



AI Agent Design for Business Automation Course

8 – 12 August 2027
Johannesburg

AI Agent Design for Business Automation Course

Ref: 287_124469 **Date:** 8 – 12 August 2027 **Location:** Johannesburg **Fees:** 4500 Euro

Overview

AI Agent Design for Business Automation Course is a five-day foundation course for automation specialists, process analysts, operations managers, solution designers, and technical contributors, who leave with an AI Agent Automation Design and Test Pack. Participants define goals and boundaries, decompose workflows, configure tools and instructions, manage context, set human approvals, orchestrate actions, test behavior, monitor performance, and handle failures. Agile Leaders Training Center provides training in AI agent design for business automation.

Who Should Attend

- Automation teams responsible for digitizing repeatable business work
- Process analysis teams responsible for mapping tasks, decisions, and exceptions
- Operations teams responsible for service quality and workflow controls
- Solution design teams responsible for agent interactions and system boundaries
- Technical contributors responsible for tools, integrations, testing, and monitoring

The course assumes participants can describe business workflows and basic system interactions and leaves out advanced model development, data-science coding, and vendor-product administration.

Departments and Industries

The course supports controlled AI agent automation across operational and service environments.

- Operations, shared services, and business-process teams
- Technology, automation, data, and information-security functions
- Customer service, finance, procurement, and people operations
- Financial services, retail, and professional-services organizations
- Healthcare, education, and public-service organizations
- Manufacturing, logistics, utilities, and infrastructure operators

Learning Objectives

By the end of this course, participants will be able to:



- Analyze workflows for suitable agent automation
- Build agent goals, boundaries, instructions, and tool definitions
- Apply memory, context, and human-approval controls
- Compare single-agent and coordinated-agent patterns
- Evaluate agent behavior, security, and failure handling
- Use monitoring evidence to improve controlled operation

Course Agenda

Day 1: Agent Scope and Workflow Fit

- Business Workflow Automation Suitability Canvas
- Agent Goal and Success-Criteria Template
- Task, Decision, and Exception Decomposition Map
- Autonomy Boundary and Human Judgment Matrix
- AI Agent Use-Case Brief

Day 2: Instructions, Tools, and Context

- Agent Instruction and Constraint Specification
- Tool Function and Permission Register
- Input, Output, and Structured Response Schema
- Memory and Context Selection Matrix
- Prompt, Tool, and Evidence Trace Map

Day 3: Orchestration and Human Control

- Single-Agent Control Loop Diagram
- Agent Handoff and Orchestration Pattern Map
- Human Approval and Escalation Gate Design
- Least-Privilege Access Control Checklist
- State, Retry, and Recovery Flowchart

Day 4: Testing, Security, and Monitoring

- Agent Test Case and Expected-Behavior Matrix
- NIST AI RMF Risk and Control Mapping
- OWASP Agent Threat and Mitigation Register
- Failure Mode and Safe-Stop Analysis
- Agent Observability and Performance Dashboard



Day 5: Agent Automation Design Practice

- Suggested Exercise: Assess Workflow and Define Agent Boundaries
- Suggested Exercise: Specify Instructions, Tools, and Context
- Suggested Exercise: Configure Approval, Handoff, and Recovery Flows
- Suggested Exercise: Test Security, Failures, and Monitoring Signals
- Capstone Exercise: AI Agent Automation Design and Test Pack

Practical Exercises

The course uses suggested activities to turn business workflows into bounded, testable agent automation designs.

- Suggested activity: assess a workflow, identify exceptions, define outcomes, and set autonomy boundaries
- Suggested activity: specify instructions, tool permissions, response schemas, memory, and context
- Suggested activity: design orchestration, approval, escalation, retry, and recovery flows
- Suggested activity: create tests, map threats and controls, define safe stops, and assemble the design pack

FAQs

Who suits AI agent design for business automation training?

AI agent design training suits automation, process, operations, solution, and technical contributors who can describe workflows and system interactions. It assumes no advanced model-development experience.

How does AI agent design differ from robotic process automation training?

AI agent design addresses model-guided decisions, tools, context, instructions, approvals, evaluation, and variable behavior. Robotic process automation training usually emphasizes deterministic rules, fixed sequences, interface actions, and structured exceptions.

How should a business workflow be selected for AI agent automation?

A workflow should be assessed for goals, evidence, variability, tool access, exception frequency, decision risk, human judgment, reversibility, security exposure, measurable outcomes, and available fallback paths.

What controls belong in an AI agent workflow?

AI agent controls include scoped goals, constrained instructions, least-privilege tools, validated inputs and outputs, approval gates, escalation, logging, test cases, monitoring, retry limits, safe stops, and recovery procedures.



How are AI agents tested before business use?

AI agents are tested with representative and adverse cases, expected behaviors, tool-permission checks, approval paths, failure injection, security scenarios, output validation, trace review, performance measures, and safe-stop verification.

Conclusion

Participants take back an AI Agent Automation Design and Test Pack connecting workflow fit, goals, boundaries, tools, context, orchestration, approvals, security, tests, monitoring, and recovery. The pack makes operating assumptions and control decisions visible across business and technical teams. It supports evidence-based review before an agent handles business work.