

Cheat Sheet: Agentic Frameworks and Design Patterns for Effective AI Systems

Estimated reading time: 20 minutes

1. Agentic AI Design Patterns

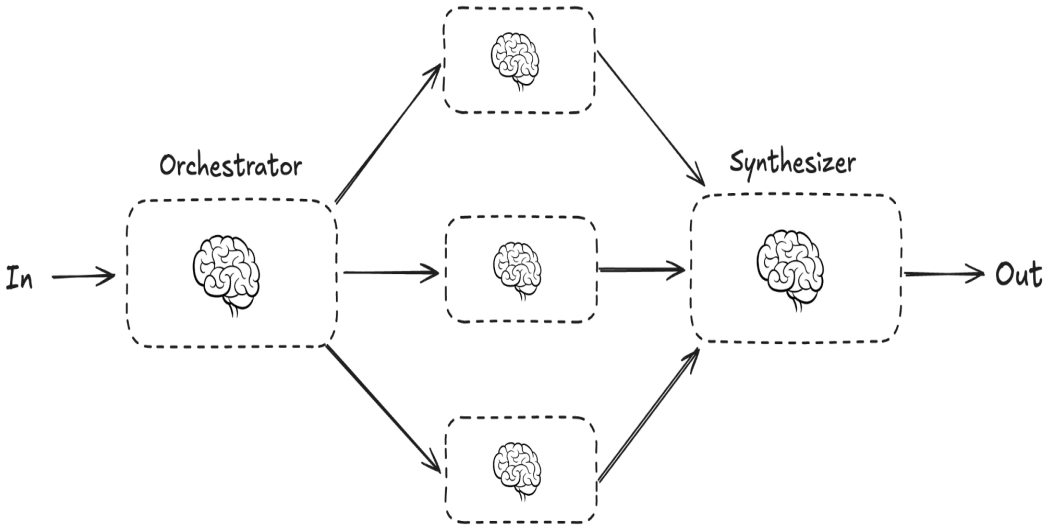
Agentic design patterns are reusable architectural strategies for coordinating multiple language-model agents into structured workflows. Each agent has a defined role, scoped responsibility, and clear input/output contracts.

Fundamental Components

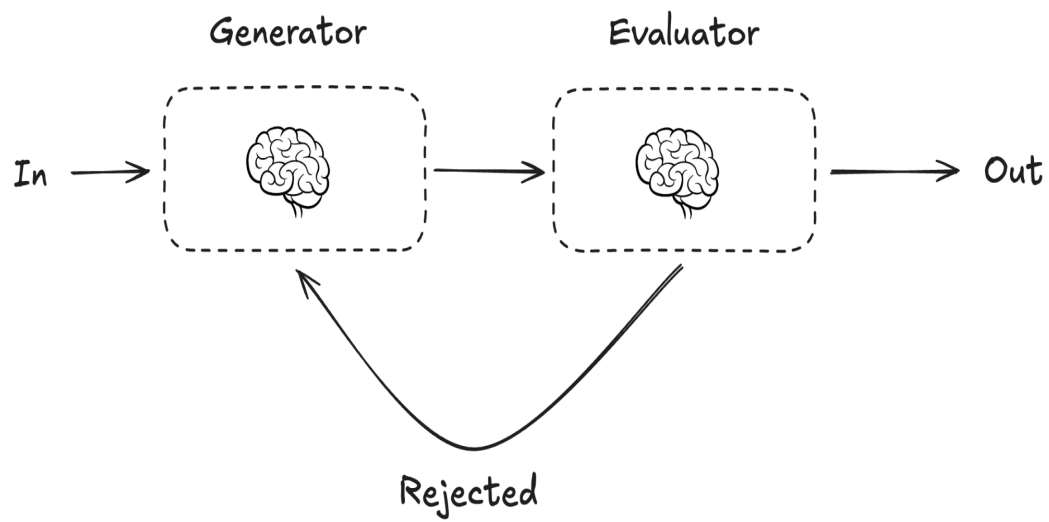
- Agent – Specialized LLM-driven unit
- Orchestrator – Central controller managing state and routing
- Worker – Single-responsibility execution unit
- Router – Intent-based dispatcher
- Evaluator – Output quality and correctness scorer

Pattern	Description	Use Cases
Orchestration	Central controller manages agents	Pipelines, workflows
Reflection	Self-evaluation and refinement	Quality improvement
Sequential	Fixed agent ordering	Multi-step reasoning
Routing	Intent-based dispatch	Multi-domain assistants
Parallel	Concurrent execution	Research, exploration

3. Orchestrator–Worker Pattern



4. Reflection Pattern



Summary

This document provides a practical foundation for designing robust, scalable agentic AI systems using LangGraph and common multi-agent design patterns.