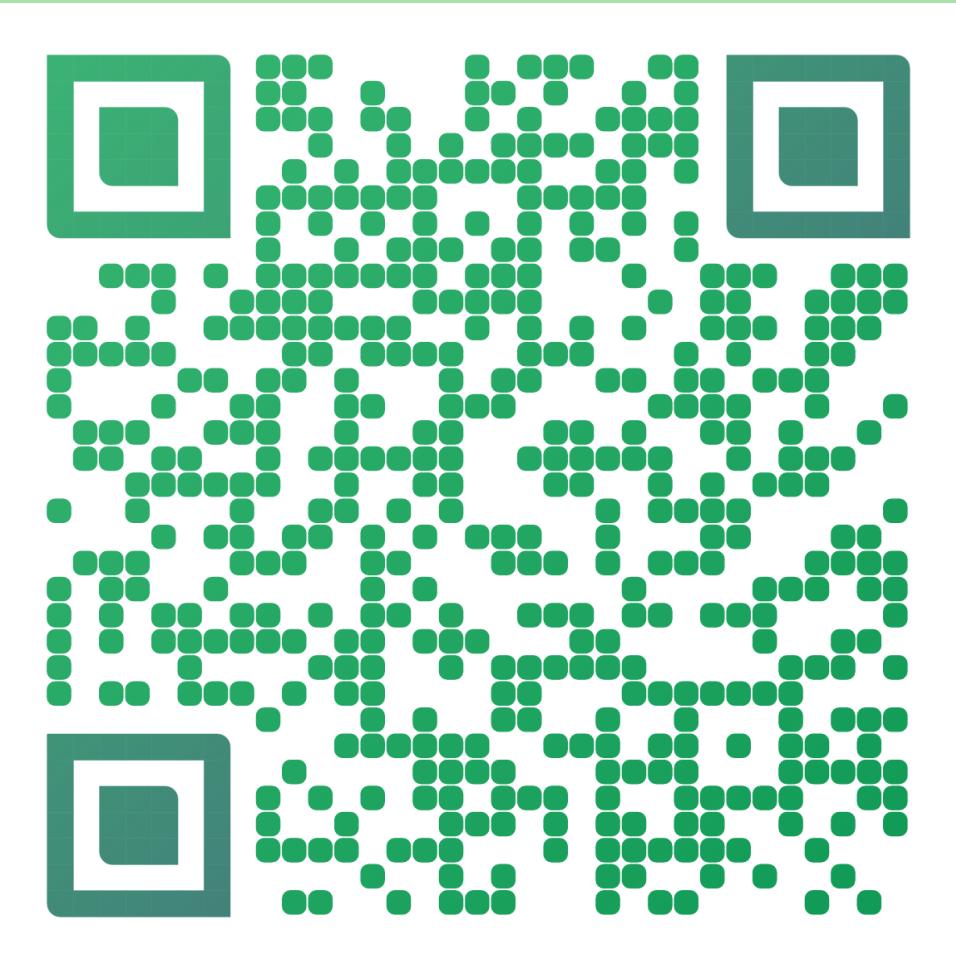


# Create your GenKit-based travel agent

Artur Kuzmin

# Agenda

- Short intro
- Hands-on building the app!



# Goals

- Build a GenKit agent
- Play with prompts
- Deploy an app to cloud

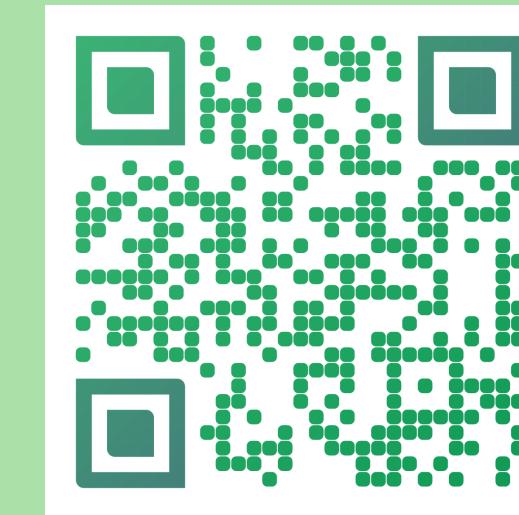
A close-up selfie of Artur Kuzmin, a man with short brown hair and a slight smile, standing next to a kangaroo. The kangaroo is brown with a white patch on its chest. They are outdoors on a beach with the ocean and sky in the background.

# Artur Kuzmin

Director of Engineering at Squire,  
Co-founder of Talent Agent  
Google Developer Expert

Built 20+ agents in the last year.  
5 of them are currently in production.

[linkedin.com/in/arturkuzmin/](https://linkedin.com/in/arturkuzmin/)  
[twitter.com/ArtursTwit](https://twitter.com/ArtursTwit)



# Talent Agent



## Free 7-day resume building bootcamp.



<https://a.gettalentagent.com/bootcamp/ar>

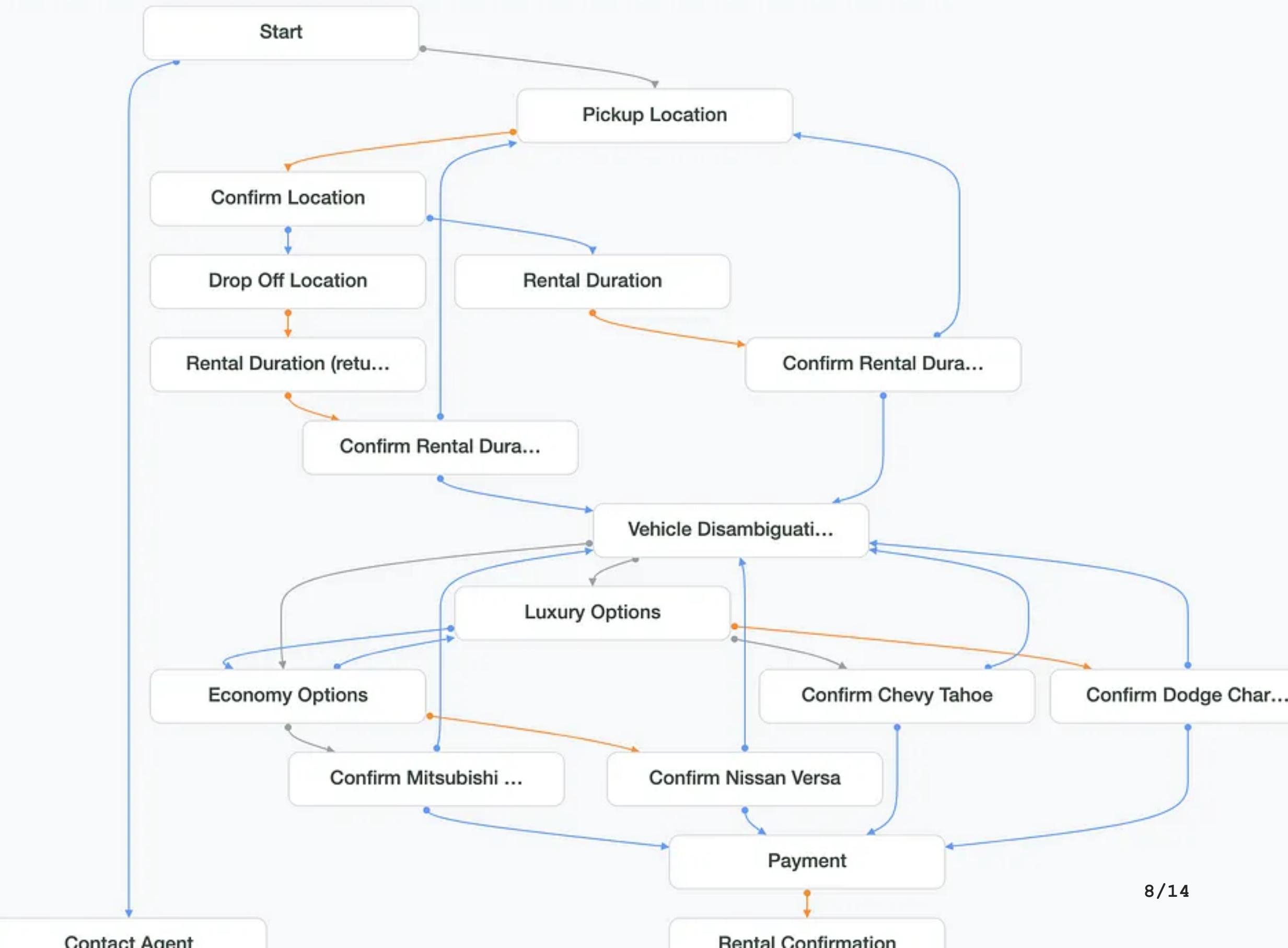
# Introduction: What are AI Agents?

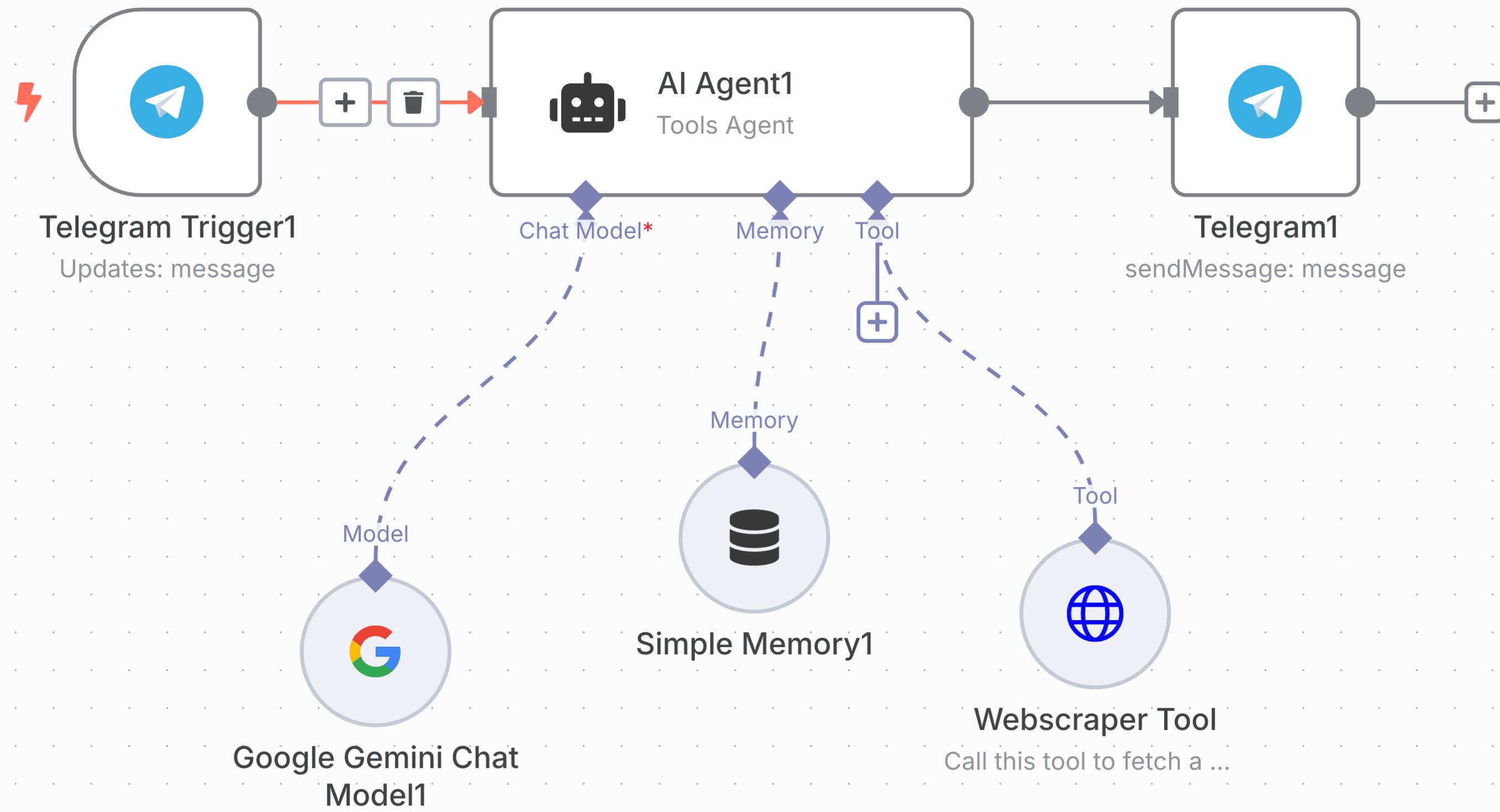
*AI Agents* are software systems that can perform tasks autonomously or with minimal human intervention. They have access to tools to be able to interact with the outside world.

# AI Agents

- Get a goal.
- Plan how to achieve it.
- Use tools or other agents as needed.
- Decide when the goal was achieved.

- + Default Start Flow
- + Start
- End Flow
- End Session
- Confirm Chevy Tahoe
- Confirm Dodge Charger
- Confirm Location
- Confirm Mitsubishi Mi...
- Confirm Nissan Versa
- Confirm Rental Durati...
- Confirm Rental Durati...





# Free Google tools for AI

- AI Studio
- Firebase Studio
- Gemini CLI
- Firebase Gen Kit
- Agent Development Kit

# Free APIs !



1. Google Gemini. 15 RPM for fast model
2. Groq. 30 RPM. Mistral / LLama / Qwen / Deepseek distilled
3. Hugging Face. 1000 RPD. Qwen / Deepseek distilled

# Code Lab

1. <https://firebase.google.com/codelabs/ai-genkit-rag>

2. We'll use Gemini API instead of Vertex. No need for Firebase paid plan, no need to Enable Vertex AI ~~gcloud services enable aiplatform.googleapis.com~~

3. Get api key here: <https://aistudio.google.com/apikey>

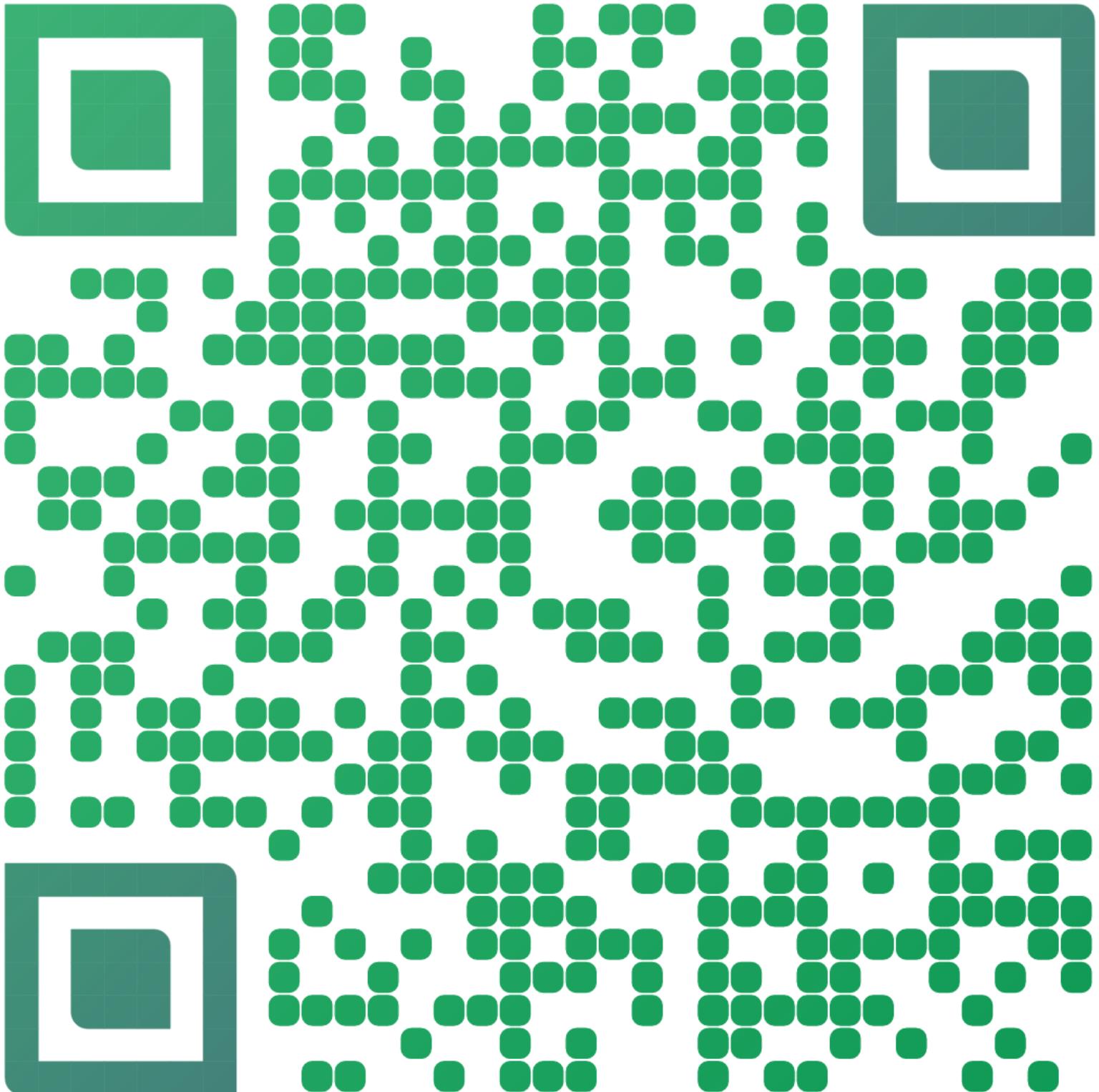
4. Run `export GOOGLEAPIKEY=AI...BE` before starting GenKit ui with `npm run dev:genkit`

5. Run `npm install @genkit-ai/googleai`

6. Replace all `vertexai/gemini-2.5-flash` to `googleai/gemini-2.5-flash`

7. Use `googleAI.embedder('text-embedding-004',...)`, in the retriever instead of `vertexAI.embedder('gemini-embedding-001')`

8. Switch to local Ollama later:



# Did you like the workshop?

Connect to me on LinkedIn!

And likes are always  
appreciated :)

[linkedin.com/in/arturkuzmin/](https://linkedin.com/in/arturkuzmin/)

[twitter.com/ArtursTwit](https://twitter.com/ArtursTwit)

[youtube.com: Artur Badretdinov](https://youtube.com: Artur Badretdinov)

# Tech Learning Bonus

Do you want to get a deep dive how to move from LLM to Agents? Go through these examples:

<https://github.com/ashishpatel26/AIAgentWorkshop/tree/main>