



# Mastering AI Agents

## Building Production Ready Applications

**November 5, 2025**

**Ottawa**

# Housekeeping Items

## Food, Drinks, and Breaks

Food and beverages will be served at the back of the room.

Lunch seating will be in this same room.

Restrooms are located outside the room towards the entrance around the elevators.

## Other Details

Each of you will receive an AWS account for the workshop, which will be active for the duration of today's event.

Guest WiFi password is provided on your handout.

If you need any assistance, please look for our support staff.

## Feedback

We value your feedback for future events. Please share your thoughts with us.

# Agenda

Time	Session
08:30AM - 09:00AM	<b>Coffee &amp; Light Breakfast</b>
09:00AM - 09:05AM	<b>Opening Remarks</b>
09:05AM - 09:45AM	<b>Presentation   Introduction to agentic AI and Strands Agents</b>
09:45AM – 10:00AM	<b>Workshop#1   Environment setup</b>
10:00AM - 10:15AM	<b>Break</b>
10:15AM – 10:45AM	<b>Workshop#1   Building Agents from Scratch</b>
10:45AM - 11:45AM	<b>Workshop#1   Open source frameworks deep dive on Strands</b>
11:45AM - 12:15PM	<b>Presentation   OpsGuru “Gen AI in the Field” Session</b>
12:15PM - 12:45PM	<b>Lunch</b>

# Agenda (continued)

Time	Session
12:45PM - 01:15PM	<b>Challenge   You Build A Strands Agent !</b>
01:15PM - 01:35PM	<b>Presentation   AgentCore Presentation and workshop set up</b>
01:35PM - 01:45PM	<b>Workshop#2   Setup AgentCore workshop</b>
01:45PM - 01:55PM	<b>Break</b>
01:55PM - 03:45PM	<b>Workshop#2   Setup AgentCore workshop</b>
03:45PM – 04:00PM	<b>Chat with the AWS Experts</b>

# Your team today



Bruce Tran  
Sr. TAM, ISV



Nicolas Simard  
ESM, ISV



Ahmed Elhosary  
Sr. TAM, ISV



Devi Nair  
Sr. TAM, ISV



Bobby Nelson  
ESL. TAM, ISV



Michael Havey  
Principle Data Architect,  
OpsGuru



Mohamed Amoura  
Sr. TAM, PS



Sukhpreet Bhandal  
Sr. TAM, ISV



Amanpreet Kaur  
TAM, PS



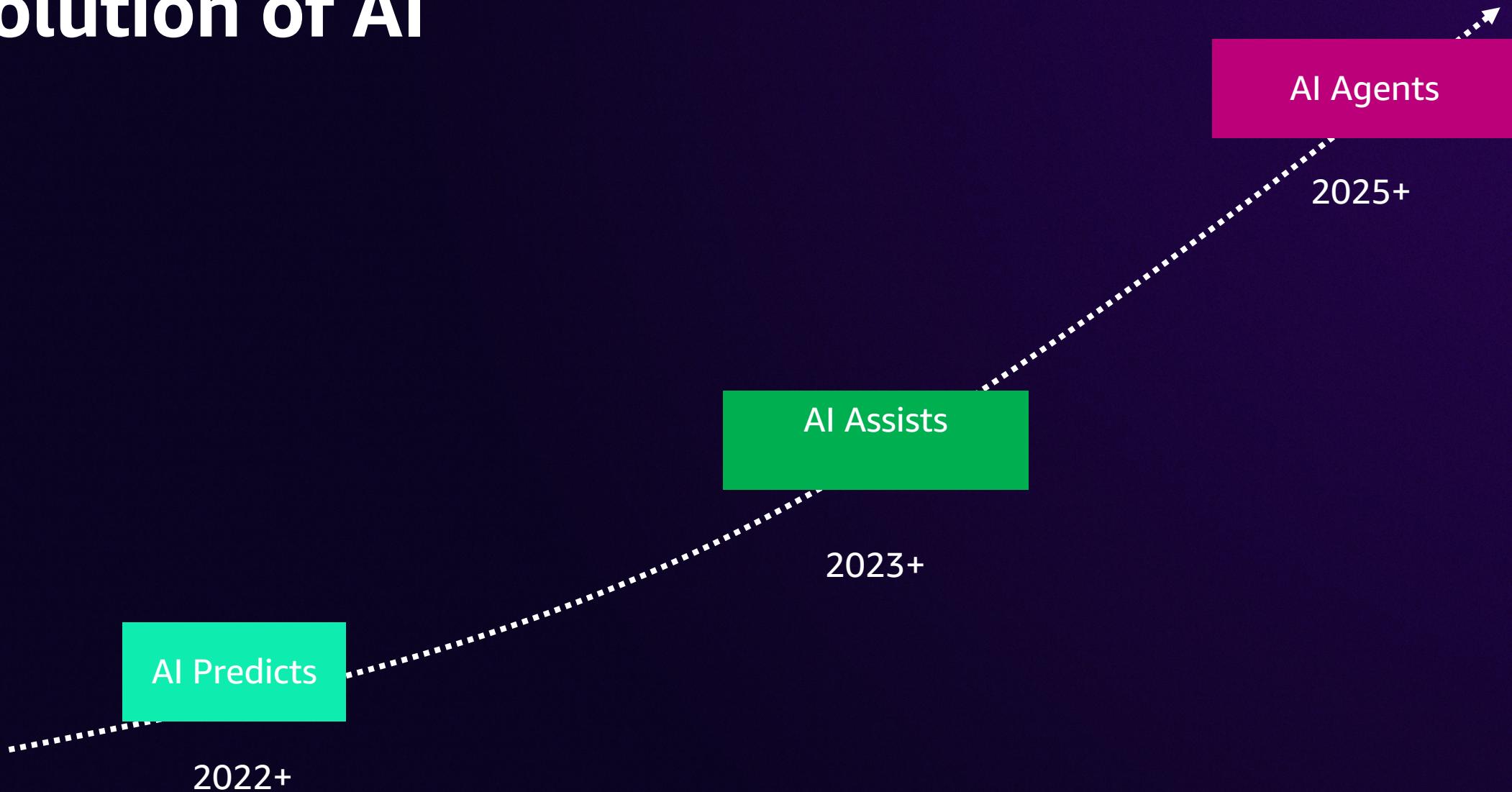
Sunil Punjabi  
Sr. TAM, PS

# Introduction to **AI Agents and Agentic AI**

Nicolas Simard  
ESM, ISV



# Evolution of AI

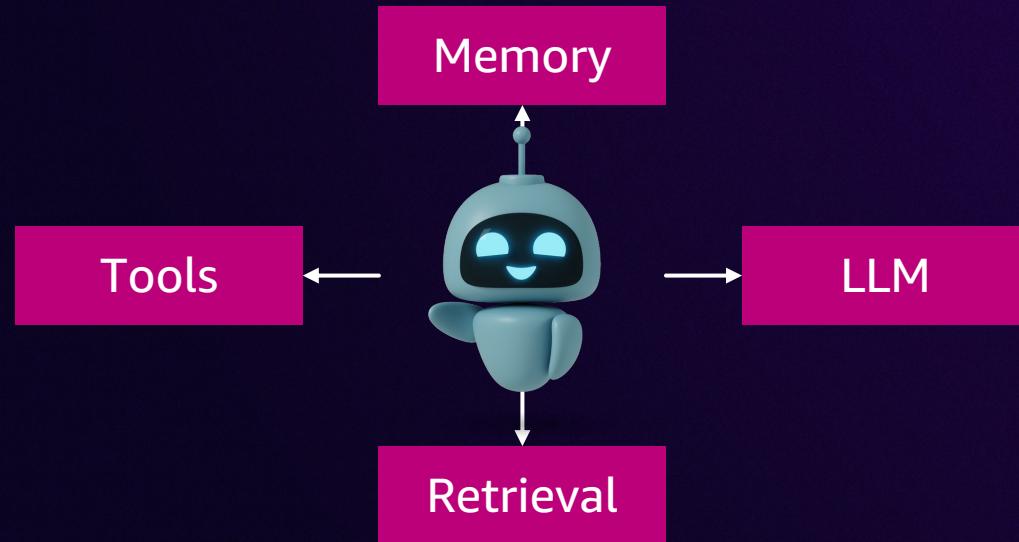




# What are AI Agents?

Autonomous software systems that leverage AI to reason, plan, and complete tasks on behalf of humans or systems

# Components of an Agent



# Enterprises are doubling down on AI Agents

**33%**

of enterprise software apps will include agentic AI by 2028, up from less than 1% in 2024.

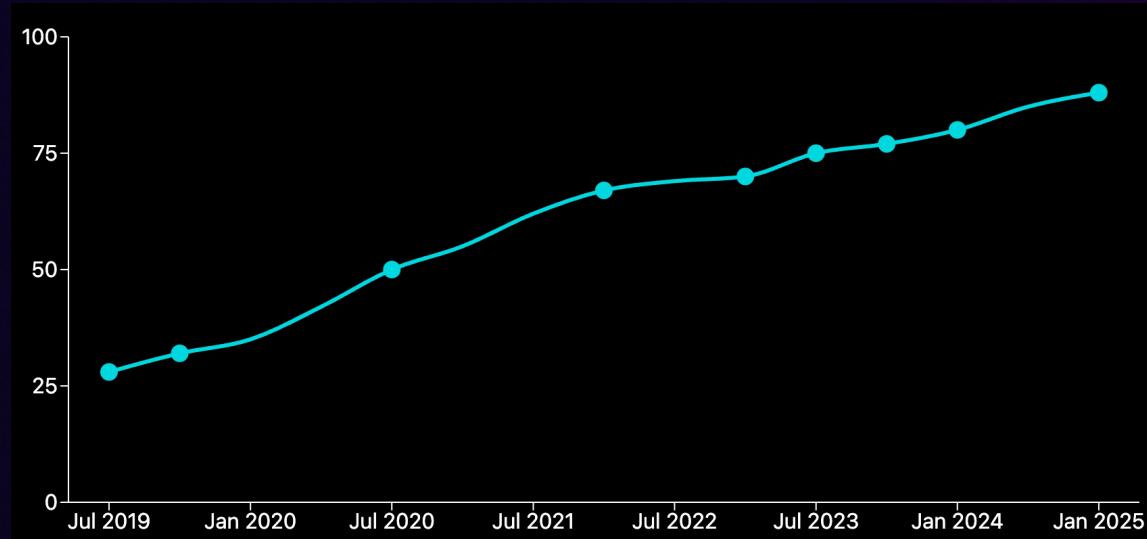
**15%**

of day-to-day work decisions will be made autonomously through agentic AI by 2028.

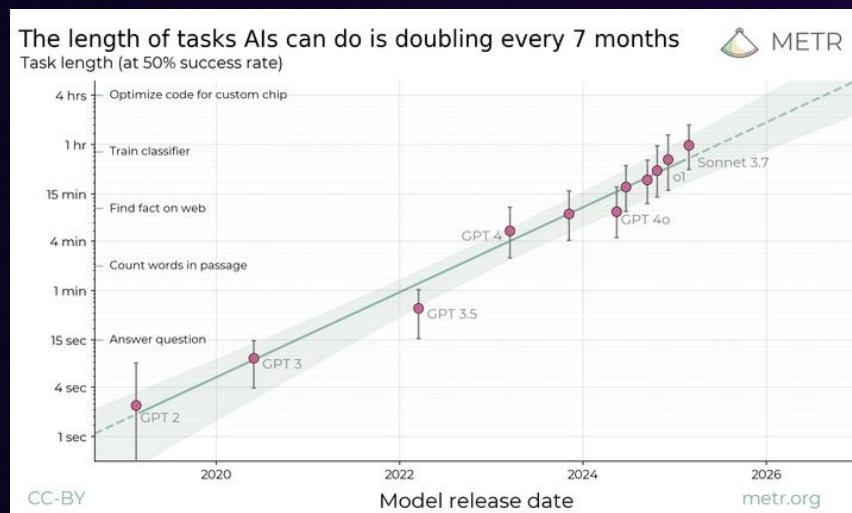
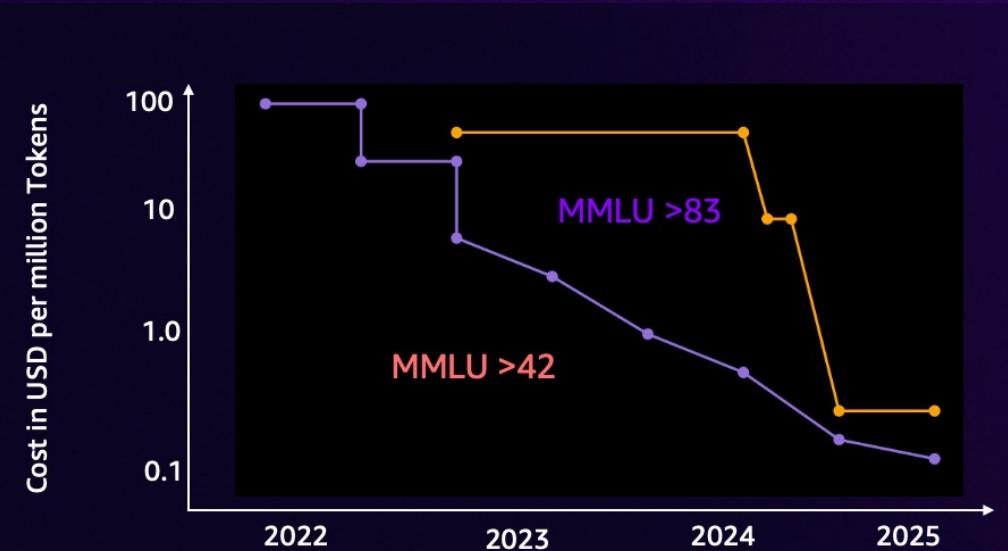
Gartner, "Top strategic Technology Trends for 2025," October 2024.

Gartner, "Top Strategic Technology Trends: agentic AI – The evolution of Experience" February 2025

## AI Model performance – Intelligence Benchmarks



## Dropping price for constant intelligence



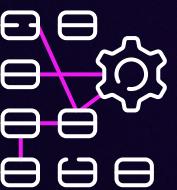
# Why Agentic AI is ready now?



Model reasoning & Tool execution



Price-performance enables higher ROI



Automate workflows that were impossible  
with traditional solutions

# Agentic AI use cases

## ACTION ENABLED CHAT AGENTS



Real-time chat interactions with API capabilities

## WORKFLOW AUTOMATION AGENTS



Event-triggered task automation

## AGENTIC PLATFORMS



Create and manage reusable agents with enterprise-wide controls and governance

# When to use (and not use) Agentic AI

## Use agentic AI for:

- Complex workflows with variable paths and decisions
- Coordination across multiple tools and data sources
- Tasks requiring understanding context and adapting responses
- Long-running processes needing memory across sessions



## Traditional solutions are Better for:

- Fixed, rule-based workflows with predictable path to outcomes
- Ultra-low latency operations (microsecond responses)
- Simple, single-step automation tasks
- Mission-critical systems requiring 100% deterministic results

# Harnessing the power of Agents on AWS

## SPECIALIZED



### Amazon Q

Pre-built products that use agents for enhanced productivity

## FULLY-MANAGED



### Amazon Bedrock Agents

with built-in FM-powered orchestration

## DIY



### Strands Agents

Simple, flexible, and lightweight open-source SDK for building agents

OUT - O F - T H E - B O X A G E N T S

T O O L S F O R B U I L D I N G A G E N T S

# Welcome Strands Agents

Open-source SDK for building agents  
using just a few lines of code



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< Hello, World! >

# Strands Agents

Strands Agents is an open source SDK for building agents using just a few lines of code



The screenshot shows the GitHub repository page for 'Strands Agents'. At the top, there are navigation links for README, Code of conduct, License, and Security. Below the header, the title 'Strands Agents' is displayed in bold. Underneath the title, it says 'A model-driven approach to building AI agents in just a few lines of code.' There are links for Docs, Samples, Tools, and Agent Builder. A brief description states: 'Strands Agents is a simple yet powerful SDK that takes a model-driven approach to building and running AI agents. From simple conversational assistants to complex autonomous workflows, from local development to production deployment, Strands Agents scales with your needs.' The 'Feature Overview' section lists several bullet points: • Lightweight & Flexible: Simple agent loop that just works and is fully customizable • Model Agnostic: Support for Amazon Bedrock, Anthropic, Ollama, and custom providers • Advanced Capabilities: Multi-agent systems, autonomous agents, and streaming support • Built-in MCP: Native support for Model Context Protocol (MCP) servers, enabling access to thousands of

# Model driven agent development

```
from strands import Agent
from strands_tools import http_request

agent = Agent(tools=[http_request])
print(agent("Where is the " +
            "International Space Station?"))
```

# Model agnostic

```
from strands import Agent
from strands.models.ollama import
OllamaModel

bedrock_model1 = OllamaModel (
    host= "http://localhost:11434",
    model_id="llama3"
)
agent = Agent(model=bedrock_model1)
response = agent("Tell me about
Bedrock")
```

# Built in tools

```
from strands import Agent
from strands_tools import http_request,
file_write

agent = Agent(tools=[http_request,
file_write])
print(agent("Read blog from the
location: 'url' and write a summary in
less than 200 words to a file named
blog_summary.txt"))
```

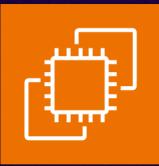
# Native support for MCP

```
from mcp import stdio_client, StdioServerParameters
from strands import Agent
from strands.tools.mcp import MCPClient

stdio_mcp_client = MCPClient(lambda: stdio_client(
    StdioServerParameters(command="uvx",
        args=["awslabs.aws-documentation-mcp-server@latest"]))
)
with stdio_mcp_client:
    tools = stdio_mcp_client.list_tools_sync()
    agent = Agent(tools=tools)
    agent("What does Bedrock InvokeInlineAgent do?")
```



# Deployment Anywhere



Amazon Elastic Compute  
Cloud (Amazon EC2)



AWS App Runner



Amazon Elastic Kubernetes  
Service (Amazon EKS)



Corporate  
data center

“Using the **Strands Agents SDK**, the Amazon Q Developer team is building and launching agentic products that previously took months in a matter of weeks.”

3 weeks

CLI AGENTIC CHAT

4 weeks

AGENT CODING EXPERIENCE

6 weeks

AGENTS IN GITLAB DUO



# Let's Lay Some Foundation

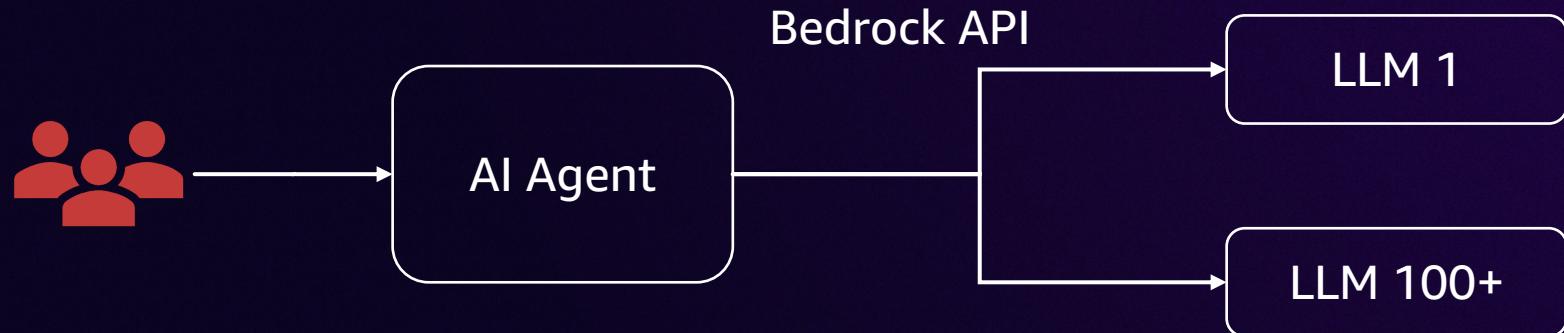
Amanpreet Kaur  
TAM, PS



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# What is Amazon Bedrock?

Amazon Bedrock is a fully managed service that provides access to leading foundation models from AI companies like Anthropic, Meta, and Amazon through a single API.



## Why Amazon Bedrock?

- 1/ AI Agents use LLMs via Bedrock serverless API. Zero infrastructure to manage.
- 2/ Choose from industry-leading foundation models, deploy custom models, or explore over 100 specialized models.
- 3/ On-demand pricing – Pay when you use.

# Why use Jupyter Notebooks today?



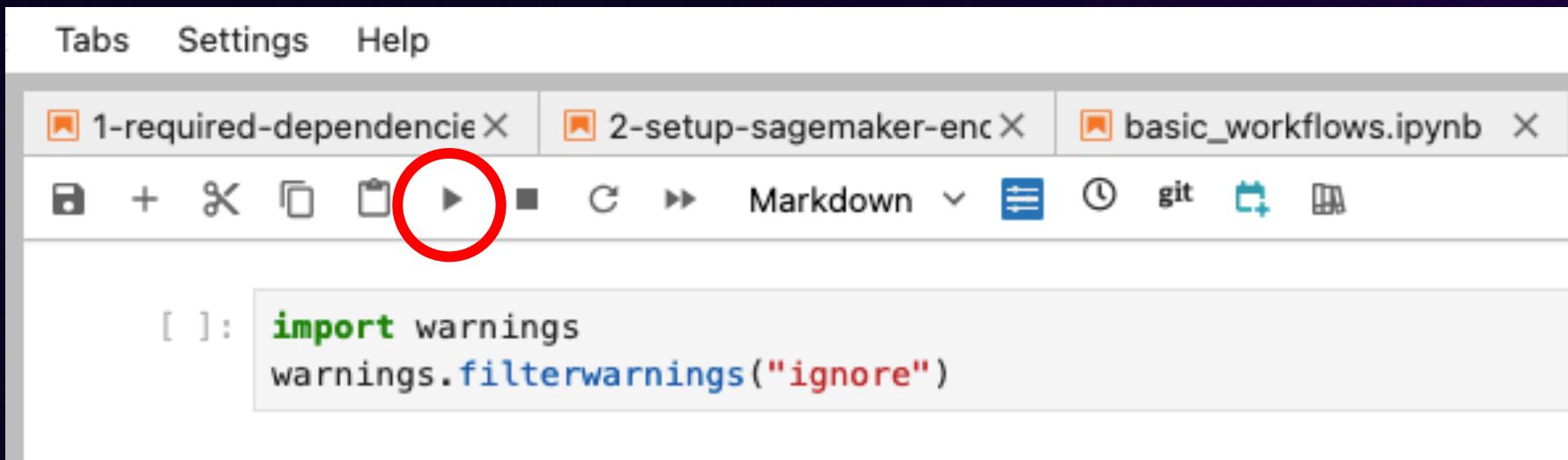
SageMaker Studio provides a web-based IDE with Jupyter notebooks that come pre-configured with all the libraries and AWS integrations you need.

- Interactive Development: Run and test code cell by cell, see results immediately
- Rich Documentation: Mix code with explanations, images, and visualizations in one document
- Experimentation-Friendly: Modify and re-run specific sections without restarting everything
- Perfect for Learning: Step through complex AI workflows at your own pace

# Jupyter Notebooks Basics

## Running Cells:

- Click a cell and press **Shift + Enter** to run it
- Or click the **Run** button in the toolbar
- Cells execute in order - make sure to run setup cells first



# Jupyter Notebooks Basics

## Cell Status Indicators:

- [ ] - Cell hasn't been run yet

```
[ ]: import warnings  
warnings.filterwarnings("ignore")
```

- [\*] - Cell is currently running

```
[*]: import warnings  
warnings.filterwarnings("ignore")
```

- [1] - Cell already ran (number shows execution order)

```
[1]: import warnings  
warnings.filterwarnings("ignore")
```

**Workshop Tip:** Run cells one by one. Do NOT "Run All"



# Let's Setup Workshop Environment



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# Now, let's go and build!

In this event, you're being provided with AWS workshop accounts for allowing you explore freely and not incurring on charges. Note these accounts are only accessible for the duration of this event.

1. Access the workshop here: [\[https://s12d.com/GenAI-StrandsLab\]](https://s12d.com/GenAI-StrandsLab)
2. Sign in to AWS Workshop Studio – Select “Email one-time password (OTP)” and provide a valid email.
3. Enter the code received in your email and click “Sign in”.
4. Review the terms & conditions, and click “Join event”.
5. You can find the workshop instructions in the left-hand pane.
6. You can access the AWS Console for your assigned AWS account in the link at the bottom-left of the screen.
7. Make sure you select the right region (us-west-2) and provide Bedrock model access as per the instructions.

<https://s12d.com/GenAI-StrandsLab>

Access Code - 51b0-0200e5-77

2

Sign in  
Choose a preferred sign-in method

Email one-time password (OTP)

Enter your personal or corporate email to receive a one-time password

Login with Amazon

Login with your Amazon.com retail account

Amazon employee

Login with your Amazon Corporate account. Only for Amazon Employees.

3

One-time email passcode

We sent a passcode to ilyiny@amazon.com. You should receive it within 5 minutes.

Passcode (9-digit) [Resend passcode](#)

Back Sign in

[Get help signing in](#)

5

Event Getting started with Bedrock AgentCore

Getting started with Bedrock AgentCore event

Event information

Start time: 8/14/2025 09:25 PM Duration: 72 hours

Description: Test event for content Getting started with Bedrock AgentCore

Workshop

Title: Getting started with Bedrock AgentCore Complexity level: 300

AWS services: Amazon Bedrock, Amazon CloudWatch

Accessible regions: us-west-2, us-east-1

6 Outputs (0)

Open AWS console (us-west-2)

Get AWS CLI credentials

Exit event

<https://s12d.com/GenAI-StrandsLab>

Access Code: 51b0-0200e5-77

# **BREAK: 10:00am – 10:15am**

**Please Complete Session Survey**



# Building Agents from Scratch

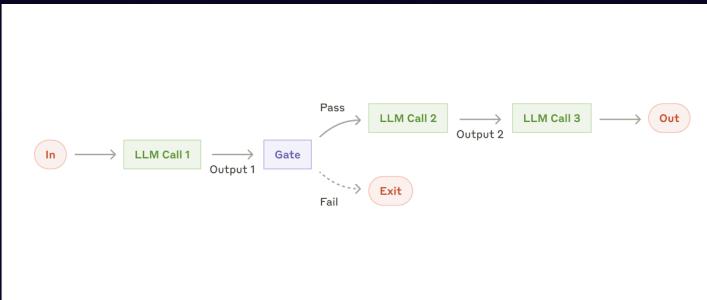
Devi Nair  
Sr. TAM, ISV



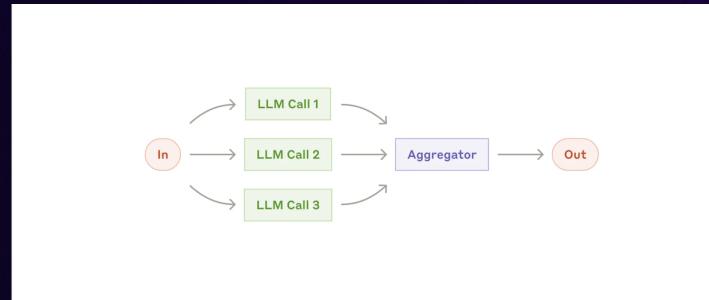
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# Agentic Multi-LLM Basic Patterns

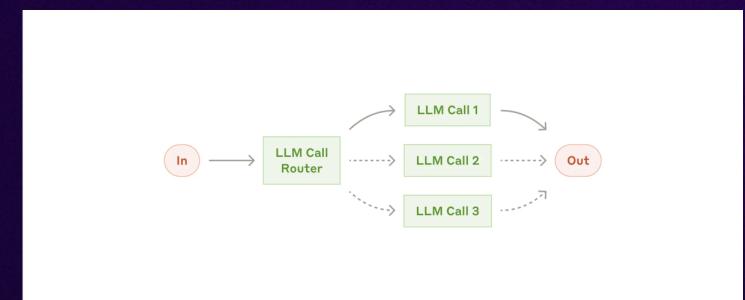
## Prompt Chaining



## Parallelization



## Routing



- Decomposes tasks into sequential steps where each LLM call processes the output of the previous one
- Ideal for tasks that can be cleanly broken down into fixed subtasks
- Trades latency for higher accuracy by making each LLM call simpler

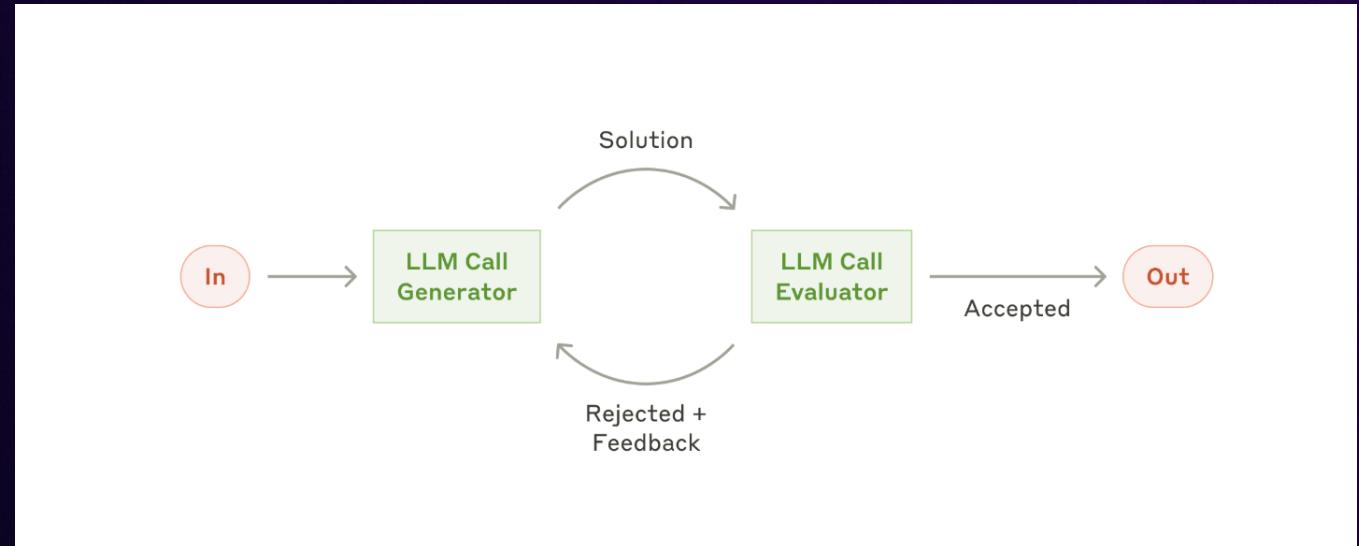
- Comes in two variations:
  - sectioning (breaking tasks into parallel subtasks)
  - voting (running same task multiple times)
- Effective when subtasks can be run simultaneously for speed or when multiple perspectives are needed
- Performs better when complex tasks with multiple considerations are handled by separate LLM calls

- Classifies input and directs it to specialized follow-up tasks
- Enables optimization for different types of inputs without compromising performance
- Best used when tasks have distinct categories that are better handled separately

# Agentic Workflows Patterns

## Evaluator-Optimizer (Self Reflection)

- One LLM call generates a response while another provides evaluation and feedback in a loop
- Ideal for tasks that has clear evaluation criteria, and when iterative refinement provides measurable value.



# Agents – Workshop

## └── DIY Agents with Bedrock & SageMaker

    └── 0. Setup

    └── 3. Agent Patterns

        └── basic\_workflows

        └── evaluator\_optimizer



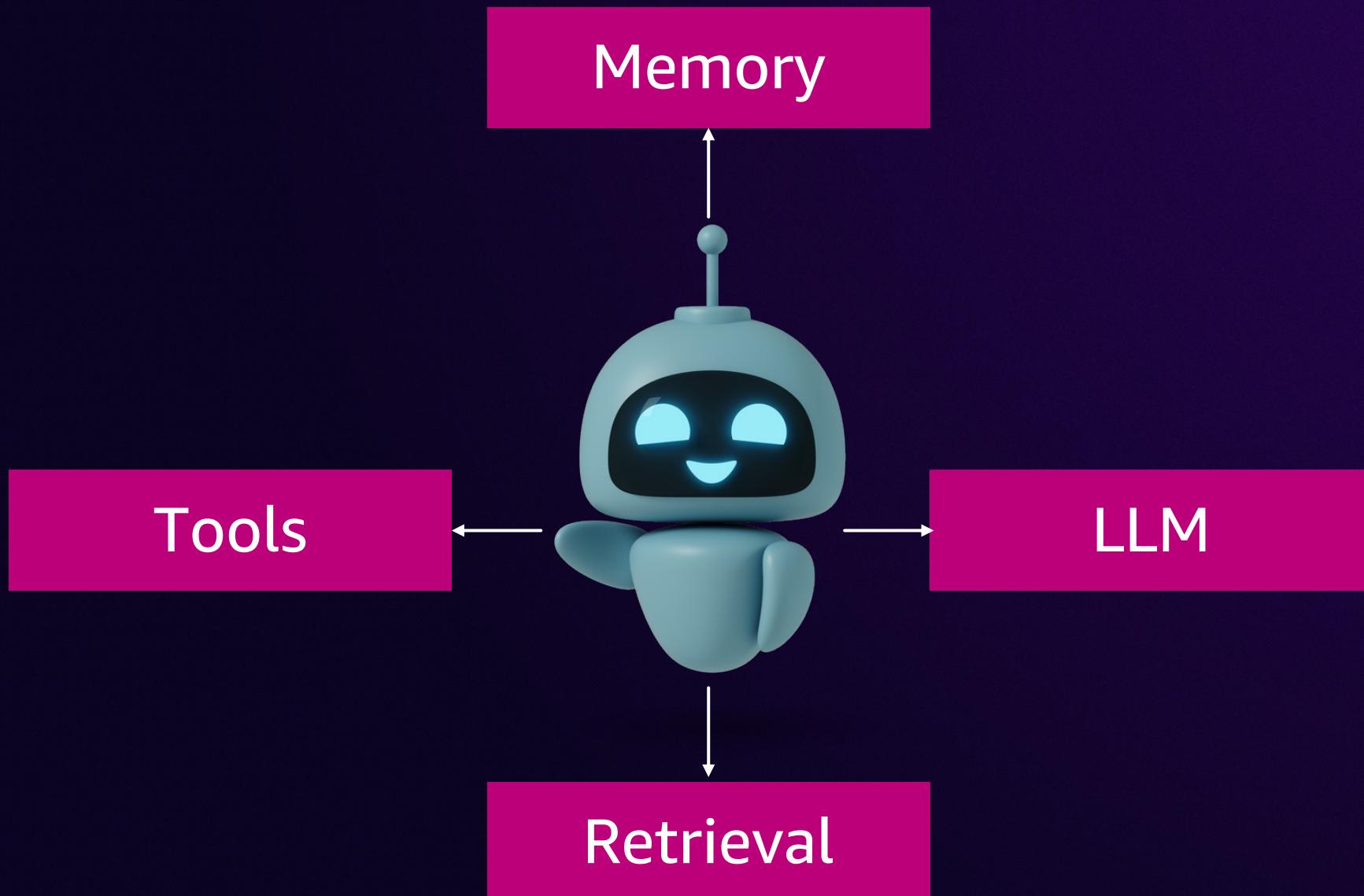
# Let's Build Agents using Strands SDK

Mohamed Amoura  
Sr. TAM, PS

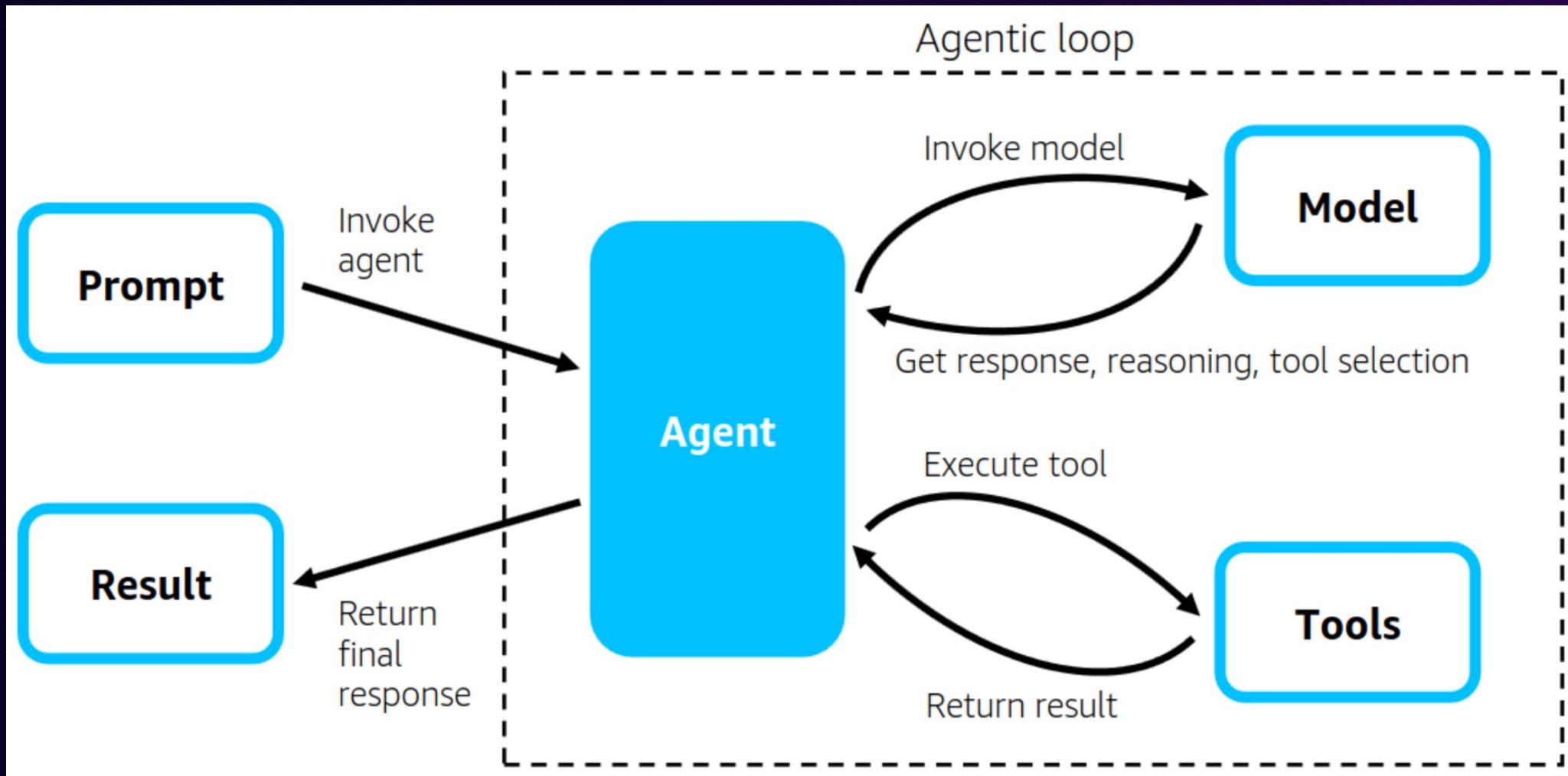


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# Components of an Agent

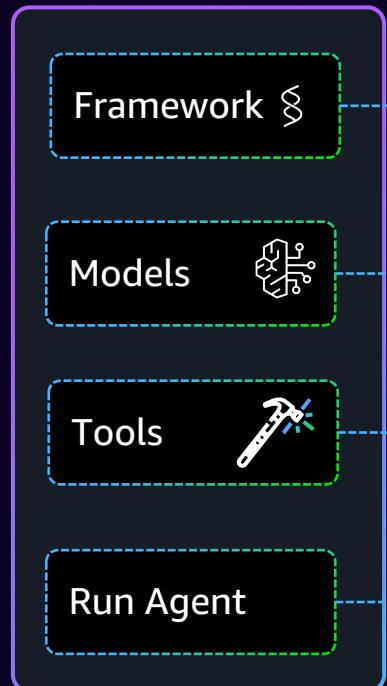


# Simple agent loop built in



# Your Local Strands Code

Write it in minutes in few lines



```
from strands import Agent, tool
```

```
#Create the Model
from strands.models import BedrockModel
model = BedrockModel(
    model_id="us.anthropic.claude-sonnet-4-20250514-v1:0",
)
```

```
from strands_tools import calculator # Import the calculator tool
@tool # Create a custom tool
def weather():
    """ Get weather """
    return "sunny rainbow !!!"
```

```
#Create and Use the Agent
agent = Agent(model=model, tools=[calculator, weather],
              system_prompt="""You're a helpful assistant.
              You can do simple math calculation,
              and tell the weather.""")
agent("What is the weather now?")
```

# Most Use Cases in ~ 5 lines of code

Web Scraping – Get top 10 articles

Stock Price Analysis

Get Weather Data and save it to Dynamo DB

Write Python Code to manipulate Pandas data frame

Write PySpark Code to transform CSV to Parquet files

Prompt to train and evaluate an ML model

Multi-Agent Financial Advisory System

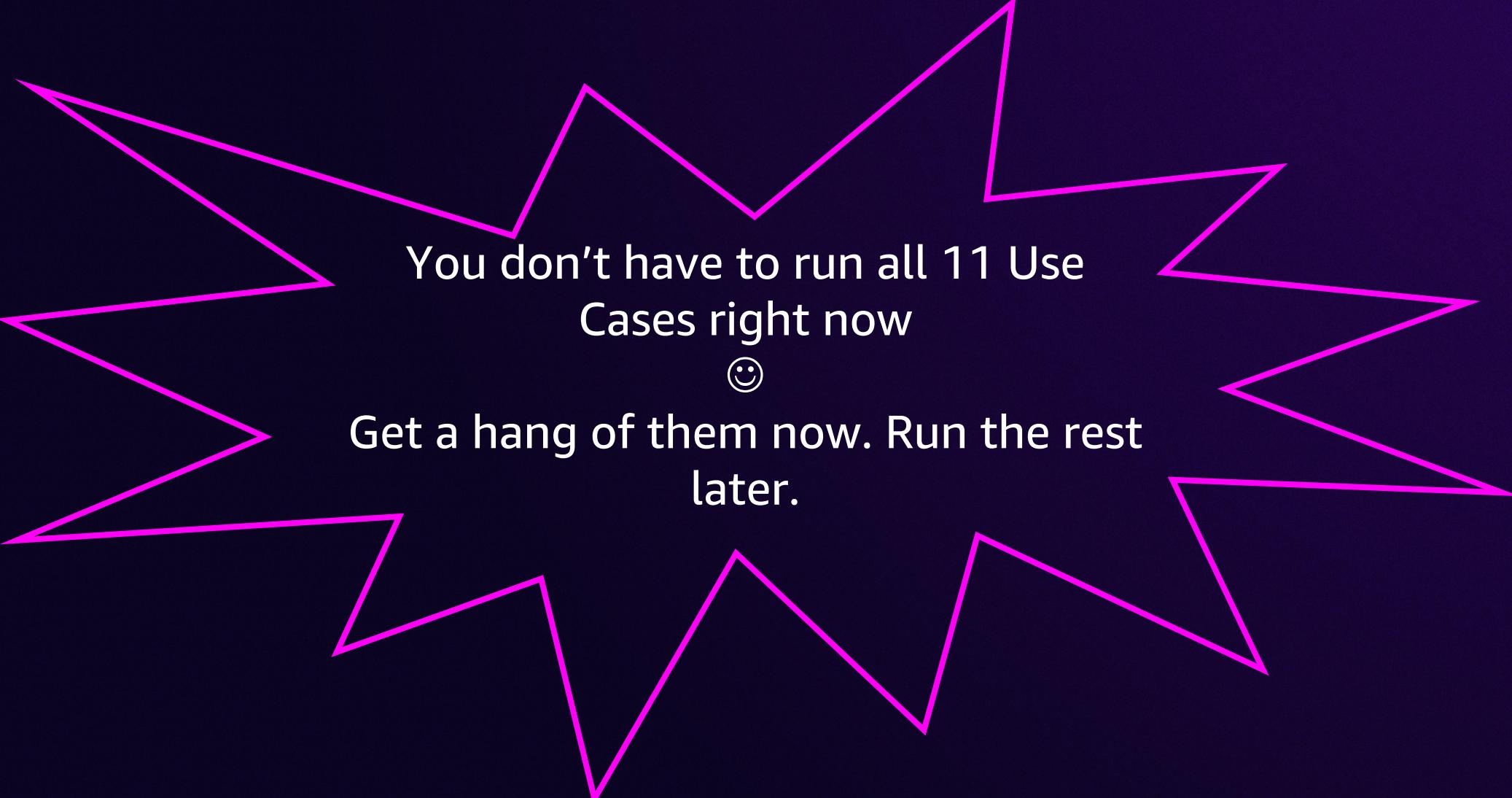
AI Agent as AWS Solution Architect using MCP Server

Summarize news web pages to audio output

Entity Extraction – Extract contents from Resume

Use AI Agent to query your vector database

# Let's run the Notebook



You don't have to run all 11 Use  
Cases right now



Get a hang of them now. Run the rest  
later.

# Multi-agent collaboration patterns

## Agent as Tools

Hierarchical structure where:

1. **"orchestrator" agent** handles user interaction and determines which specialized agent to call
2. **Specialized agent** performs domain-specific tasks when called by the orchestrator

## Swarm

Multi-agent systems where agents interact within the environment. Architecture consists of 4 key components:

1. Communication Patterns
2. Shared Memory Systems
3. Coordination Mechanisms
4. Task Distribution

## Graph

Network of agents where each agent represents a node with specific capabilities, and the connections between agents is defined explicitly. Architecture consists of 3 key components:

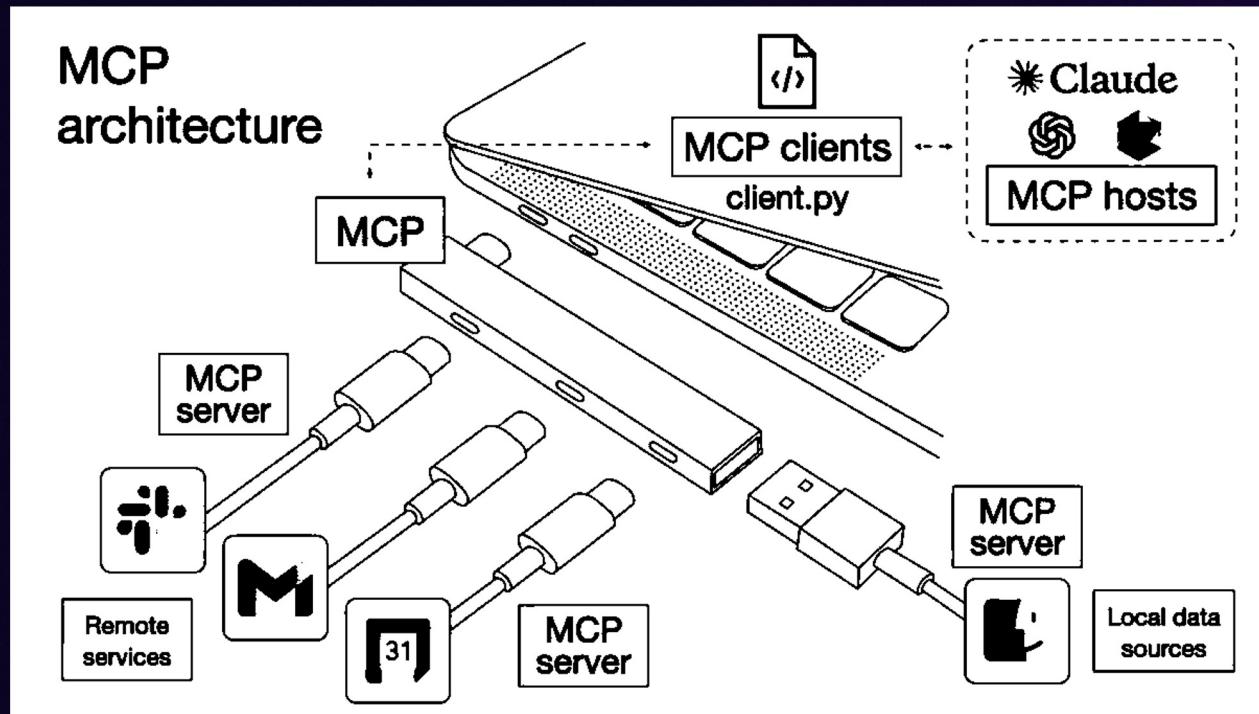
1. Nodes (agents)
2. Edges (connections)
3. Topology Pattern

## Workflow

Structured coordination of tasks across agents, in a defined sequence or pattern. Provides explicit control over execution order, dependencies, and information flow. Architecture consists of 3 key components:

1. Task Definition and Distribution
2. Dependency Management
3. Information Flow

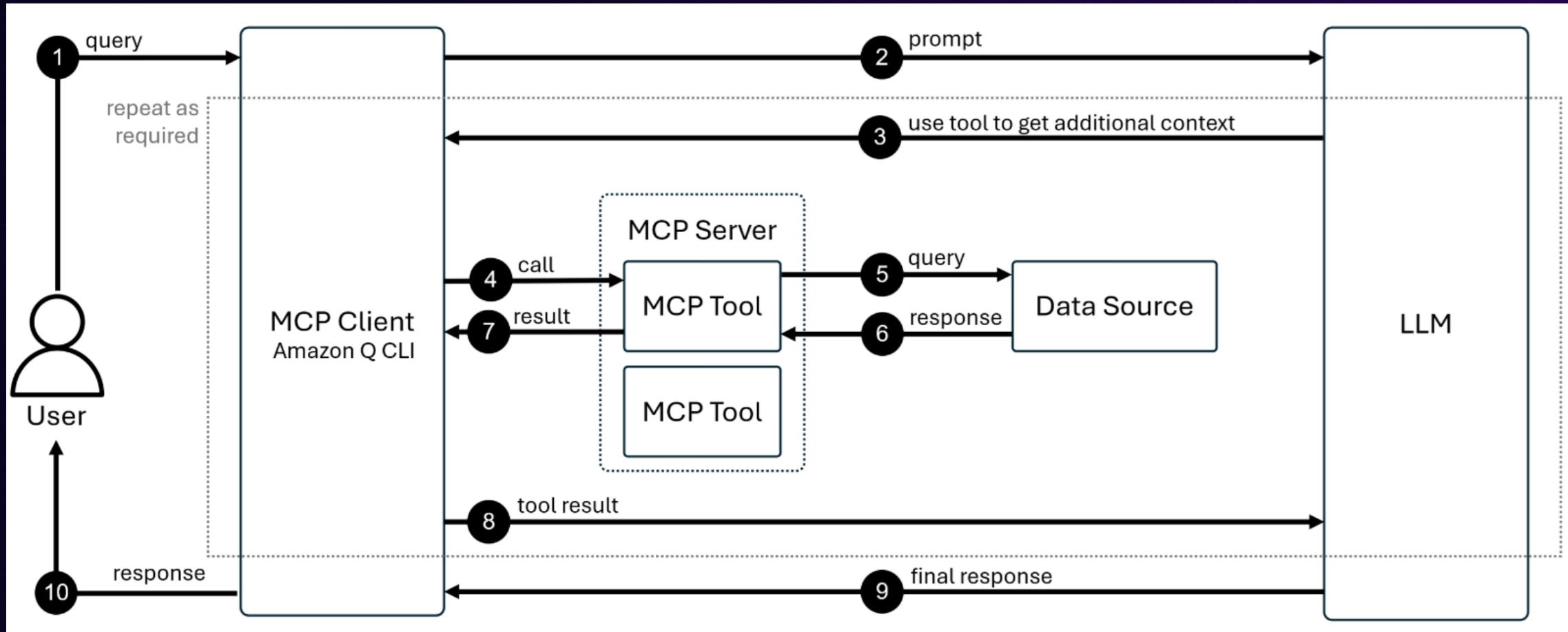
# MCP (Model Context Protocol)



- MCP helps reduced complexity
- MCP decouples AI development from specific backend system
  - MCP client focuses on LLM, agent, application layer
  - MCP server focuses on data sources connectivity
- Hence, if you have new data sources, just connect to MCP server to make discoverable by MCP client (hence, AI agent)

\* for business users analogy only, as this is not accurate from technical perspective

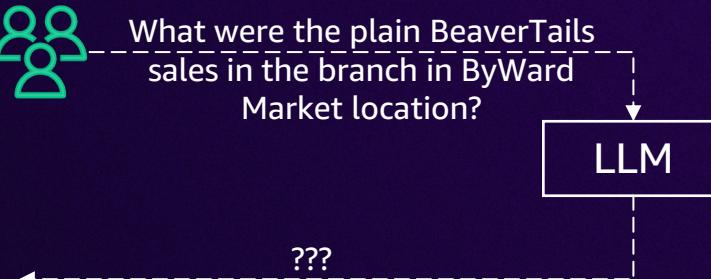
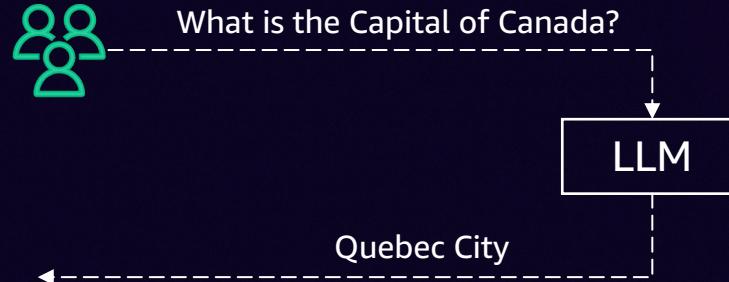
# MCP logical flow



# Do LLMs work for your Data?

BUT... does NOT work for Your Data (out of the box)

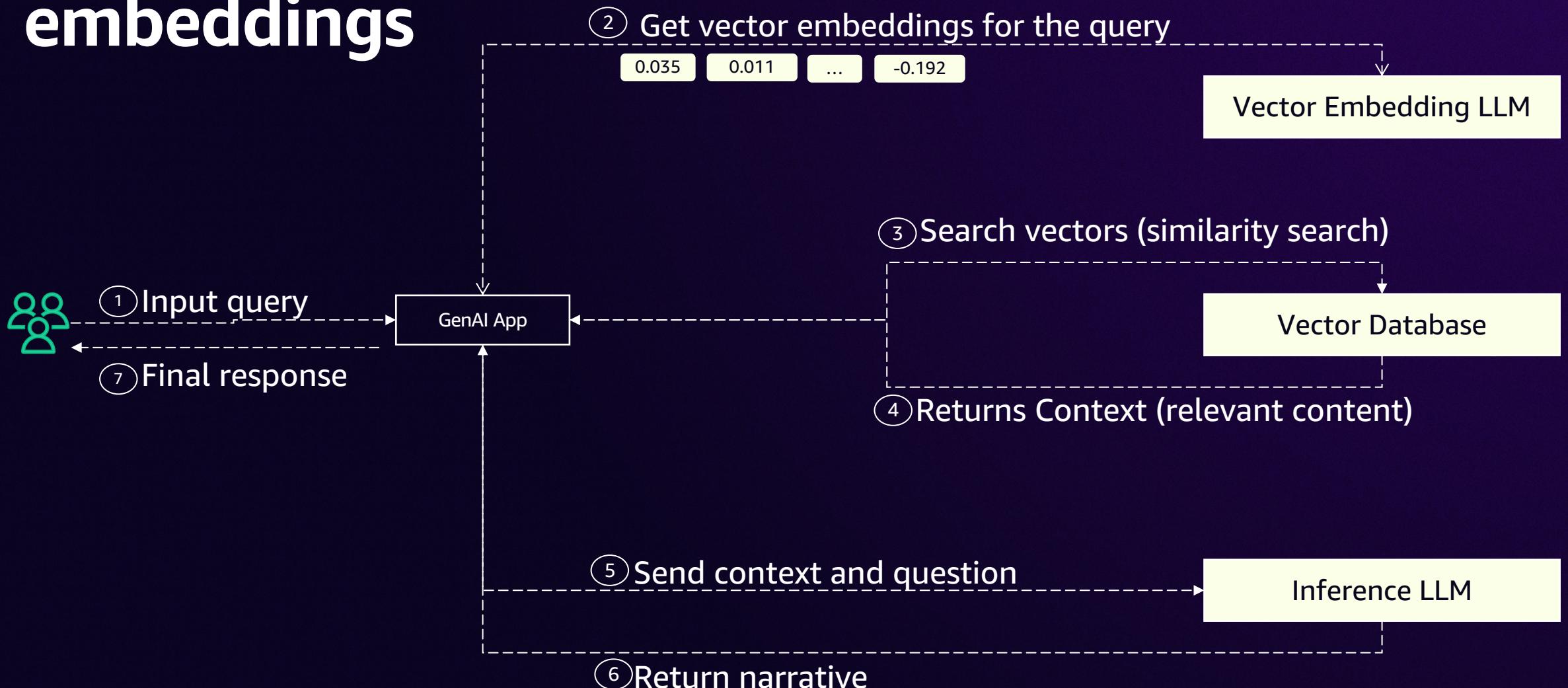
Works for Generic Data



YES !!! With additional context



# Retrieve the right **context** using vector embeddings





# Gen AI in the Field

Agents, RAG, Data





**Mike Havey**  
**Principal Data Architect**  
**OpsGuru**

# What is OpsGuru

And what do I do?

## About Us



Headquartered in Toronto, Canada.

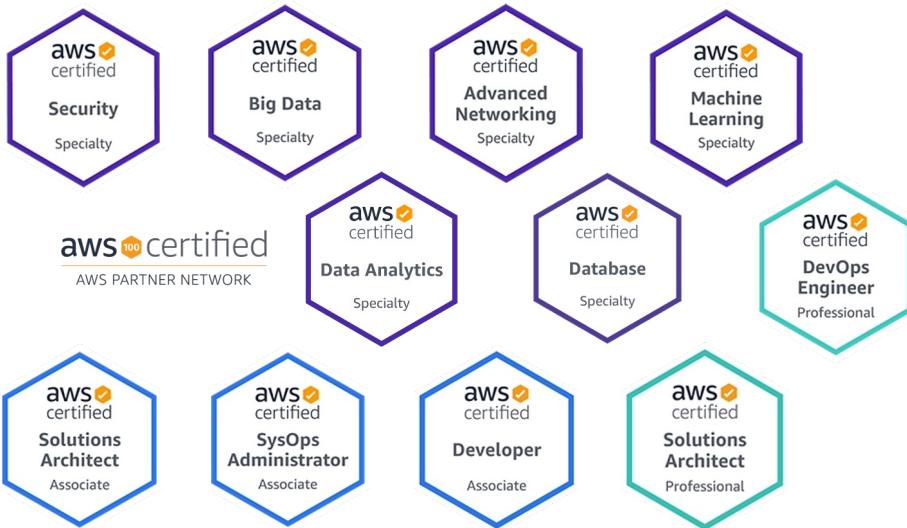


250+ professionals with an average of 8+ years of cloud experience.



OpsGuru; Founded in 2017.  
Subsidiary of Carbon60,  
Founded in 1999.

## Certifications



**155+**  
AWS Certifications

**200+**  
Customers Globally

**500+**  
Implemented Projects

**5**  
Offices Around the Globe





## Migration & Modernization

- Increase agility, productivity and scalability
- Accelerate digital transformation with Generative AI and Machine Learning
- Consolidate data centres
- Outsource end of life hardware or software changes
- Improve security and operational resilience
- Reduce operational costs



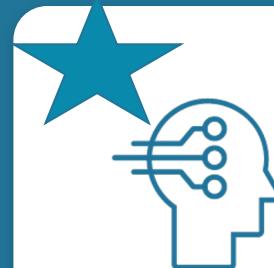
## Cloud Native Development

- Microservices transformation
- Modernization / Adopt Cloud Native
- Event-driven applications
- Containers / Kubernetes
- Distributed database architectures



## Managed Cloud Operations

- Customer Reliability Engineering
- Engineering on Demand
- Capacity Planning
- 24x7 Incident Response / Remediation



## Data & AI

- Data Lakes
- Cloud Data Warehouse
- Reporting and dashboards
- ML, MLOps, and AI services

- Post-sales delivery architect for Data and AI
- Strong focus on AWS native services across Database, Analytics, AI/ML
- Nearly every new project is Gen-AI!
  - RAG, agents, IDP/OCR
- I have a background in databases, especially graph, NoSQL ... plus RAG
- Leading the development of a RAG accelerator
- Where I can help the most: better RAG by tapping into data better
- This is important for agents because most agents need data. Bad RAG, bad agent

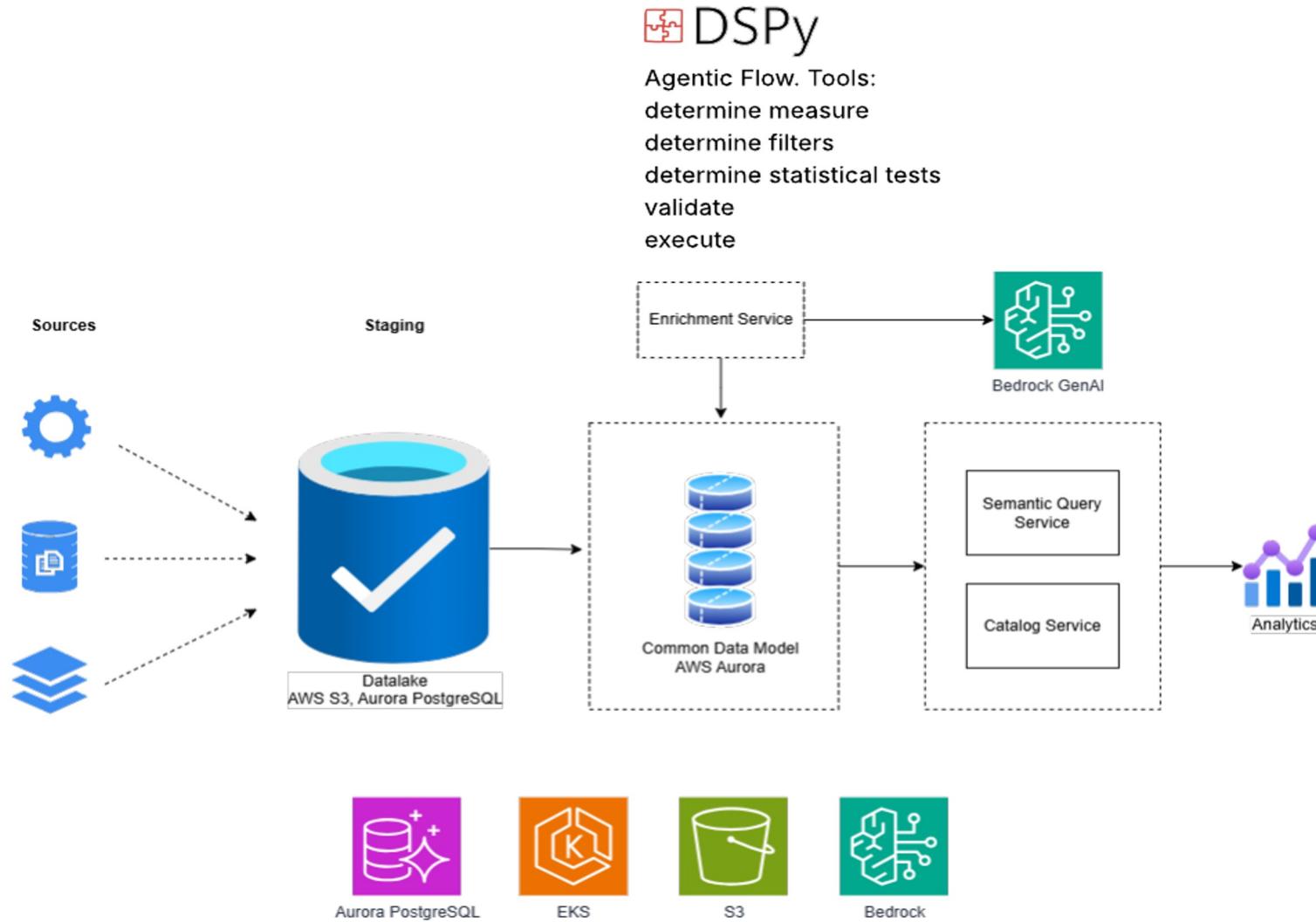
# Gen AI in the Field

Rag and Agents in OpsGuru Engagements

- Leading customer experience management and insights platform
- Help organizations create meaningful connections with their customers
- Companies understand their customers' needs, preferences, and behaviors better, and in real-time.
- Challenge: Qualitative analysis is too manual, error prone.
- Goal: Automate qualitative analysis through gen AI.
  - Faster, more accurate, lower-cost analysis.
  - Alida positioned as leader in customer experience market.

# Alida's Data Platform

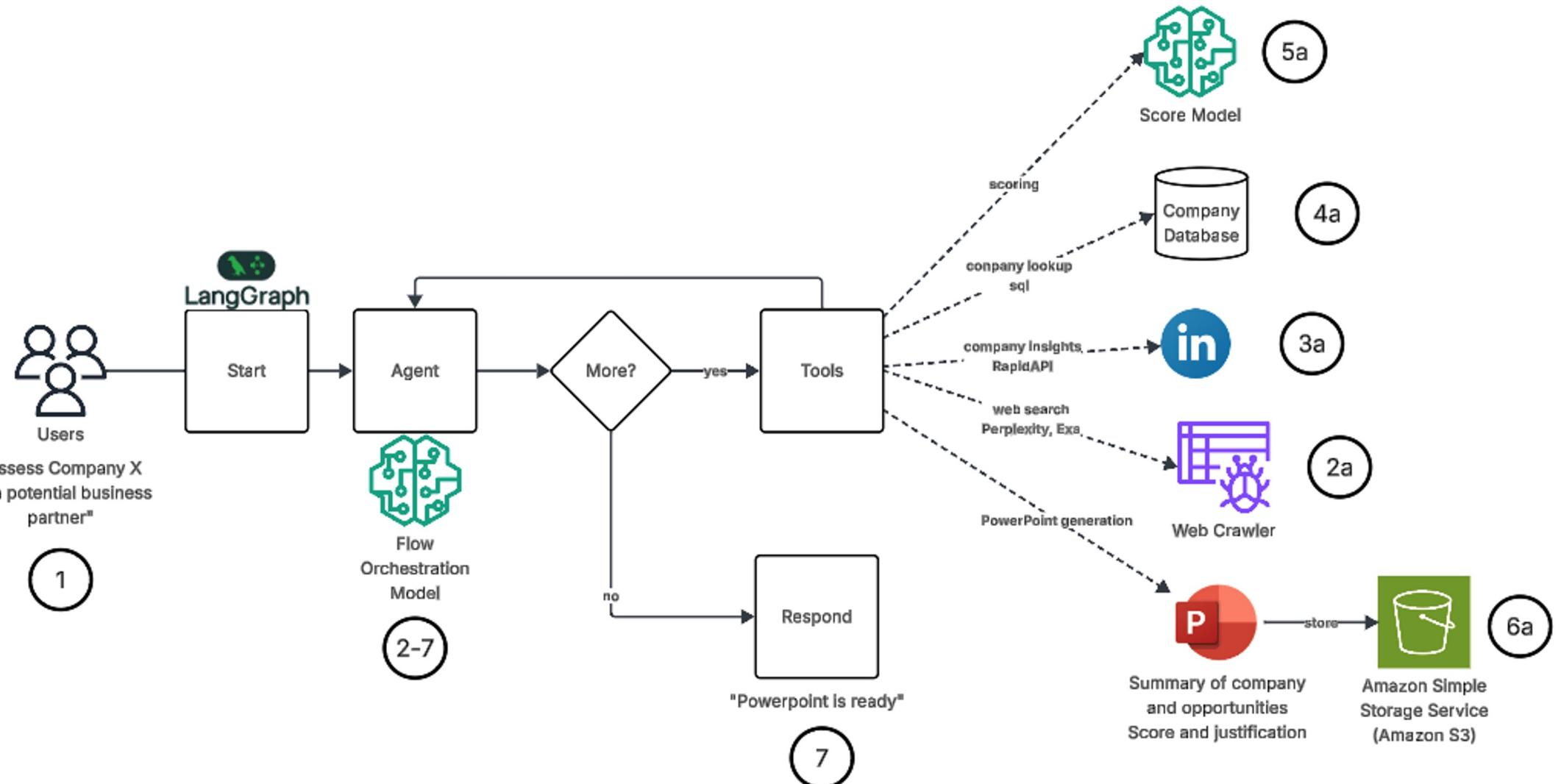
opsGuru



Question	Agent	Response
Avg age of people who chose Red or Green as fave color in survey	<p><b>Determine Measure:</b> avg age  <b>Determine Filter:</b> color in (red, green)  <b>Validate:</b> good; <b>Execute:</b> done</p>	42
How many males over 20 prefer blue in survey	<p><b>Determine Measure:</b> count of people  <b>Determine Filter:</b> gender=male, color=blue  <b>Validate:</b> good; <b>Execute:</b> done</p>	1
Give key insights of survey	<p><b>Determine Test:</b> t-test: compare avg age of those who choose R, G, B. Statistically significant?  <b>Determine Test:</b> z-test: compare proportion of blue choosers vs expected pop. Statistically significant?  <b>Execute:</b> done.</p>	<p>Avg age of reds (42 years) significantly higher than blues (30 years)!  Proportion of reds (60%) is significantly higher than the expected proportion of 33%!  Younger people (under 25) and older people (over 59) show a significant pref for Red!</p>

# Case Study 2: Media Firm: Partner Prospecting Agent

OpsGuru



# Crystal Ball

Improved agentic solutions for customers in next year

# Increased Use of Native AWS Services



- **Bedrock**: already entrenched, but increases if:
  - More LLMs in more regions
  - Knowledge base - increased storage options, more flexibility
- **Strands, AgentCore**: Newer options that will be adopted when they fit well
  - And how to navigate these vs. **Bedrock agents**
- Eval and tuning with **SageMaker** and **Bedrock**.
- Databases married to RAG:
  - **OpenSearch Service**: Lexical and vector (hybrid) search for **finding things**.
  - **Neptune**: Knowledge graph **finding how things are related and following less-than-obvious paths**.
- **AI Observability**: AI metrics through **CloudWatch**
- **Step Functions**: Custom orchestration beyond out-of-box flow

# Orchestration/Workflow Patterns for Agentic Flows



- Gen AI interaction is not a single step but a flow of steps.
  - Hence the popularity of Lang *chain/flow/graph*
  - A few patterns have emerged: ReAct, prompt chaining, evaluator-optimizer
- Agentic tools help by providing:
  - Default execution flows. E.g., Bedrock agent can run ReAct flow for you
  - Out of box flow authoring and execution. E.g., Bedrock flows, LangGraph
  - Build your own orchestrator. E.g., Bedrock agent custom orchestration: Lambda
- Crystal ball prediction: adoption of general orchestration services like Step Functions
  - Long-running/stateful or stateless
  - Break into subflows for modularity/readability
  - Flexibility to determine who's driving: the LLM decides at each step, or the LLM creates a plan upfront
- Renewed interest in process notations (BPMN), workflow patterns (deferred choice)

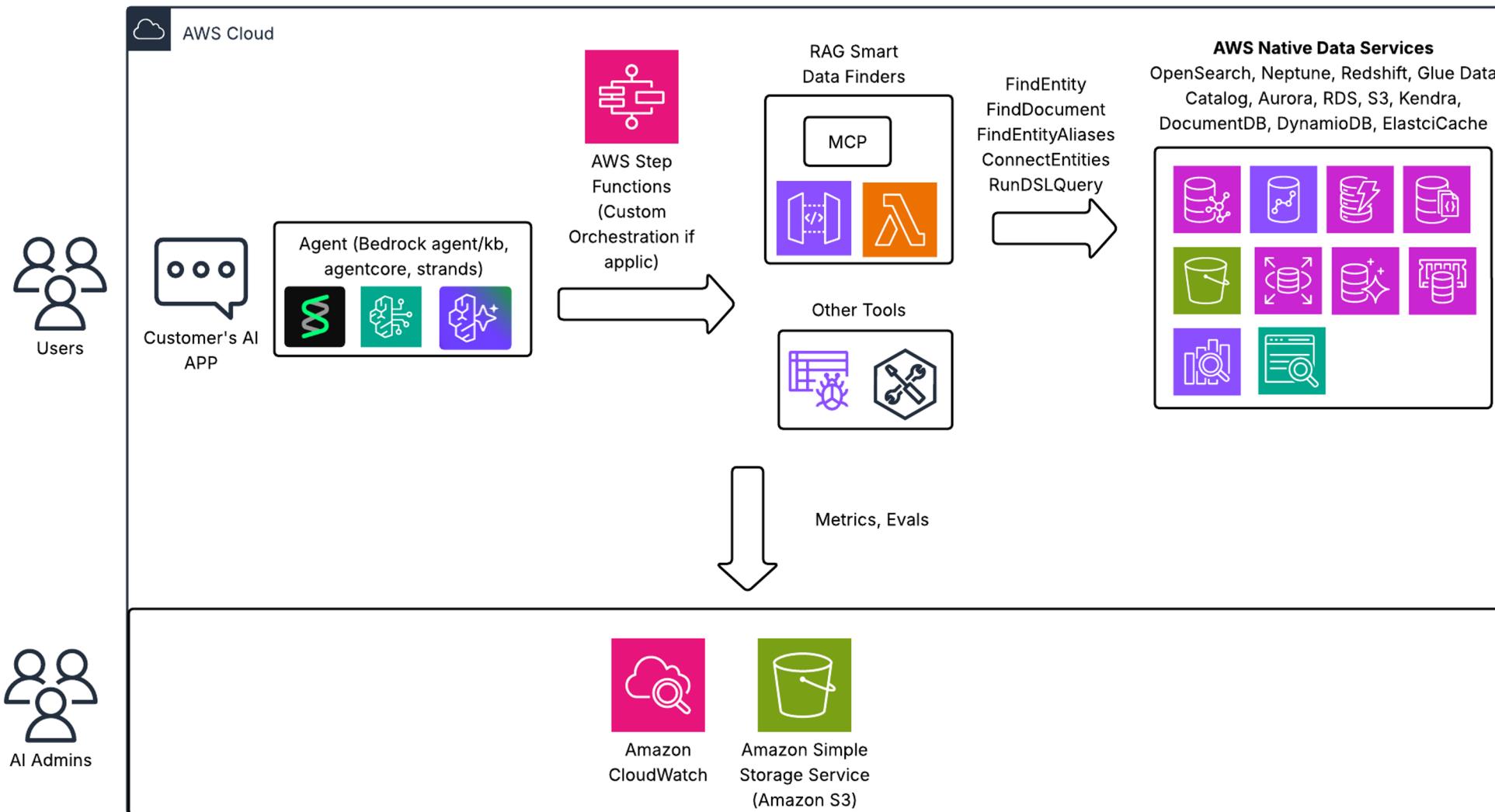
# Smart Data Finders for Better RAG

opsGuru

Method	Example	Tools
<b>Find Entity / FindDocument</b> by fuzzy criteria (vector, lexical)	“Carbon Sixteen” (Carbon60)	OpenSearch, any vector store
<b>FindEntityAliases</b>	“Big Blue” (IBM)	Graph with taxonomy (Neptune) + Amazon Entity Resolution
<b>FindEntity Neighborhood</b>	“Meta” - details of meta + rels of meta + rels of rels of meta	Graph path query (Neptune)
<b>ConnectEntities</b> (a, b) -> path	Connect Meta and IBM	Variable-length path query (Neptune)
<b>RunDSLQuery</b> (nlq) -> sql, cypher, sparql, lucene, api request	Find number of respondents whose fave color is red or blue.  select count(*) from survey where c in ('red', 'blue')	Bedrock KB (currently just Redshift query engine), Langchain. <b>On the DB side, USE VIEW or SMALL SCHEMA!!!!</b>

# Crystal Ball Architecture

opsGuru



# Thank you

Scan the QR Code to  
connect with the  
OpsGuru team



**Mike Havey | Principal Data Architect**  
[michael.havey@opsguru.io](mailto:michael.havey@opsguru.io) | (613) 327-8690

# Lunch: 12:15pm – 12:45pm

Please Complete Session Survey



# Challenge: You Build a Strands Agent 😊

Bobby Nelson  
ESL. TAM, ISV



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# Rules

1. This should be an individual exercise. If you work together as a group and raise hands collectively, only 1 prize will be awarded.
2. You will have 20 minutes to complete
3. If you raise your hand and the result is not accurate, you will not be eligible to win the prize.

Let's have FUN building a research agent !!!

# Prizes

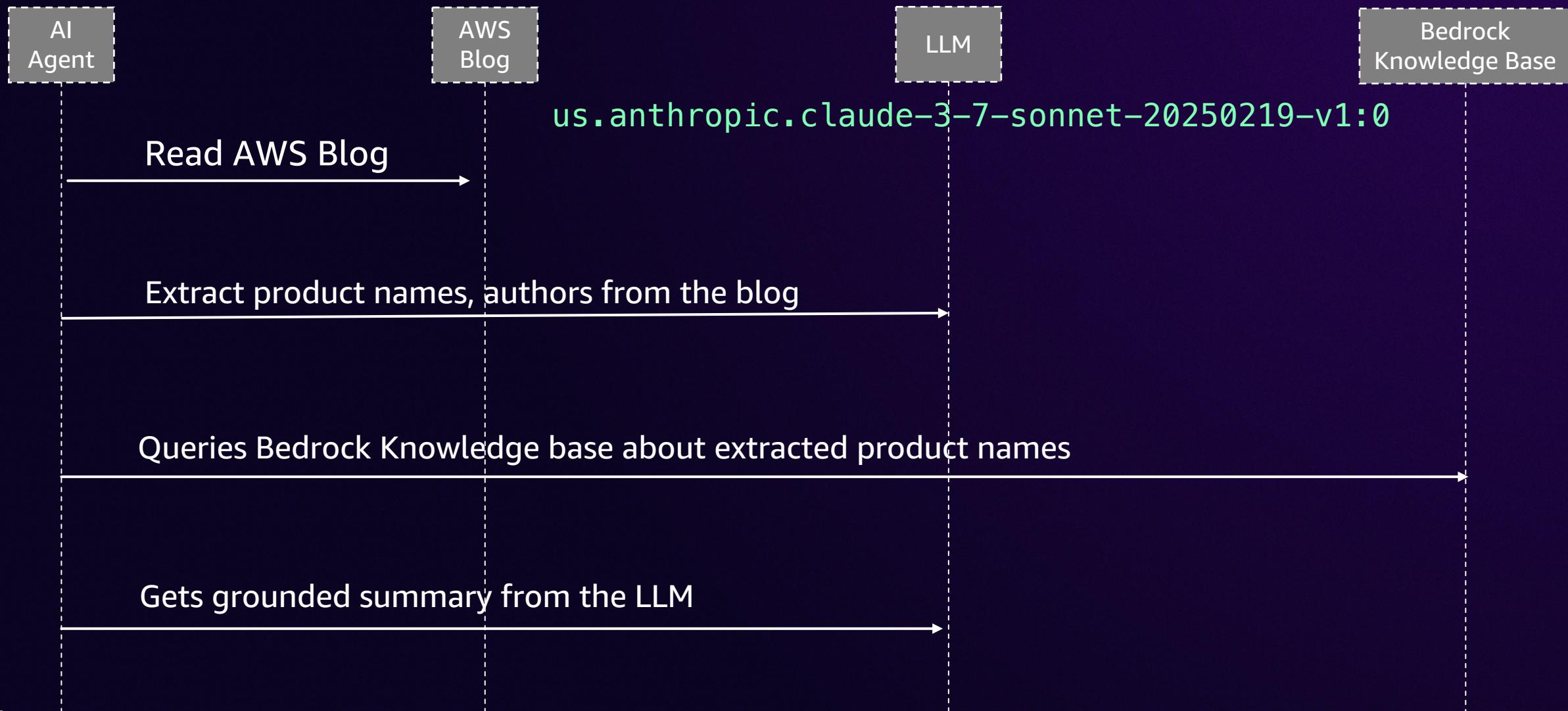
Top 3 Spots:  
AWS Socks

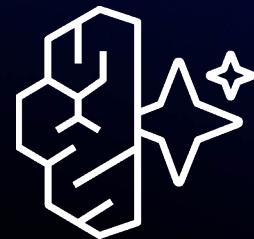
Next 7 Spots:  
AWS Bag

Remainder:  
Sticker ☺

# Your Goal: Create a Research AI Agent

<https://tinyurl.com/yvar6a56>





# Amazon Bedrock AgentCore

Ahmed Elhosary  
Sr. TAM, ISV



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**Great Agent! Lets get it to production.**

**Where do I host it?**

**How do I secure it?**

**Rewrite RESTful API and Lambda as tools?**

# The prototype to production “chasm”





# Amazon Bedrock AgentCore

## TIME TO VALUE



Avoid infrastructure and operational headaches

## FLEXIBLE



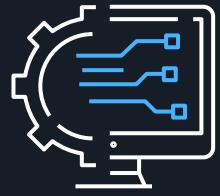
Create agents with any framework or model

## TRUSTED

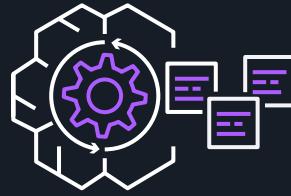


Deploy secure, scalable, and reliable agents your organization can trust

# Foundational services for running highly capable agents, securely at scale



Deploy securely  
at scale

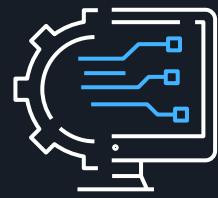


Enhance with tools  
and memory



Monitor

# Secure, scalable runtime for agents

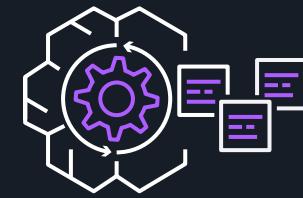


AgentCore Runtime



AgentCore Identity

Deploy securely  
at scale

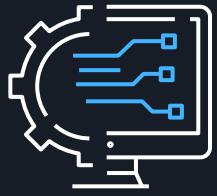


Enhance with tools  
and memory

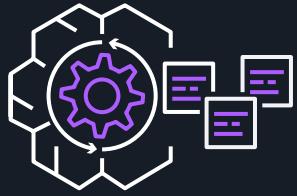


Monitor

# Essential tools and capabilities to build highly effective agents



Deploy securely  
at scale



Enhance with tools  
and memory



AgentCore Gateway



AgentCore Memory



AgentCore Browser

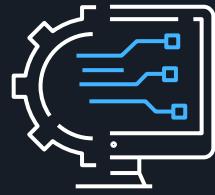


AgentCore Code Interpreter

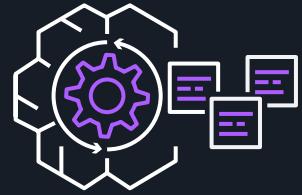


Monitor

# Visibility to operate agents you can trust



Deploy securely  
at scale



Enhance with tools  
and memory



Monitor



AgentCore Observability

# BREAK: 01:45 pm – 01:55 pm

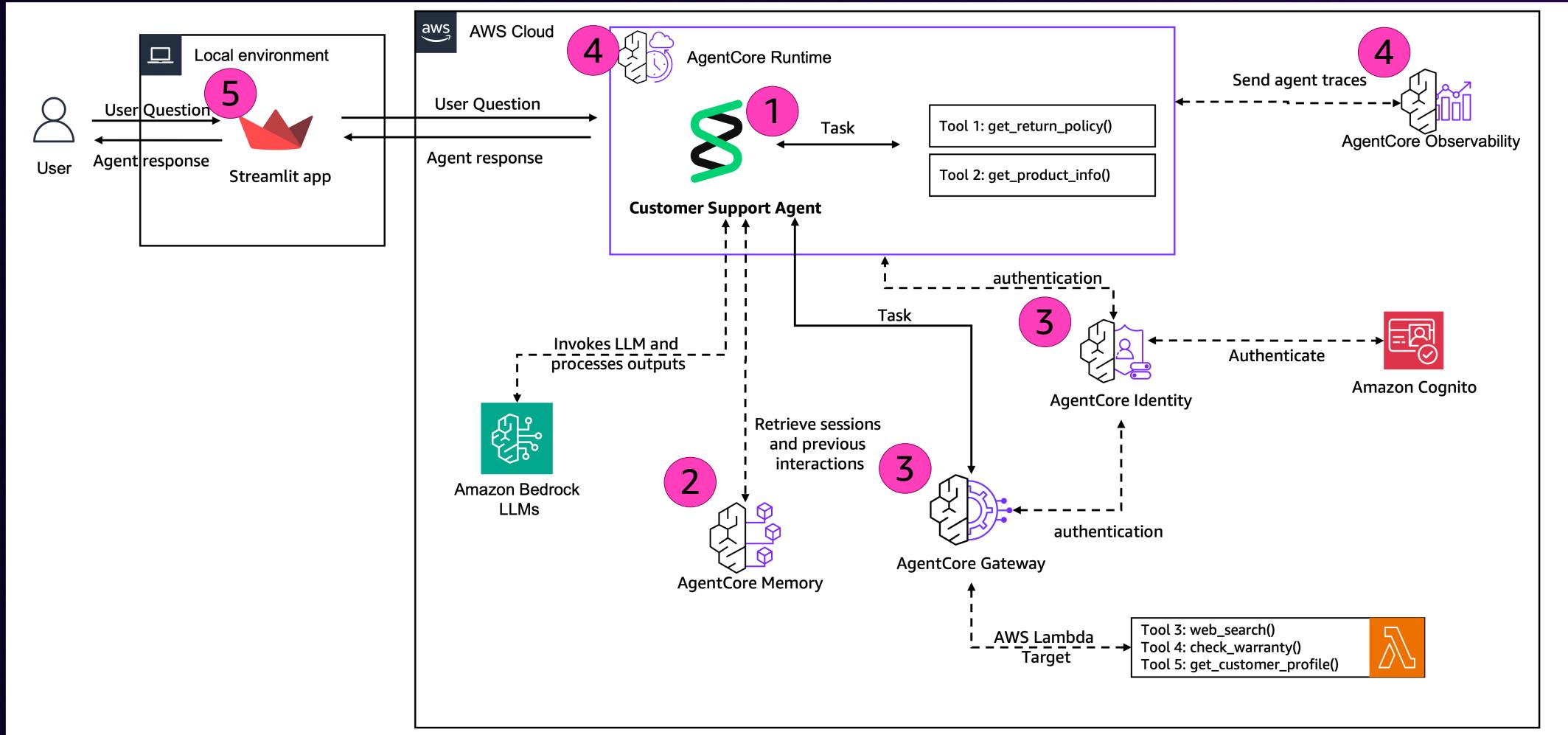
**Please Complete Session Survey**



# Labs

- Lab 1: Create an Agent Prototype
- Lab 2: Enhance your Agent with Memory
- Lab 3: Scale with Gateway and Identity
- Lab 4: Deploy your Agent to Production with Observability

# What we'll build



Lab numbers where the concept is covered

<https://s12d.com/GenAI-AgentcoreLab>

Access Code: 6a04-0e896f-fd

# Now, let's go and build!

In this event, you're being provided with AWS workshop accounts for allowing you explore freely and not incurring on charges. Note these accounts are only accessible for the duration of this event.

1. Access the workshop here: [\[https://s12d.com/GenAI-AgentcoreLab\]](https://s12d.com/GenAI-AgentcoreLab)
2. Sign in to AWS Workshop Studio – Select “Email one-time password (OTP)” and provide a valid email.
3. Enter the code received in your email and click “Sign in”.
4. Review the terms & conditions, and click “Join event”.
5. You can find the workshop instructions in the left-hand pane.
6. You can access the AWS Console for your assigned AWS account in the link at the bottom-left of the screen.
7. Make sure you select the right region (us-west-2) and provide Bedrock model access as per the instructions.

<https://s12d.com/GenAI-AgentcoreLab>

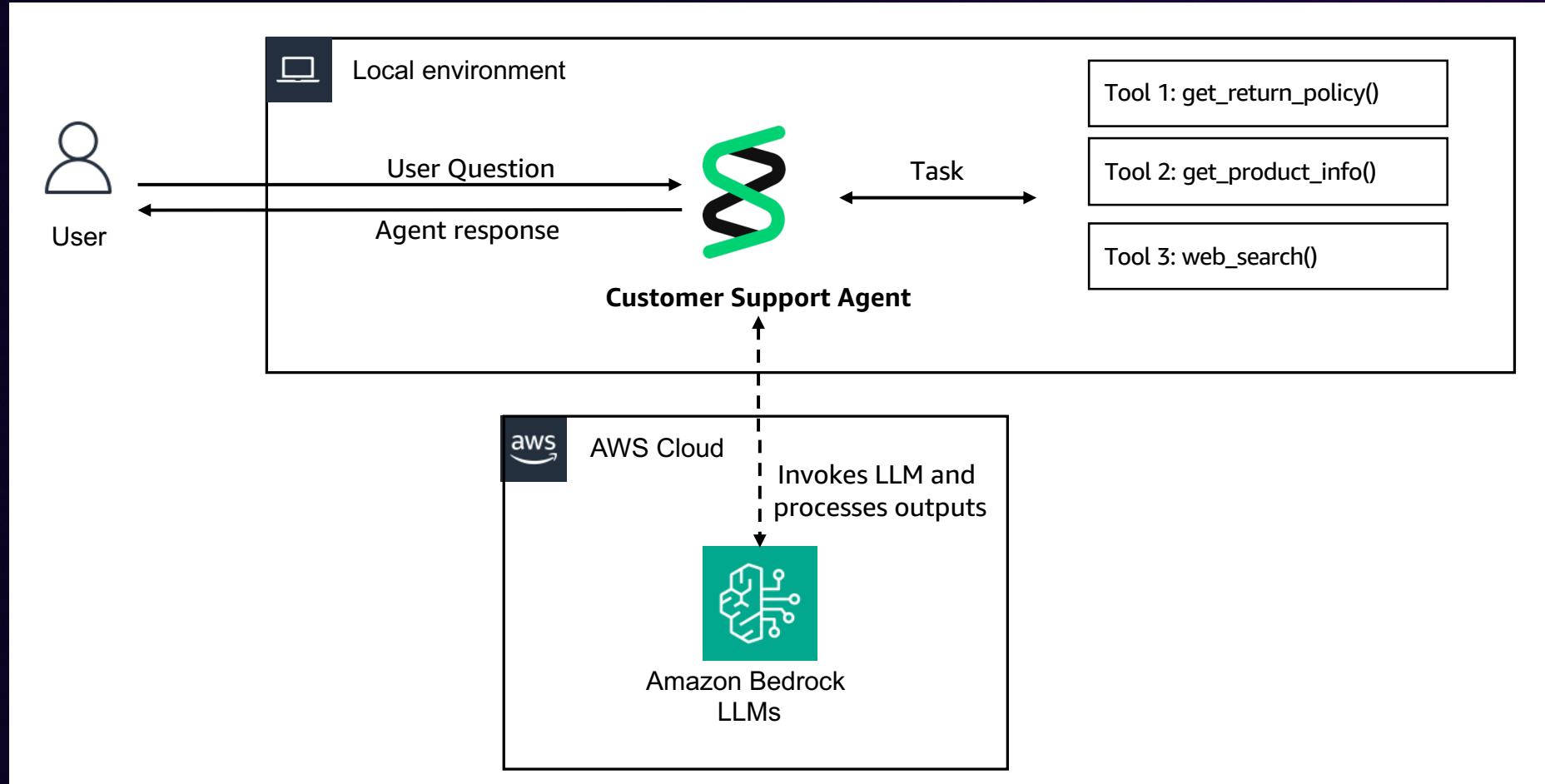
Access Code - 6a04-0e896f-fd

The image contains three screenshots illustrating the sign-in and workshop access process:

- Screenshot 2: Sign in**: A "Sign in" page from AWS Workshop Studio. It shows two sign-in methods: "Email one-time password (OTP)" (selected) and "Login with Amazon". Below these are links for "Amazon employee" and "Amazon Corporate account". A red box highlights the "Email one-time password (OTP)" field.
- Screenshot 3: One-time email passcode**: A "One-time email passcode" page. It displays a message: "We sent a passcode to ilyiny@amazon.com. You should receive it within 5 minutes." Below is a "Passcode (9-digit)" field with "Resend passcode" and "Enter the received code" buttons. A red box highlights the "Enter the received code" button.
- Screenshot 5: Event dashboard**: A "Getting started with Bedrock AgentCore event" dashboard. It shows "Event details" (Start time: 8/14/2025 09:25 PM, Duration: 72 hours, Accessible regions: us-west-2, us-east-1), "Event information" (Title: Getting started with Bedrock AgentCore, Complexity level: 300), and "Workshop" (Title: Getting started with Bedrock AgentCore, Complexity level: 300, AWS services: Amazon Bedrock, Amazon CloudWatch). A red box highlights the "Open AWS console (us-west-2)" link in the "AWS account access" section.
- Screenshot 6: Outputs**: A "Outputs (0)" section showing a table with columns for "Key", "Value", "Stack name", and "Description". A red box highlights the "Open AWS console (us-west-2)" link in the "AWS account access" section.

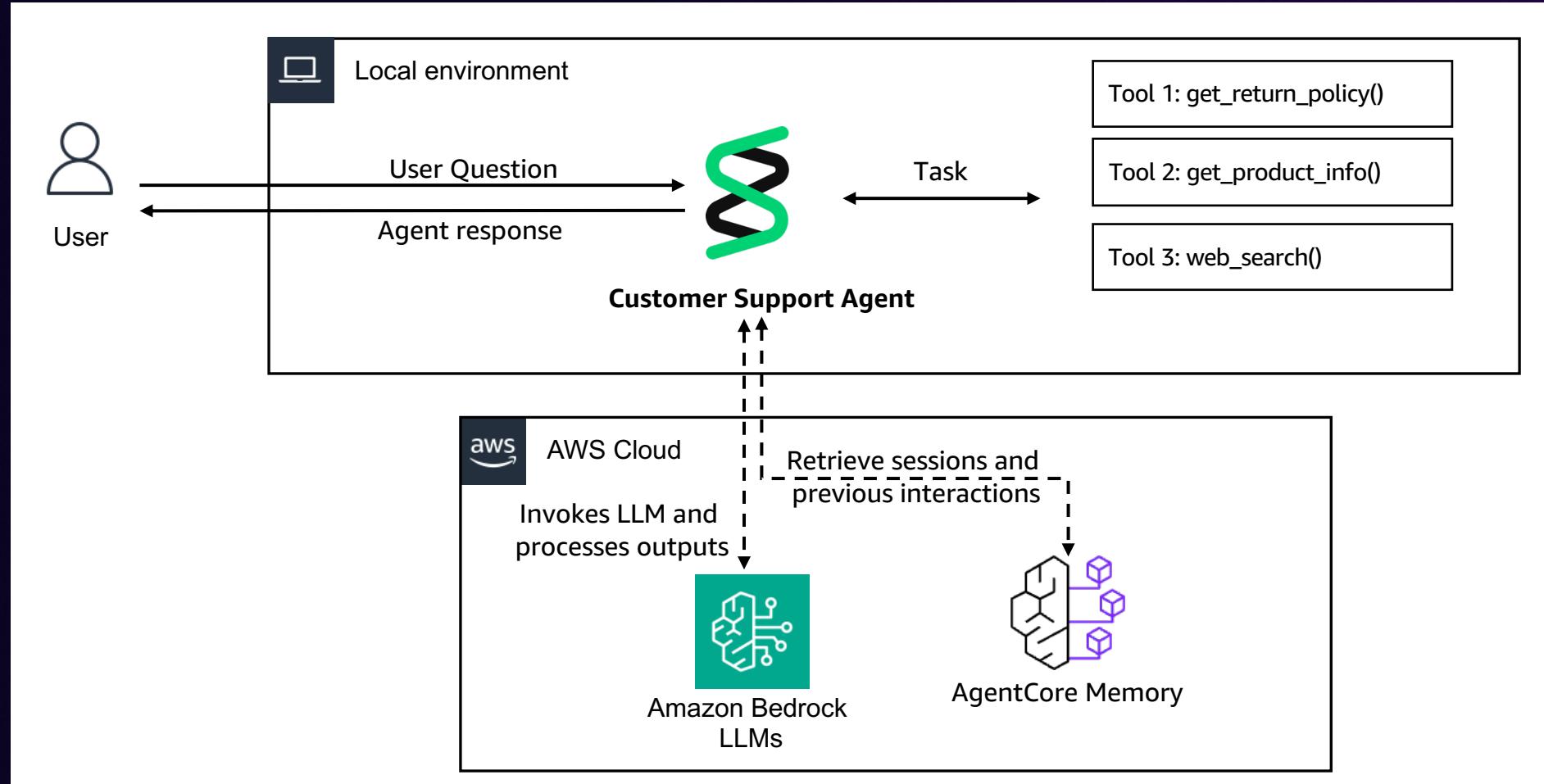
# Lab 1 - Create your Agent

TOWARDS PRODUCTION-READY AI APPLICATION USING BEDROCK AGENTCORE



# Lab 2 - Enhance it with Memory

TOWARDS PRODUCTION-READY AI APPLICATION USING BEDROCK AGENTCORE



# Lab 2 - Enhance it with Memory

TOWARDS PRODUCTION-READY AI APPLICATION USING BEDROCK AGENTCORE

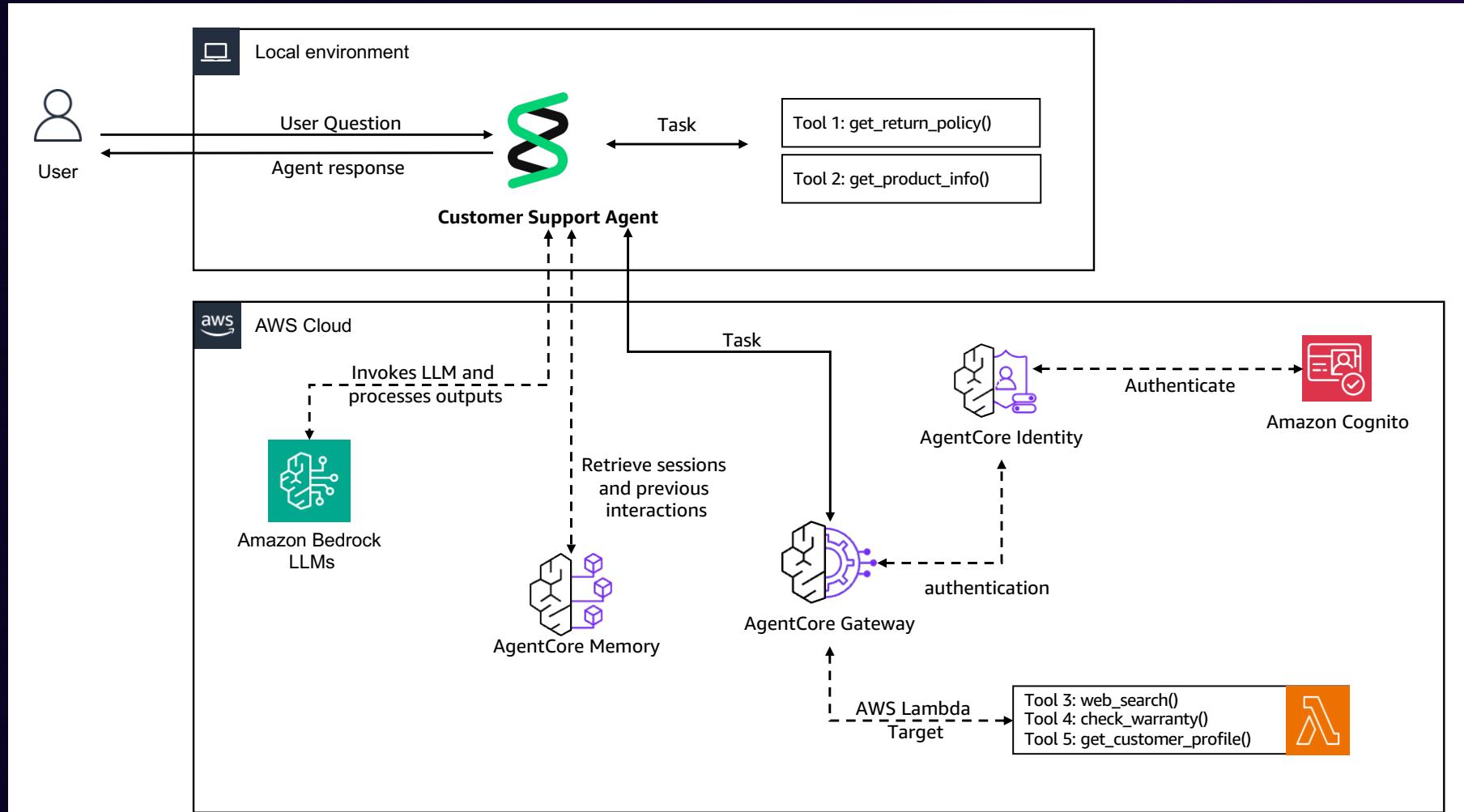


## AgentCore Memory

- Abstracts memory infrastructure
- Scales automatically with serverless architecture
- Complete data privacy with dedicated storage for each customer
- Enterprise security with encryption

# Lab 3 - Scale with Gateway and Identity

TOWARDS PRODUCTION-READY AI APPLICATION USING BEDROCK AGENTCORE



# Lab 3 - Scale with Gateway and Identity

TOWARDS PRODUCTION-READY AI APPLICATION USING BEDROCK AGENTCORE



AgentCore Gateway

+



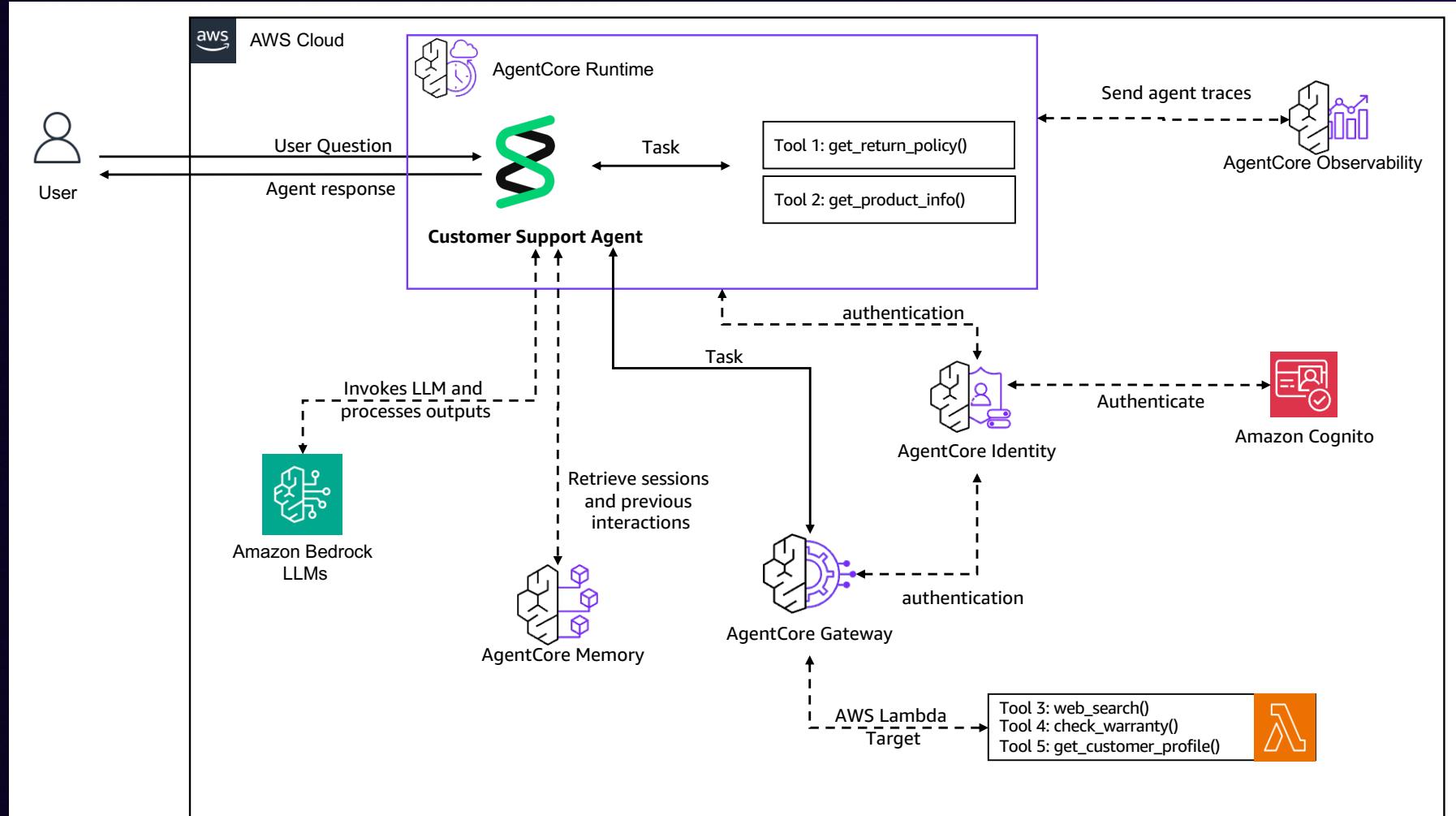
AgentCore Identity

- Convert APIs, Lambda functions, and existing services into MCP-compatible tools
- Access thousands of tools through a single secure endpoint.
- Intelligent tool discovery
- Seamless integration with AgentCore Identity

- Streamlines authentication flows
- Robust access controls with just-enough access and secure permissions delegations
- Preserves existing identity systems such as Okta, Azure AD, or Amazon Cognito

# Lab 4 - Deploy it to Runtime + add observability

TOWARDS PRODUCTION-READY AI APPLICATION USING BEDROCK AGENTCORE



# Lab 4 - Deploy it to Runtime + add observability

TOWARDS PRODUCTION-READY AI APPLICATION USING BEDROCK AGENTCORE



## AgentCore Runtime

+



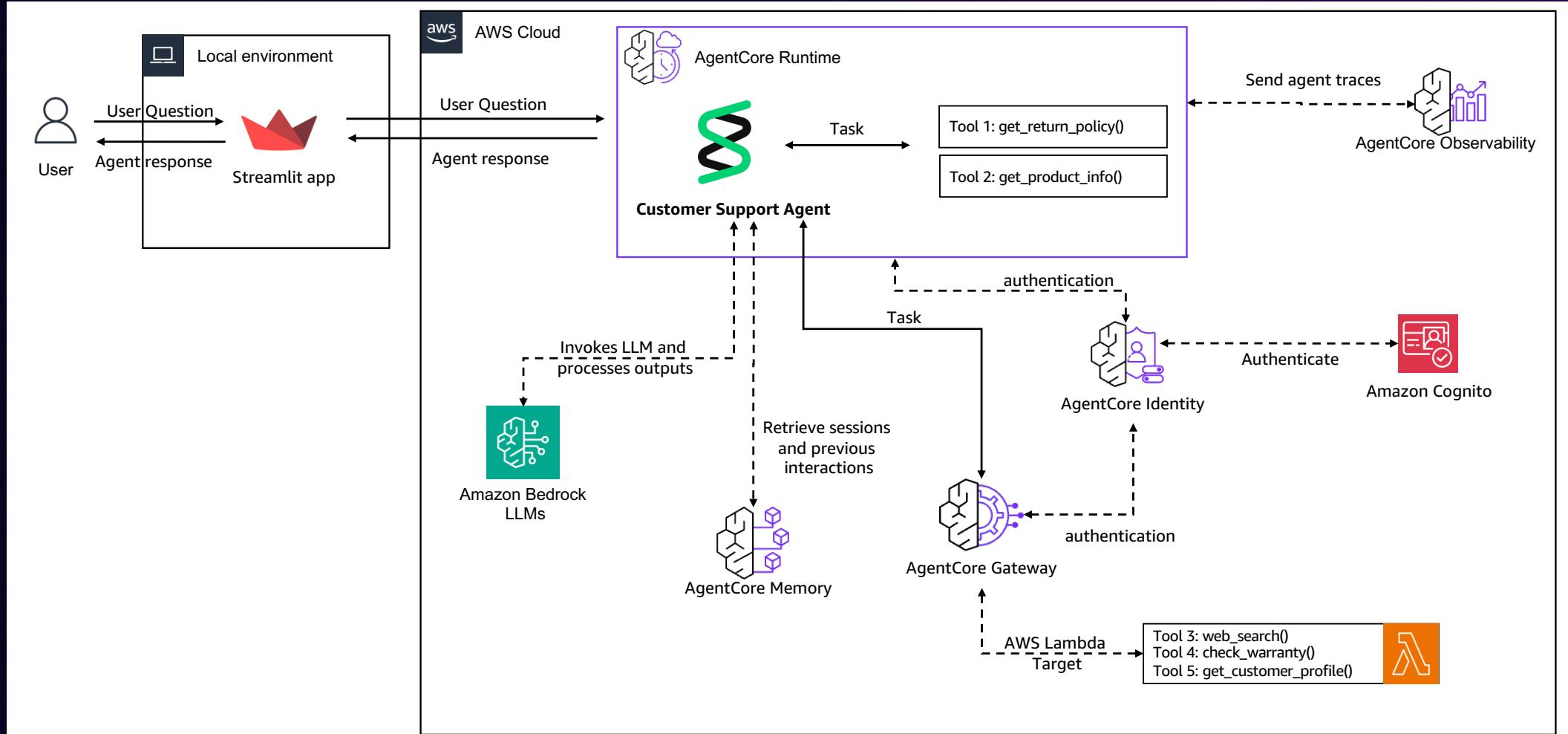
## AgentCore Observability

- Scale workloads with low latency and industry-leading extended runtime (up to 8 hours)
- PoC to Production within a few lines of code
- True Session Isolation to protect your data
- Integrates with existing Identity providers

- Comprehensive end-to-end visibility into agent behavior
- Detect issues and assess performance trends
- Integration with a wide range of monitoring and observability tools, including CloudWatch.

# Lab 5 - Add a frontend application

TO BUILD A PRODUCTION-READY AI APPLICATION USING BEDROCK AGENTCORE





Please complete  
the session survey

