

Seagulls
- sky is the limit

Wells Fargo Technology Hackathon 2025

Gen AI for Platform Support – Integrated platform Environment

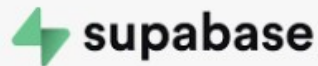
Se^ag_gU|l_sV²5



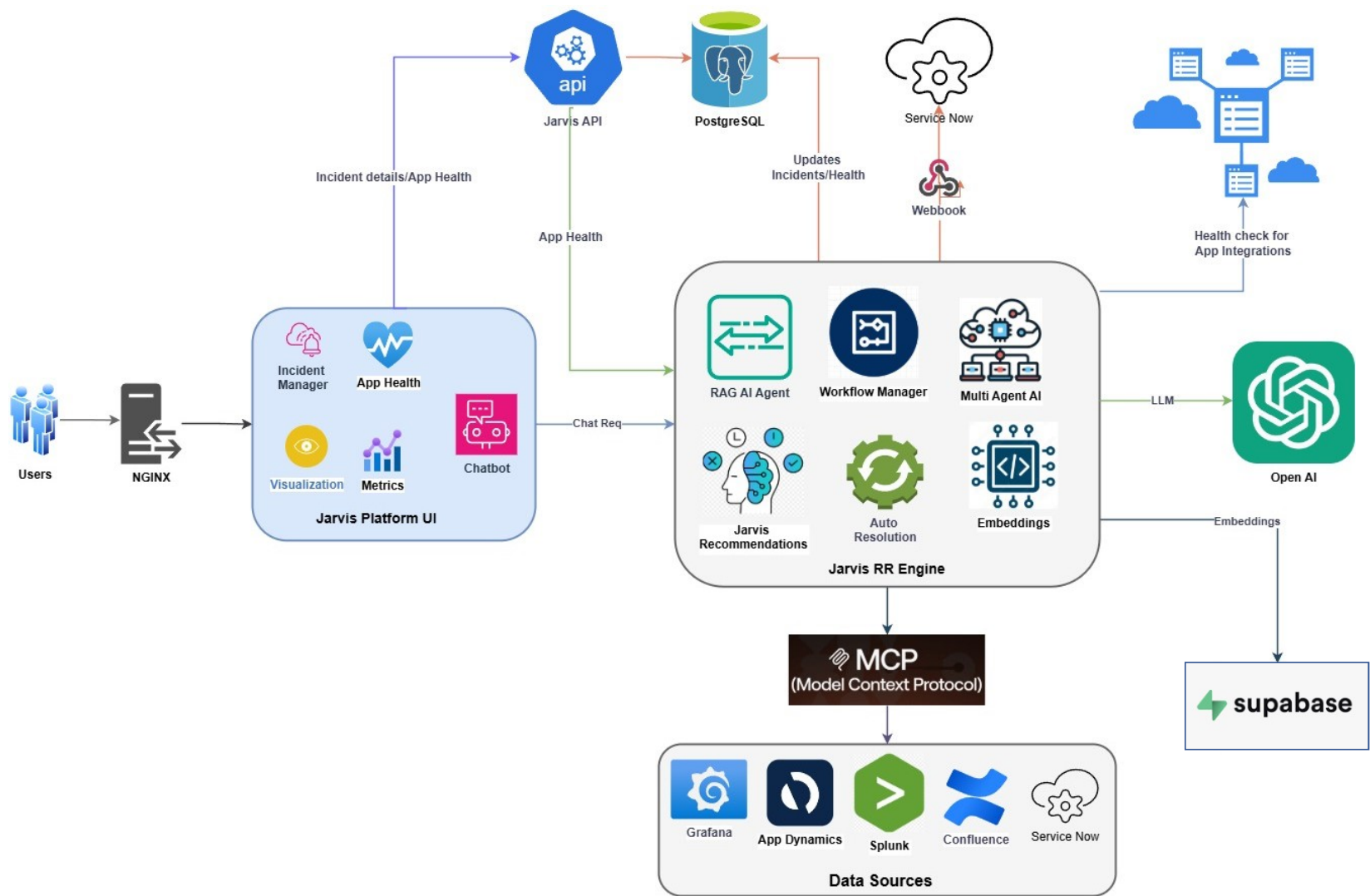
Jarvis- One stop AI solution for Platform Support

Trivia – each letter used in SeagullsV25 is written using different font, font size, style and font color ☺

Jarvis- Diversified Technology Stack



Jarvis- Architecture



“Jarvis” summary



Problem Statement:

Develop a gen-AI enabled Integrated platform environment that provides an integrated console to platform support

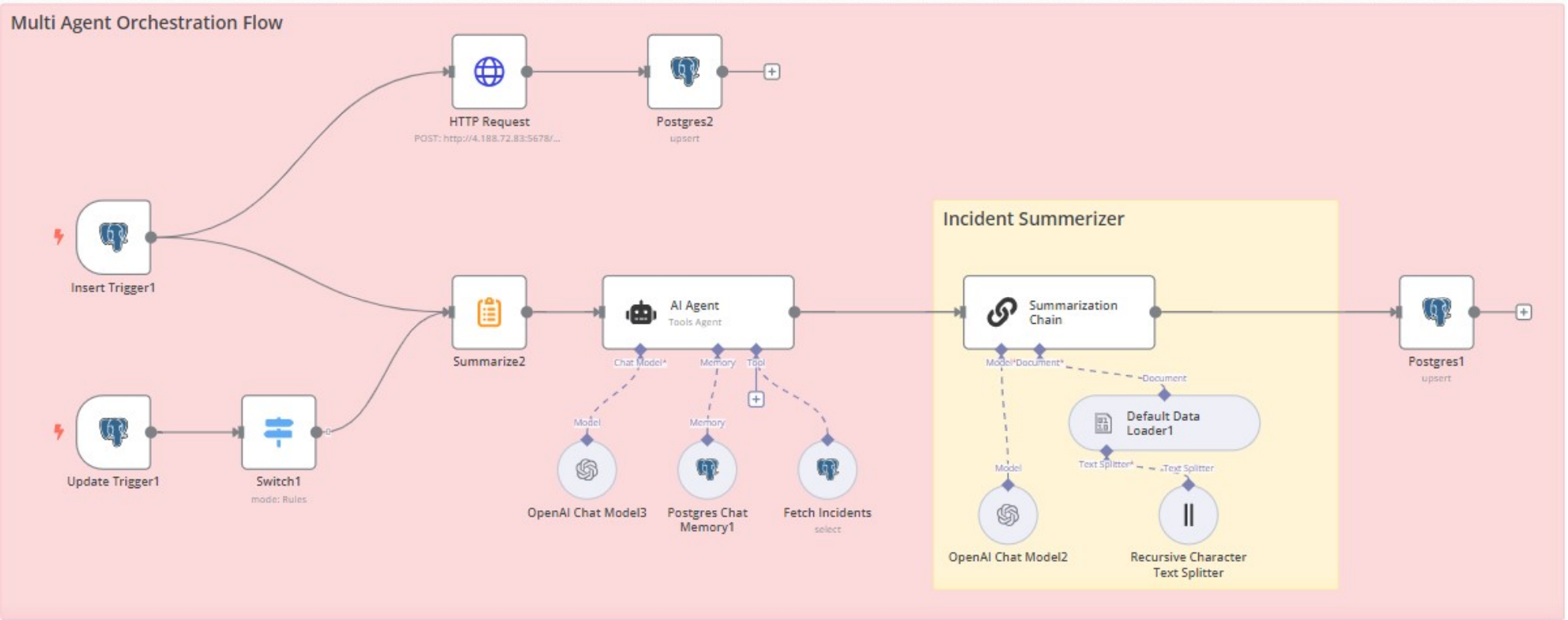
Solution:

- ✓ **GenAI-powered** workflows to enhance key platform capabilities.
- ✓ **Webhook integration** with ServiceNow to trigger GenAI workflows for proactive recommendations, RCA summaries, and resolutions.
- ✓ **User-friendly UI with an AI-powered chatbot**, offering incident management, triaging, and resolution capabilities, along with additional features to streamline daily operations..
- ✓ **Seamless data integration** from enterprise tools like ServiceNow, Grafana, Splunk, and Confluence.
- ✓ **MCP-enabled architecture** for efficient context management and smooth integrations.
- ✓ **APIs for easy integration** between the UI and GenAI workflows.

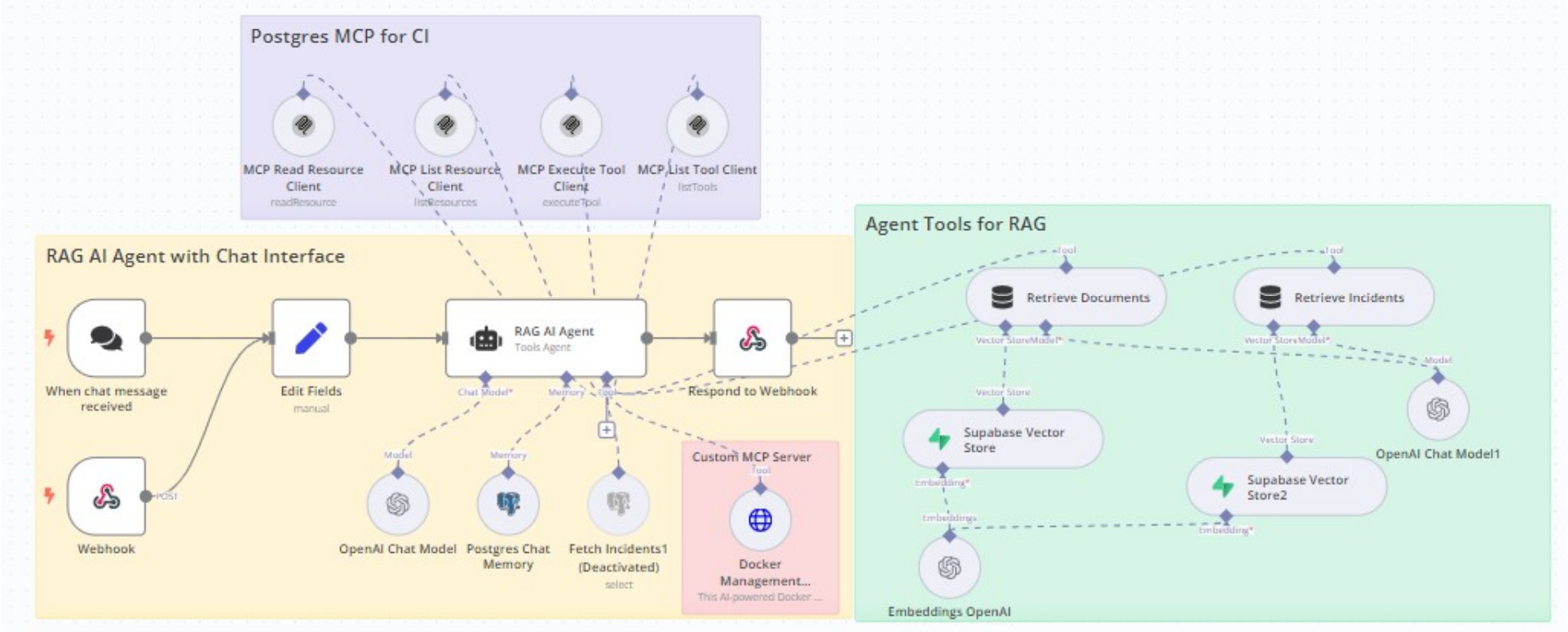
Novelty:

- ✓ **Self-healing and automated incident resolution** in ServiceNow using GenAI-driven workflows.
- ✓ **Real-time data synchronization** for new incidents and data source updates into a vector database.
- ✓ **Configurable workflows** for RAG-based retrieval and data synchronization.
- ✓ **Multi-agent orchestration** to streamline task delegation and execution.
- ✓ **Application and dependency health dashboard** for enhanced monitoring.
- ✓ **Portfolio health view** tailored for managers and leadership teams.
- ✓ **Comprehensive platform metrics** to track key capabilities and performance.
- ✓ **Integrated, customizable toolkit** (e.g., Docker) with framework-supported workflows.

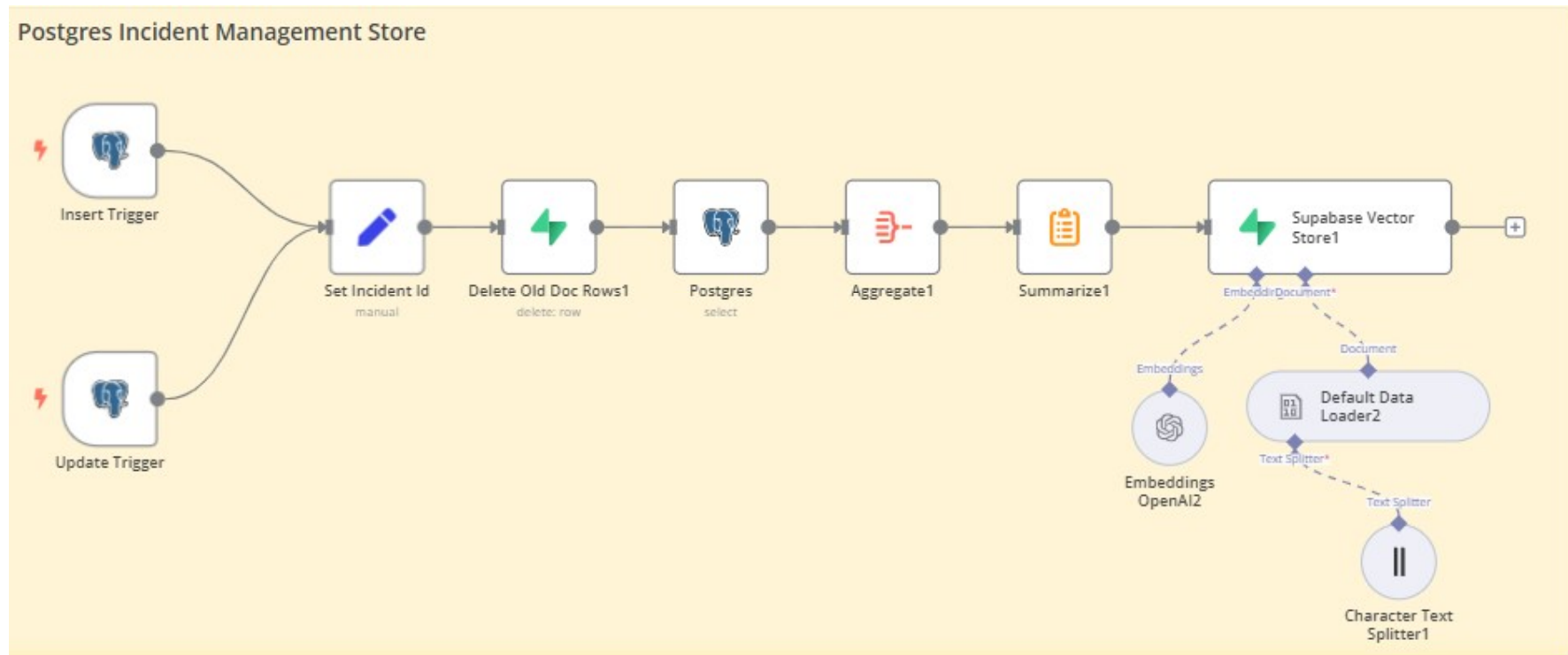
Multi Agent Orchestration workflow



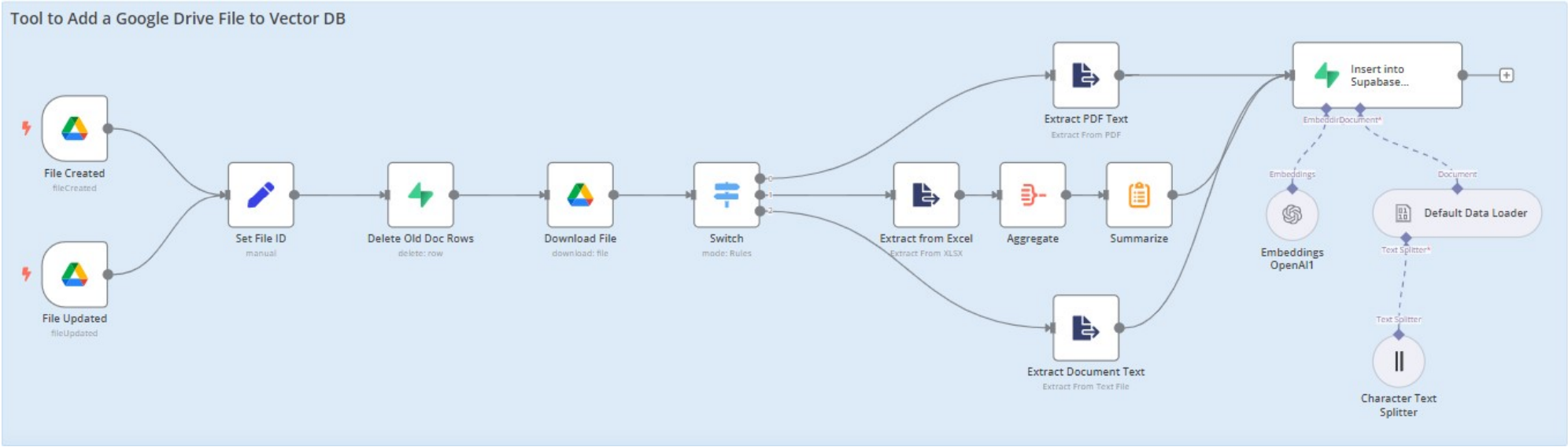
Incident Recommendation & Resolution MCP workflow



Incident data sync workflow



Knowledge source data sync workflow



Challenges

- ✓ **Real time integrations** with Enterprise Tools like Service now, Splunk, Appdynamics
- ✓ **Creation of sample** Datasets for incidents and telemetry related data
- ✓ **Hosting** infrastructure for the complete solution

Roadmap

- ✓ **Extend the solution with Real time integrations** for Enterprise Tools like Service now, Splunk, Appdynamics
- ✓ **Single click Paging** when any application dependency is down
- ✓ End to end Incident resolution updates in **Service now ticket**

Appendix

Results

Jarvis RR Engine: Knowledge Source Creation & Updates

Current Knowledge Hub

Search in Drive

My Drive > hackathon > dataset

Type

People

Modified

Source

Name	Owner	Last modified	File size
dataset-1.pdf	me	22 Mar 2025	103 KB
dataset-2.pdf	me	22 Mar 2025	102 KB
dataset-3.pdf	me	22 Mar 2025	247 KB

NaveenOrg

Free

snaveen1603@gmail.com's Project

Enable branching

Connect

Table Editor

schema public

+ New table

Search tables...

documents

incidents

Filter

Sort

Insert

RLS disabled

Role postgres

Refresh

	id	content	metadata	embedding
141	int8	cations from start to end 3. Confirmed int	{\"loc\":{\"lines\":{\"to\":194,\"from\":174}},\"sour	[-0.017626897,0.0124816
142		ap space\" errors. ● Root Cause: Memory	{\"loc\":{\"lines\":{\"to\":214,\"from\":194}},\"sour	[-0.02202673,0.0137840
143		alth checks 3. Establish resource consum	{\"loc\":{\"lines\":{\"to\":235,\"from\":214}},\"sour	[-0.033060934,0.051055
144		n servers 2. Processed backlog of pending	{\"loc\":{\"lines\":{\"to\":258,\"from\":235}},\"sour	[-0.022535585,0.053905
145		tch jobs accessing same tables caused da	{\"loc\":{\"lines\":{\"to\":282,\"from\":258}},\"sour	[-0.04667811,0.0546732
146		Subcategory: OCR Processing ● Priority:	{\"loc\":{\"lines\":{\"to\":303,\"from\":282}},\"sour	[-0.023807153,0.079720
147		yed processing of approximately 1,500 lo	{\"loc\":{\"lines\":{\"to\":332,\"from\":303}},\"sour	[-0.008830733,0.02649
148		ges O Check for notifications from paym	{\"loc\":{\"lines\":{\"to\":357,\"from\":332}},\"sour	[-0.03859044,-0.010990
149		firm successful payment reconciliation 4.	{\"loc\":{\"lines\":{\"to\":380,\"from\":357}},\"sour	[-0.033175424,0.050156
150		Updated rate tables with correct product	{\"loc\":{\"lines\":{\"to\":402,\"from\":380}},\"sour	[-0.02816509,0.0390746
151		g team (76 users) ● Description: Commer	{\"loc\":{\"lines\":{\"to\":424,\"from\":402}},\"sour	[-0.003211944,0.0513137
152		nt deadlock detection and automatic retr	{\"loc\":{\"lines\":{\"to\":446,\"from\":424}},\"sour	[-0.009814446,0.059797
153		for all regulatory requirements 2. Verified	{\"loc\":{\"lines\":{\"to\":472,\"from\":446}},\"sour	[-0.008133517,0.0526793
154		● Resource contention ● Network latenc	{\"loc\":{\"lines\":{\"to\":500,\"from\":473}},\"sour	[-0.031851046,0.035319
155		astructure O Check network latency betv	{\"loc\":{\"lines\":{\"to\":524,\"from\":500}},\"sour	[-0.04133284,0.0360198
156		ication failures between validation and ur	{\"loc\":{\"lines\":{\"to\":548,\"from\":524}},\"sour	[-0.034921054,0.044296
157		ID: INC-2025-04220 ● Title: Memory Les	{\"loc\":{\"lines\":{\"to\":570,\"from\":548}},\"sour	[-0.040768135,0.0769171
158		ality for various document types ● Time t	{\"loc\":{\"lines\":{\"to\":600,\"from\":570}},\"sour	[-0.04093784,0.064383
159		ation logs for error patterns O Verify rece	{\"loc\":{\"lines\":{\"to\":626,\"from\":600}},\"sour	[-0.011234007,0.0561205
160		edures Validation Steps 1. Verify data con	{\"loc\":{\"lines\":{\"to\":633,\"from\":626}},\"sour	[0.0058664996,-0.0023

Page 1 of 1

100 rows

40 records

Refresh

Jarvis RR Engine: Knowledge Source Creation & Updates

Updated Knowledge Hub when a new dataset gets added

My Drive > hackathon > dataset

Type People Modified Source

Name	Owner	Last modified	File size
dataset-1.pdf	me	22 Mar 2025	103 KB
dataset-2.pdf	me	22 Mar 2025	102 KB
dataset-3.pdf	me	22 Mar 2025	247 KB
dataset5.txt	me	09:24	565 bytes

NaveenOrgFree / snaveen1603@gmail.com's Project

Enable branching

Connect

Table Editor

schema public

+ New table

Search tables...

documents

incidents

Delete 1 row

Export

	id	intB	content	text	metadata	jsonb	embedding	vector	
	142		ap space" errors. ● Root Cause: Memory		{ "loc": { "lines": { "to": 214, "from": 194 } }, "sour		[-0.02202673, 0.0137840		
	143		alth checks 3. Establish resource consum		{ "loc": { "lines": { "to": 235, "from": 214 } }, "sour		[-0.033060934, 0.051055		
	144		n servers 2. Processed backlog of pending		{ "loc": { "lines": { "to": 258, "from": 235 } }, "sour		[-0.022535585, 0.053905		
	145		tch jobs accessing same tables caused da		{ "loc": { "lines": { "to": 282, "from": 258 } }, "sour		[-0.04667811, 0.05467321		
	146		Subcategory: OCR Processing ● Priority:		{ "loc": { "lines": { "to": 303, "from": 282 } }, "sour		[-0.023807153, 0.0797201		
	147		yed processing of approximately 1,500 lo		{ "loc": { "lines": { "to": 332, "from": 303 } }, "sour		[-0.008830733, 0.026495		
	148		ges O Check for notifications from paym		{ "loc": { "lines": { "to": 357, "from": 332 } }, "sour		[-0.03859044, -0.010990		
	149		firm successful payment reconciliation 4.		{ "loc": { "lines": { "to": 380, "from": 357 } }, "sour		[-0.033175424, 0.0501561		
	150		Updated rate tables with correct product		{ "loc": { "lines": { "to": 402, "from": 380 } }, "sour		[-0.02816509, 0.0390746		
	151		g team (76 users) ● Description: Commer		{ "loc": { "lines": { "to": 424, "from": 402 } }, "sour		[-0.003211944, 0.0513137		
	152		nt deadlock detection and automatic retr		{ "loc": { "lines": { "to": 446, "from": 424 } }, "sour		[-0.009814446, 0.059797		
	153		for all regulatory requirements 2. Verified		{ "loc": { "lines": { "to": 472, "from": 446 } }, "sour		[-0.008133517, 0.0526793		
	154		Knowledge Article 99: CXXX		{ "loc": { "lines": { "to": 500, "from": 473 } }, "sour		[-0.031851046, 0.0353192		
	155		database connection error		{ "loc": { "lines": { "to": 524, "from": 500 } }, "sour		[-0.04133284, 0.0360198		
	156		Overview: The article		{ "loc": { "lines": { "to": 548, "from": 524 } }, "sour		[-0.034921054, 0.044296		
	157		address the incidents		{ "loc": { "lines": { "to": 570, "from": 548 } }, "sour		[-0.040768135, 0.0769171		
	158		related to CXXX Postgres DB		{ "loc": { "lines": { "to": 600, "from": 570 } }, "sour		[-0.040937884, 0.0643831		
	159		connection error.		{ "loc": { "lines": { "to": 626, "from": 600 } }, "sour		[-0.011234007, 0.0561205		
	160		Application was unable to		{ "loc": { "lines": { "to": 633, "from": 626 } }, "sour		[0.0058664995, -0.0023		
	202		connect to DB, during		{ "loc": { "lines": { "to": 17, "from": 1 } }, "source": "		[-0.024504941, 0.0221125		

Save changes

Cancel changes

Set to NULL

Page 1 of 1

100 rows

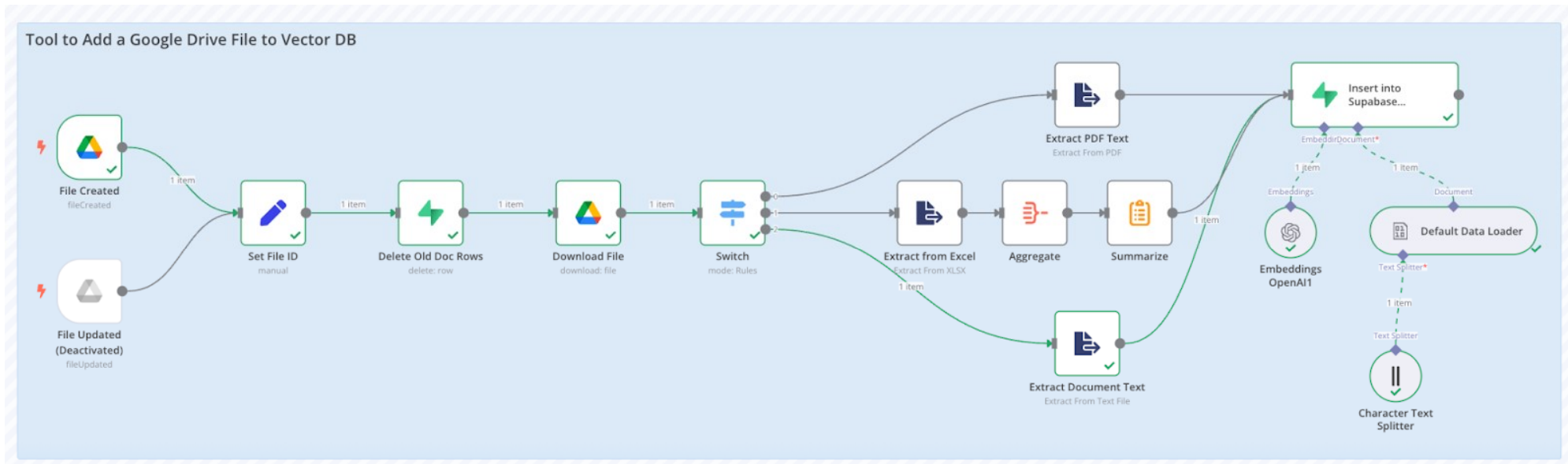
41 records

Refresh

A new row (202) was automatically added to the vector store along with the knowledge source.

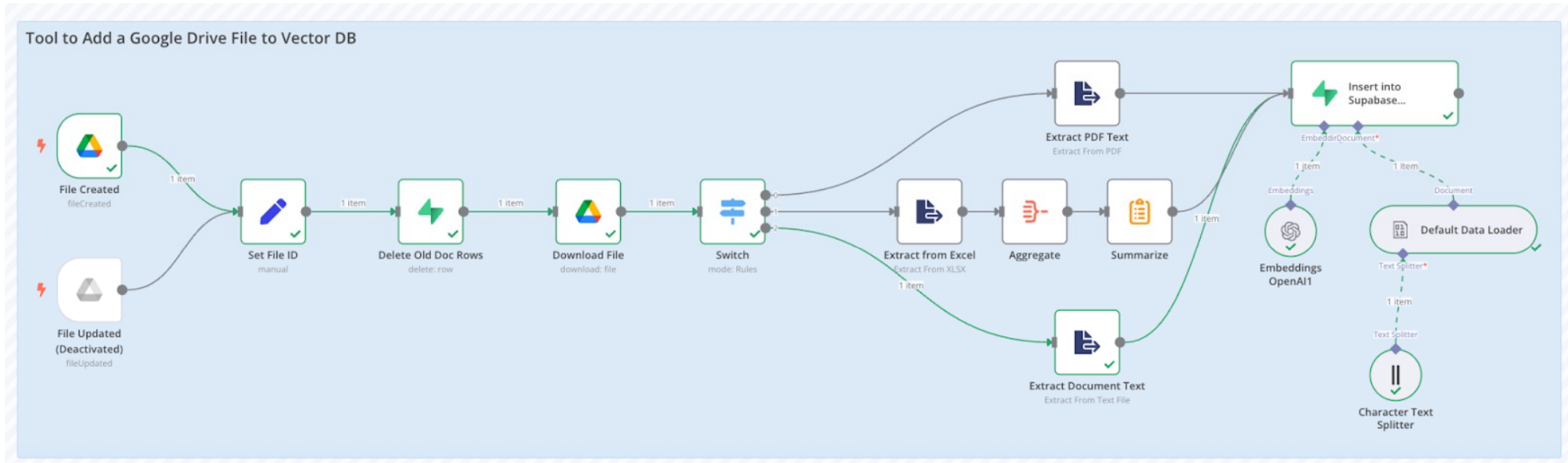
Jarvis RR Engine: Knowledge Source Creation & Updates

Invoked Flow

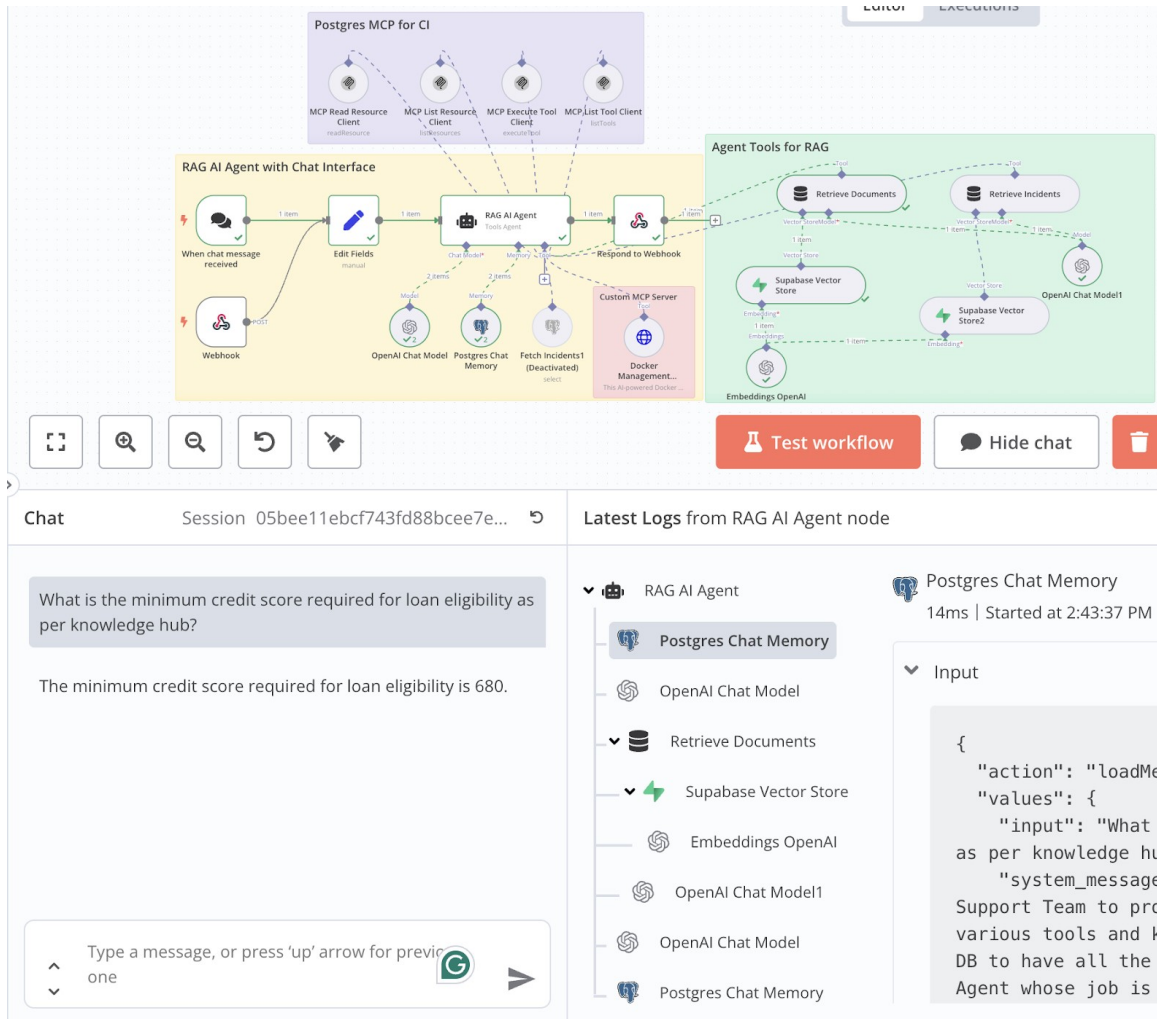


Jarvis RR Engine: Knowledge Source Creation & Updates

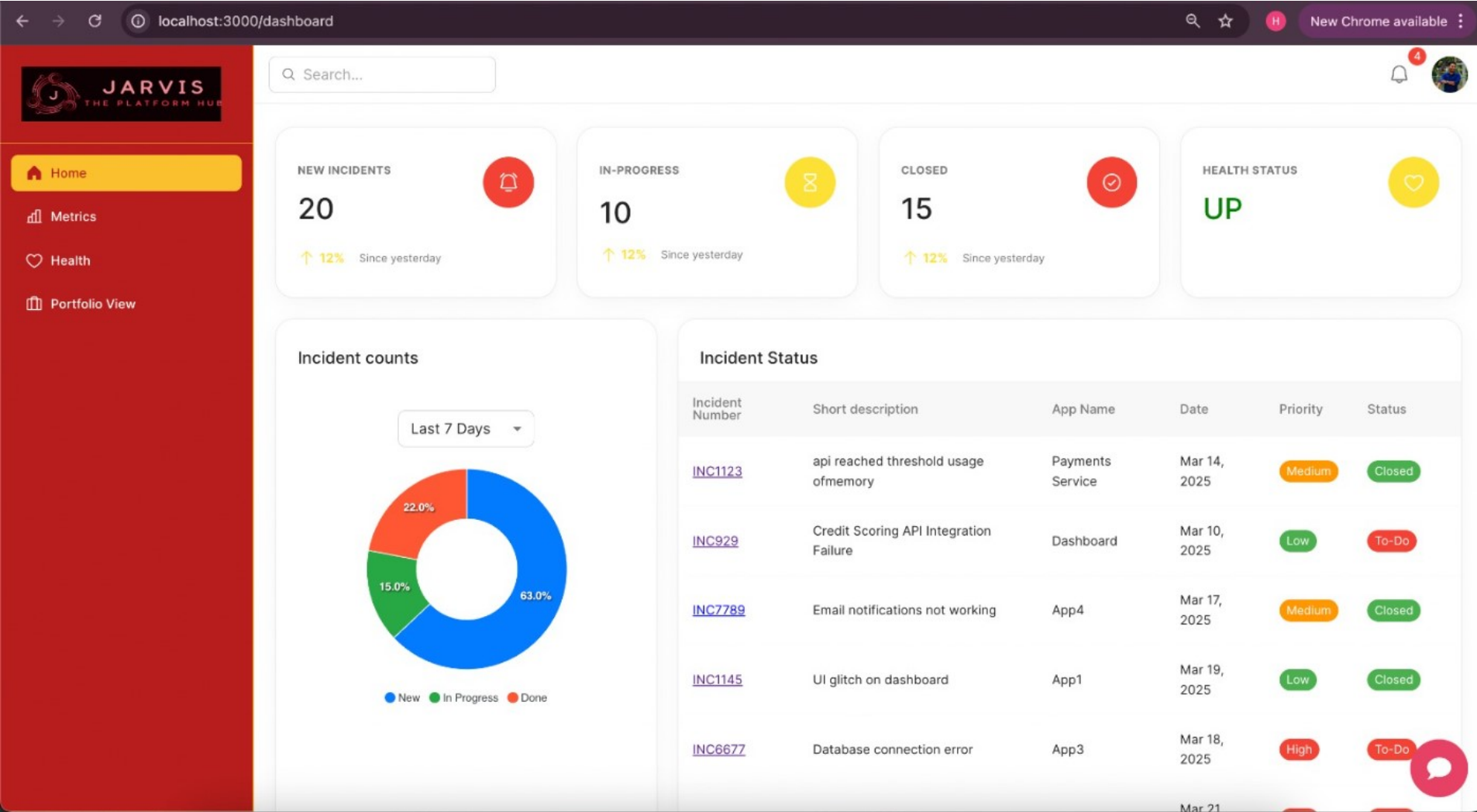
Invoked Flow



Jarvis RR Engine: Real time Knowledge Source Updates



Jarvis UI: Homepage



Jarvis UI: App dependency health View

localhost:3000/dashboard/health

Search...

JARVIS THE PLATFORM HUB

- Home
- Metrics
- Health
- Portfolio View

Application Architecture View

Payments

```
graph TD; PD[Populations Database] --> P[Payments]; CD[Cache Data] --> P; AU[AppUpstream] --> P; TT[Trigger topic] --> P; P --> OT[Output topic]; P --> EP[Experience page]; P --> OLB[OLB];
```

The diagram illustrates the application architecture for the 'Payments' application. It shows a central 'Payments' node (highlighted in blue) with a green checkmark, indicating it is healthy. The 'Payments' node has four upstream dependencies: 'Populations Database' (green checkmark), 'Cache Data' (red X), 'AppUpstream' (red X), and 'Trigger topic' (yellow triangle). The 'Payments' node also has three downstream dependencies: 'Output topic' (green checkmark), 'Experience page' (green checkmark), and 'OLB' (red X). Arrows indicate the flow of data from upstream to downstream components.

Populations Database ✓

Cache Data ✗

AppUpstream ✗

Trigger topic ⚠

Payments ✓

Output topic ✓

Experience page ✓

OLB ✗

Jarvis UI: Portfolio health View

localhost:3000/dashboard/portfolioview

JARVIS THE PLATFORM HUB

Search...

Home

Metrics

Health

Portfolio View

Portfolio View

Lending L3 L2

```
graph LR; Lending((Lending)) --- HomeLoan((HomeLoan)); Lending --- AutoLoan((AutoLoan)); HomeLoan --- Accounts((Accounts)); HomeLoan --- CustomerCare1((CustomerCare)); Accounts --- Balance((Balance)); Accounts --- UpdateInfo((UpdateInfo)); CustomerCare1 --- Feedback1((Feedback)); CustomerCare1 --- Help1((Help)); AutoLoan --- Payments((Payments)); AutoLoan --- CustomerCare2((CustomerCare)); Payments --- DigitalWallet((Digital Wallet)); Payments --- EMI((EMI)); CustomerCare2 --- Help2((Help)); CustomerCare2 --- Feedback2((Feedback));
```

Balance ✓

UpdateInfo ✓

Feedback ✓

Help ✗

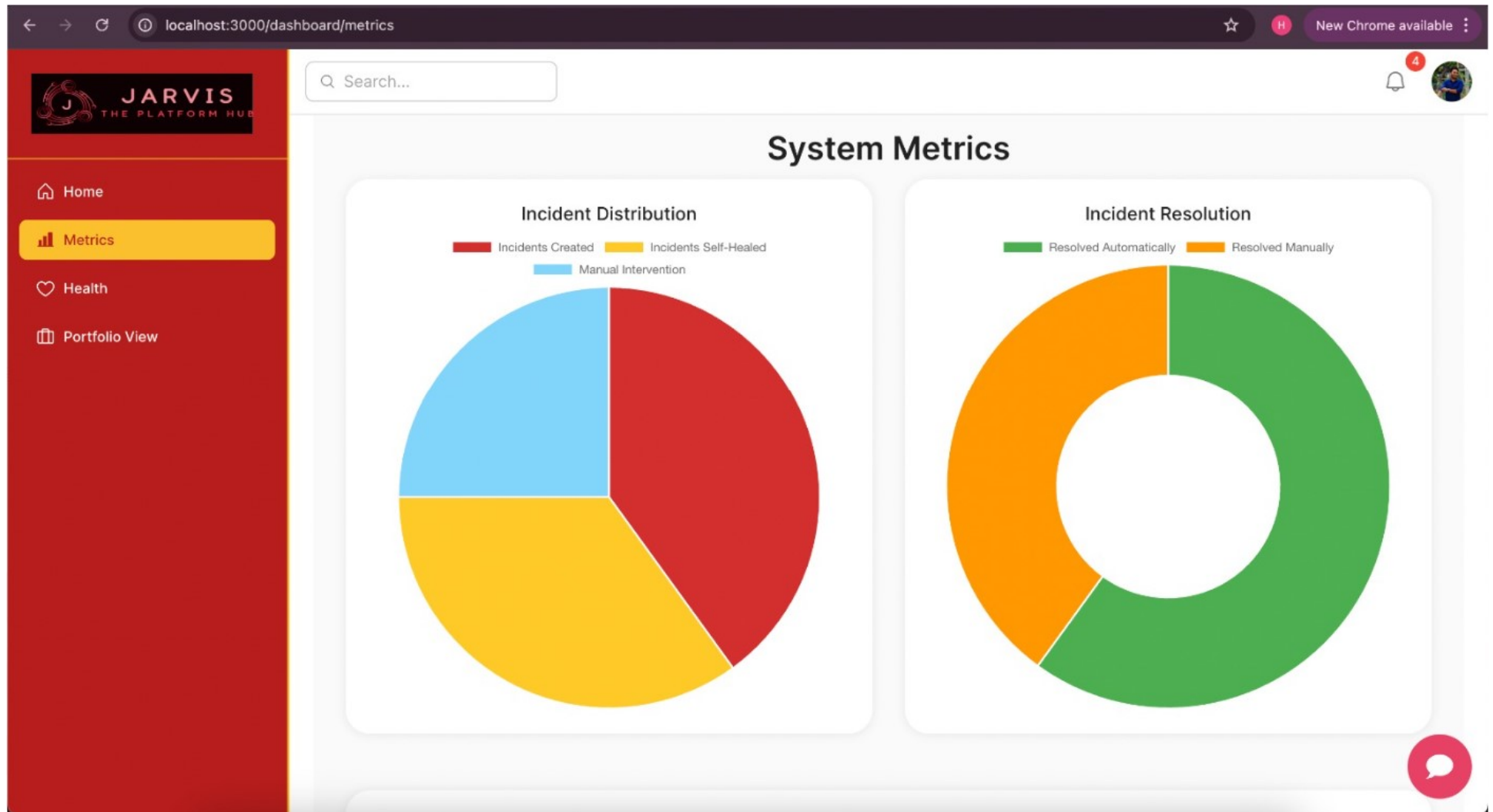
Digital Wallet ✓

EMI ✓

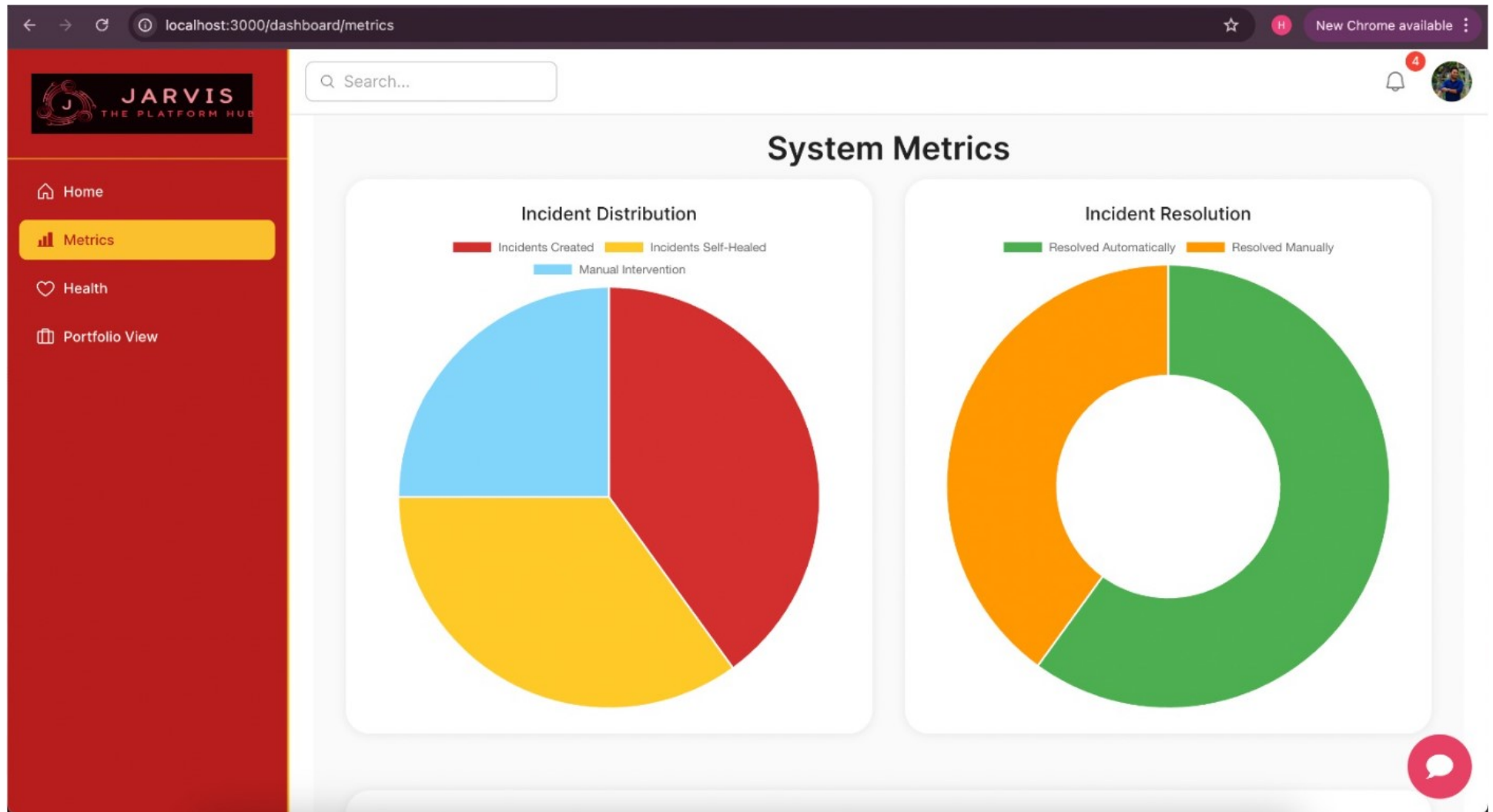
Help ✓

Feedback ⚠

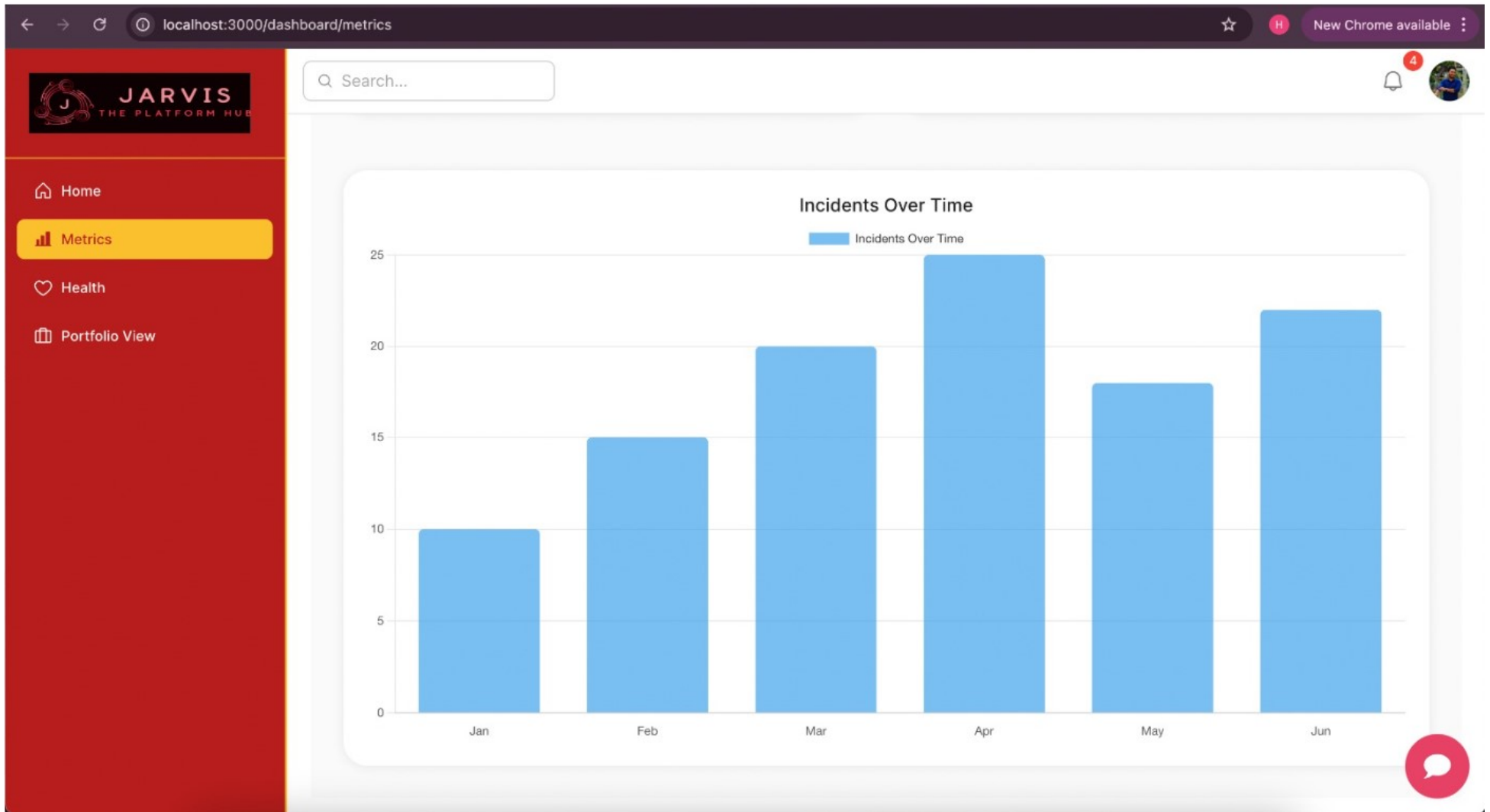
Jarvis UI: Metrics



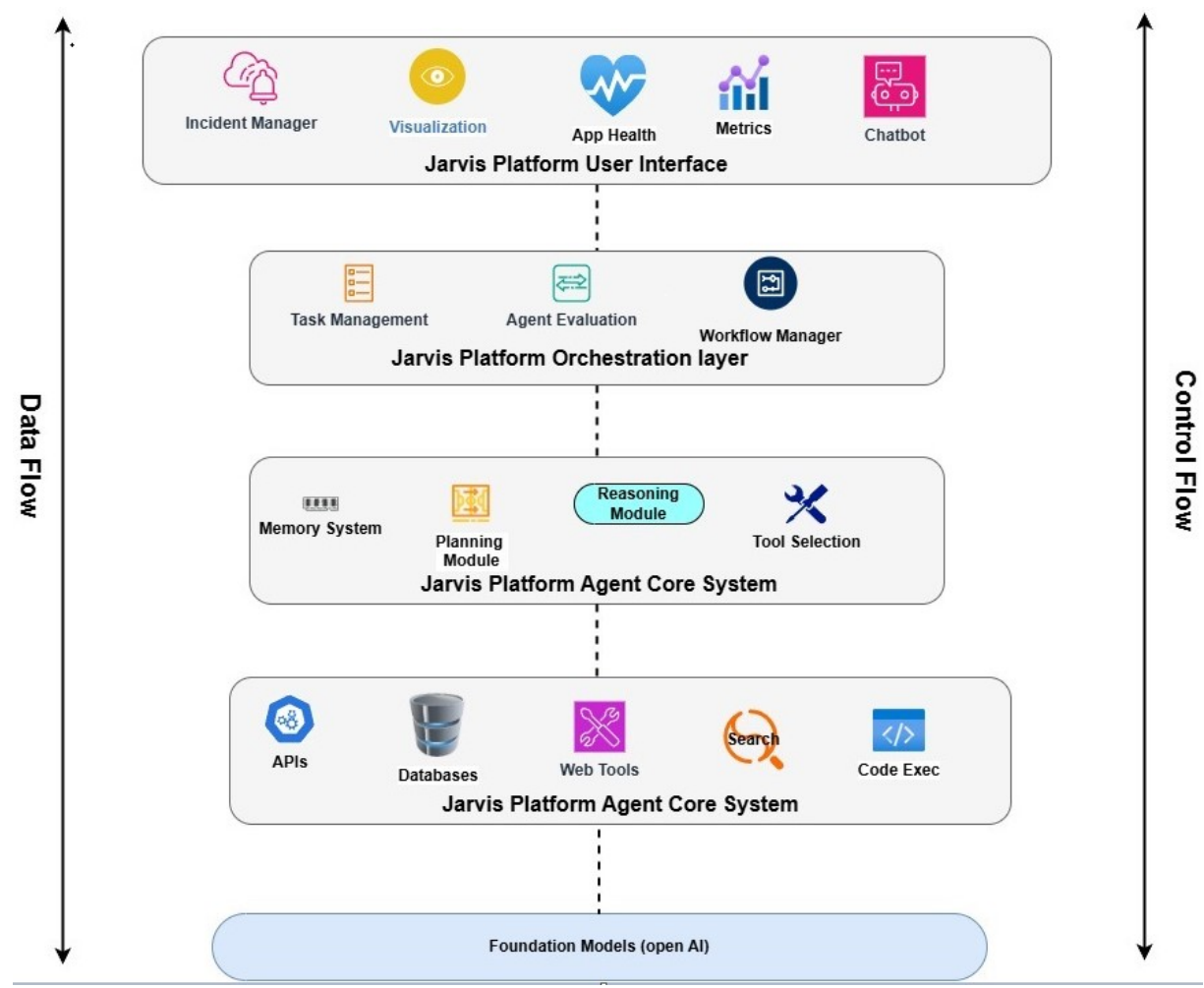
Jarvis UI: Metrics



Jarvis UI: Metrics



Jarvis- Control and Data flow



Thank You