Introduction

Build AI agent teams that work together to tackle complex tasks

What is CrewAI?

CrewAI is a lean, lightning-fast Python framework built entirely from scratch—completely independent of LangChain or other agent frameworks.

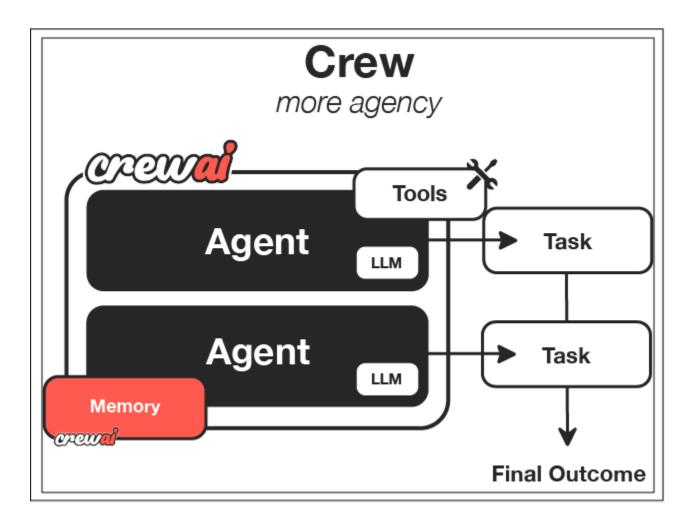
CrewAI empowers developers with both high-level simplicity and precise low-level control, ideal for creating autonomous AI agents tailored to any scenario:

- <u>CrewAl Crews</u>: Optimize for autonomy and collaborative intelligence, enabling you to create AI teams where each agent has specific roles, tools, and goals.
- <u>CrewAl Flows</u>: Enable granular, event-driven control, single LLM calls for precise task orchestration and supports Crews natively.

With over 100,000 developers certified through our community courses, CrewAI is rapidly becoming the standard for enterprise-ready AI automation.

How Crews Work

Just like a company has departments (Sales, Engineering, Marketing) working together under leadership to achieve business goals, CrewAI helps you create an organization of AI agents with specialized roles collaborating to accomplish complex tasks.



CrewAl Frai	mework Overview	
Component	Description	Key Features
Crew	The top-level organization	 Manages AI agent teams Oversees workflows Ensures collaboration Delivers outcomes

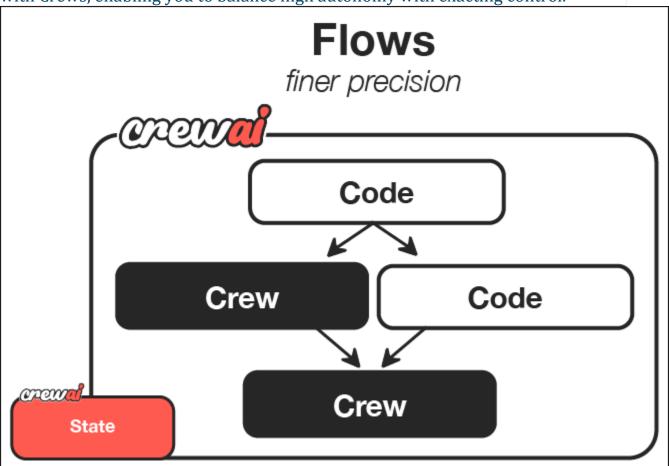
Component	Description	Key Features
AI Agents	Specialized team members	 Have specific roles (researcher, writer) Use designated tools Can delegate tasks Make autonomous decisions
Process	Workflow management system	 Defines collaboration patterns Controls task assignments Manages interactions Ensures efficient execution
Tasks	Individual assignments	 Have clear objectives Use specific tools Feed into larger process Produce actionable results

How It All Works Together

- 1. The **Crew** organizes the overall operation
- 2. **AI Agents** work on their specialized tasks
- 3. The **Process** ensures smooth collaboration

Ke	ey Features
Ro	le-Based Agents
	ate specialized agents with defined roles, expertise, and goals - from earchers to analysts to writers
Fle	exible Tools
_	rip agents with custom tools and APIs to interact with external services ar a sources
In	telligent Collaboration
_	ents work together, sharing insights and coordinating tasks to achieve aplex objectives
Та	sk Management
	ine sequential or parallel workflows, with agents automatically handling tendencies

While Crews excel at autonomous collaboration, Flows provide structured automations, offering granular control over workflow execution. Flows ensure tasks are executed reliably, securely, and efficiently, handling conditional logic, loops, and dynamic state management with precision. Flows integrate seamlessly with Crews, enabling you to balance high autonomy with exacting control.



Component	Description	Key Features
Flow	Structured workflow orchestration	 Manages execution paths Handles state transitions Controls task sequencing Ensures reliable execution

Component	Description	Key Features
Events	Triggers for workflow actions	 Initiate specific processes Enable dynamic responses Support conditional branching Allow for real-time adaptation
States	Workflow execution contexts	 Maintain execution data Enable persistence Support resumability Ensure execution integrity
Crew Support	Enhances workflow automation	 Injects pockets of agency when needed Complements structured workflows Balances automation with intelligence Enables adaptive decision-making

Key Capabilities

Event-Driven Orchestration

Define precise execution paths responding dynamically to events

Fine-Grained Control

Manage workflow states and conditional execution securely and efficiently

Native Crew Integration

Effortlessly combine with Crews for enhanced autonomy and intelligence

Deterministic Execution

Ensure predictable outcomes with explicit control flow and error handling

When to Use Crews vs. Flows

Understanding when to use <u>Crews</u> versus <u>Flows</u> is key to maximizing the potential of CrewAI in your applications.

Use Case	Recommended Approach	Why?
Open-ended research	Crews	When tasks require creative thinking, exploration, and adaptation
Content generation	Crews	For collaborative creation of articles, reports, or marketing materials

Use Case	Recommended Approach	Why?
Decision workflows	<u>Flows</u>	When you need predictable, auditable decision paths with precise control
API orchestration	<u>Flows</u>	For reliable integration with multiple external services in a specific sequence
Hybrid applications	Combined approach	Use <u>Flows</u> to orchestrate overall process with <u>Crews</u> handling complex subtasks

Decision Framework

- **Choose <u>Crews</u> when:** You need autonomous problem-solving, creative collaboration, or exploratory tasks
- **Choose <u>Flows</u> when:** You require deterministic outcomes, auditability, or precise control over execution
- Combine both when: Your application needs both structured processes and pockets of autonomous intelligence

Why Choose CrewAI? **Autonomous Operation**: Agents make intelligent decisions based on their roles and available tools Natural Interaction: Agents communicate and collaborate like human team members **Extensible Design**: Easy to add new tools, roles, and capabilities **Production Ready**: Built for reliability and scalability in real-world applications **Security-Focused**: Designed with enterprise security requirements in mind (\$) **Cost-Efficient**: Optimized to minimize token usage and API calls Ready to Start Building?

Build Your First Crew

Step-by-step tutorial to create a collaborative AI team that works together to solve complex problems.

Build Your First Flow

Learn how to create structured, event-driven workflows with precise control over execution.

Install CrewAI

Get started with CrewAI in your development environment.

Quick Start

Follow our quickstart guide to create your first CrewAI agent and get hands-on experience.

Join the Community

Connect with other developers, get help, and share your CrewAI experiences.

Was this page helpful?

YesNo