



# Ai and Accountants get REAL

Beyond Accounting





# Why should Accountants engage?

- Survival
  - It is not “If we engage” but how can we move faster
- Fundamental change
  - Embrace the change
  - Develop new skills to leverage Ai
  - Position to thrive in the future of accounting
- Business Impact
  - Change to the business model
  - Competition

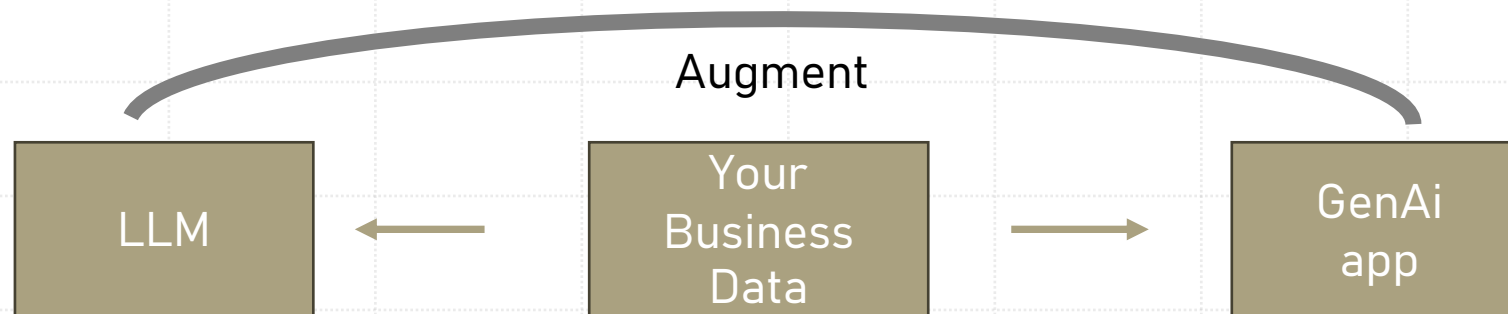


# Ai Terminology & Patterns for Accountants

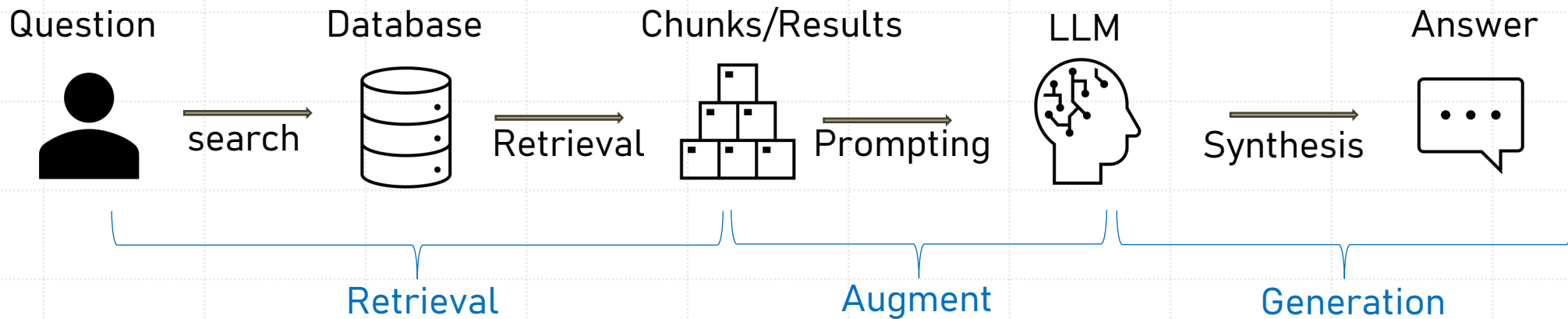
- LLM – Large Language Models
- Grounding
- RAG – Retrieval Augmented Generation
- Orchestrating interactions
- Using the LLM to reason
- Agents
- Orchestration

# Large Language Models (LLM)

- Models are pre-trained at a specific point in time on an internet corpora
  - chatGPT, Gemini, CoPilot, Amazon\*
- LLM knows nothing about current data or events post training
- Can be used to understand user “intent” and “reason”
- LLMs are not enough for business – they need to be “grounded” in reality



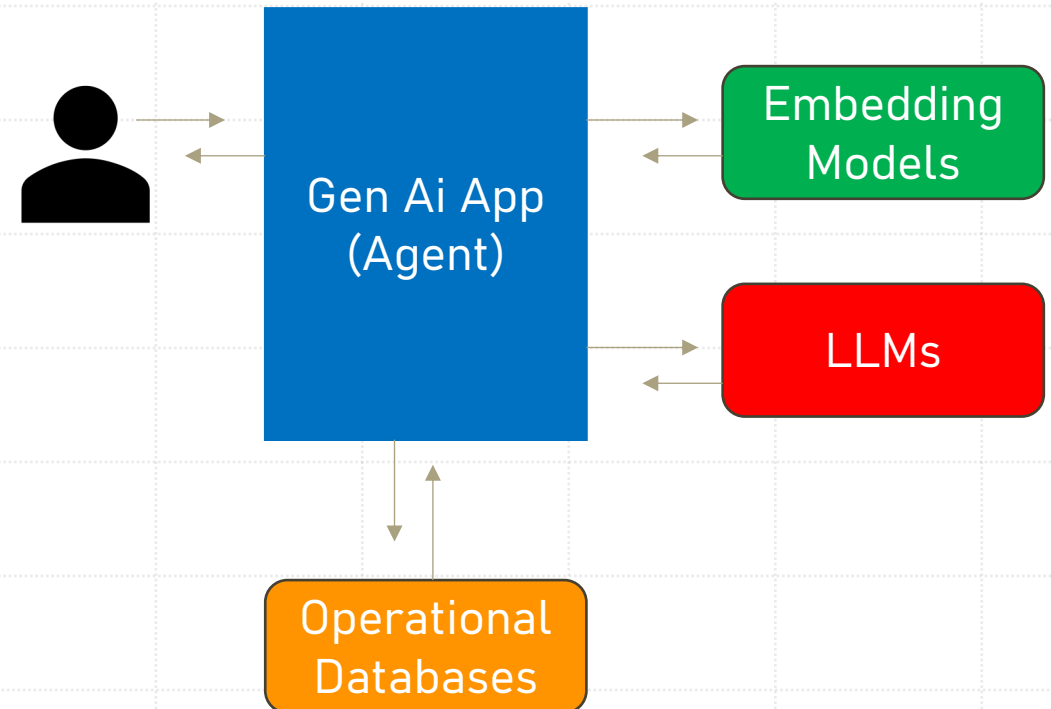
# Retrieval Augmented Generation(RAG)



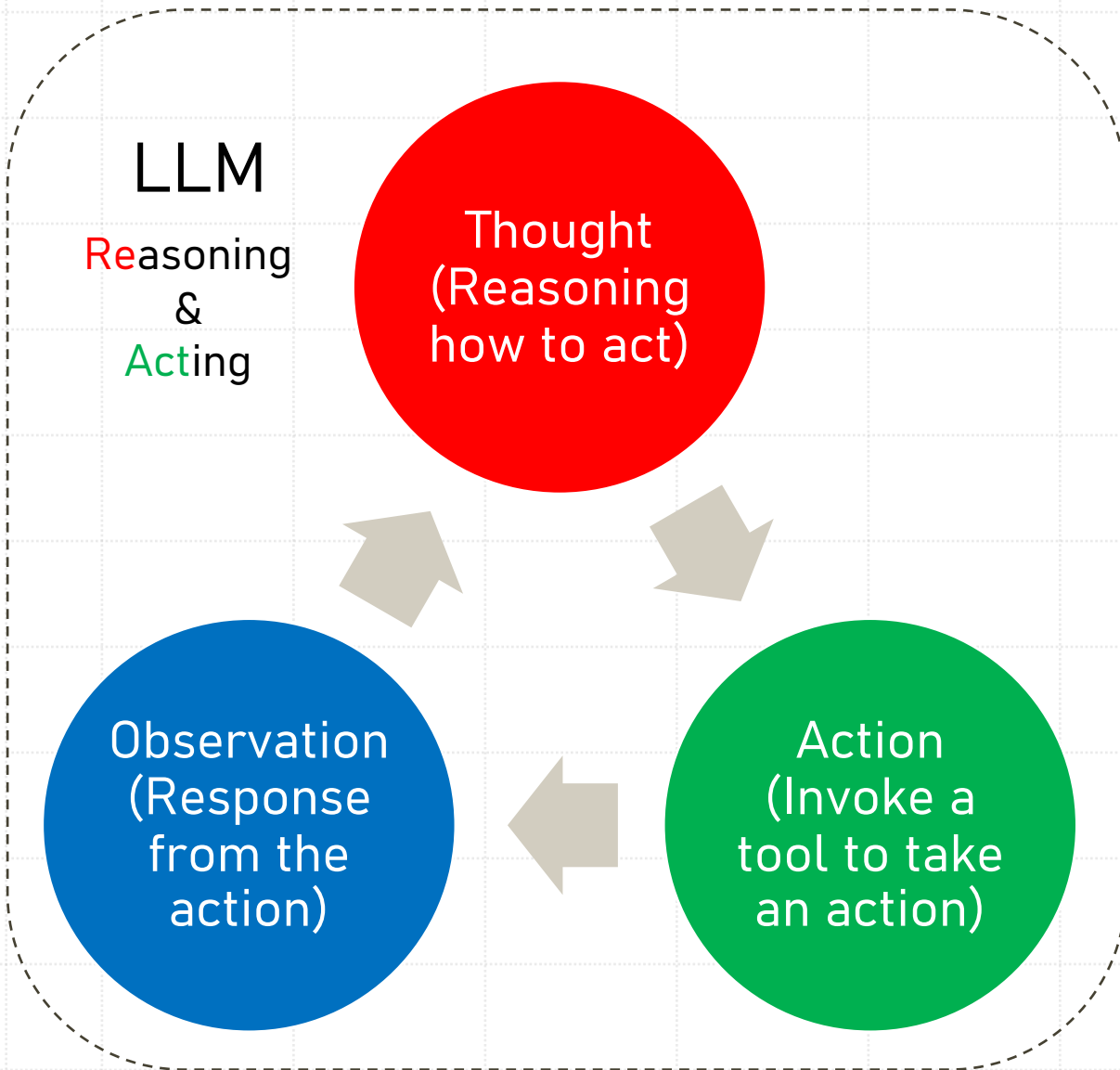
Example: What is the current USD to UK exchange rate?

# Multiple Interactions

- **Embedding Models** like LLMs are simpler, specific numerical representations of unstructured data e.g. Tax regulations, Financial reporting standards, Lease Agreements ...
- **Large Language Models** trained on large Internet corpora to predict responses to a given prompt e.g.
- **Operational Databases** relational and non-relational supporting operational systems e.g. ERP, CRM



# Leveraging the LLM to Reason & Act (ReAct)



User: How much does it cost to rebook a flight?

Thought: I need to lookup the policy on rebooking

Action: Invoke the tool `policy_search("rebook flights")`

Observation: "Changes are permitted right after the ticket is confirmed. The fees for changes are \$100 for economy, \$50 for premium and free for business and first class"

Thought: I need to know what class of flight the user booked

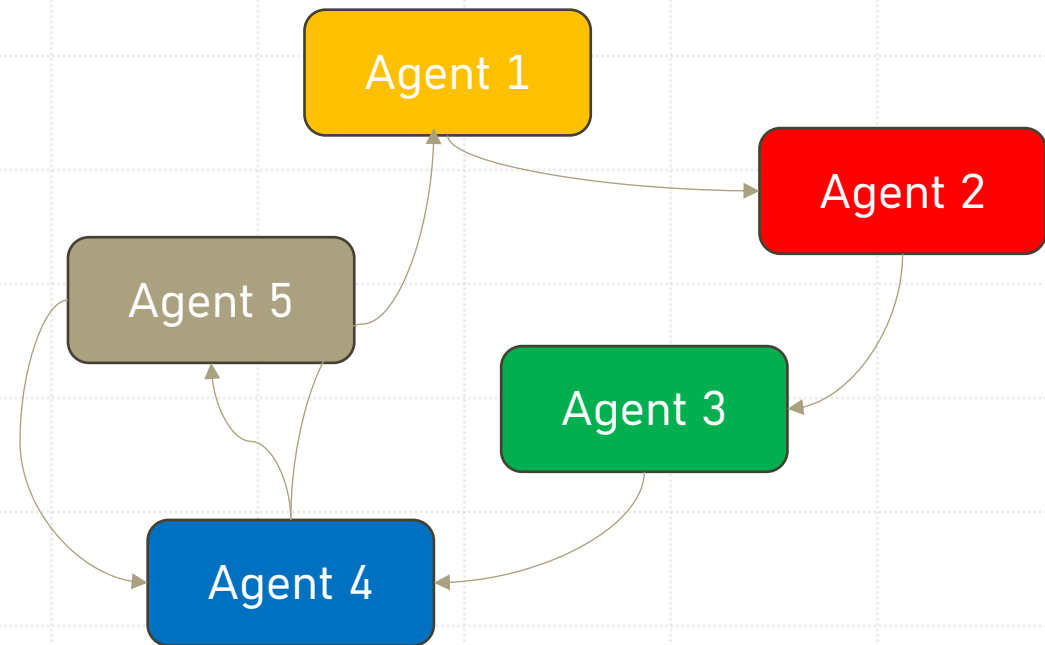
Action: Invoke the tool `user_ticket_lookup(id)`

Observation: The user has booked the following flights: AA1246 | 05/30/2024 | business

Answer: Your flight can be rebooked free since it is business class

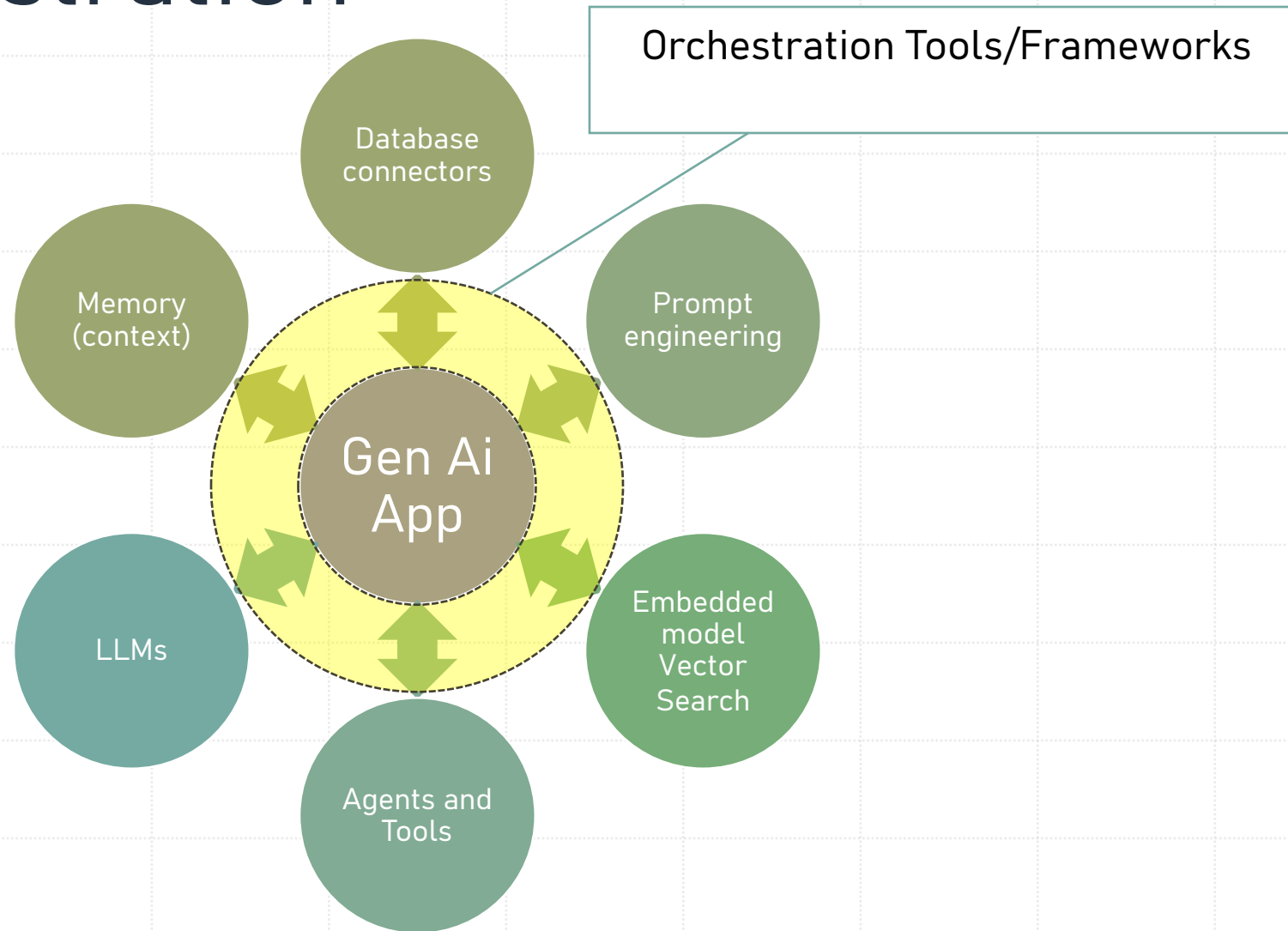
# Multi-Agent architectures

- Agents are designed for specific
- Agents communicate with each other
- Agents can delegate to other agents





# Orchestration



# Opportunities

- **Task Assistant** – HR Assistant
- **Workflow Automation** – Customer Support Ticket Automation, credit collection
- **Chatbot** – Travel booking, customer questions, vendor inquiries
- **On-demand reporting** – Generating Financial and ESG reports
- **Enhanced Search** – Product search based on customer preferences
- **Adaptive Recommendations** – Product recommendations based on reviews
- **Personalized Content** – Customer email outreach, employee onboarding
- **Question and Answer Bot** – Financial analysis, Board of Directors reporting, shareholder inquiries
- **Record Matching** – Purchase approval based on Authority and delegation policies
- **Fraud Detection** – duplicate invoices & receipts, comparison to known fraud cases
- **Generate Business documents** – marketing materials, Job descriptions, policies, contracts, T&Cs
- **Summarize Documents** – Extract key contract terms, regulatory requirements, Tax changes
- **Translation** – convert marketing and financial information into multiple languages
- **Classify Content** – Customer feedback analysis by sentiment