

Training: CompTIA
CompTIA AI Agent Essentials



TRAINING GOALS:

AI agents are reshaping modern organizational workflows by moving beyond simple chat interactions to execute multi-step tasks, use specialized tools, and make autonomous decisions in real time. Professionals who understand how to oversee these systems can scale their impact, reduce operational risk, and ensure that AI automation remains safe and transparent. Mastering AI agent workflows allows you to shift from manual digital tasks to high-level orchestration, ensuring that agents are aligned with business goals and human oversight. With the right oversight skills, you can boost efficiency and improve team performance with clear, agent-driven insights.

In this course, you will do the following:

- Understand AI agents and identify appropriate use cases: Learn what AI agents are and how they differ from traditional chatbots or simple automations. Identify when an agentic approach adds value and when simpler AI tools or workflows are more appropriate.
- Translate work into agent workflows: Break real-world tasks into structured workflows that agents can execute. Learn how to divide complex work into smaller, checkable steps and determine when tasks require reasoning versus deterministic logic.
- Control agent behavior and actions: Understand how to guide agent behavior through context, instructions, and tool access. Learn how autonomy levels, APIs, and external tools shape what agents can do and how reliably they operate
- Manage agent memory and knowledge: Explore how agents use knowledge, short-term state, and long-term memory to perform tasks. Learn how to decide what information agents should store, retrieve, or discard during workflows.
- Design safe, secure agents with human oversight: Apply guardrails that prevent agent misbehavior. Learn to restrict tool access using least-privilege principles and insert human review at critical stages of agent workflows.
- Test, evaluate, and monitor agent performance: Develop the ability to evaluate agent outputs and diagnose issues. Learn to monitor agent behavior, track performance signals, and communicate uncertainty or failures to human operators, reinforced through hands-on practice in CompTIA's proprietary Agent Simulator with personalized feedback.

Jobs You Can Land With CompTIA AI Agent Essentials

- AI Integrator
- Automation Engineer
- Business Analyst
- IT Operations Specialist
- Product Manager (Digital)
- Service Desk Manager
- Marketing Operations Manager
- Cloud Architect

CONSPECT:

- From Manual Work to Agentic Systems
 - Course Introduction
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 - How to Use This Course
 - Activity: Pre-Assessment
 - What an Agent Is (and Is Not)
 - What Makes an AI System an Agent
 - Anatomy of an AI Agent System
 - Chatbots vs Agents: Same Task, Different Power
 - Activity: Identify the Components of an Agent
 - Choosing the Right Level of Agentic Approach
 - Not Everything Needs an Agent
 - From Chat to Light Agents to Full Agents
 - One Task, Three Approaches
 - Activity: Choose the Right Level of Agentic Behavior
 - Turning Real Work into a Controllable Agent Workflow
 - Making Work Legible to an Agent
 - Designing Agent-Compatible Workflows
 - Decomposing Work into Reasoning and Rules
 - Activity: Break Down and Classify a Workflow
- Controlling Agent Behavior, Actions, and Memory
 - Autonomy and Instructions
 - Controlling What Agents Can Decide
 - Designing Agent Context and Instructions

- The Same Agent at Different Autonomy Levels
- Activity: Designing Agent Autonomy and Instructions
- How Agents Take Action in the Real World
 - Why Tools Turn Assistants into Agents
 - How Agents Connect to External Tools
 - An Agent Performing Real Actions with Tools
 - Activity: Decide Which Tools an Agent Should Have
- Designing Agent Memory
 - Why Memory Changes Agent Behavior
 - Knowledge, State, and Long-Term Memory
 - Memory Decisions and Their Consequences
 - Activity: Decide What the Agent Should Remember
- Safety, Oversight, and Agent Performance
 - Designing Safe, Reviewable Agents
 - Safety Is a Design Decision
 - Least Privilege and Human Oversight
 - Humans Reviewing Agent Actions
 - Activity: Setting Permissions and Human Control
 - Guardrails and Automated Protection
 - Why Agents Need Guardrails
 - Types of Agent Guardrails and Validations
 - Guardrails Blocking Unsafe Actions
 - Activity: Choose Guardrails for Risky Scenarios
 - Evaluating and Monitoring Agents Over Time
 - Agents Need Ongoing Oversight
 - Monitoring, Logs, and Performance Signals
 - Debugging a Misbehaving Agent
 - Activity: Interpret Agent Performance Signals

REQUIREMENTS:

Ideal for non-technical and lightly technical professionals, including product, operations, analytics, and IT-adjacent roles. No prior experience building AI agents or coding required.

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by CompTIA (course completion). This course is designed to help you prepare for the CompTIA AI Agent Essentials CompCert assessment, and after successfully passing the assessment at the end of the course, you will earn a Competency Certificate.

TRAINER:

Authorized CompTIA Trainer.