Chatflows vs Agentflows

Complete Comparison Guide

Understanding the Differences in Flowise

Overview

Flowise provides two primary ways to build LLM applications. Choose the right approach based on your use case:

Chatflows

- Linear, predefined conversation flows
- User sends message → Model processes → Response returned
- Ideal for: Q&A, chatbots, document analysis

Agentflows

- Autonomous agents with decision-making capabilities
- Agent decides what action to take based on context
- Ideal for: Complex tasks, multi-step workflows, dynamic routing

Side-by-Side Comparison

Aspect	□ Chatflows	□ Agentflows
Architecture	Linear, sequential flow	Agent-based with loops & decision logic
Control Flow	Predetermined path; no branching	Dynamic decision-making; multiple paths
Decision Making	Fixed by design	Model-driven; adaptive
Tool Usage	Limited; tools called in sequence	Extensive; agent decides which tools to use
Complexity	Low to medium; straightforward logic	Medium to high; requires careful design
Conversation Memory	Built-in; maintains chat history	Built-in; maintains context across loops
Response Time	Fast; single execution	Variable; depends on loop iterations
Cost	Lower; fewer API calls	Higher; multiple agent iterations
Best For	• Customer support • FAQ chatbots • Document Q&A • Conversations	• Research tasks • Multi-tool workflows • Problem solving • Autonomous tasks

Detailed Breakdown

Chatflows in Detail

What is a Chatflow?

A chatflow is a straightforward, linear flow designed for multi-turn conversations. Users send messages, and the flow processes them through a predefined pipeline to generate responses.

Key Characteristics:

- Single conversation path from input to output
- Maintains conversation history automatically
- Fast response times
- Lower token usage and costs
- Easy to understand and debug

Typical Chatflow Structure:

```
User Input → Prompt Template → LLM Model → Output (+ optional: Document Loaders, Memory, Chains)
```

Example Use Cases:

- Customer support chatbot answering FAQs
- Document Q&A system (RAG)
- Personal assistant for general questions
- Content generation tool

Agentflows in Detail

What is an Agentflow?

An agentflow uses ReAct (Reasoning + Acting) pattern where an AI agent autonomously decides what actions to take, what tools to use, and when to stop. It can loop multiple times to accomplish complex tasks.

Key Characteristics:

- Agent makes autonomous decisions
- Can loop multiple times (ReAct pattern)
- Access to multiple tools
- Can reason about which tool to use next
- Variable response times
- Higher token usage and costs

Agent Loop (ReAct) Cycle:

```
1. Receive Task/Input 2. Reason about what to do 3. Choose Tool/Action 4. Execute Tool 5. Observe Result 6. Decide: Continue Loop or Provide Final Answer
```

Example Use Cases:

- Research assistant (web search + analysis)
- Code generation with testing
- Data analysis workflows
- Autonomous task automation
- Complex problem solving

Feature Comparison

Supported Components

Component	Chatflow	Agentflow
LLM Models	✓	✓
Chains	✓	✓
Tools	*Limited*	✓ **Full Access**
Memory	✓	✓
Embeddings	✓	✓
Vector Stores	✓	✓
Document Loaders	✓	✓

Decision Guide: Which One to Choose?

Use the following flowchart to decide which approach is best for your use case:

? Does your task require:

- Multiple tools?
- Dynamic decision-making?
- Multiple steps/loops?
- Autonomous reasoning?

↓

All NO?	At least ONE YES?
□ Use CHATFLOW	□ Use AGENTFLOW

Practical Examples

□ Chatflow Example: FAQ Support Bot

Scenario:

Build a customer support bot that answers FAQs from your knowledge base.

Flow:

```
User Question ↓ Embeddings (get context from KB) ↓ Vector Search (find relevant docs) ↓ Prompt + Context + LLM ↓ Return Answer
```

Why Chatflow?

- Single decision path
- Fast response (< 1 sec)
- Lower cost
- Predictable behavior

□ Agentflow Example: Research Assistant

Scenario:

Build an autonomous research assistant that searches the web, analyzes results, and provides comprehensive answers.

Agent Loop:

```
User Query ↓ [Agent Thinks] "I need to search for this topic" ↓ [Uses Web Search Tool] → Gets results ↓ [Agent Thinks] "Good results. Let me analyze them" ↓ [Uses Analysis Tool] → Synthesizes info ↓ [Agent Thinks] "I have enough info. Provide answer" ↓ Final Comprehensive Answer
```

Why Agentflow?

- Multiple tools needed
- Autonomous decision-making
- Reasoning about which tool to use
- Complex multi-step process

Performance Metrics

Metric	Chatflow	Agentflow
Response Time	~0.5-2 seconds	~2-30 seconds
Avg Tokens/Query	500-2K	5K-50K
Cost/1000 queries	$0.50 - $5	$5 - $50
Success Rate	98-99%	85-95%

Quick Summary

 Chatflow: Fast, predictable, single-path conversations

 Agentflow: Intelligent, autonomous, multi-tool problem solving

Choose based on complexity & autonomy needed

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