Long-Term Agentic Memory with LangGraph

Introduction to Agent Memory

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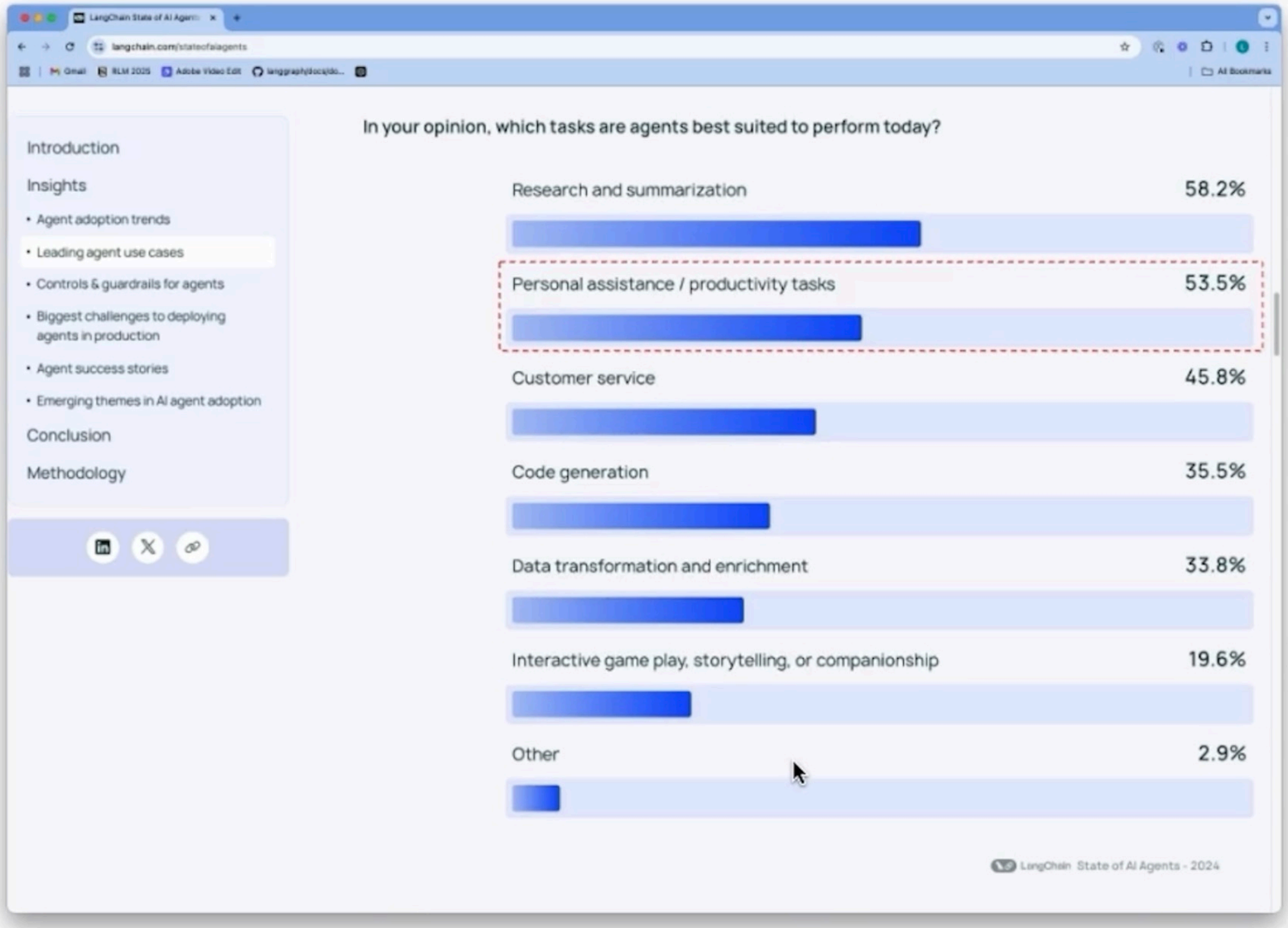
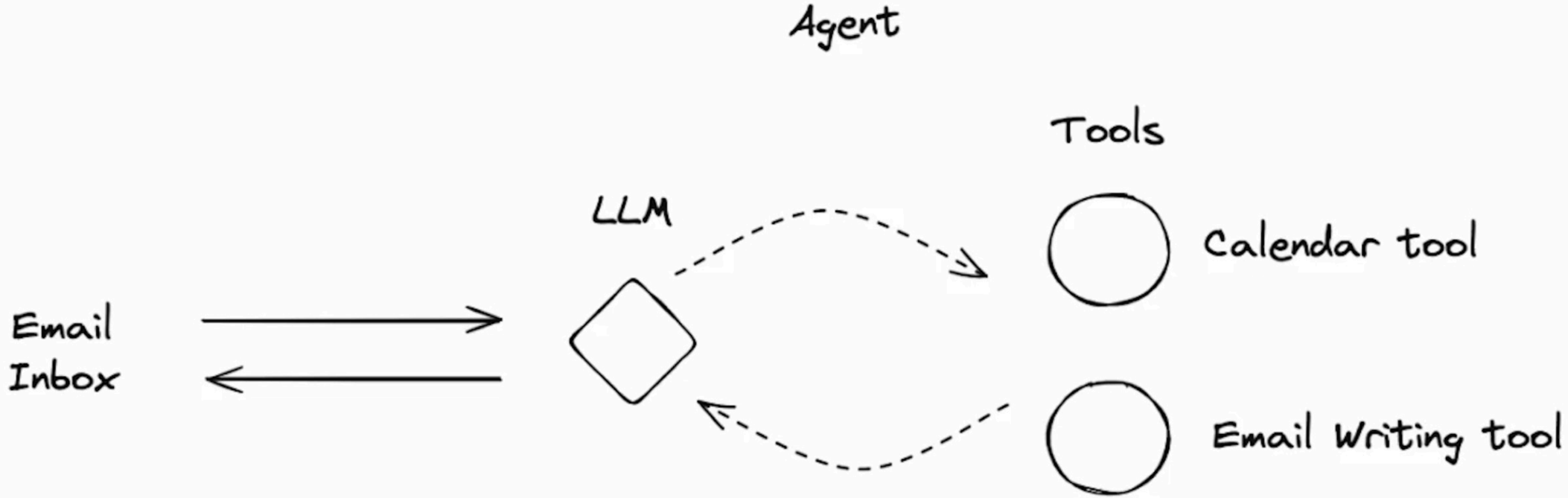
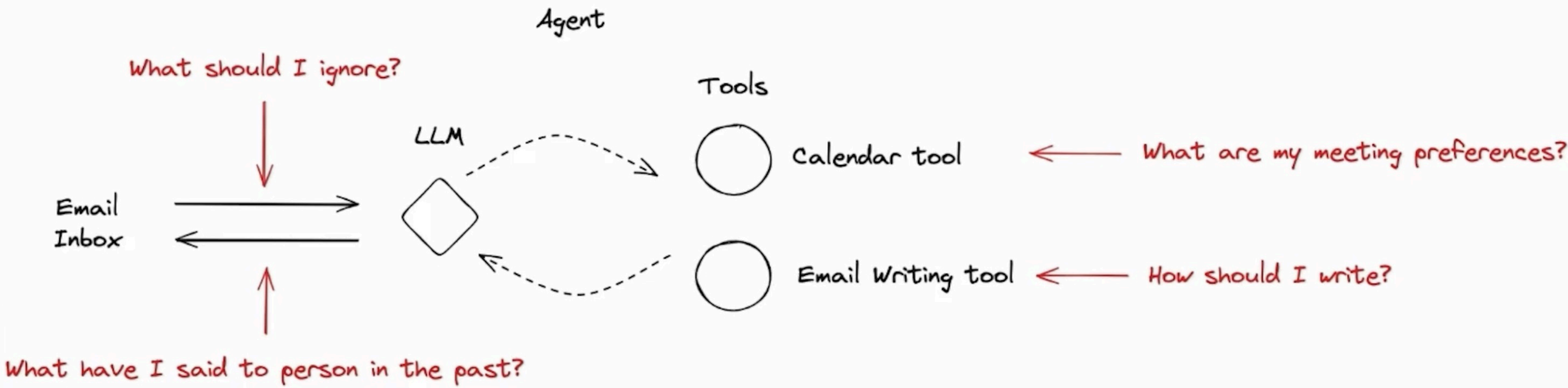
Where can agents have impact?



Would you give an agent access to your email?

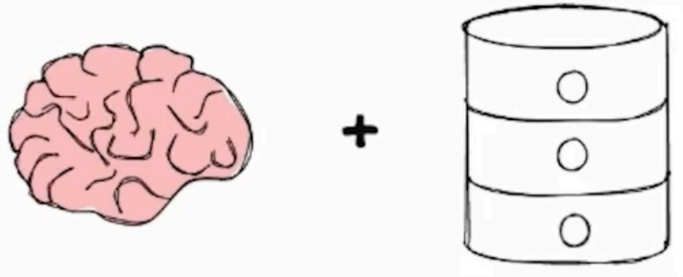


AI assistants often need context, personalization, ability to adapt to your feedback



Maintain context over time, adapt to our preferences, learn from past interactions

LLMs Memory



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What are types of memory?

Memory Type	What is Stored	Human Example
Semantic	Facts	Things I learned in school
Episodic	Experiences	Things I did
Procedural	Instructions	Instincts or motor skills

1. Semantic memory might be about people, places, things that agent have interacted.
2. Episodic might be past agent actions, in form of few shot examples.
3. Procedural is straight forward system prompt, the instruction you give on agent how to behave.

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These memory types apply to AI systems

Memory Type	What is Stored	Human Example	Agent Example
Semantic	Facts	Things I learned in school	Facts about a user
Episodic	Experiences	Things I did	Past agent actions
Procedural	Instructions	Instincts or motor skills	Agent system prompt

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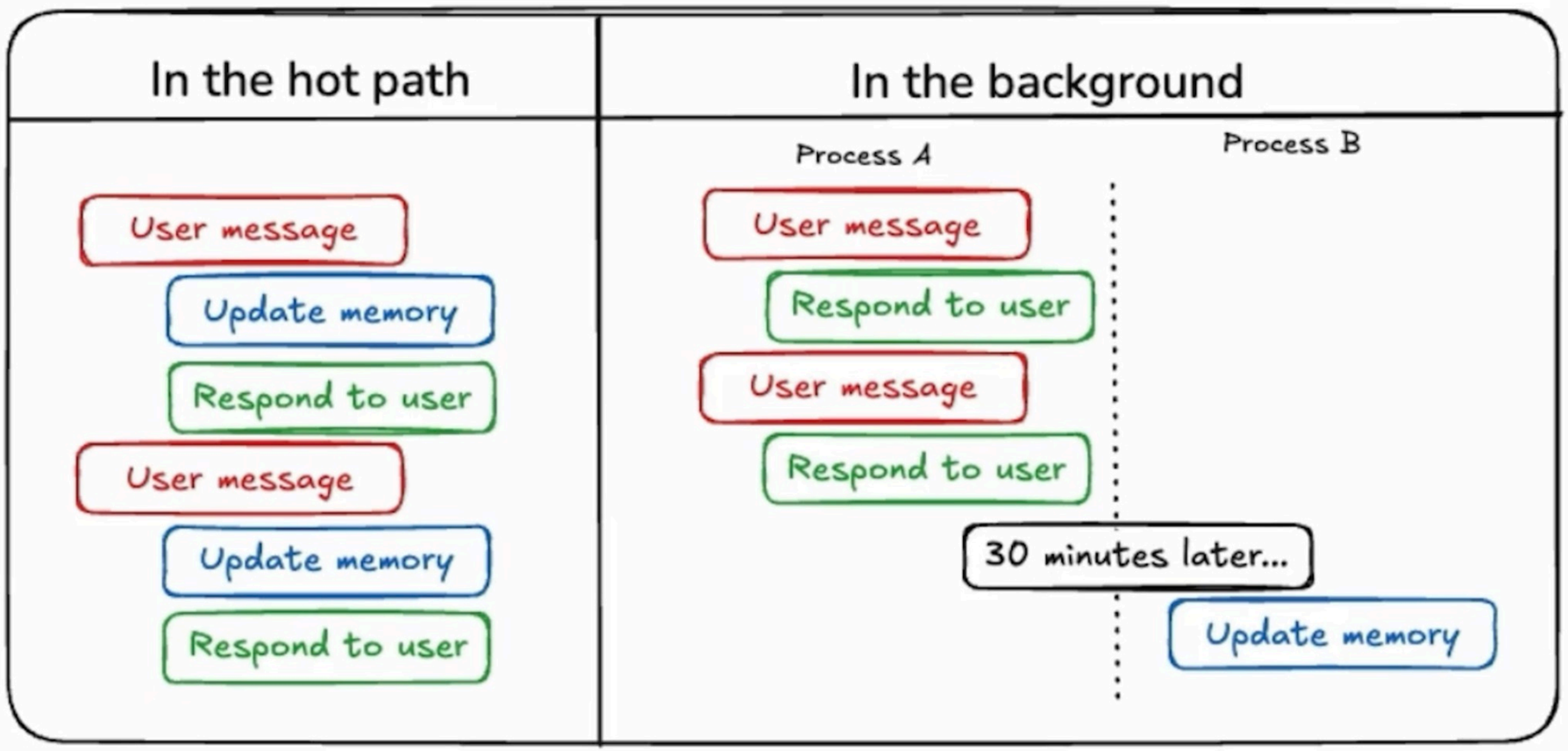
Memories can be saved using different mechanisms

In the Hot path Agent updates Memory as it's responding to the user

We generally have one agent.

It has additional latency when responding to the users

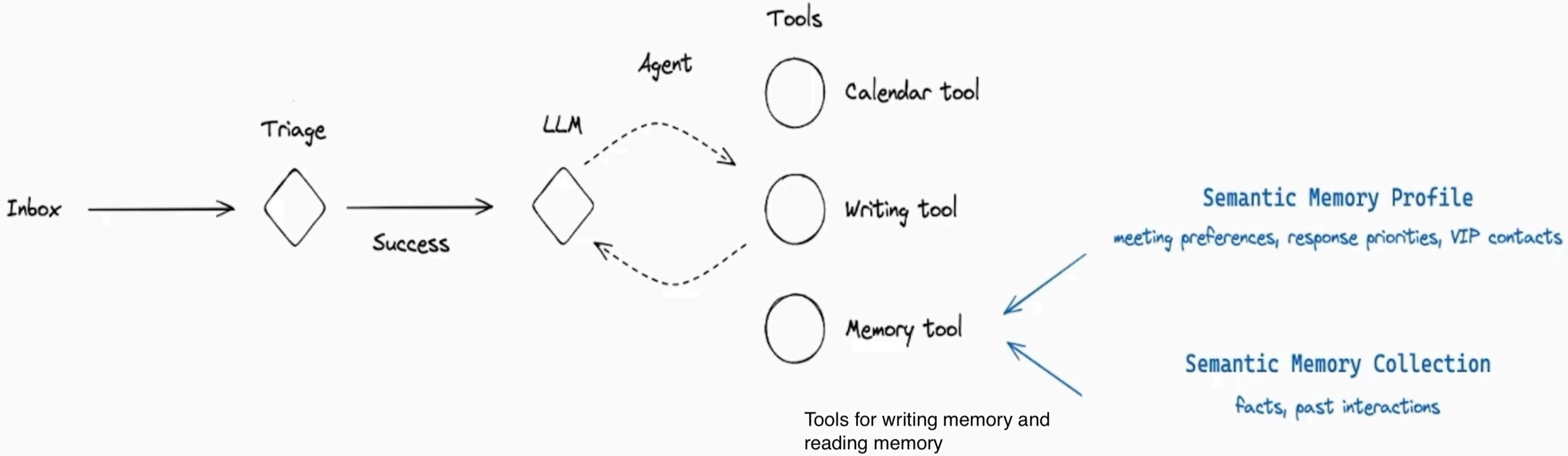


Updates happens in background or in a seperate process.

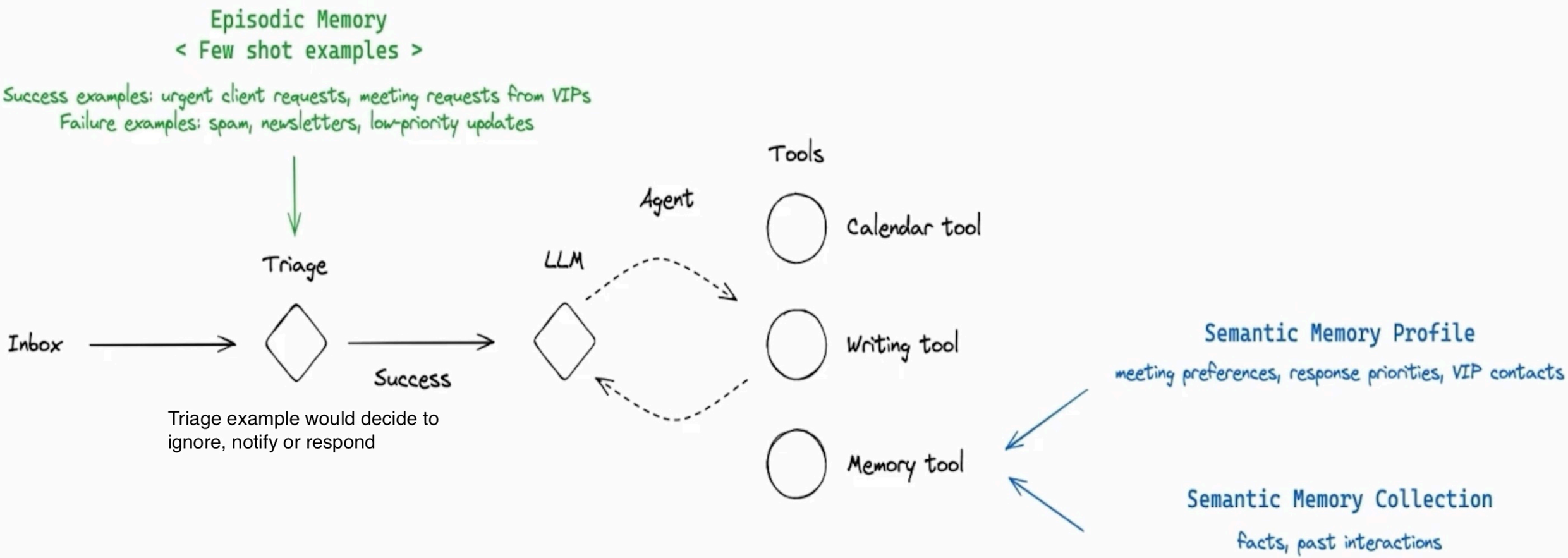
Responds faters

2 agents instead. Updates might not happen simentaneously, only when updated memory is scheduled.

... first, we'll add semantic memory

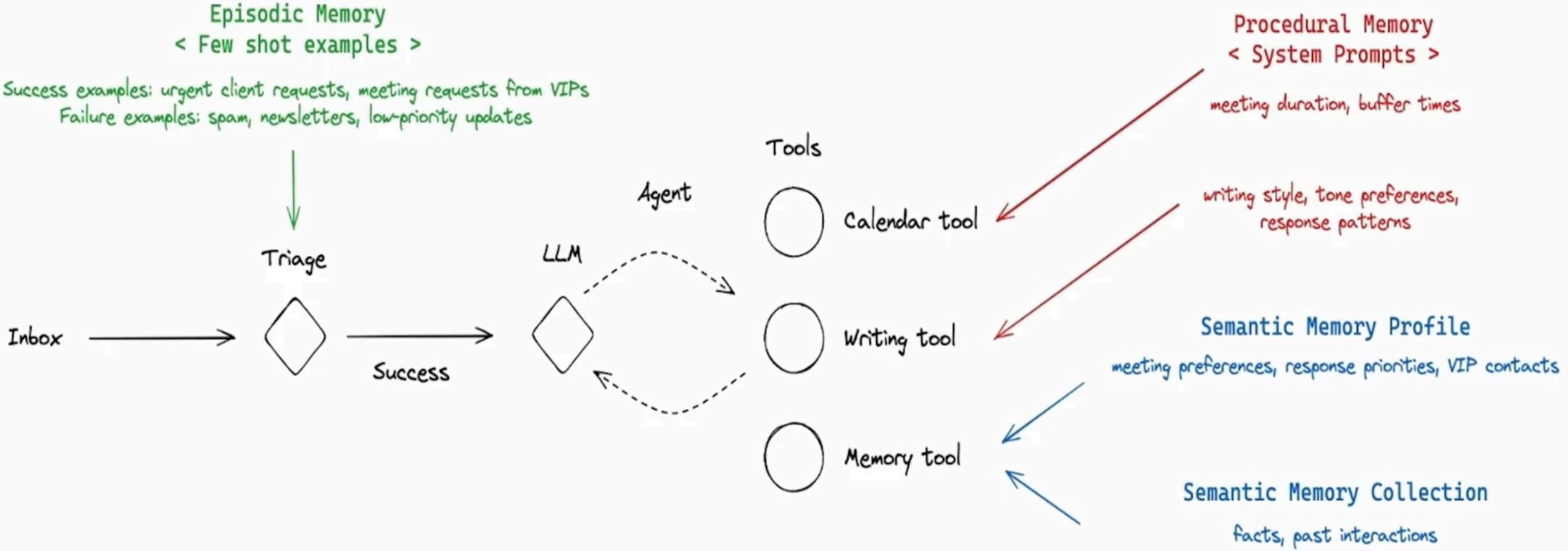


… then, we'll add episodic memory



Triage example would decide to ignore, notify or respond

… finally, we'll add procedural memory



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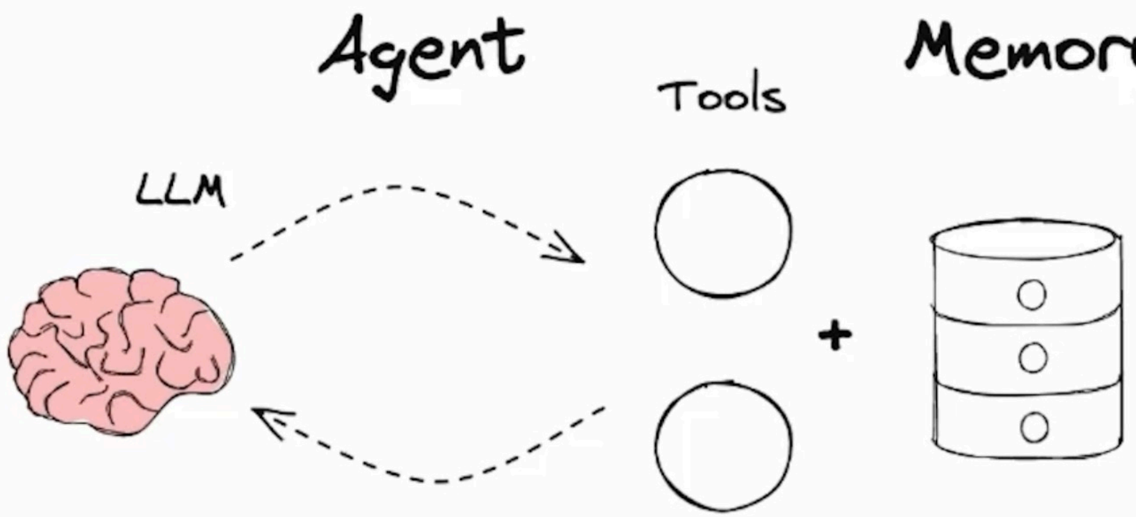
You will learn how to embed memory to most agents you are building



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Email Assistant with Semantic + Episodic Memory

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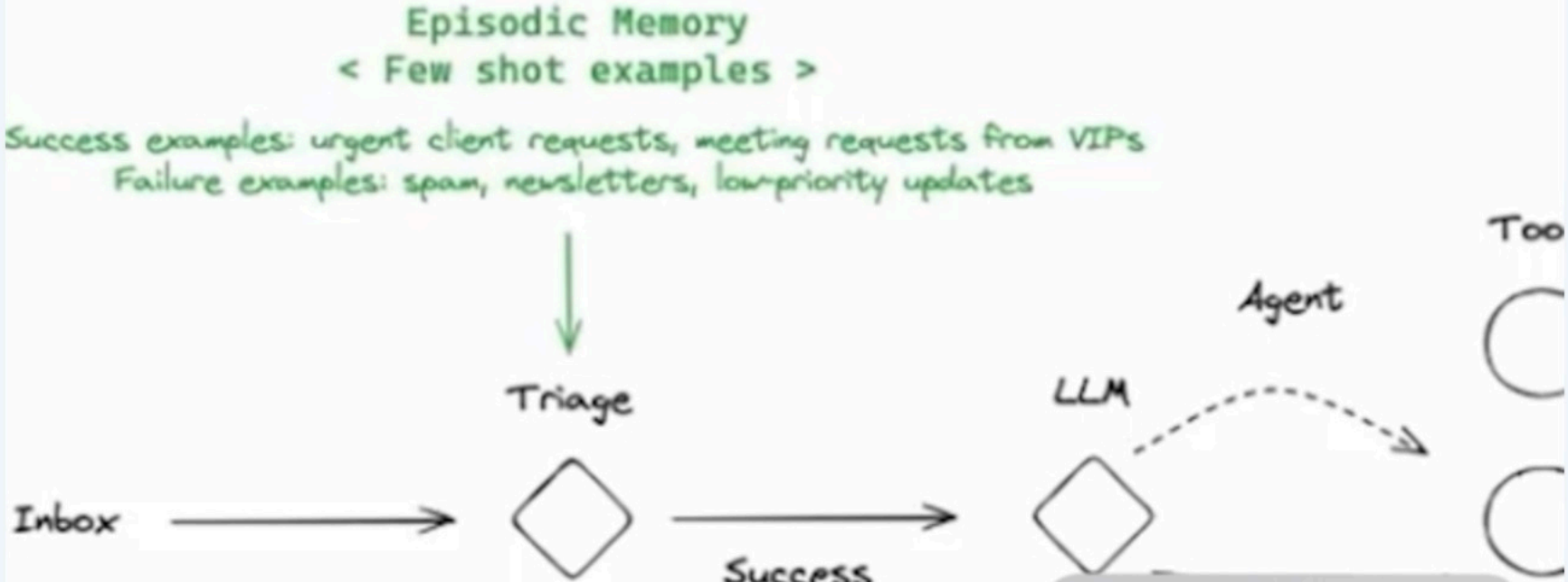

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Email Assistant with Semantic + Episodic + Procedural Memory

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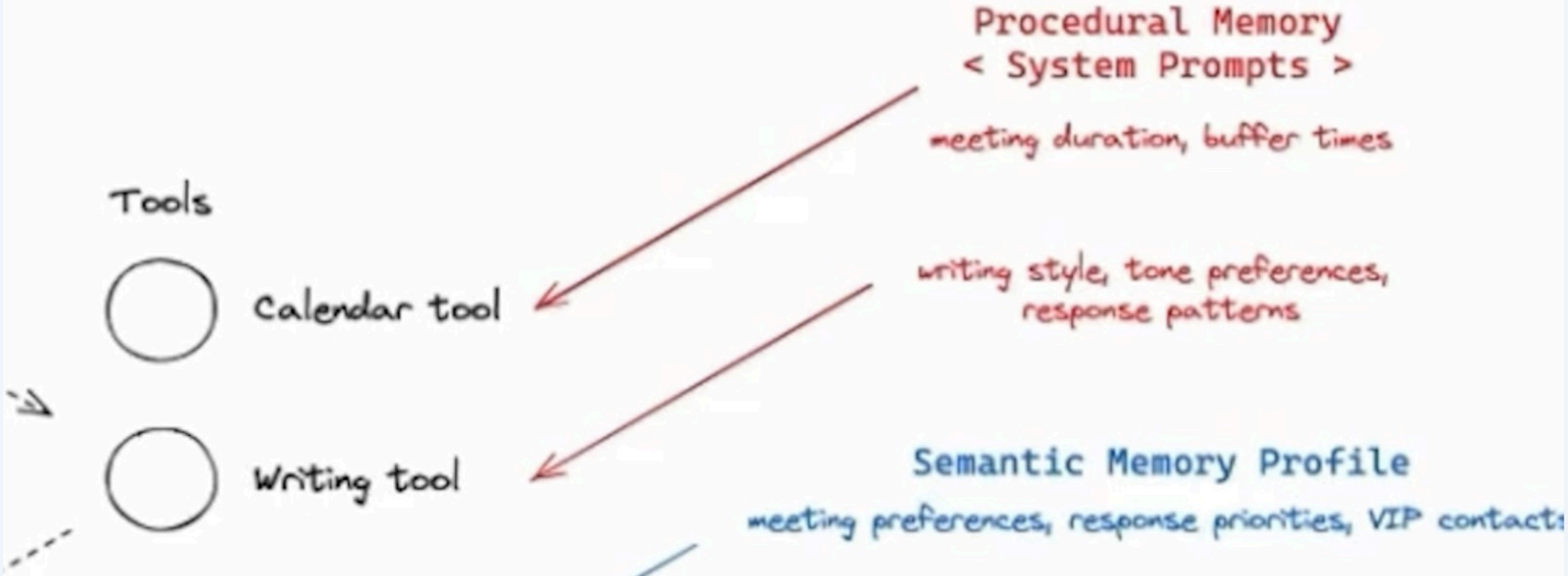
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