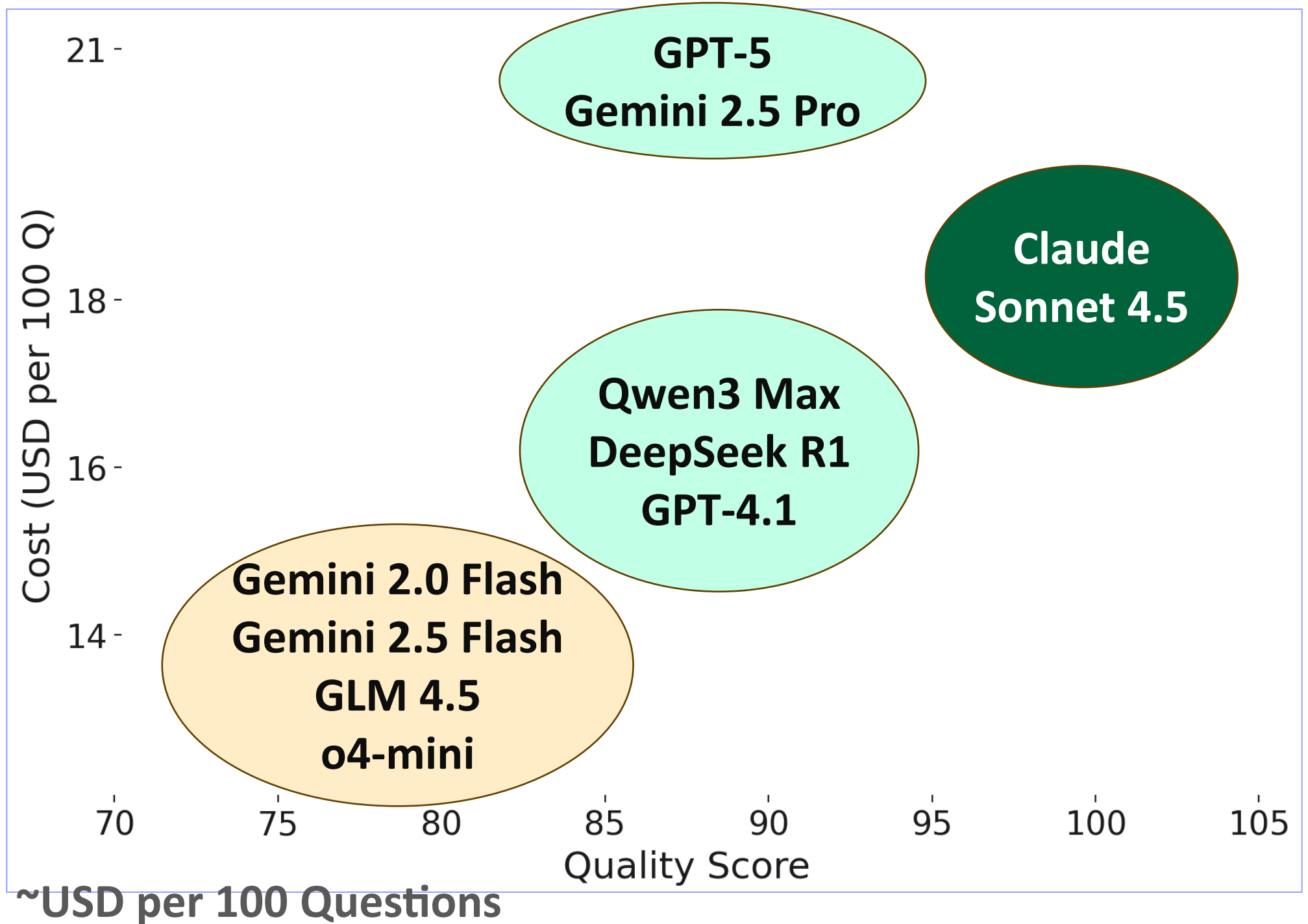


Database AI & SQL Agents Advanced Analyst

Cost – Quality Matrix



1. Use Claude Sonnet-4 for complex reasoning.
2. GPT-4.1 / DeepSeek/ Qwen3 Max for Value.
3. Avoid GPT-5 and Gemini 2.5 Pro

LLM Costs : Advanced Analyst

- In multi-step reasoning-based analysis, execution cost is biggest chunk due to multiple tool calls.
- 1 Question = 7-10 SQL Queries / Tool Calls.
- All executions by GPT-4.1.
- Time: ~2-3 mins per que. Can go upto 10m+. Varies by question.

~USD per 100 Questions

Reasoning Model	Quality Score	Logic USD	Exec. USD	Total USD	Remarks
Gemini Flash 2.0	75	0.25	12.5	12.75	Best value
Gemini Flash 2.5	75	1.75	12.5	14.25	Next after Flash 2.0
Gemini Pro 2.5	85	8.50	12.5	21.00	Avoid. V.High.Cost
Claude Sonnet 4	100	6.50	12.5	19.00	Topmost Quality
DeepSeek R1	85	2.25	12.5	14.75	Great Value
Qwen3 Max	90	2.00	12.5	14.50	Great Value
GLM 4.5	80	1.00	12.5	13.50	High variances
o4-Mini	75	2.75	12.5	15.25	Avoid.
GPT-4.1	90	3.00	12.5	15.50	Great Value
GPT-5	95	15.0	12.5	27.50	Avoid. V. High Cost

Cost Estimates Update : 9th Sep 2025

Advanced Analyst : Task Tested

1. Modelling Data Mart creation.

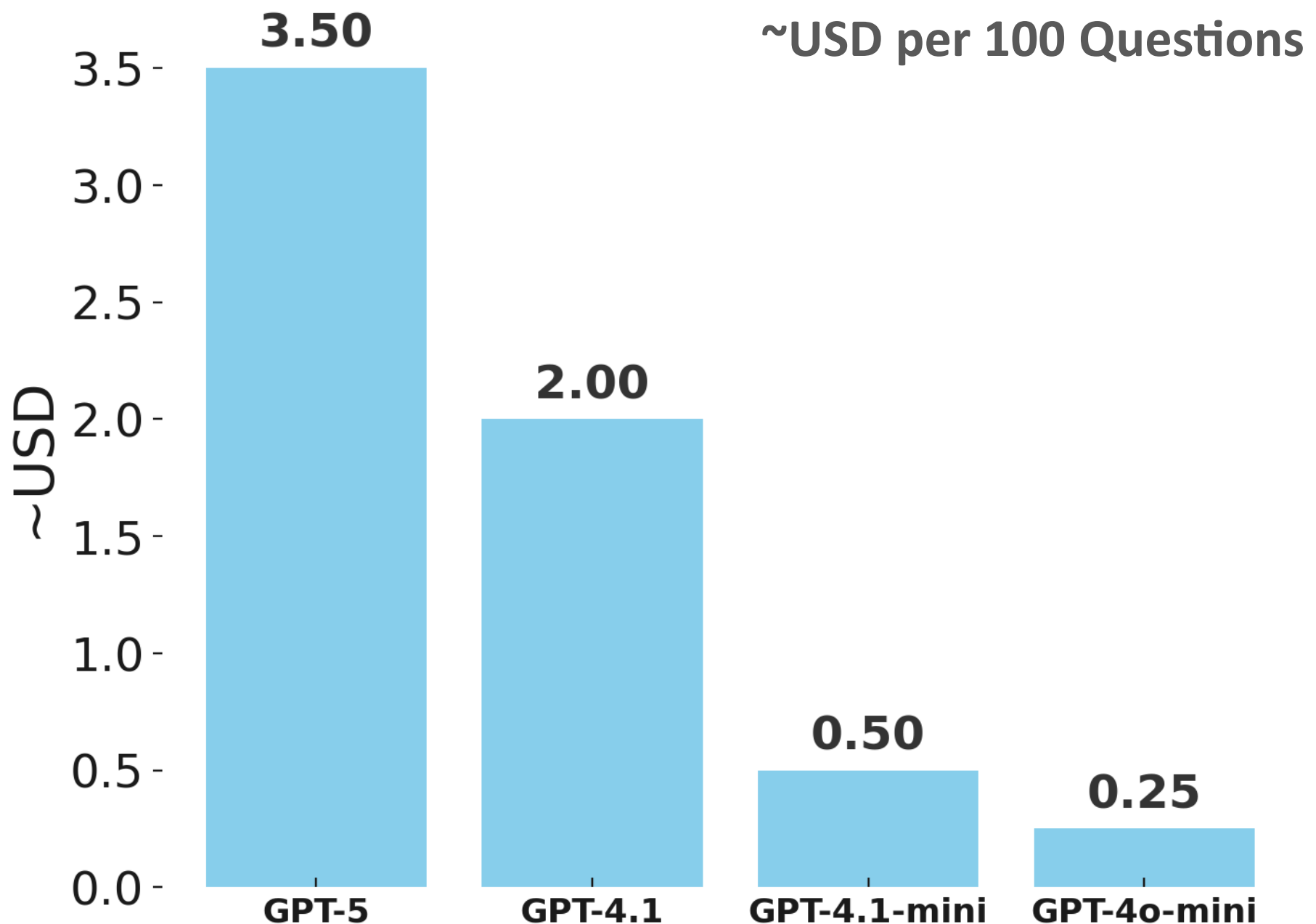
Using 1M Customer Table and a 10M Transaction Table. Summarizing, creating innovative derived variables and merging. Requiring multi-step execution. Tables on AWS RDS MySQL

2. Weighted Score-Based Ranking

Ranking of Indian credit card issuers - using live RBI Monthly Statistics data. Multi step processing requiring defining scoring methodology, innovative derived variables creation and execution. Table on Supabase

General Analyst

1. OpenAI models most efficient for SQL execution with tools use
2. Avoid GPT-5 – very high cost
3. Choose between GPT-4.1, 4.1-mini and 4o-mini depending upon task complexity



LLM Costs: General Analyst

Cost Per 100 Simple Questions

1 Question = 1 SQL Queries/ Tool Call

Single step: no reasoning step, direct execution

~USD per 100 Questions

LLM	~USD	Remarks
GPT-5	3.50	High Cost. Avoid.
GPT-4.1	2.00	Best for complex SQLs
GPT-4.1-mini	0.50	Great for med. complexity SQL
GPT-4o- mini	0.25	Great for simple/ med. complex

General Analyst : Task Example

1. Share sample rows
 2. Add new columns as per instructions
 3. Join Table A & B by cust_id
 4. Summarize by housing and show counts
 5. Share chart for housing summary
- Actual vary by use case and the agent setup. Always estimate for your use cases and compare vs. actuals.
 - For all estimates – keep in mind that as context increases the cost goes higher

Cost Estimates Update : 9th Sep 2025

Warning: The Cost Multipliers of Multi-Step Agents

For multi-step analysis, costs don't just go up; they escalate exponentially - from 10X to 50X or more. This is a critical budget risk. Key factors:

1. No. of Steps:

2 Step = double the context = 2X the cost

2. Number of tool calls

Determined by # of SQL Queries allowed

Simple Question = 1 SQL Query

Analysis Question = 2 to 10+ SQL Queries
=10X cost

3. Execution Model

Needs stronger model GPT 4.1 vs 4.1 mini = 5X

4. Additional LLM Cost for reasoning-

~ 7 cents per question for Sonnet 4

5. Context is a Multiplier, not an addition: larger semantic models, context, and system instructions don't just add to the cost; they multiply it with every step

6. Debugging

In case of SQL query error - LLM will auto debug and re-run, taking up additional tool calls and costs.

Estimation

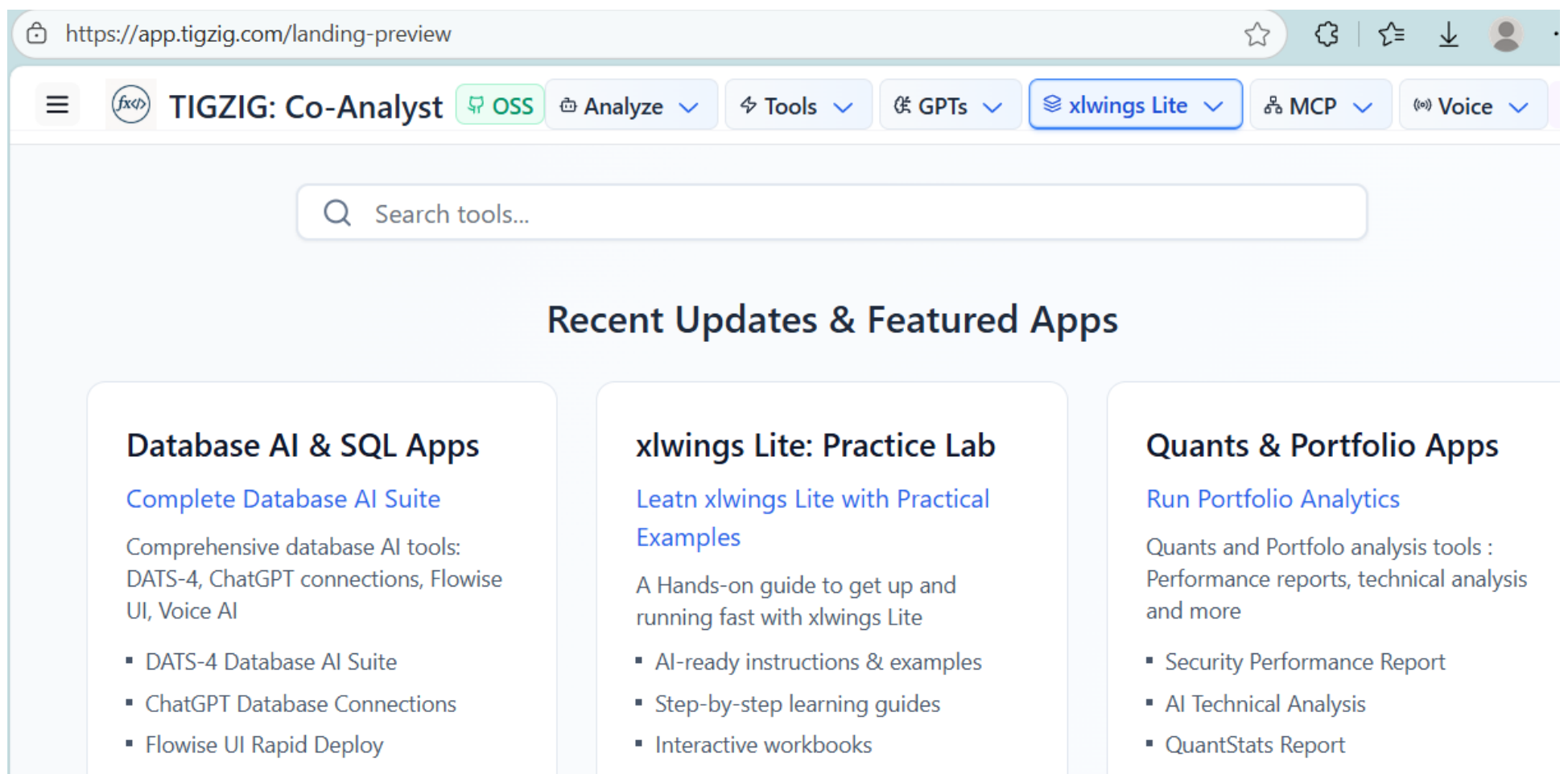
- Estimates based on live deployments & 250+ test runs
- Quality scores are my judgment-based assessment of the model's analytical reasoning depth.
- Estimates vary – always estimate and check actuals for your use cases

DATS-4 : Deployed Live

app.tigzig.com

Path:

→ *Database AI & SQL Apps* → *DATS-4*
Database AI Suite



Choice of LLM for Advanced Analysis

Choose your LLM for the reasoning step. The app setup also allows an efficient method to add and remove LLMs

Choose Advanced Analyst Agent Framework

Reasoning Model	Type	Quality	Cost	Select
Gemini 2.0 Flash	Best Value	75	Lowest	<input type="radio"/>
Qwen3 Max	Good	80	Low	<input checked="" type="radio"/>
GPT-5	Top Quality	95	Volatile	<input type="radio"/>
Deepseek-R1-0158	Great Quality	90	Med	<input type="radio"/>
Claude 4 Sonnet	Topmost Quality	100	High	<input type="radio"/>
Gemini 2.5 Flash	Good	75	Low	<input type="radio"/>
GPT-4.1	Great Quality	90	Med	<input type="radio"/>
GLM 4.5	High Variances	80	Low	<input type="radio"/>
Gemini Pro 2.5	Avoid	85	Highest	<input type="radio"/>

Cost varies based on use case and AI setup. Refer attached price study for more details.

Open Price Guide

Cancel

✓ Confirm Selection

Try live on app.tigzig.com

- The public site is a minimal-security sandbox configured to provide an unrestricted environment for testing the suite's full range of capabilities.
- Use on-the-fly temporary Postgres database generated by the app or create one instantly at Supabase/ Neon/ Aiven
- Use the sample files on the app / google drive

PRACTITIONER'S WARNING

All database credentials and queries submitted via the public app are logged on the backend. Use this sandbox with non-sensitive data and credentials only.

DATS-4: Core Functionalities

Database

1. Connect
2. Temporary DB
3. New DB
4. Upload to DB
5. Export Table

Text Files

1. Direct Upload to DB
2. AI Schema Detection
3. Quick Analysis

Quick Analysis

1. Interactive Grid
2. Quick Stats
3. Data Quality Report
4. Filters & Sort
5. Data Structure
6. Quick Insights

Outputs

1. PDF
2. HTML
3. Charts

Python

1. Python Charts
2. Statistical Analysis
3. E2B Code Interpreter

Analysis

1. Reasoning Based Analysis
2. Agent Reasoning View
3. Output to PDF Report
4. Simple & Adv. Analyst
5. Query Checking

Features

1. Logs
2. Connection & File Details
3. Chart Box Toggle
4. OAuth

Quants

HTML/ PDF / Table Outputs

1. QuantStats Report
2. Security Performance
3. AI Technical Analysis

DATS-4 Evolution

Database AI Suite – Version 4

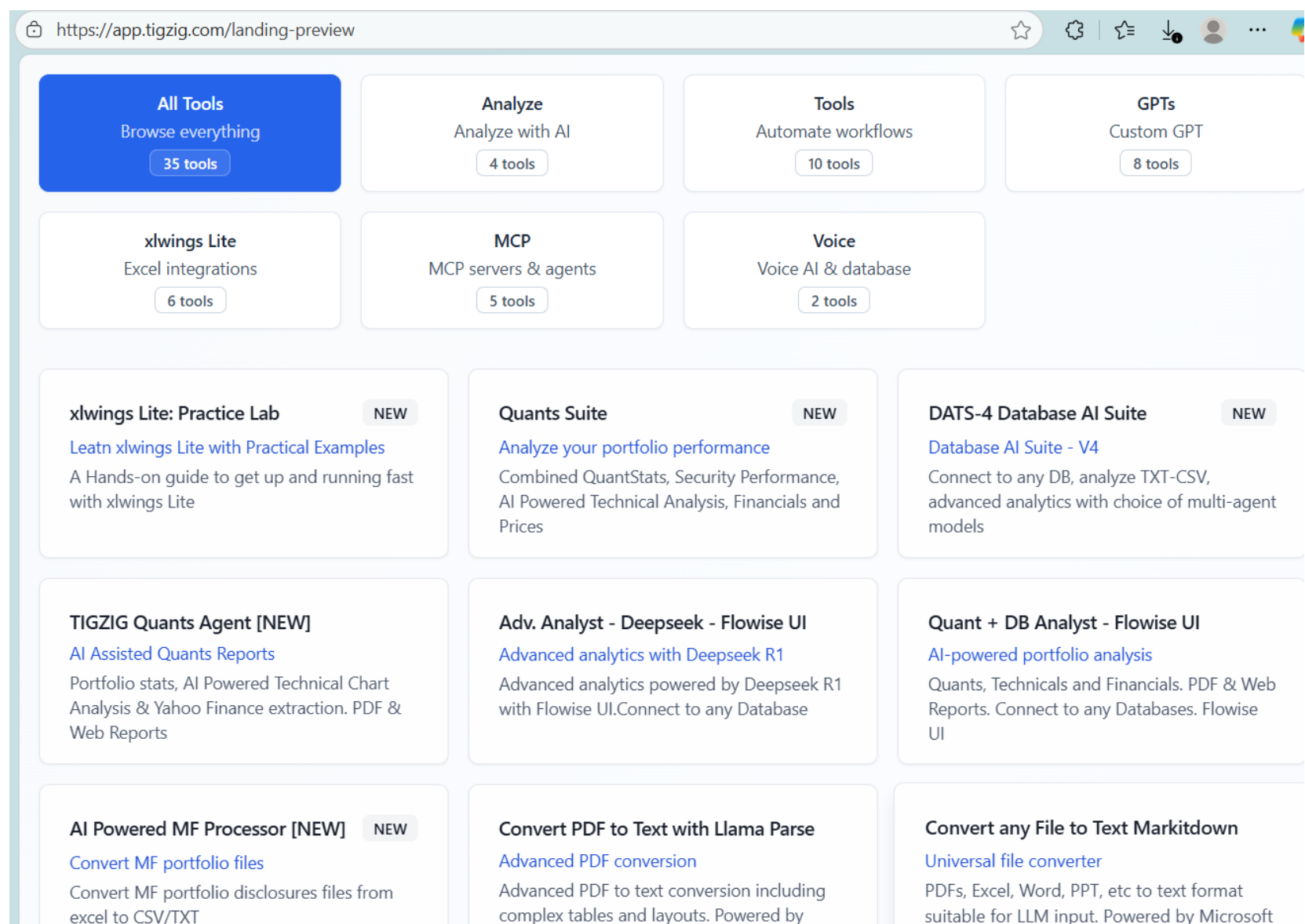
	OSS Release	Name	Additional Features
V1	Jun '24	Analytics Assistant App	<ul style="list-style-type: none">▪ Flowise UI + FastAPI for Text-to-SQL▪ MySQL support▪ Python charts & stats▪ ChatGPT connected to Databases
V2	Nov'24	REX-2	<ul style="list-style-type: none">▪ React UI▪ Flowise chatflow backend▪ Postgres support▪ Interactive grid▪ Direct file upload to DB▪ PDF reports▪ Quick analysis options▪ OAuth
V3	Feb'25	REX-3	<ul style="list-style-type: none">▪ Multi-step reasoning based analysis▪ Choice of multiple LLM▪ Flowise sequential agent backend▪ Agent reasoning view▪ Quick try sample functionality▪ Logs
V4	Aug'25	DATS -4	<ul style="list-style-type: none">▪ Flowise new multi agent backend▪ Updated LLM Choices w/ GPT-5▪ Database table export & CSV Download▪ Export to PDF (Text only)▪ Updated UI▪ Portfolio analyst integration

TIGZIG: Micro-Apps for Analytics

25+ apps: Database AI / xlwings Lite / Automation / Quants

Access the full suite of open-source tools at

app.tigzig.com



Amar Harollikar

Specialist – Decision Sciences & Applied AI

Builder of app.tigzig.com