Agents

An "agent" is an automated reasoning and decision engine. It takes in a user input/query and can make internal decisions for executing that query in order to return the correct result. The key agent components can include, but are not limited to:

- · Breaking down a complex question into smaller ones
- Choosing an external Tool to use + coming up with parameters for calling the Tool
- · Planning out a set of tasks
- Storing previously completed tasks in a memory module

LlamaIndex provides a comprehensive framework for building agentic systems with varying degrees of complexity:

- If you want to build agents quickly: Use our prebuilt agent and tool architectures to rapidly setup agentic systems.
- If you want full control over your agentic system: Build and deploy custom agentic workflows from scratch using our Workflows.

Use Cases

The scope of possible use cases for agents is vast and ever-expanding. That said, here are some practical use cases that can deliver immediate value.

- Agentic RAG: Build a context-augmented research assistant over your data that not only
 answers simple questions, but complex research tasks. Here are two resources (resource 1,
 resource 2) to help you get started.
- Report Generation: Generate a multimodal report using a multi-agent researcher + writer workflow + LlamaParse. Notebook.
- Customer Support: Check out starter template for building a multi-agent concierge with workflows.

 Ask AI
- SQL Agent: A "text-to-SQL assistant" that can interact with a structure ck out this guide to see how to build an agent from scratch.

Others: - **Productivity Assistant**: Build an agent that can operate over common workflow tools like email, calendar. Check out our GSuite agent tutorial.

 Coding Assistant: Build an agent that can operate over code. Check out our code interpreter tutorial.

Resources

Prebuilt Agents and Tools

The following component guides are the central hubs for getting started in building with agents:

- Agents
- Tools

Custom Agentic Workflows

LlamaIndex Workflows allow you to build very custom, agentic workflows through a core event-driven orchestration foundation.

- Workflows Tutorial Sequence
- · Workflows Component Guide
- Building a ReAct agent workflow
- Deploying Workflows

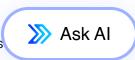
Building with Agentic Ingredients

If you want to leverage core agentic ingredients in your workflow, LlamaIndex has robust abstractions for every agent sub-ingredient.

- Query Planning: Routing, Sub-Questions, Query Transformations.
- Function Calling and Tool Use: Check out our OpenAl, Mistral guides as examples.
- Memory: Example guide for adding memory to RAG.

Ecosystem

 Deploy Agents as Microservices: Deploy your agentic workflows llama_deploy (repo)



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• Community-Built Agents: We offer a collection of 40+ agent tools for use with your agent in LlamaHub 🐄 .

