ORACLE AI World

Accelerating AI Agent Development with Oracle's Data Platform

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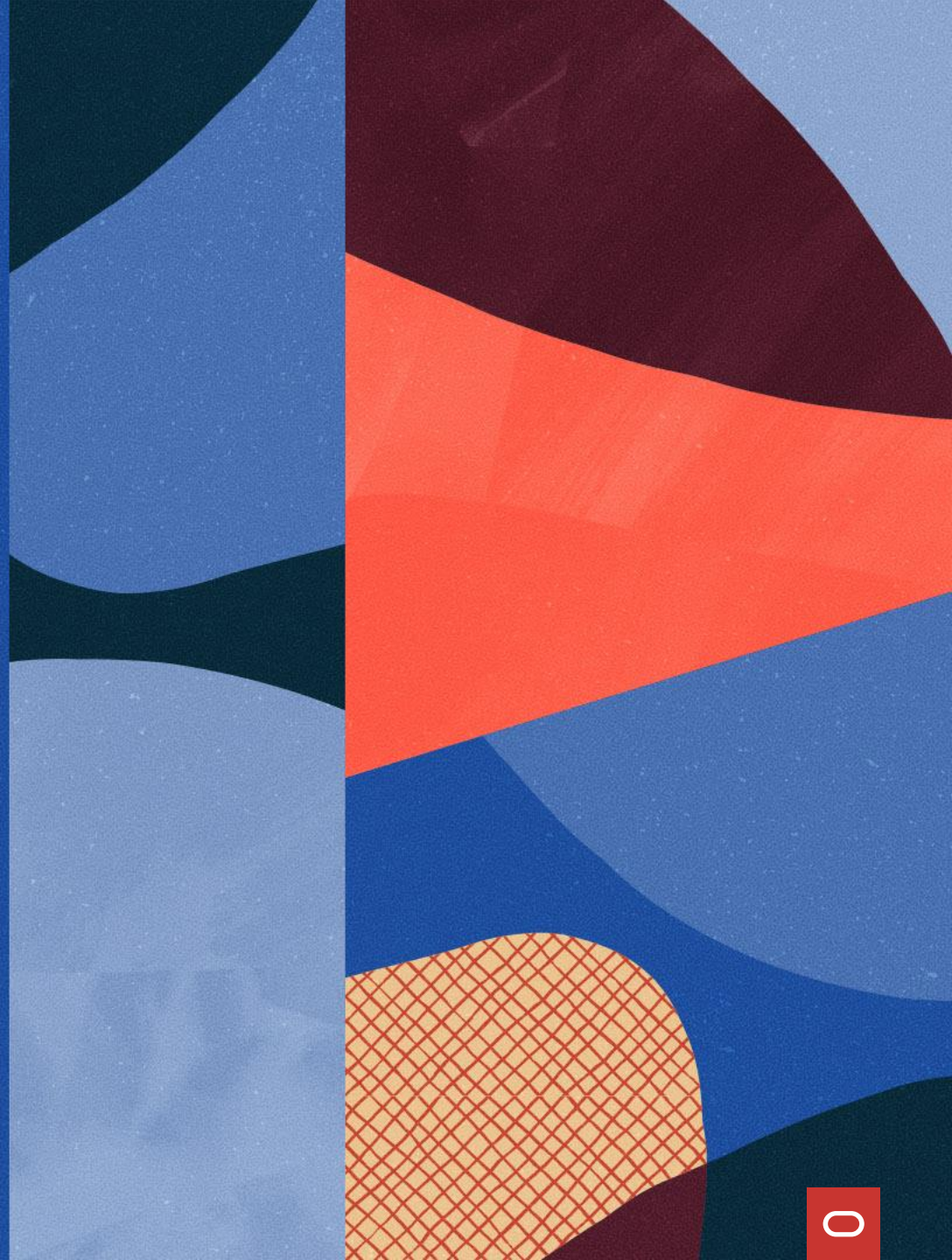
October 15, 2025



Safe harbor statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.

Speakers

Jean-Rene Gauthier

Product Manager, Oracle

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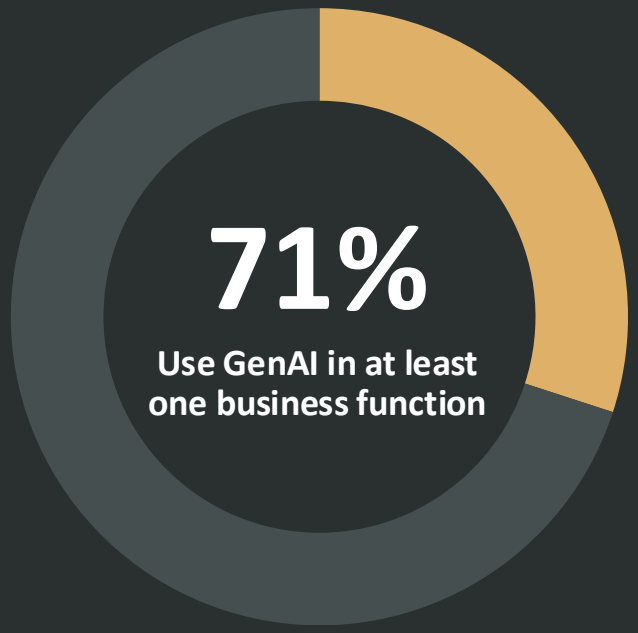
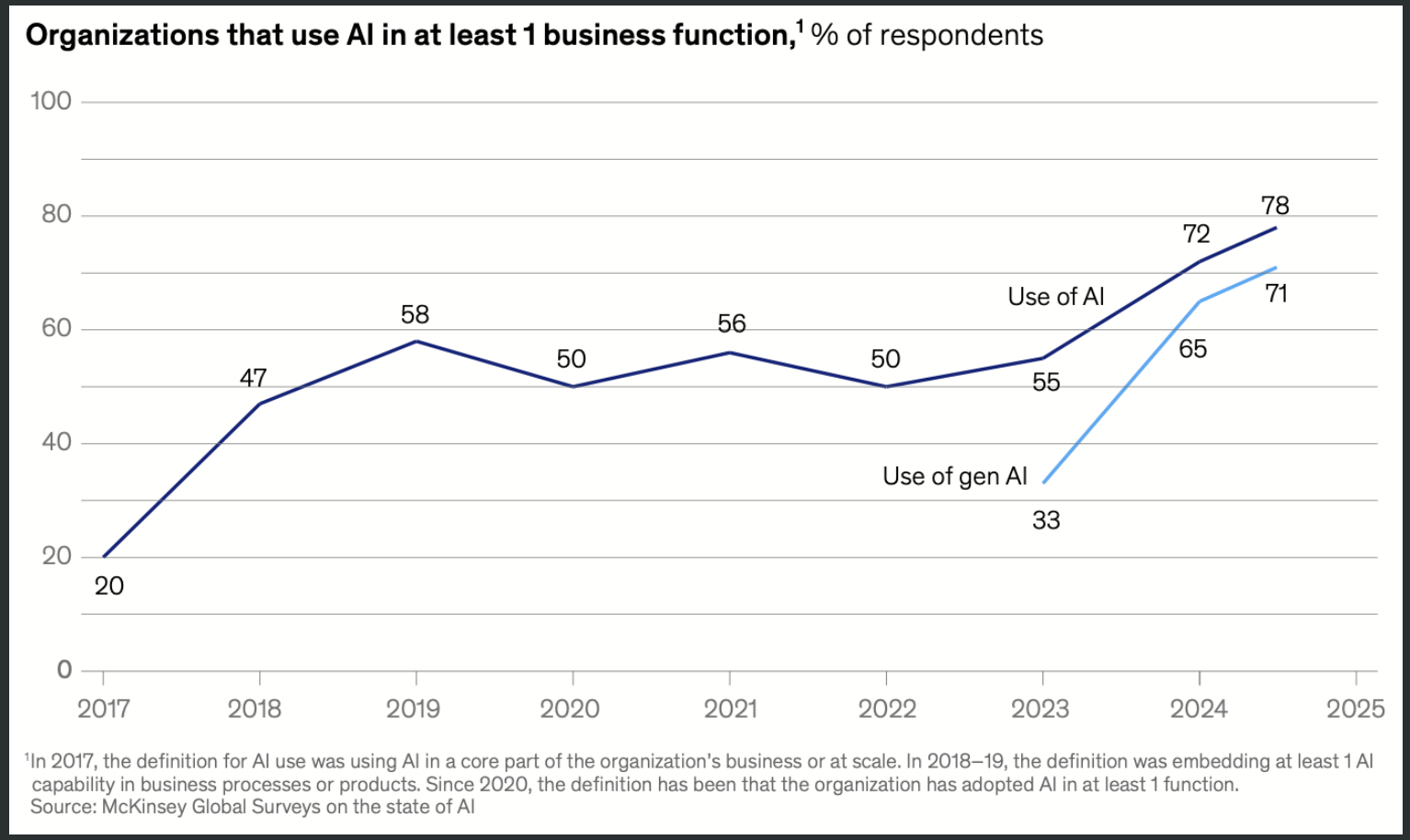
Vice President Engineering, Oracle

GenAI adoption is climbing… and fast!





Source: McKinsey & Company, 2025

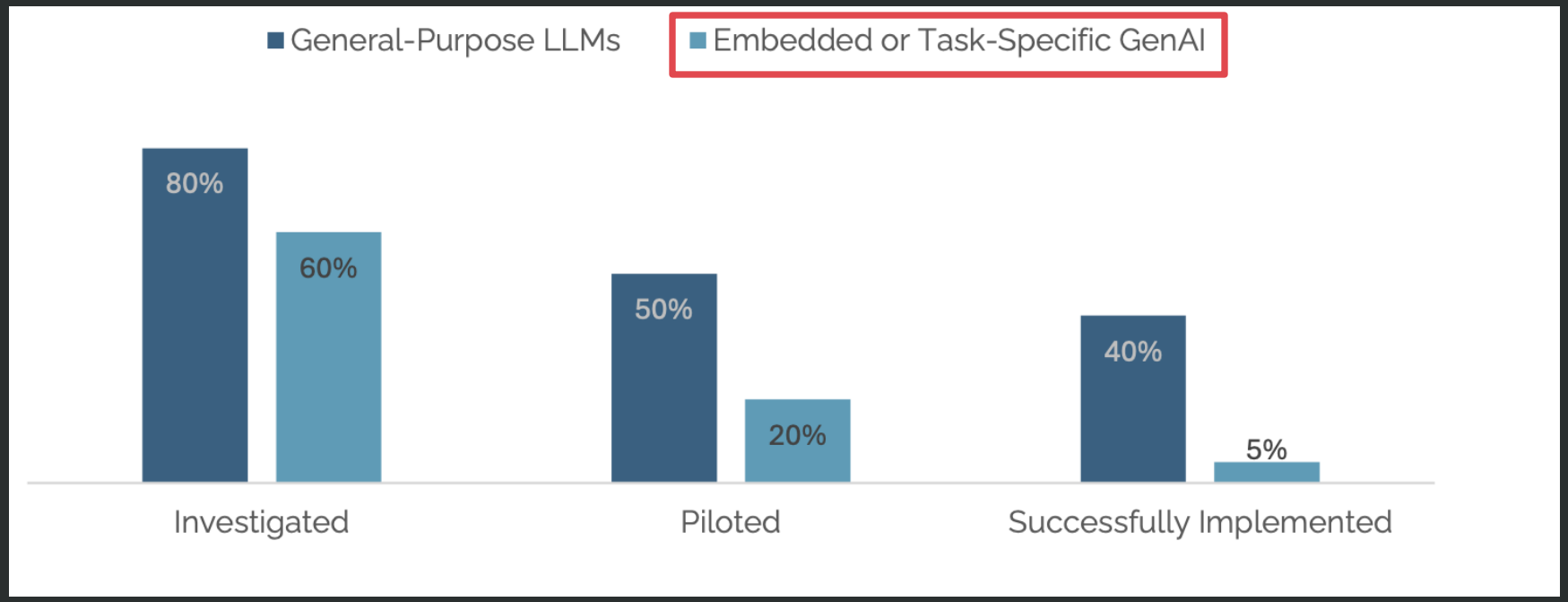
yet…

1%

of company executives describe their gen AI rollouts as mature

Source: McKinsey & Company, 2025

But ChatGPT is great!

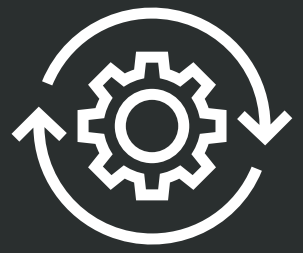


For general purpose, adoption of GenAI through "unofficial channels" is very high… and successful!

Source: MIT NANDA, 2025

So why do task-specific AI agents fail?

Generic tools lack persistent memory and feedback loops



Agent needs deep customization aligned to internal data

Agent benchmarks need to be aligned with operational outcomes

Agents should be optimized for specific processes

Source: MIT NANDA, 2025

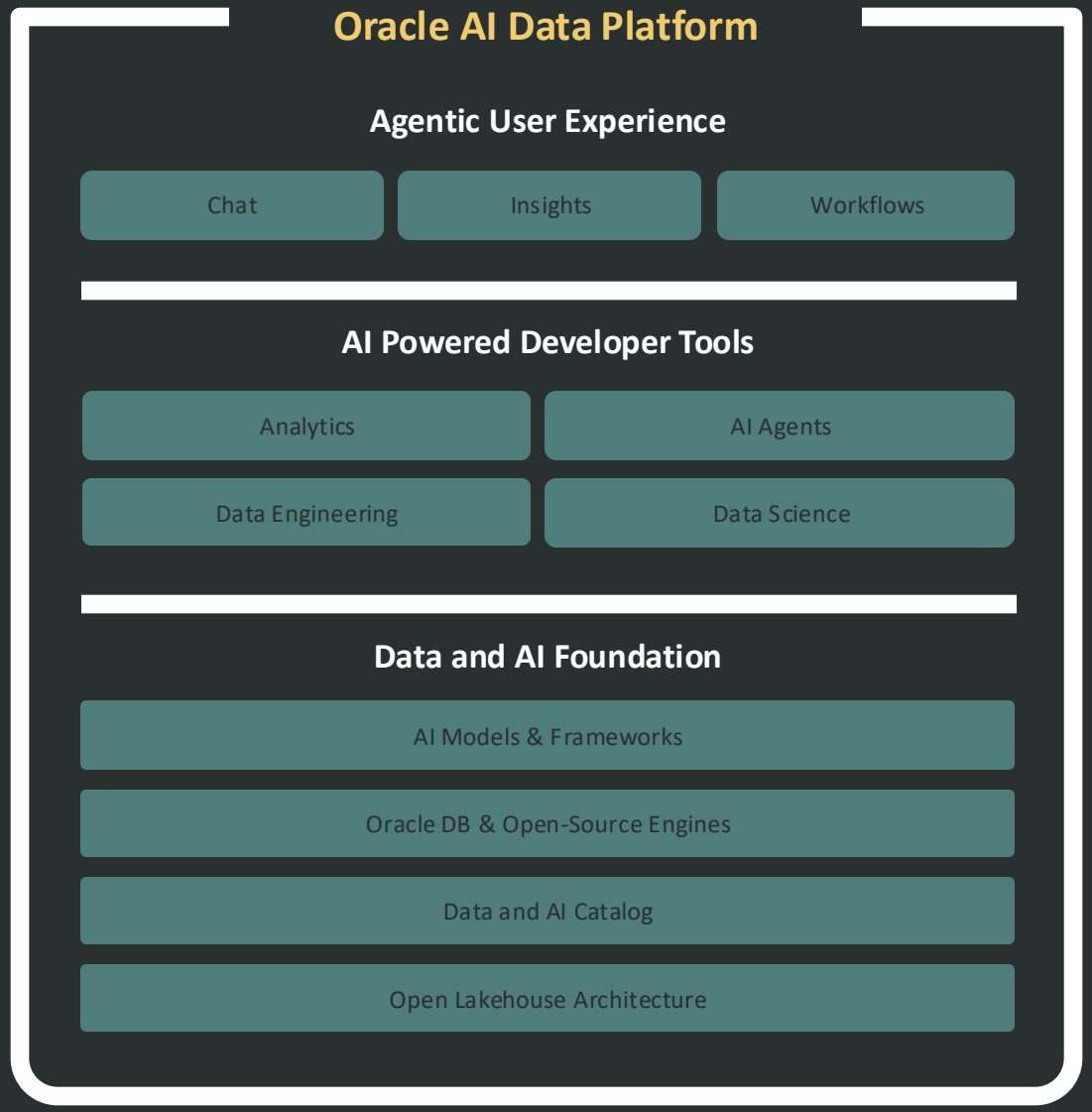
ANNOUNCING

Oracle AI Data Platform

Empowering enterprises to build AI Agents and applications by uniting their enterprise data with best-in-class AI models and developer tools - driving innovation, efficiency, and competitive advantage.

Oracle AI Data Platform

Unified platform for lakehouse foundation, AI Agents, Tools, and business applications — built with enterprise-grade data and AI governance.



Oracle AI Data Platform

Agentic User Experience

- Chat
- Insights
- Workflows

AI Powered Developer Tools

- Analytics
- AI Agents
- Data Engineering
- Data Science

Data and AI Foundation

- AI Models & Frameworks
- Oracle DB & Open-Source Engines
- Data and AI Catalog
- Open Lakehouse Architecture

Oracle AI Data Platform Workbench

- Data Integration
- Data Engineering
- Data Science
- Orchestration
- Agent Studio
- Catalog and Governance

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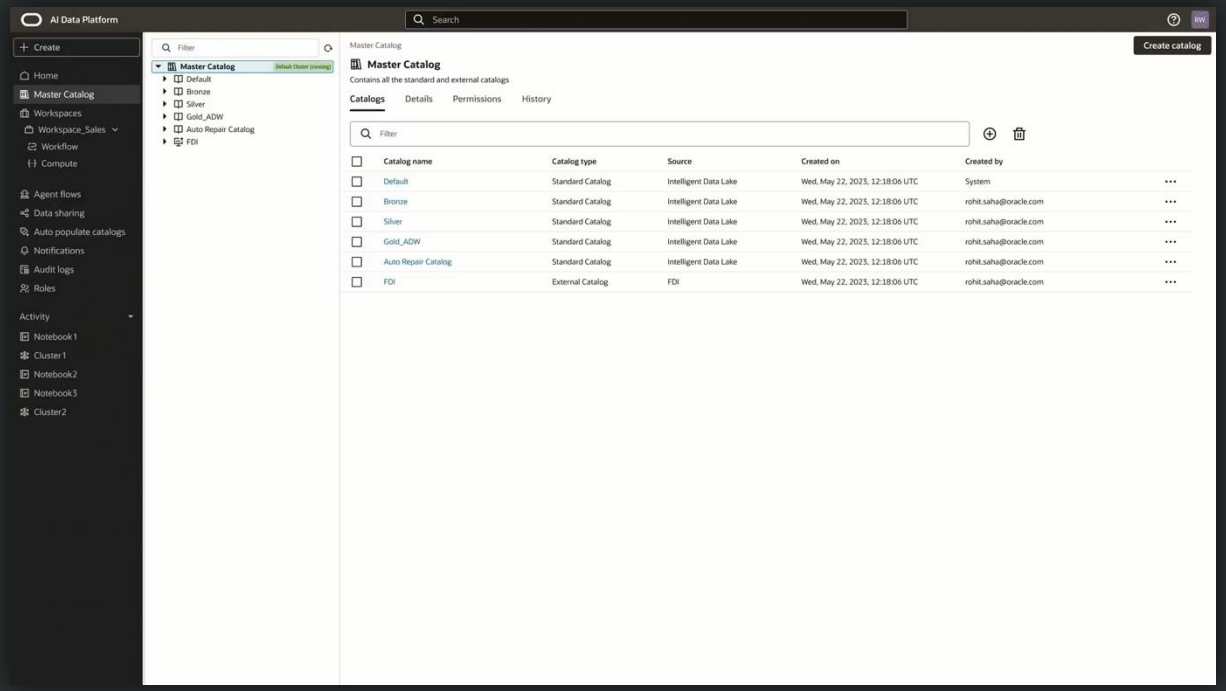
AI Data Platform Workbench is a comprehensive developer environment for **data engineers, data scientists, developers, data stewards** to build and govern lakehouse foundations, AI applications and agents

Data Platform

- **Multiple Data Integration Options**
  - Direct connectivity to multiple systems
  - Integrations with ADB, GoldenGate, MySQL Heatwave and OAC
  - FDI, EBS, Health
- **Unified Catalog, Governance, and Lineage**
  - Discover, organize, and govern all data and AI assets in a unified catalog across structured, semi-structured, and unstructured sources.
- **Support for Data Engineering and Data Science Workloads**
  - Notebooks, distributed processing, and model training on Spark clusters, unified workload management



Demo: Master Catalog

AI Agents in AI Data Platform

AIDP Agent Development

- **Low-Code and Code-First AI Development**

  Develop AI agents, tools, and applications using visual tools and/or notebook.

- **OCI Generative AI + Oracle 23ai Integration**

  Leverage best-in-class LLMs and AI services.

- **Oracle 23ai Vector Store Integration**

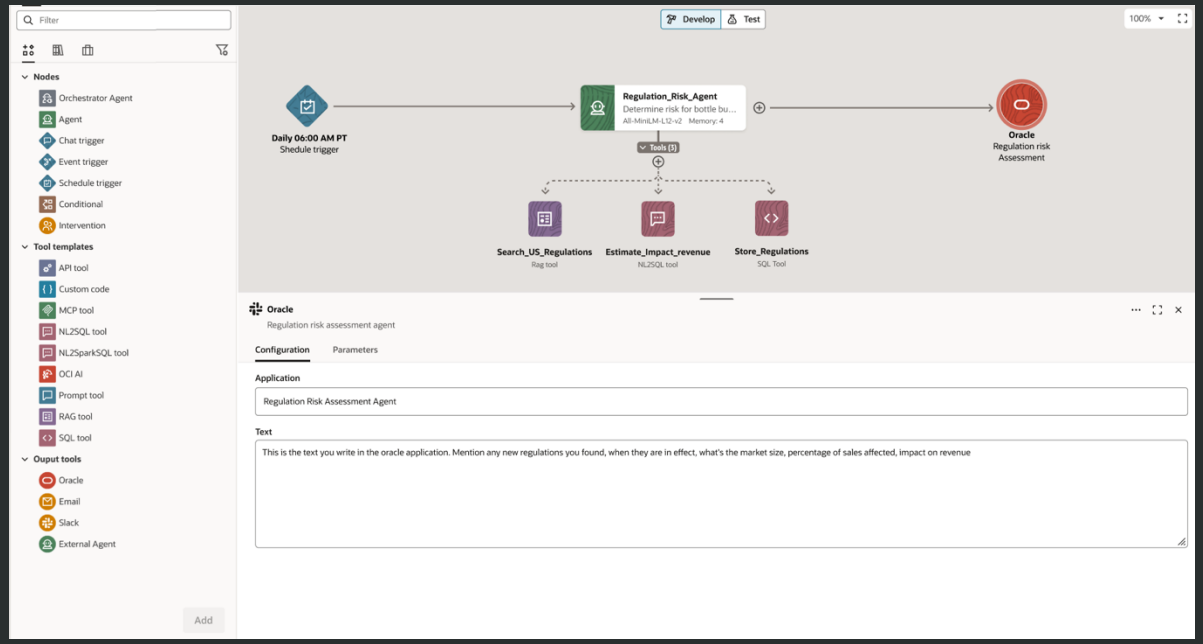
  Store, manage, and query enterprise knowledge using vector search, linked to the master catalog.

- **Lifecycle Management for AI Assets**

  Register, version, test, and promote AI agents with full governance.

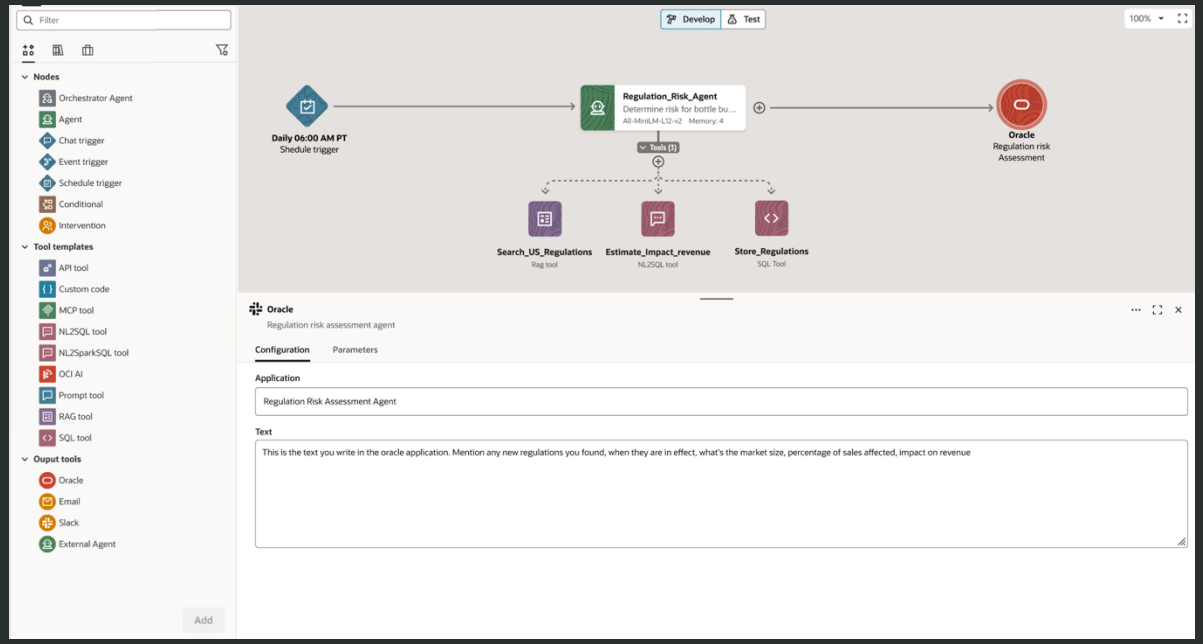
- **Fusion AI Agent Studio Integration**

  Embed custom agents directly into Oracle SaaS apps.



Agent Flows

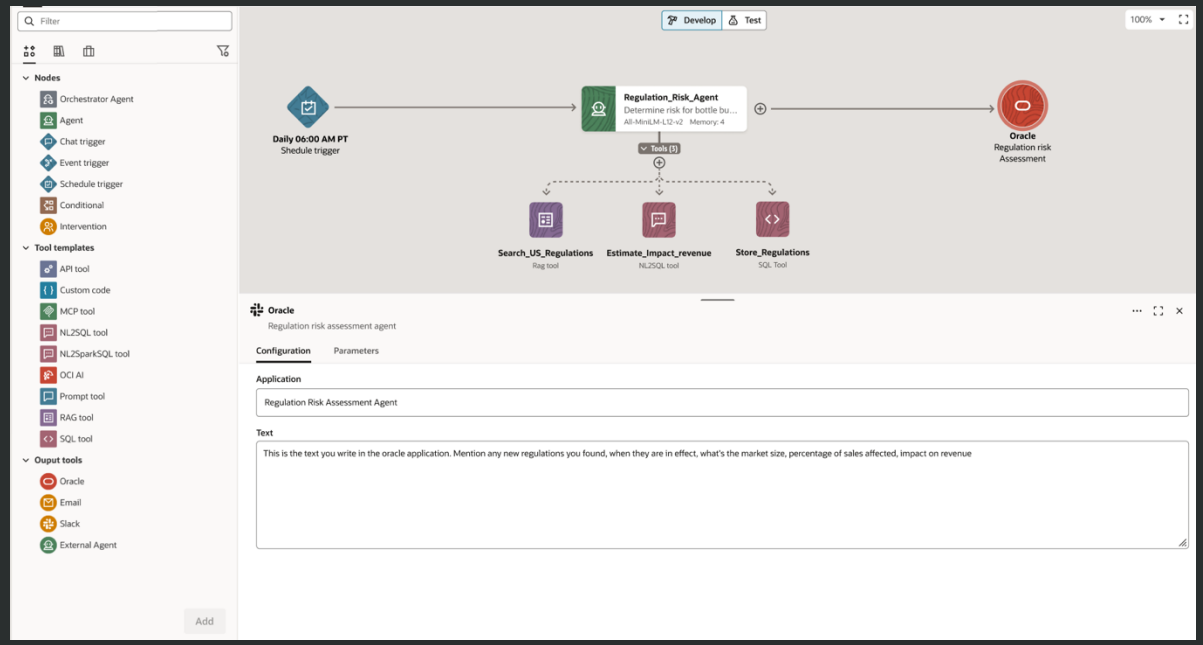
- Agent flows are E2E agentic applications that are core AI artifacts in AI Data Platform.
- Agent flows are defined through a graph of steps represented by nodes of different types (agents, tools, if/else condition, trigger, code, etc) and relationships
- Contrary to standard single- or multi-agent applications, agent flows let you orchestrate complex applications by mixing non-deterministic components (e.g. AI agents) with deterministic controls (e.g. triggers, code, conditional nodes)
- **Agent flows are designed to increase agentic applications reliability and predictability.**



Agent Flows

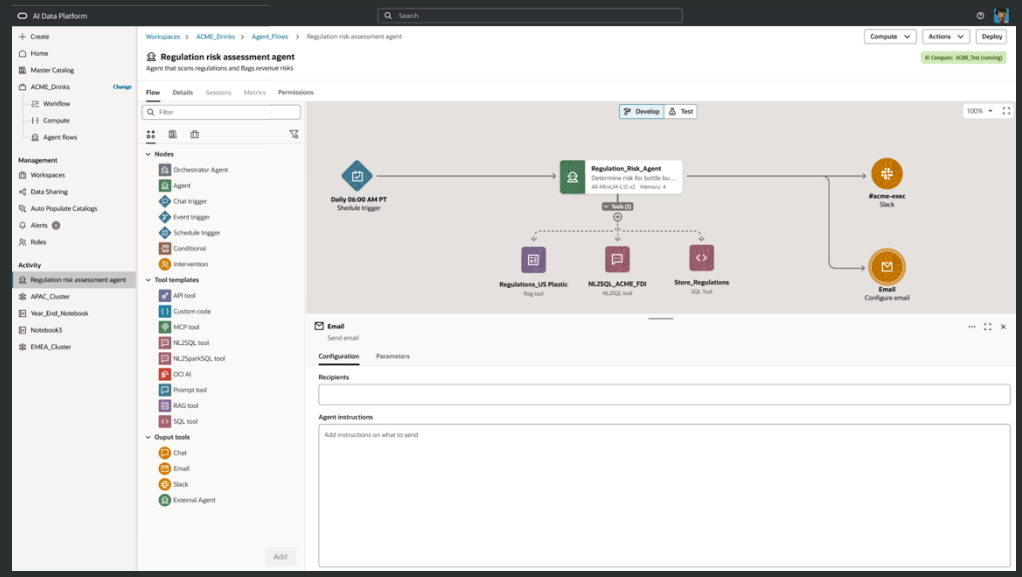
- Agent flows bring the best of agentic and Flexible application design which supports a variety of scenarios including:
  - Single agent with tools
  - Multi-agent systems
  - Partially deterministic execution through combinations of agent, code, trigger, and conditional nodes

- Supported node types include:
  - Trigger
    - chat, schedule-based, event-triggered, ad hoc
  - Conditional
    - If/else, branch split, etc
  - Code
    - custom code execution processing the output of another node
  - Agents
  - Tools

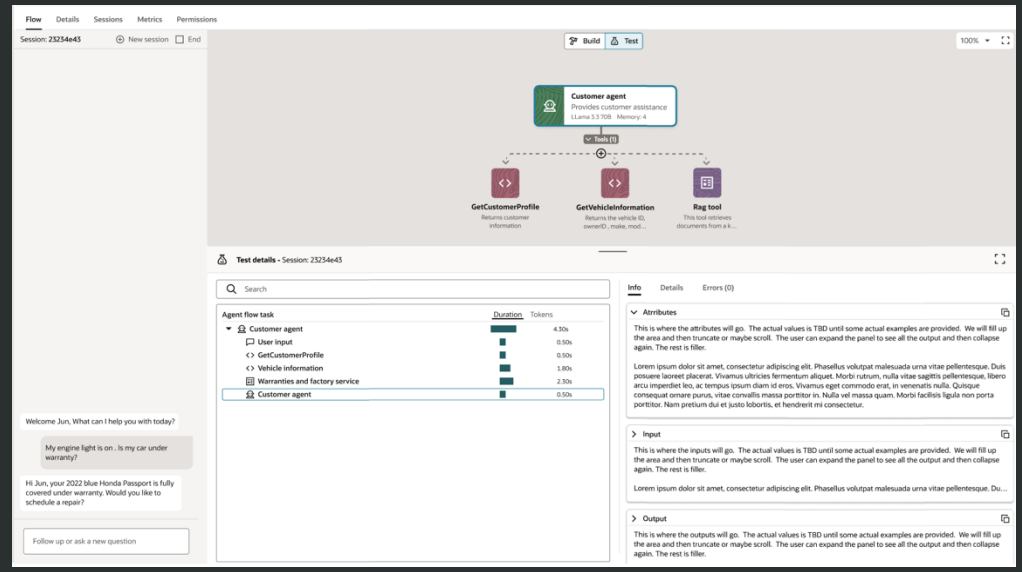


Agent Flow Building, Testing, and Debugging

- Building agent flows is a highly iterative process. AIDP reduces the friction.
  - Support both no-code, canvas-style agent flow definition as well as code definition through LangGraph
  - Options to quickly iterate on your agent flow through “build” and “test” panels
  - Changes made to the agent flow in the ”build” phase are immediately available for testing through a comprehensive testing playground.



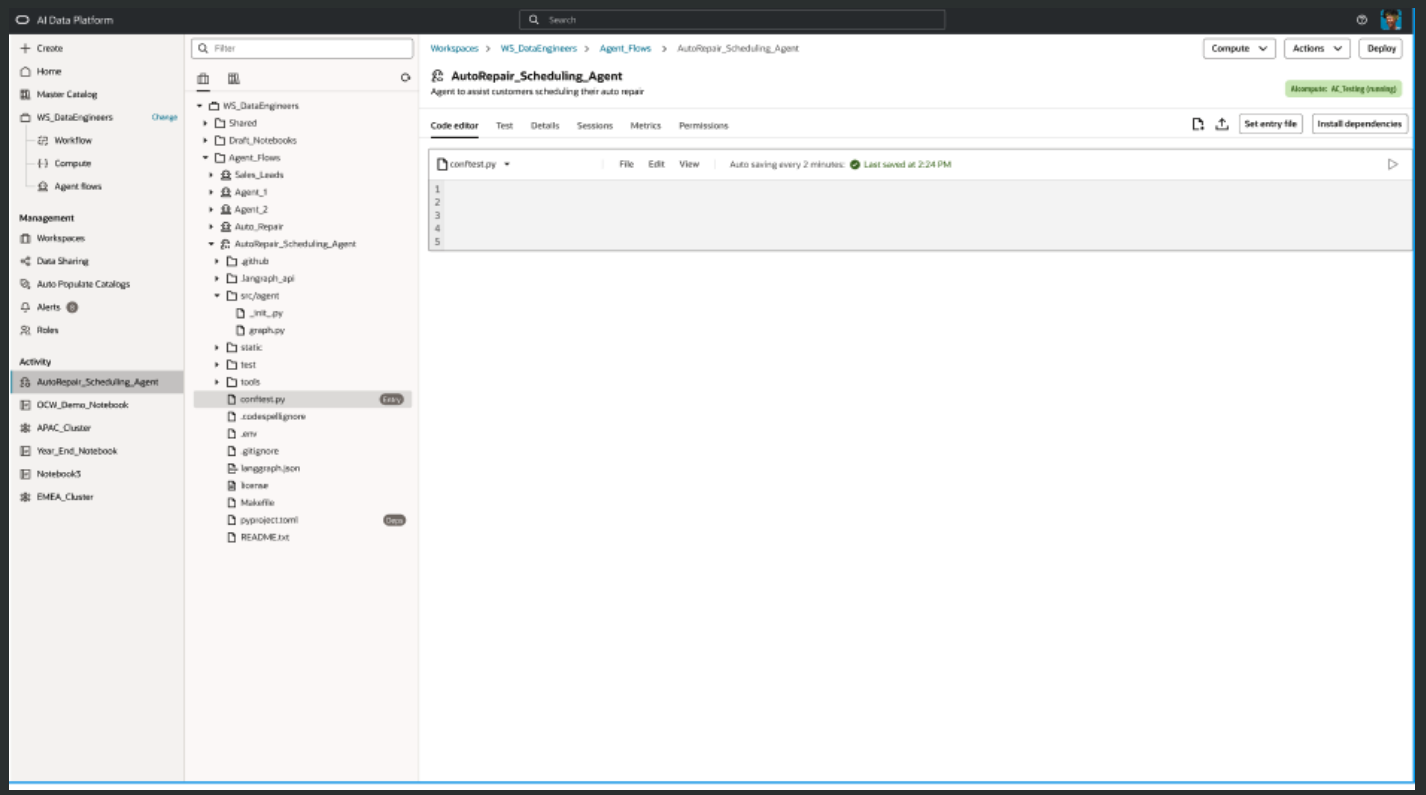
Building



Testing

Agent Flow Coding Experience

- Upload LangGraph app and/or author in AIDP Python editor
- Use AIDPUtils library to integrate Gen AI LLMs, Guardrails, Tools, Memory and Observability
- Define agent flow entry point file
- Configure a list of third-party Python dependencies
- Run and debug with a unified testing playground experience



Powered by Frontier LLMs from OCI Gen AI Service

- Select SOTA LLMs from the OCI GenAI service in your agent flow definition
- Configure the model parameters and provide detailed prompts to the agent including the objective, tasks, role, and any other relevant instructions.
- Configure tools and give your agent flow access to your data in AI Data Platform

Grok

cohere

Gemini

Llama

OpenAI

Configurable Tool Templates available Out of the Box

Reduce variance and give your agent flows the skills to access your valuable data

SQL Tool

Parametrize custom SQL queries to let your agent flows access data in AIDP catalog schemas.

Retrieval Augmented Generation Tool

Connect to knowledge bases and Search through files stored in AIDP volumes.

Prompt Tool

Give your agent access to prompt templates for email, notification, document summarization, etc.

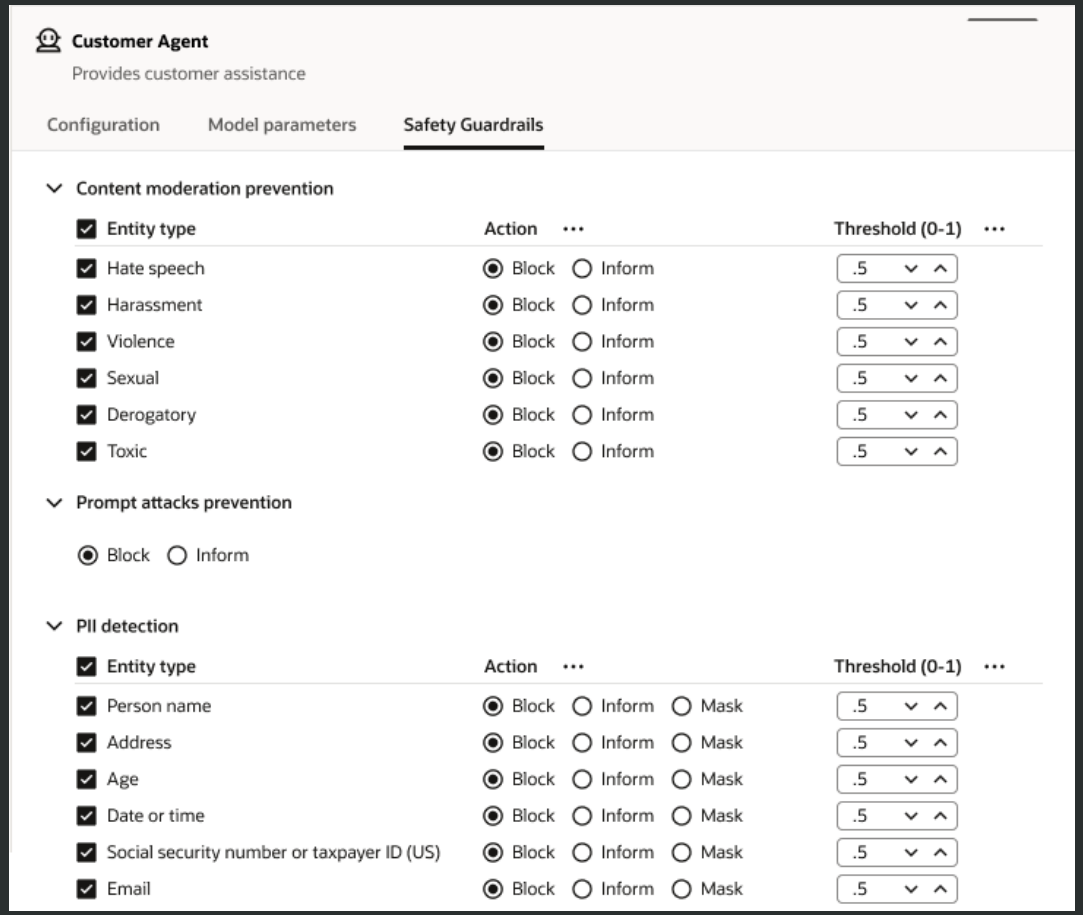
Protect your Agent Flow with Strong, Configurable Guardrails

- Ensuring that the agent flow behave according to expectations is paramount to AIDP

- AIDP provides **strong, default guardrails** that protects your agent flows against toxic and malicious content.

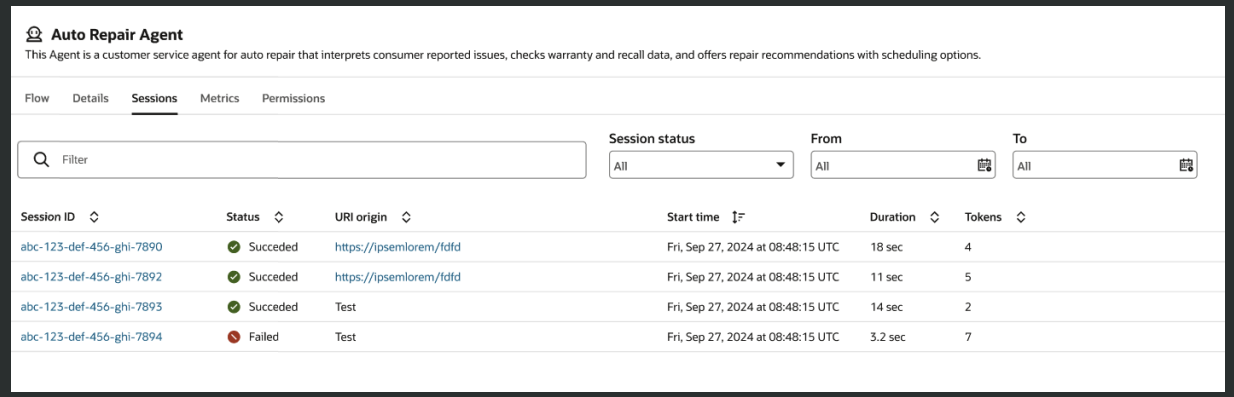
- Guardrails can also be configured and include:
  - Strong content moderation across multiple categories of harmful content: Hate speech, Harassment, Violence, Sexual, Derogatory, Toxic
  - Prompt injection
  - Apply for each **user query and/**or **model response**
  - Control if/how PII data are displayed in the query or the response

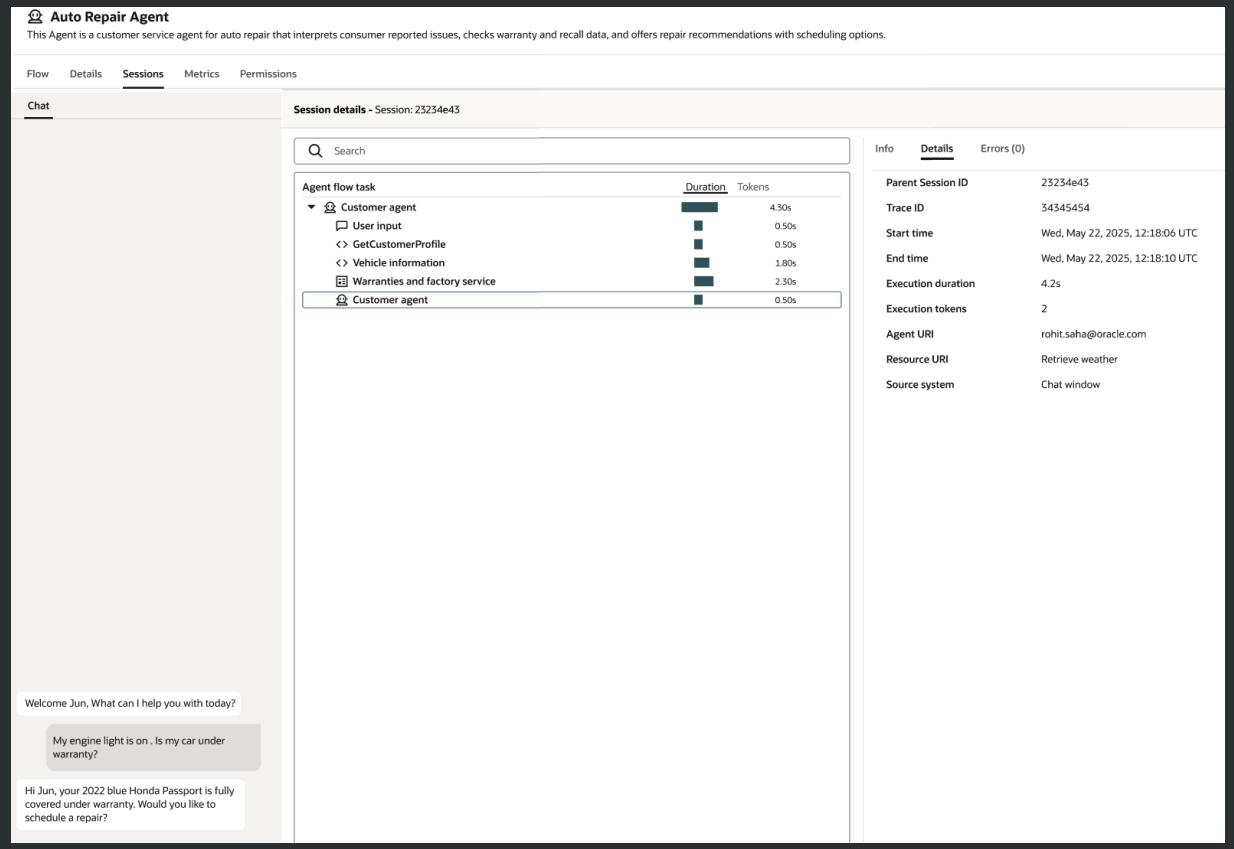
- Control the action to take by selecting between blocking the content, informing the end user or masking the PII content



Monitor Everything

- **Capturing all interactions** between user, agent flows, tools, data, and LLMs is necessary for development and production
- **Sessions, traces, spans, logs, errors, and token count data** generated during tests are available directly in the developer experience.
- Inspect **traces**, **drill down on spans**, and **spot errors** during conversations without parsing through logs
- Access a series of **metrics** giving you a pulse on the operational performance of your agent flow
- Enable the inspection of production sessions, traces, and metrics

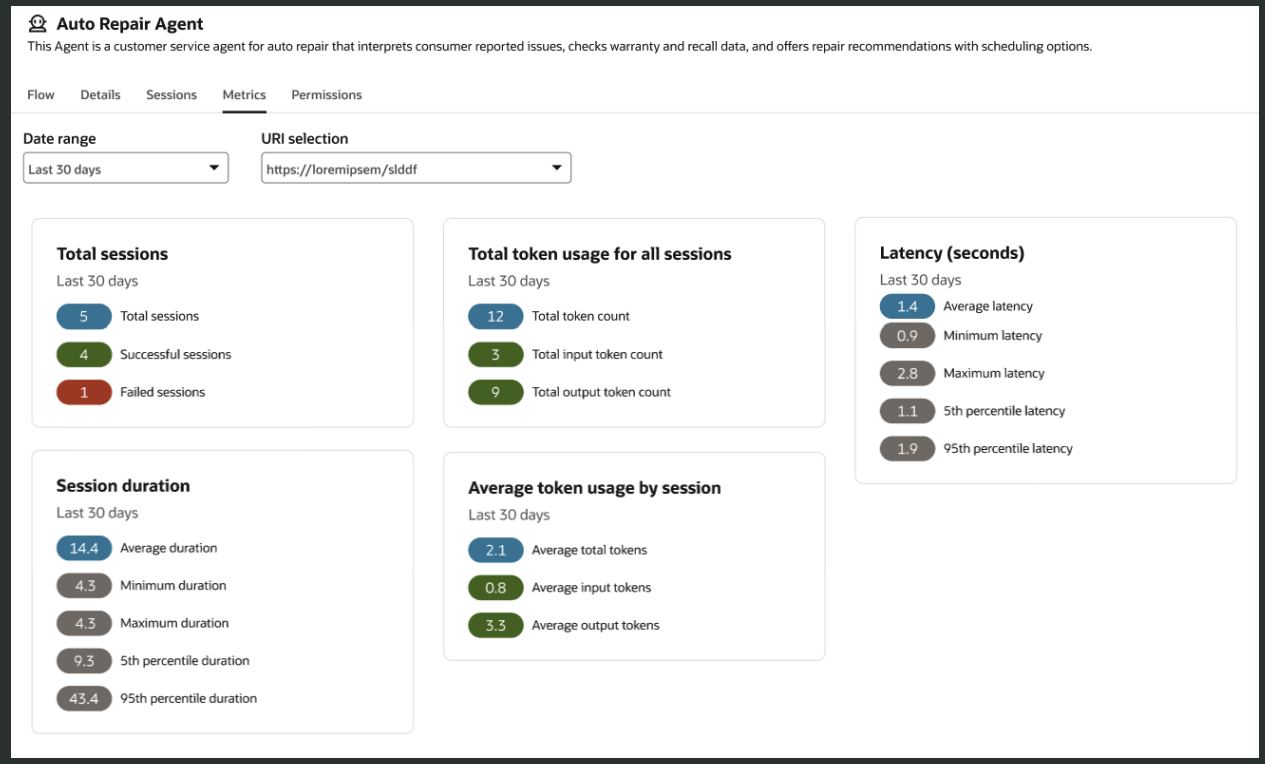




Monitor Everything

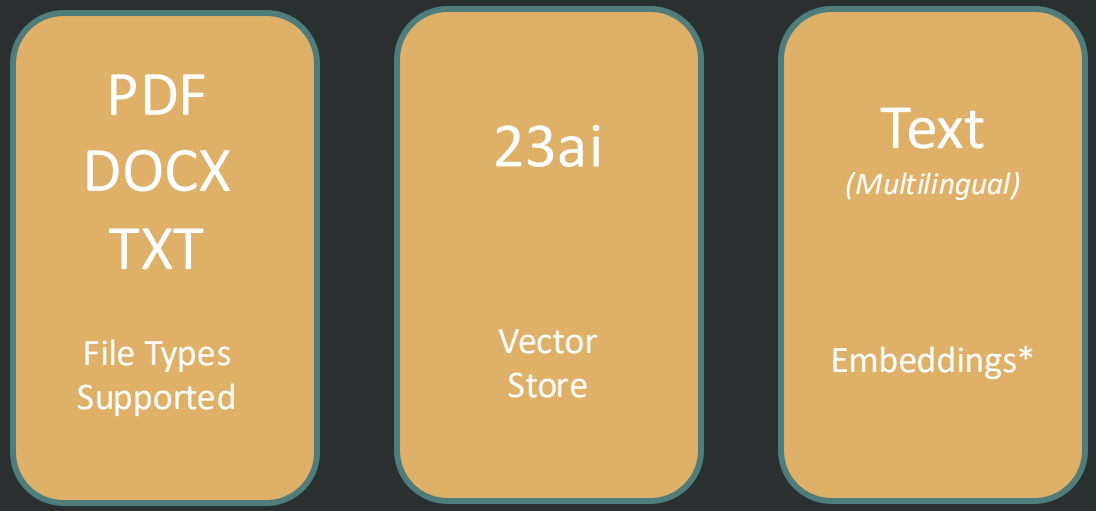
- View operational metrics of your agent flow, including:
  - Session count
  - Session duration
  - Token consumption
  - Latency of each thread

- Select relevant time periods and inspect time series trends

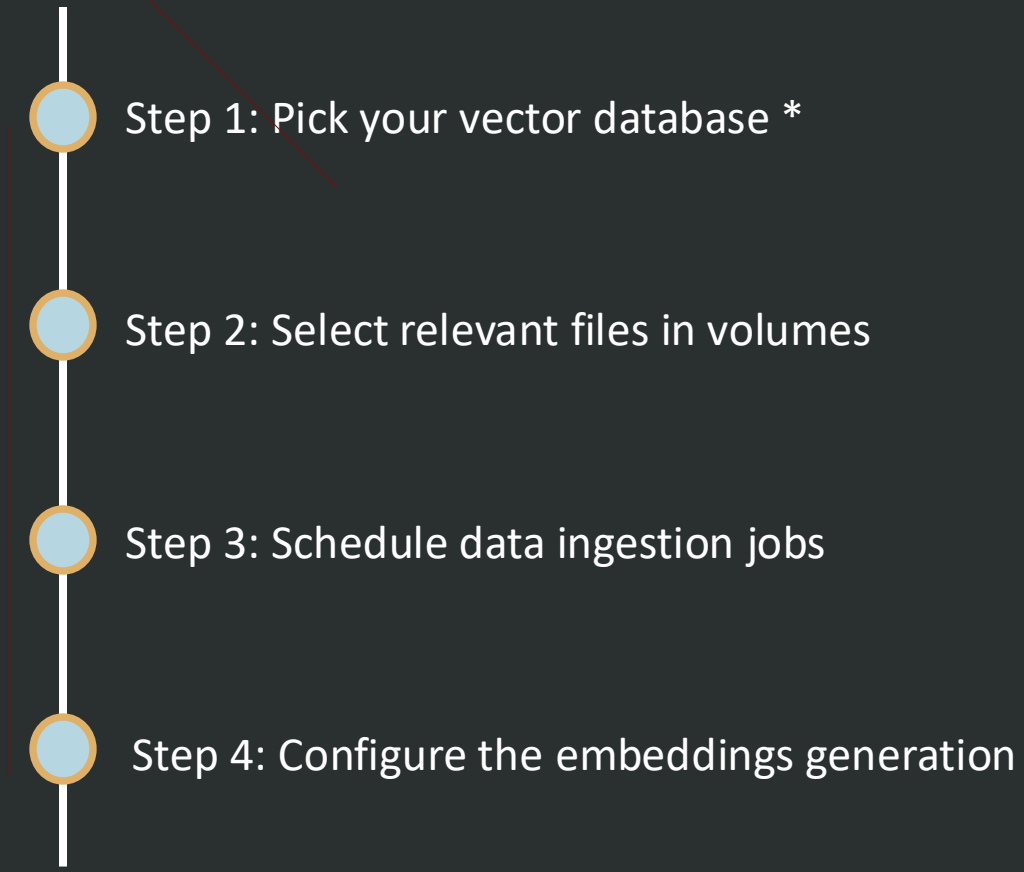


Create Knowledge Bases in AI Data Platform

- Knowledge bases store vectorized representations of documents (pdfs, docx, html) stored in AI Data Platform volumes
- Agent flows can access knowledge bases to search and retrieve semantically relevant documents.



* *all-MiniLM-L12-v2* and *multilingual-e5-small* are initially offered as embeddings models.



** : or use the same ADW 23ai instance created during AIDP provisioning*

AI Data Platform Accelerates Agents Development

Unified data management, agent flow development, and deployment platform

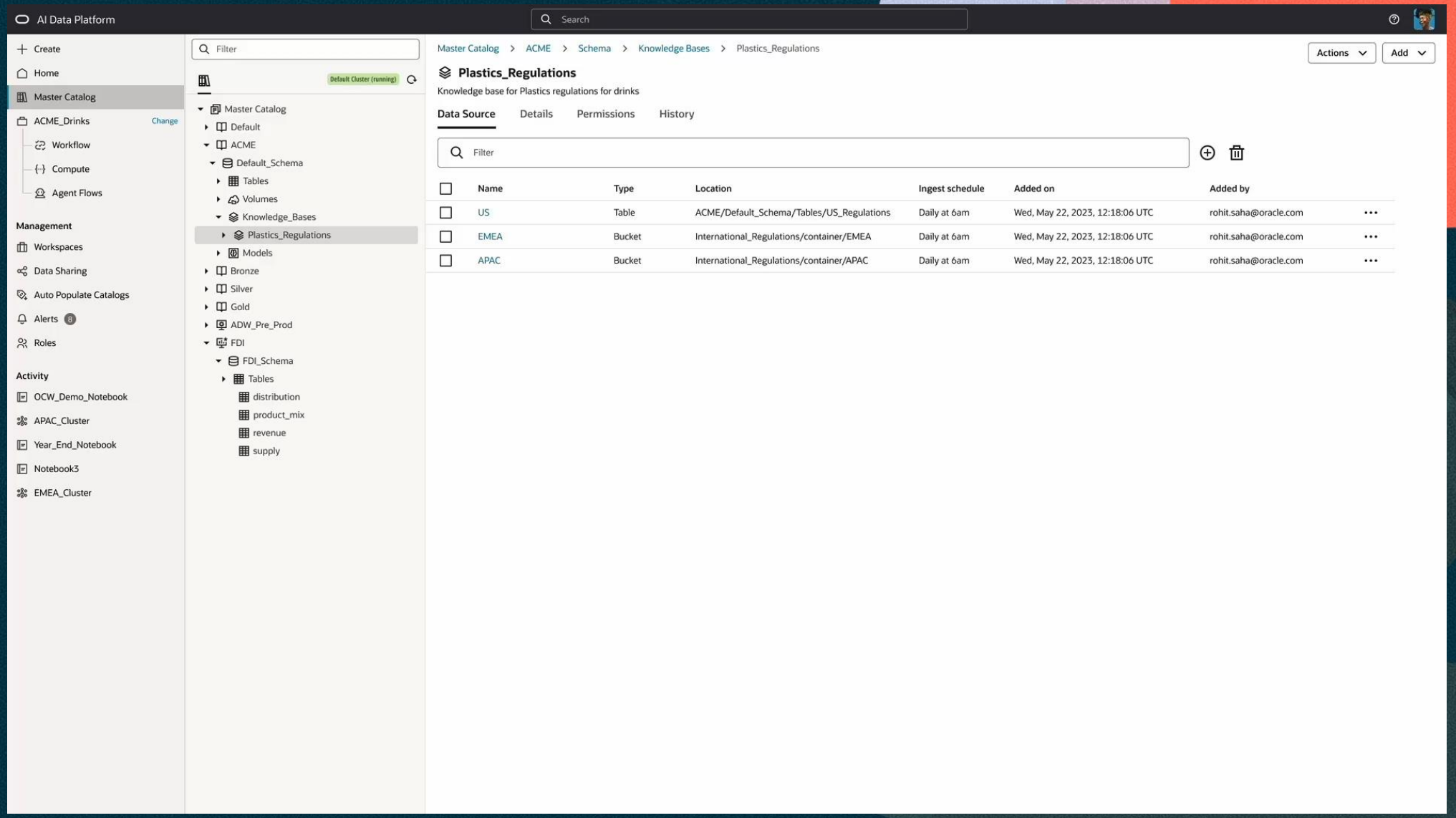
Fast, no-code development experience or BYO code

Reduce time to value: tool templates to query your data

Agent protection through thoughtful default guardrails and unified RBAC

Leave no stone unturned and monitor everything

Demo



AI Data Platform Workbench | Roadmap Timeline

Q3 2025 - General Availability

Data and ML Developers
- Developer workspaces
- Notebooks & job orchestration
- Apache Spark – Python, SparkSQL
- Notebook Code Assist
- Orchestrate & monitor data pipelines
- Open-source libraries & frameworks
- Compute – Intel, AMD, GPU
- Delta Share

AI Developers
- OCI Gen AI models – Llama, Cohere, OpenAI

Catalog and Governance
- Catalog for data and models
- Object store (Standard Catalog)
- ADB, Exadata, Oracle DB (External Catalog)
- RBAC at table or column level

Integrations
- ADB as a source and target
- OAC – Connect to AIDP Catalog
- FDI – share data/metadata
- Fusion – built-in connector

Q4 2025

AI Developers
- OCI Gen AI models – Llama, Cohere, OpenAI
- Tool Types – RAG, SQL, Vector, LLM
- Low-code agent flow creation
- Agent endpoint deployment
- Agent-flow testing playground
- Observability
- Guardrails

Catalog and Governance
- AI knowledge support

Integrations
- GoldenGate – AIDP lakehouse as Target

2026

Data and ML Developers
- Iceberg support
- Scala
- MLOps
- GIT/CICD

AI Developers
- Multi-Agent support
- MCP server for tools
- Fusion AI Agent Studio integration
- Custom Tools

Catalog and Governance
- Lineage
- Data Quality

Integrations
- 3P data stores, such Azure Blob

Q&A

Thank you

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Unlocking the Future: See How AI Is Transforming Analytic Applications

Srikant Gokulnatha et al.

Wed Oct 15, 2:15-3:00PM, Ballroom F, level 2

Data Engineering for AI Using Oracle AI Data Platform Sujoy Chowdhury Martin Jung Marco Polo 805, Level 1	**Learn How Partners Accelerate AI Innovation with Oracle AI Data Platform** Santosh Balasubramanian et al. Titian 2205, Level 2	**From Data to Predictions: Building AI Models with Oracle AI Data Platform** Sujoy Chowdhury Marco Polo 804, Level 1	**AI Predictions with Medallion Architecture and LLMs on Oracle AI Data Platform (Lab)** Sujoy Chowdhury et al. Expo 306, Level 1	**Building Agents with Oracle AI Data Platform: Best Practices** Guy Michaeli Katrin Kirchhoff Timothy Nexon Marco Polo 803, Level 1
Wed Oct 15 3:30-4:15pm	**Wed Oct 15 4:45-5:30pm**	**Thu Oct 16 9:00-9:45am**	**Thu Oct 16 11:00-12:30pm**	**Thu Oct 16 11:30-12:15pm**


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