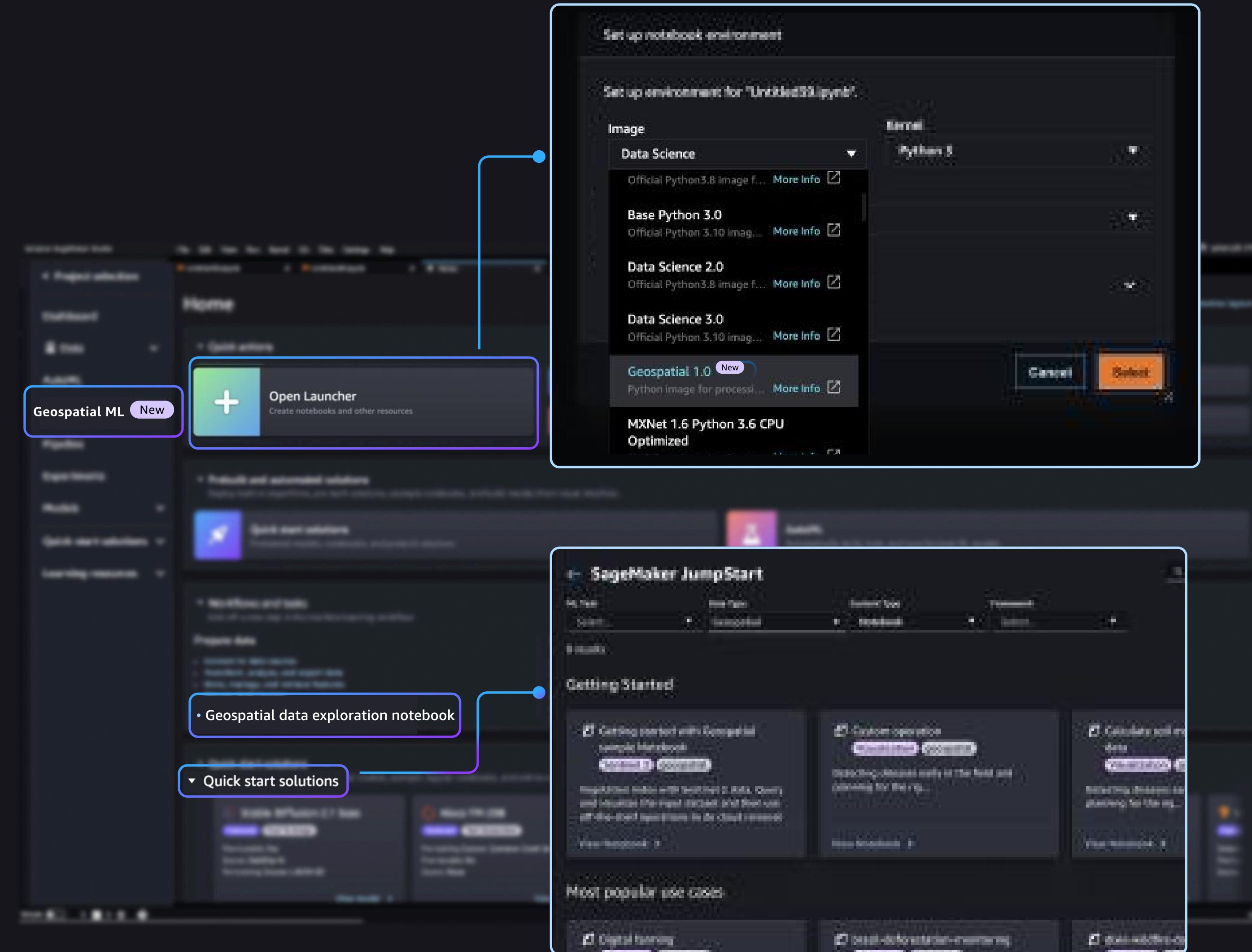
Pre-trained model

Visualization

Notebook usability

DESIGN SOLUTION

- 4 ingress point to launch geospatial notebook.
- Detect spatial data and suggest geospatial notebooks.
- Built-in interactive visualization widget in notebook.



Data query

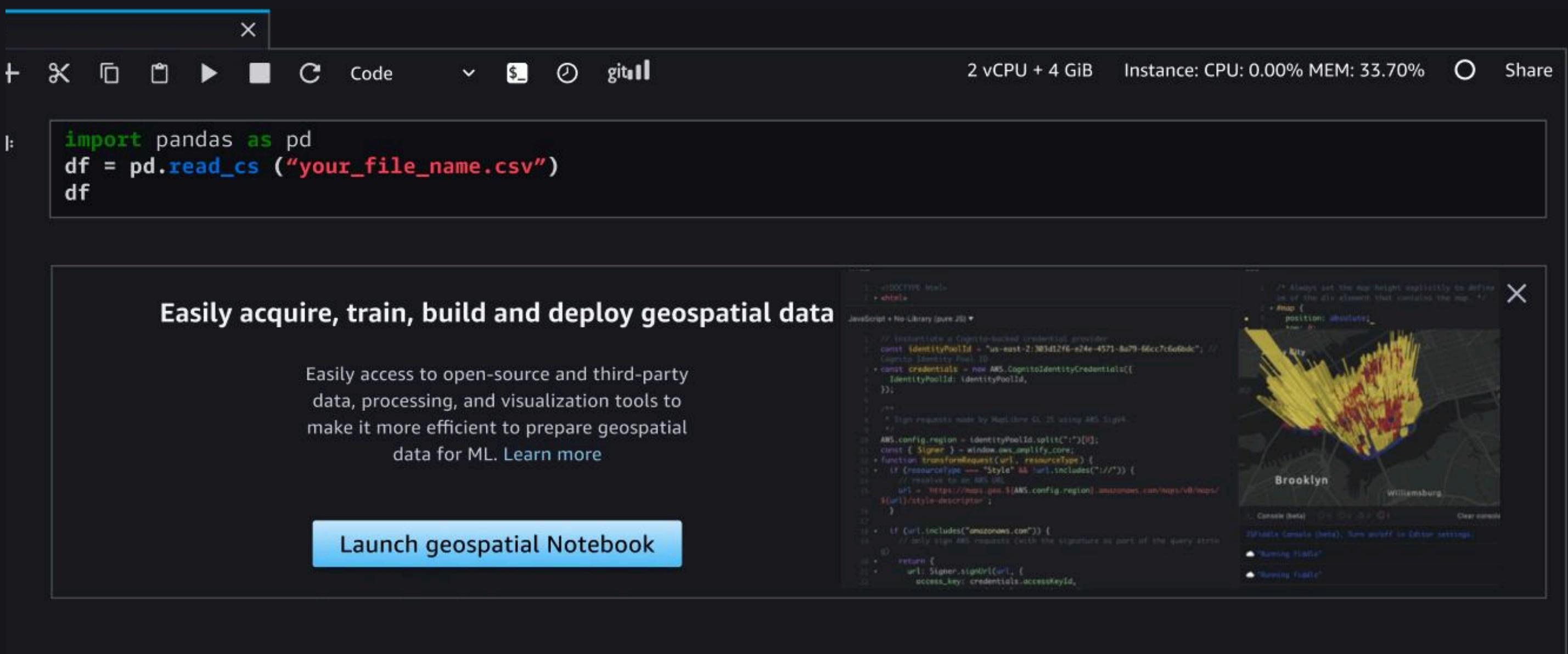
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Data query

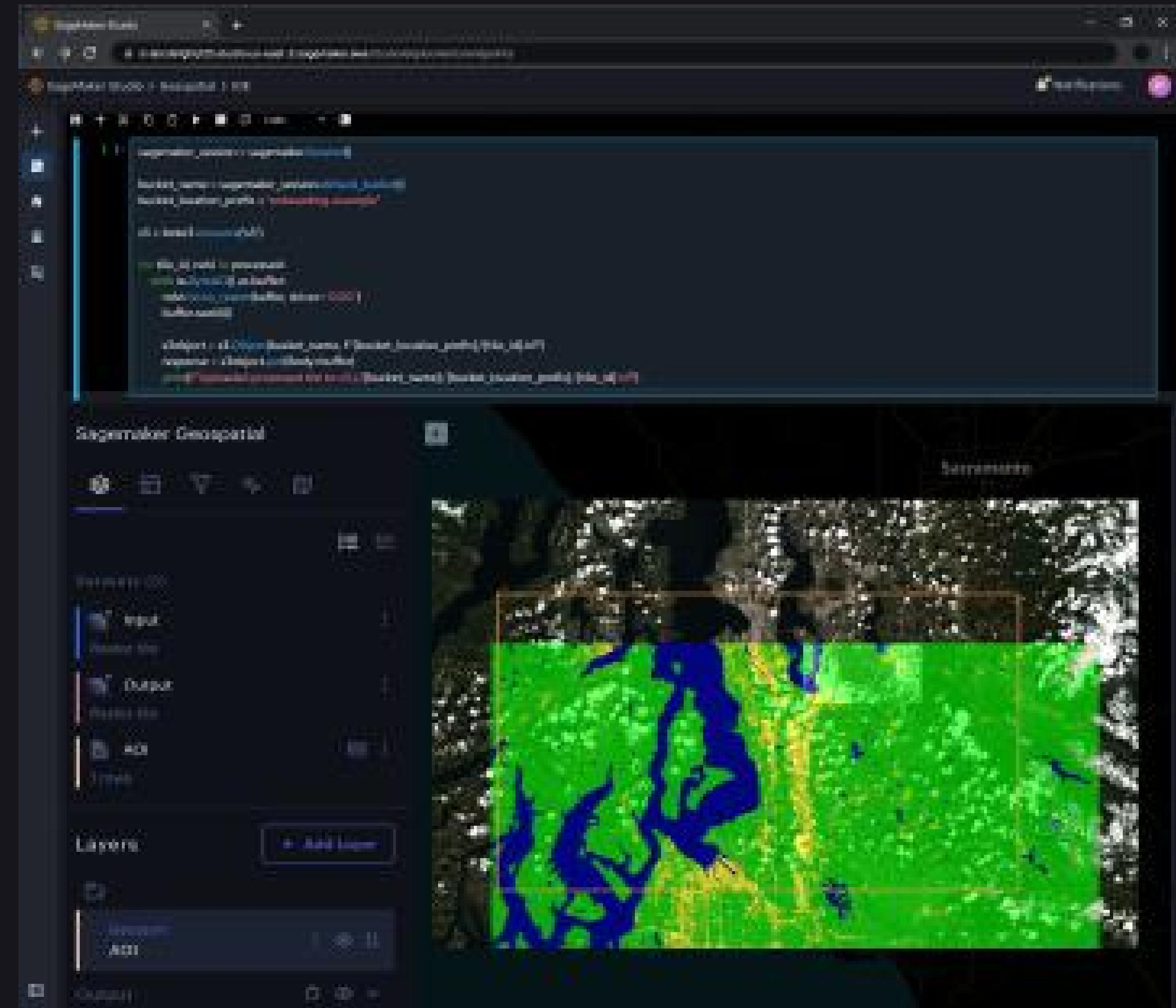
Pre-trained model

Visualization

Notebook usability

DESIGN SOLUTION

- 4 ingress point to launch geospatial notebook.
- Detect spatial data and suggest geospatial notebooks.
- Built-in interactive visualization widget in notebook.



Data query

Pre-trained model

Visualization

Notebook usability

Review and alignments

8

SageMaker leadership review
with Brain Granger (L8)

6

Geospatial Director (L8) review
with Kumar

10+

Presented in SageMaker design
critique

2022 re:Invent Launch

Featured in Sawami's keynote

Kumar (Director L8) gave a 6+ mins demo

The image shows a Twitter thread from Holger Müller (@holgermu) about the launch of Amazon SageMaker Geospatial ML. The first tweet from Jeremy Morgan (@JeremyCMorgan) discusses geospatial machine learning for disaster response. The second tweet from Holger Müller (@holgermu) announces the launch, mentioning MyPCVY and the ease of using SageMaker for geospatial tasks. The third tweet from Holger Müller provides more details about the features, including acquiring geospatial data, using built-in algorithms, and speeding up model building with neural network models. Below the tweets is a screenshot of the Amazon SageMaker interface showing a map and data visualization.

Jeremy Morgan @ re:Invent 2022 @JeremyCMorgan - 6h
Watching @kumarc talk about geospatial machine learning for disaster response. I'm blown away. The first responder in me wants to give these folks the biggest high five. Utterly saving lives with technology.
#reinvent2022

Holger Müller #ReInvent #EnterpriseAcceleration @holgermu - 4h
MyPCVY - If you want to manage stuff in the real world - you need geospatial. It's simple as that. Good for @AWSCloud to make it easier to things in the real world. #reinvent

Holger Müller #ReInvent #EnterpriseAccelerati... @holger... - 4h
And @Amazon_Bagemaker can now use #Geospatial #ML.

- Acquire geospatial data in a few clicks
- Use in-built algorithms for geo data
- Speed up model building with neural network models

#reinvent

Acquire geospatial data with just a few clicks.
Build in-built geospatial data with built-in algorithms.
Speed model building with neural network models.

CUSTOMER IMPACT

Xavio cut model development costs by 25%.

“

Using Amazon SageMaker, we were able to improve efficiency by almost 50%. Our teams were able to set up the required model pipelines and run testing in just 1–2 weeks, which is almost half of the time it took us previously.

— OJTABA KARAMI, TEAM LEAD FOR REMOTE SENSING, XARVIO

DataFarming achieved 100% efficiency gains with 600% cost reduction.

“

We improved the efficiency of our workflow to detect Canola flowers in New South Wales by almost 100%, while reducing our spending by 600% by moving from Google Earth Engine to Amazon SageMaker.

— DATA FARMING

Geospatial Notebook:

The feature with best ROI

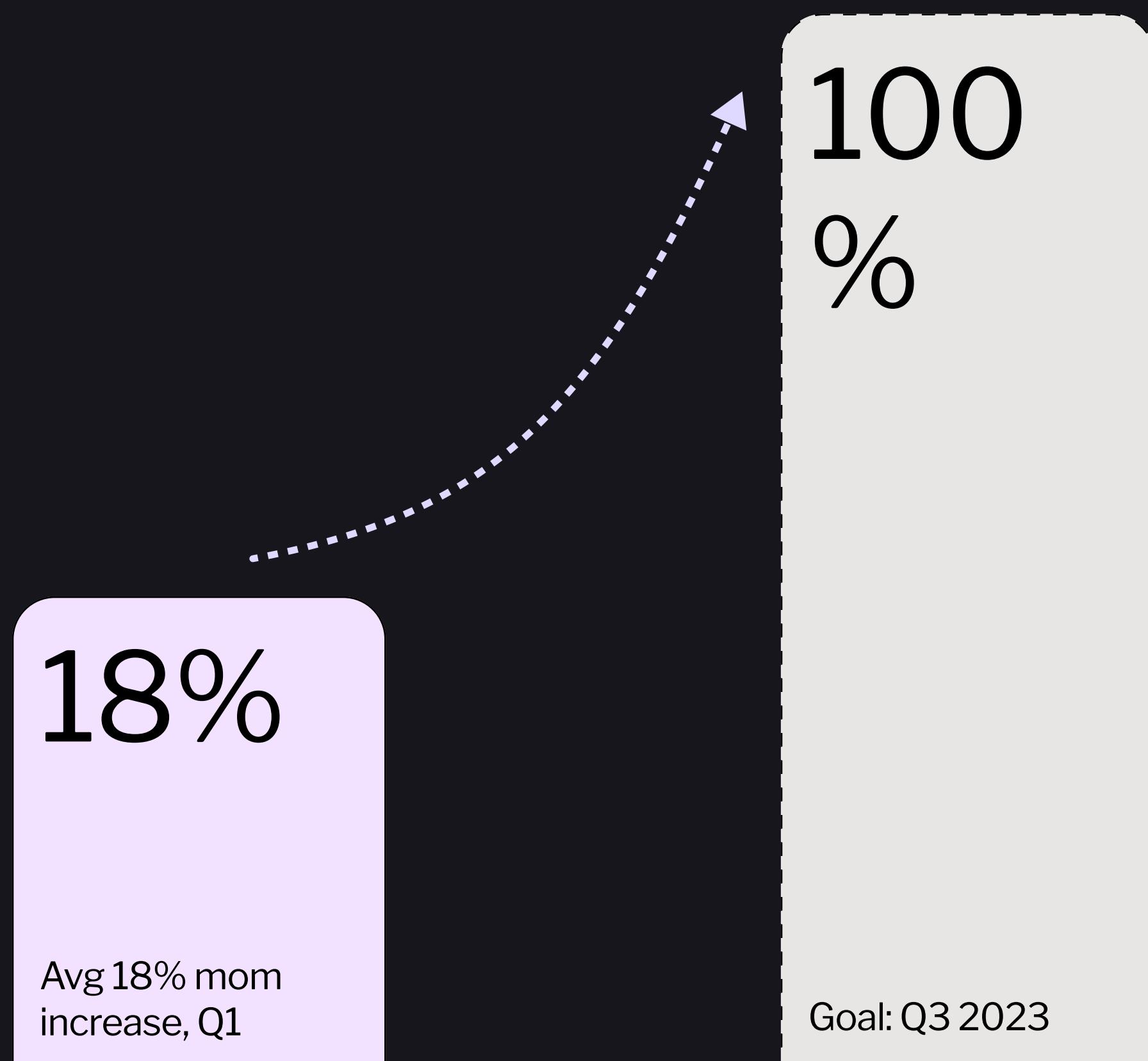
90% revenue generated from using
geospatial image notebook

POST LAUNCH

New challenge:

Slow growth in new user account

Avg.132 active users
18% mom increase



42 Quarterly research sessions

Research

Methodology

- 7 moderated sessions of 1 hour 1:1 interview
- 5 unmoderated sessions



Usability Test Script

The researcher will ask the test participant where they and their user plan for new **ReadMeister**-powered functionality and help answer the following key questions:

- [Observation] User needs know I have 1 user. Indicate current version of **ReadMeister** you're using?
- [Question] How much time does it take to learn a new **ReadMeister**? How many steps?
- [Observation] How many time does it take to learn an **ReadMeister** feature?
- [Question] Identify any usability issues that need addressed while using **ReadMeister** feature?
- [Observation] Identify any usability issues that need addressed when using **ReadMeister** feature?
- [Question] Are there any **ReadMeister** features you'd like to see added to **ReadMeister**?

 - Time to complete question for a **ReadMeister** feature with 100% accuracy to be known.
 - Question requires the user over 5 minutes to either results for N users [pp]

- [Question] **ReadMeister** how long does it take to read **ReadMeister** article or page classification tool?
 - Time to complete question for a **ReadMeister** article with 100% accuracy to be known.
 - Question requires the user over 5 minutes to either results for N users [pp]
- [Question] **ReadMeister** how long does it take to read **ReadMeister** article or page classification tool?
 - Time to complete question for a **ReadMeister** article with 100% accuracy to be known.
 - Question requires the user over 5 minutes to either results for N users [pp]
- [Question] **ReadMeister** how many times does user need to read a **ReadMeister** feature? What are the problems? If the user can't explain them after reading the **ReadMeister** feature?
- [Question] **ReadMeister** how many times does user need to read a **ReadMeister** feature?
 - How user can't explain the feature itself? What are the problems?
 - How user can't explain the feature itself?
 - How user can't explain the feature itself?
- [Question] **ReadMeister** what's missing from **ReadMeister**?

[Link to Research Guide](#)

Research insights

6/10 users failed to successfully launch a SageMaker studio app in 10 minutes.

“

‘I think I need to go to Resources or API documents or those example Notebooks to run to final access to the geospatial Notebook, but how to do that, I didn’t really get it.’

— USER

Hard to discover sample notebooks to get a feel for the product's features and how they can be utilized.

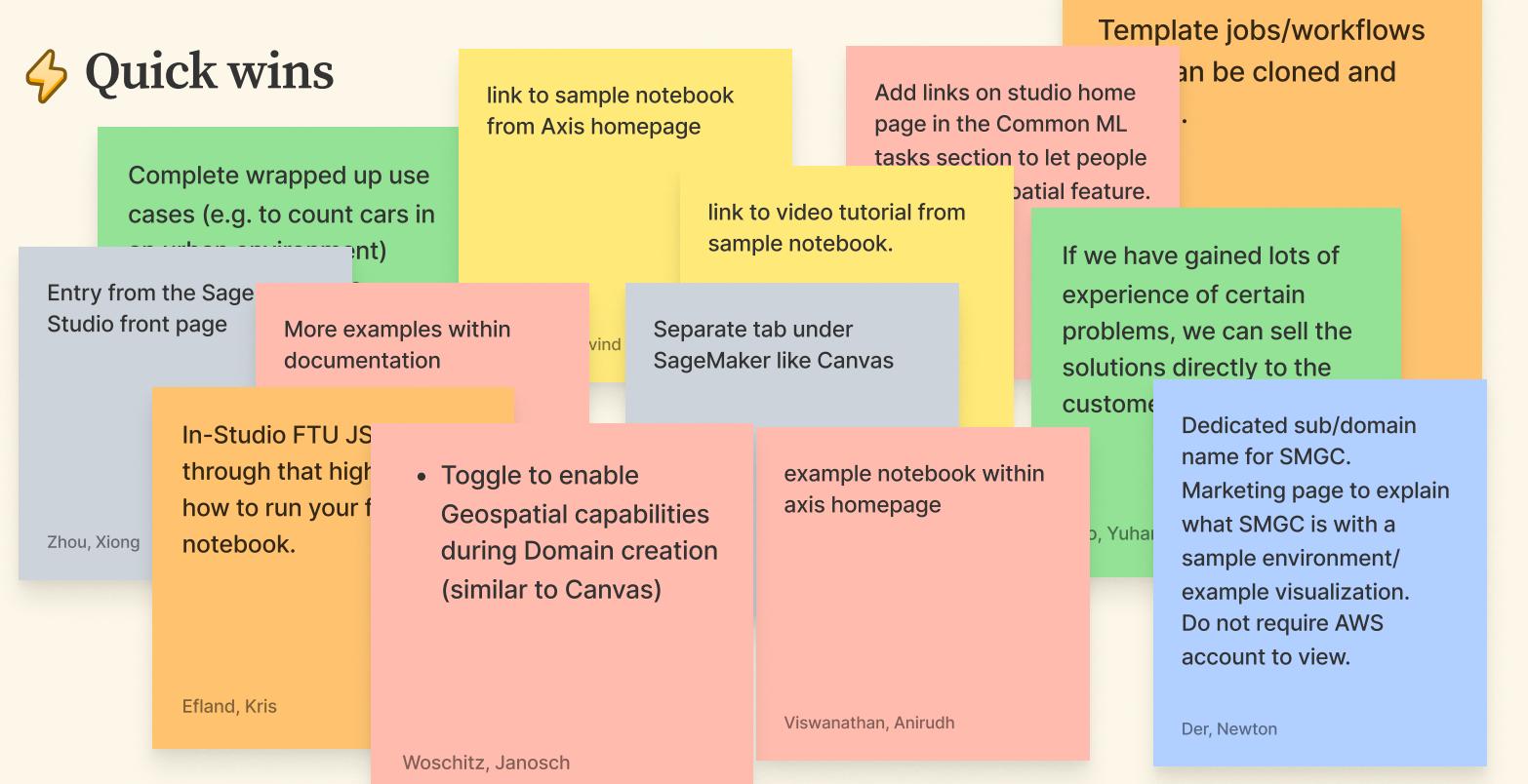
“

‘I think I need to go to Resources or API documents or those example Notebooks to run to final access to the geospatial Notebook, but how to do that, I didn’t really get it.’

— USER

SAGEMAKER GEOSPATIAL

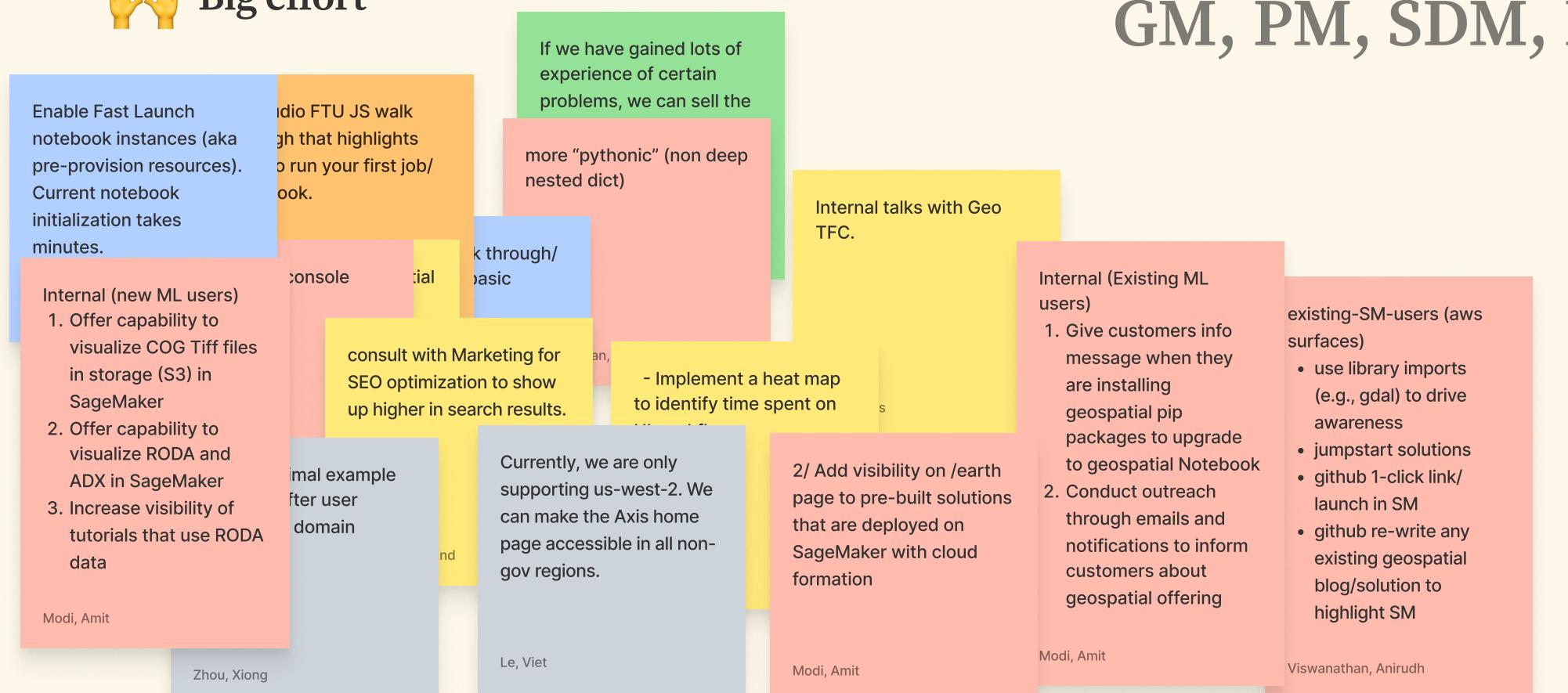
Quick wins



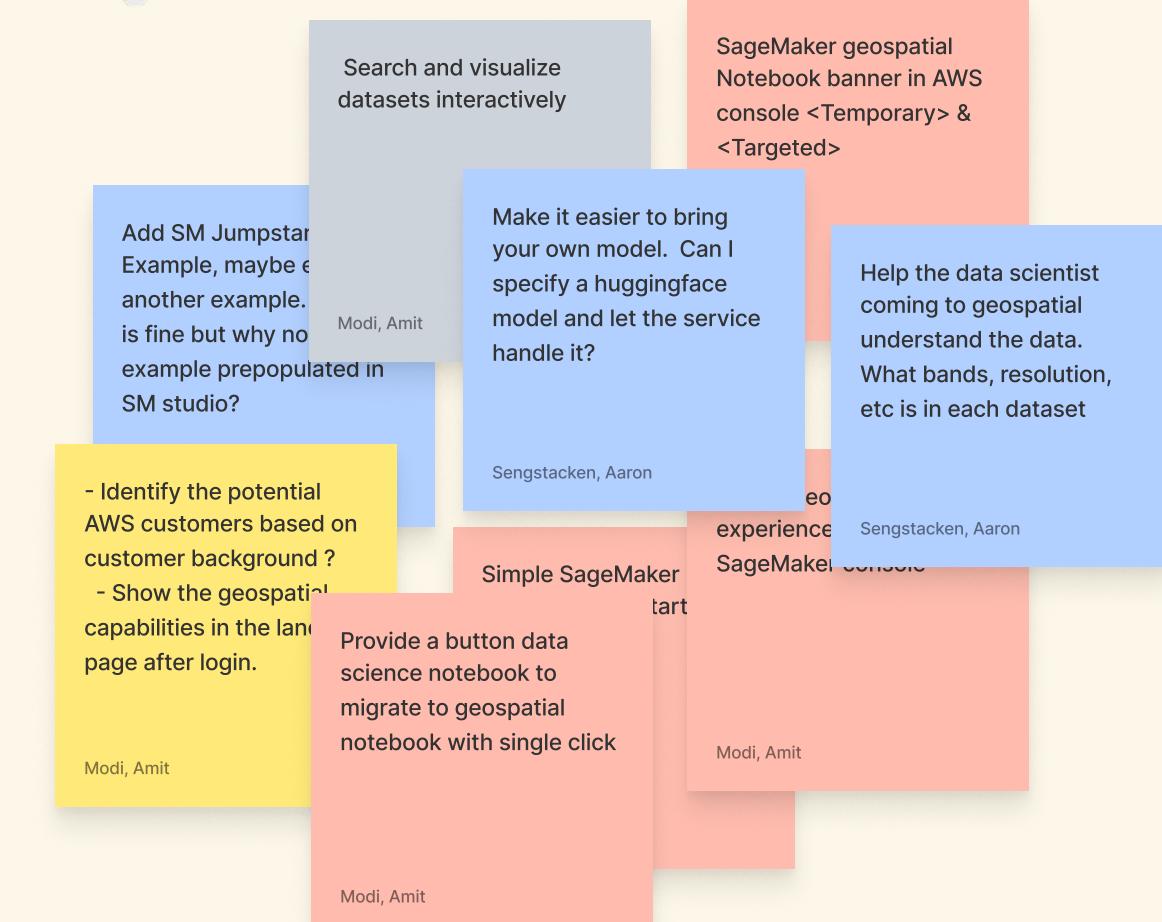
Incremental fill-in



A graphic showing two yellow hands reaching upwards, with three small grey triangles pointing upwards above them. To the right of the hands, the words "Big effort" are written in a large, bold, black serif font.



Ignore



2023 Q3

7 onboarding improvements

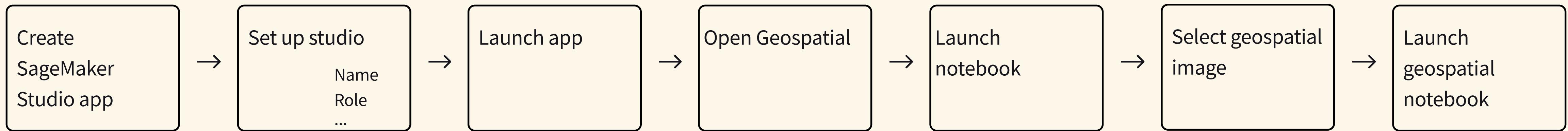
Resolve 3 sev-2 issues

- ✓ Simplified onboarding flow Sev-2
- ✓ Notebook nudging
- ✓ Onboarding checklist
- ✓ 1-click launch geospatial Notebook Sev-2
- ✓ Example onboarding notebook
- ✓ Data catalog improvement Sev-2
- ✓ Landing page redesign

SECTION NAME

Simplified onboarding flow

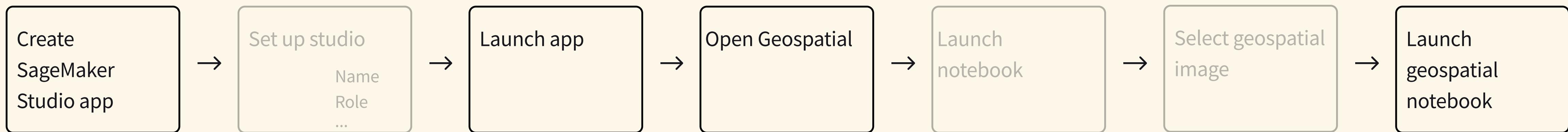
BEFORE



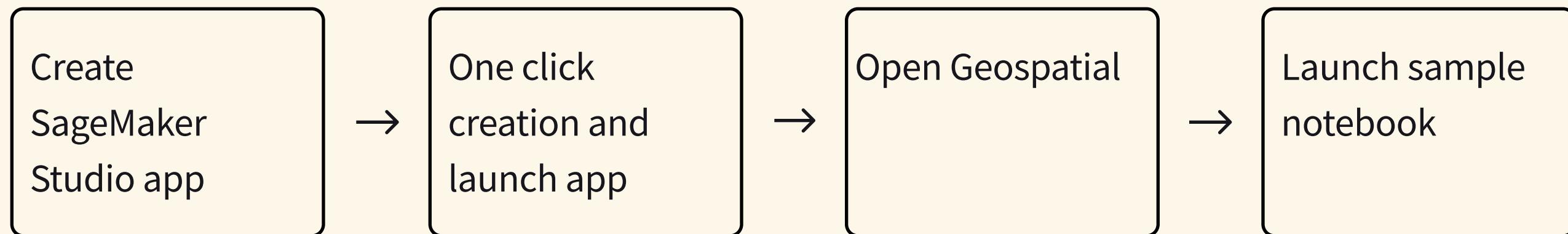
SECTION NAME

Simplified onboarding flow

BEFORE



AFTER

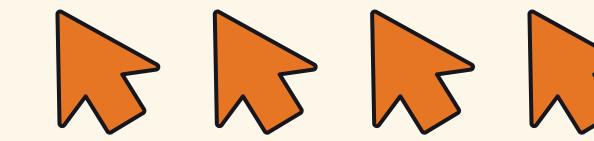
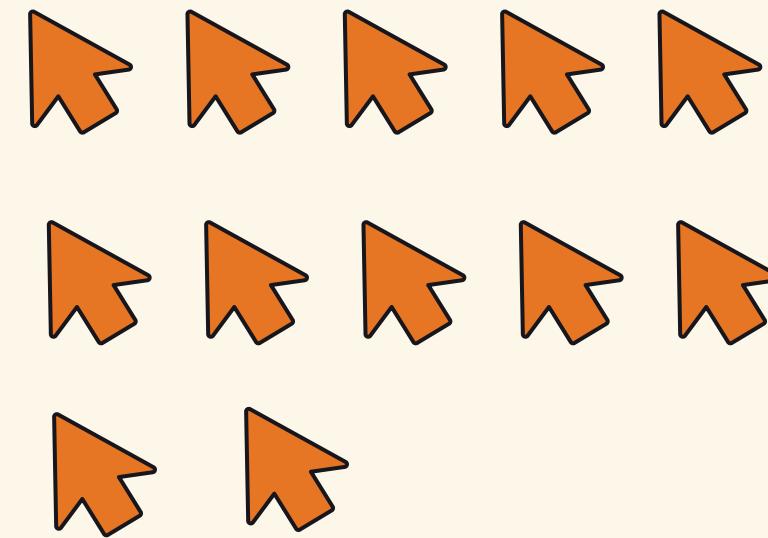


Simplified onboarding flow

12



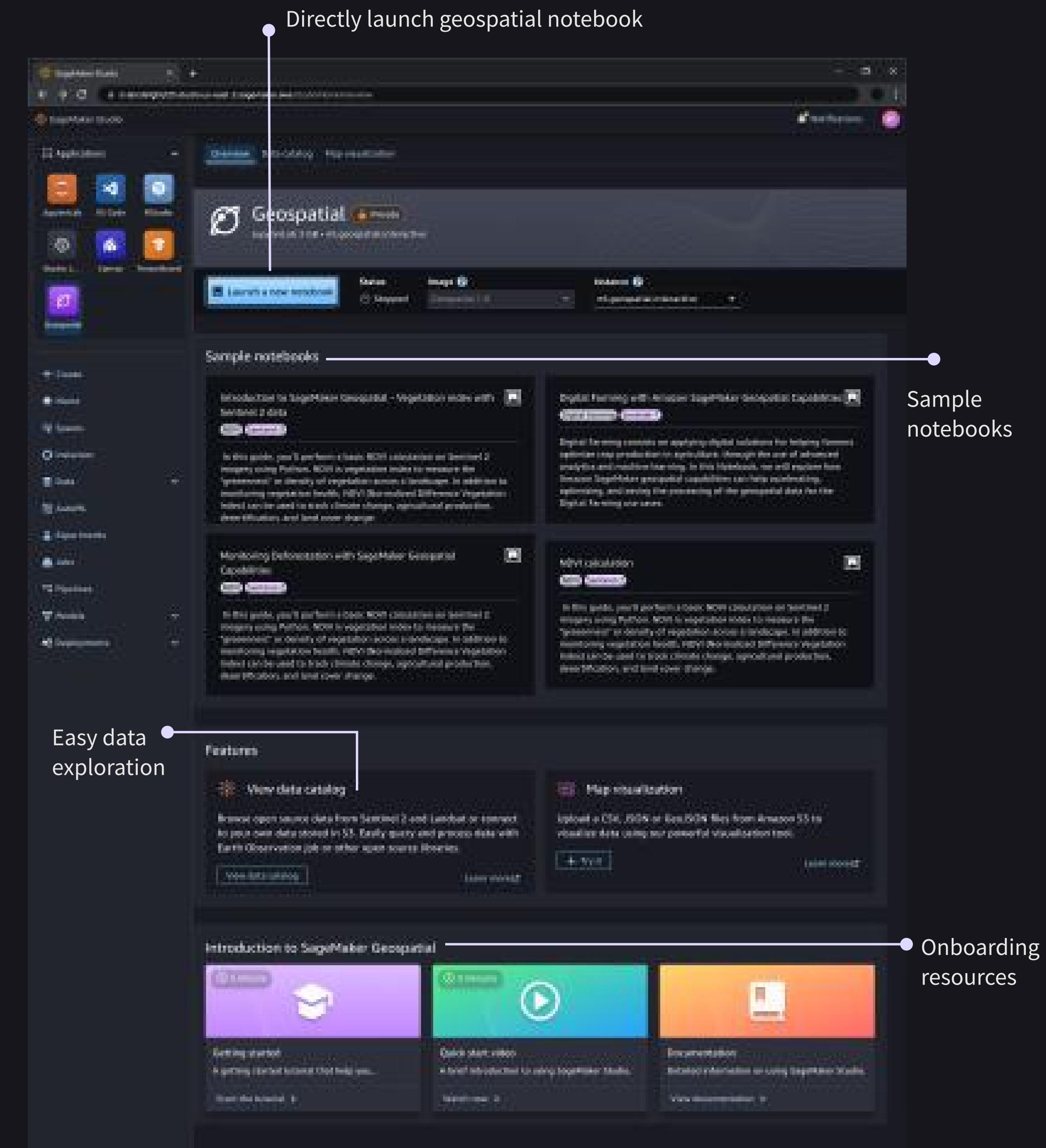
4



Meet Bratin VP (L10) org goal: Access the feature within 5 clicks

SECTION NAME

Redesigned landing page



Guided onboarding notebook for first-time user

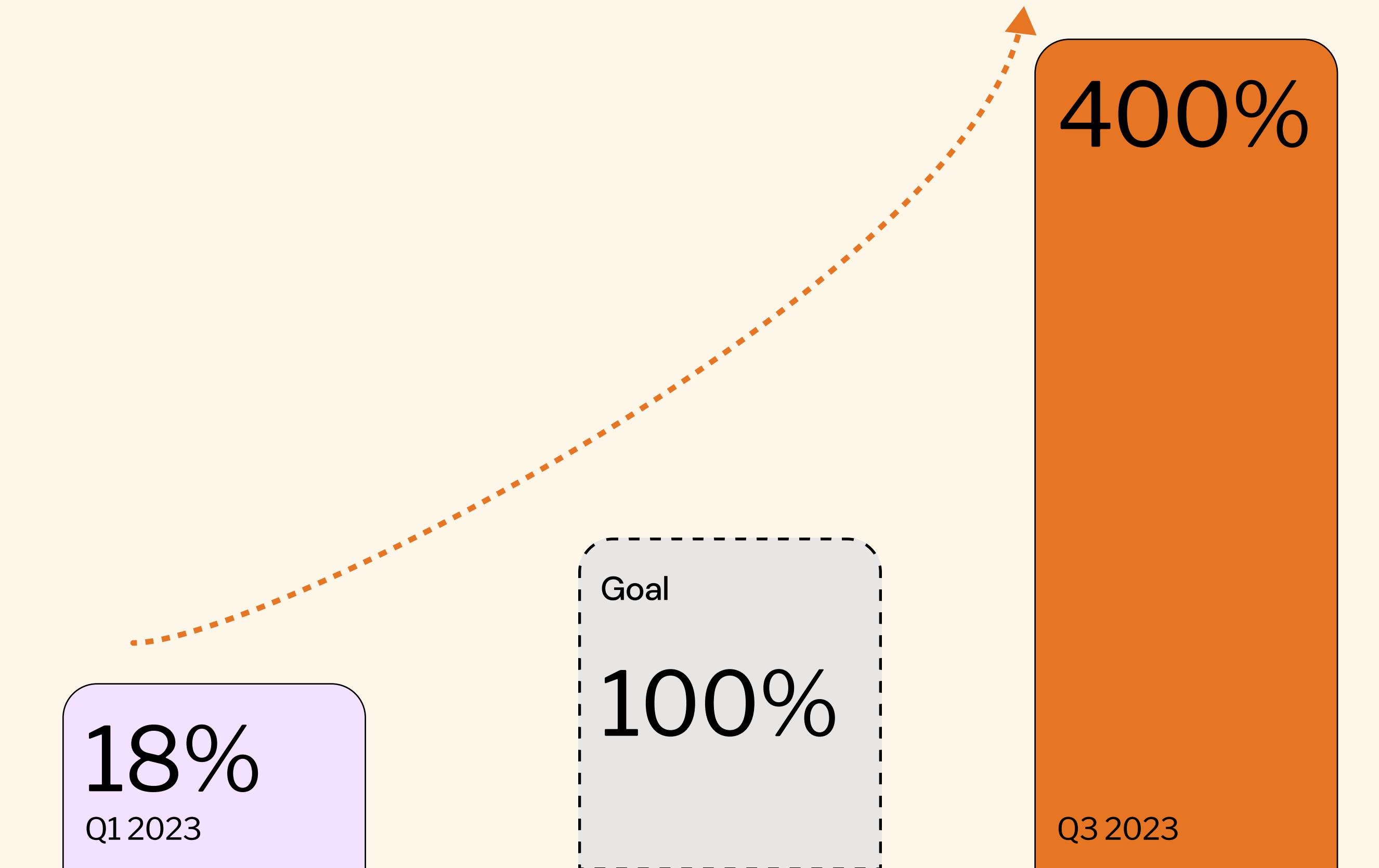
The screenshot shows the "Welcome to Geospatial" onboarding interface. At the top right is a small orange icon of a planet with a ring. Below it is the title "Welcome to Geospatial". A sub-header says "To get started easily, we recommend completing the onboarding sample Notebooks in below." On the left, there is a list of three sample notebooks:

- Introduction - query and visualize sentinel 2 data.ipynb
- Introduction – Vegetation index with sentinel 2 data.ipynb
- Process a larger dataset with custom operations .ipynb

To the right, a vertical sidebar titled "Getting started" lists four tasks with progress indicators:

- Try a sample Notebook**: Progress 0/4. Description: In this sample Notebook, you will see how to do vegetation index with Sentinel 2 data. Time: 5 mins.
- Try custom operation**: Progress 0/4. Description: In this sample Notebook, you can calculate vegetation index for tiles using custom operations. Time: 8 mins.
- Calculate soil moisture with Sentinel-1 data**: Progress 0/4. Description: In this sample Notebook, you can calculate vegetation index for tiles using custom operations. Time: 10 mins.
- Explore data catalog**: Progress 0/4. Description: Explore datasets that geospatial supports and try to create a private dataset.

OUTCOME

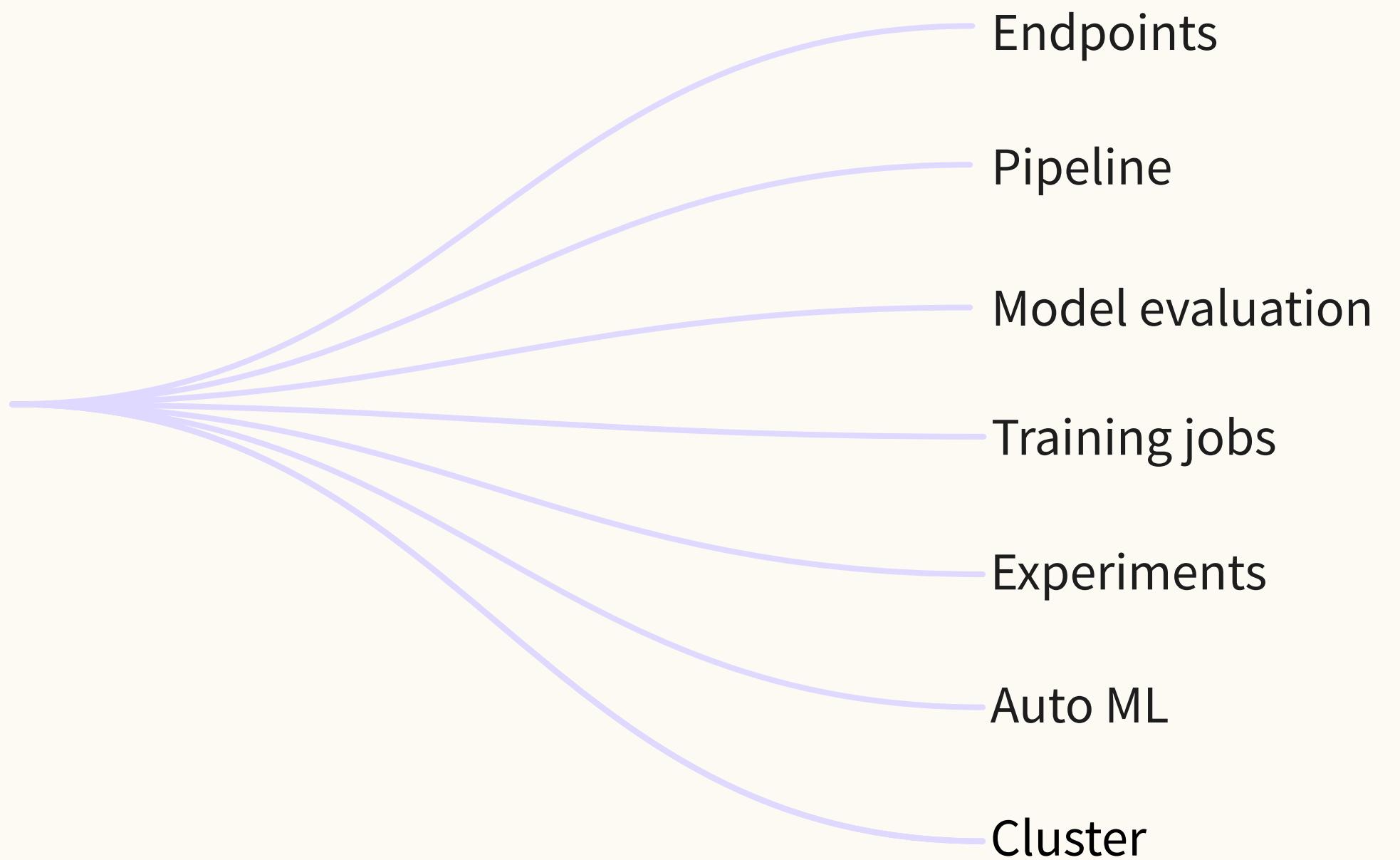


New users who launched notebook
increase from 18% monthly to 400%

Pattern scalability

Landing page template got adopted by 7 SageMaker features

Geospatial landing page template



Pattern scalability

Contribute onboarding checklists
to Bloom design system

Bloom Component Overview Bloom References

Spreadsheet Edit View Insert Format Data Sources

fx

	A	B	C	D	E	F	G	H	I	J
1	Component	Feature Use by Team	Priority	Engineering Effort (1 dev time)	Design Effort (1 designer time)	Net New Effort?	Design Meetings	Design Doc	UX Design Owner	ETA Design Ready
11	Cloudwatch Log Console	Jumpstart	Medium	Medium (2 - 4 weeks)	?	New			@Roman Blagovirnyy	Design Not Available
12	Show 'Apply CORS permission' button and when clicked.. automatically apply CORS policy to the bucket via SDK call (https://docs.aws.amazon.com/AmazonS3/latest/API/API_PutBucketCors.html).		Medium			New			@Roman Blagovirnyy	Design Not Available
13	Checklist	Geospatial	Medium		Done	New	Sept 5, 2023, 1:00 pm PST (Office Hours)		@Yuhan Guo	Design Completed
14	Modal Carousel	Studio, Geospatial		Small (0 - 2 weeks)	Done	New	Sept 26, 2023 (Office Hours)		@Roman Blagovirnyy	Design Completed

PROCESS IMPROVEMENT

Create process to streamline design, product and engineer collaboration.



+ 19 UX epics

Create 19 UX epics in Jira to help engineer understand user stories with bigger picture

76 usability issues

Resolved 76 usability issues, 3 Sev-2 issues

3 UX ORR reviews

Lead 3 UXORR review

-99% UX ORR prep time

Create UX dashboard to track new feature and usability issues. saving UXORR prep time from hours to minute.

INVENT

Patent application

Multiplayer map sharing and collaboration
for geospatial ML workloads

Congratulations!

An Amazon patent application listing you as an inventor has been filed. Thank you for your hard work!

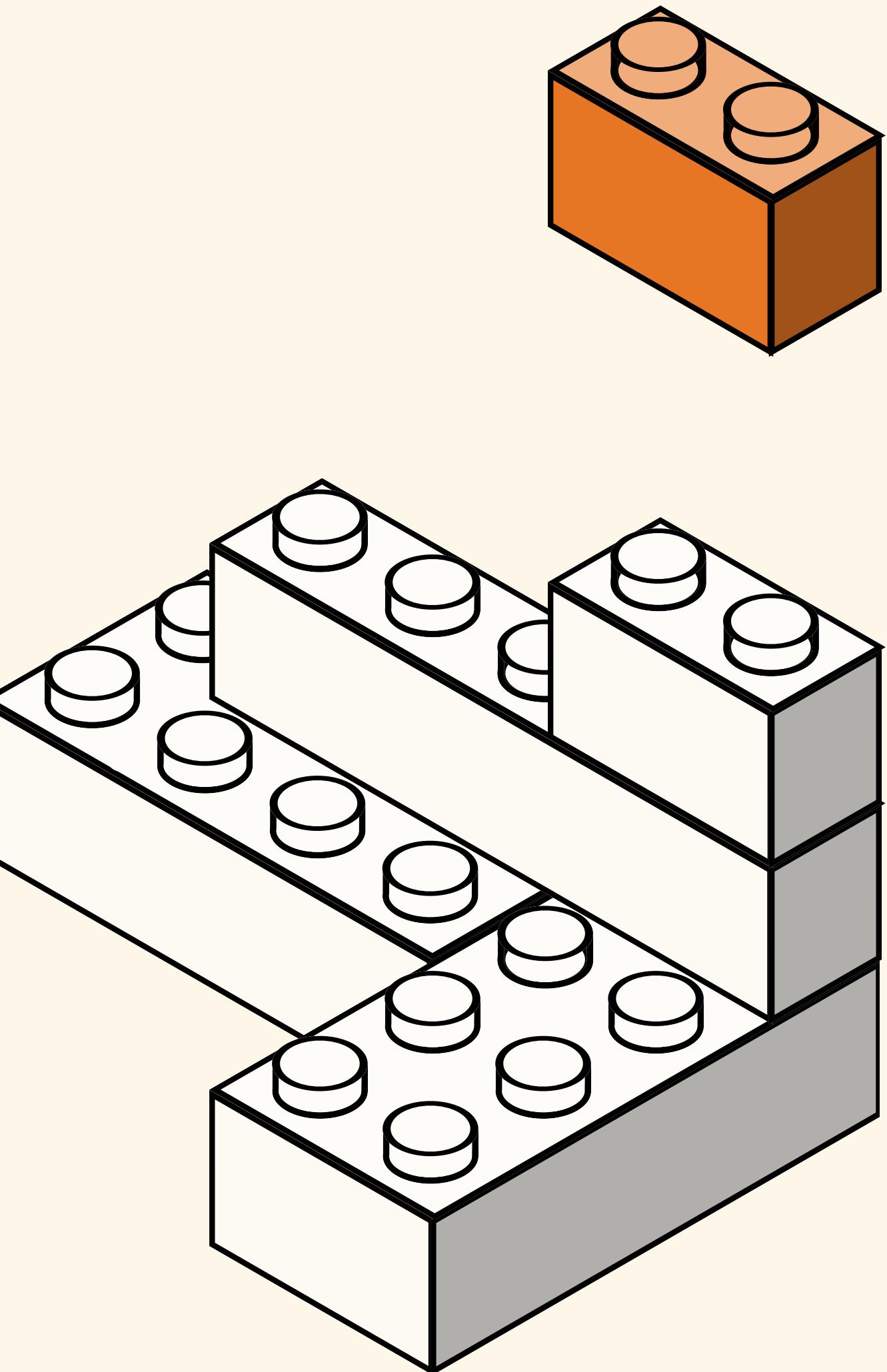
File Number: P81584-US01

Title: TEMPORAL MULTIDIMENSIONAL DATA SHARING AND COLLABORATION

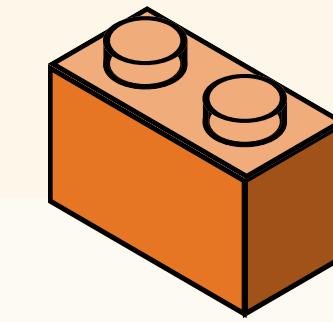
Inventors: Anirudh Viswanathan, Xiong Zhou, Prakash Kaligotla, Amit Modi, Kris Elland, Yuhao Guo



Design team & CX community contribution



CX community contribution



- CX Milestone reviewer 200+ UX milestone review
- Bedrock off-cycle reviewer 28 Tier 3 feature review
- Q Business off-cycle reviewer 3 Mentees
- Office hour (Pre-check, Q&A)

Q. E. D.