

GitLab Duo Agent Platform Fundamentals Training

OEM: GitLab • Code: GITLAB_DUO_AGENT_PLATFORM_FUNDAMENTALS_T

COURSE DESCRIPTION

Explore the power of AI across your DevSecOps workflows with our GitLab Duo Agent Platform (DAP) Fundamentals Training. This full-day, instructor-led training is meticulously crafted to empower your teams with critical insights and techniques to effectively utilize agentic AI across your SDLC, and further enhance your productivity. Participants will engage in hands-on labs designed to demonstrate the practical benefits of integrating AI tools, enhancing productivity, and optimizing workflows through the innovative features of GitLab Duo Agent Platform. The following use cases illustrate how DAP capabilities taught throughout the course apply directly to real DevSecOps workflows: MR Code Review: Trigger an automated Duo-powered review on every merge request, surfacing code quality issues and style violations before human review. Fix Failed Pipeline: Invoke an agent to analyze failed CI/CD pipeline logs, identify the root cause, and suggest a fix — reducing context-switching and recovery time. Agentic Chat: Use conversational prompts inside GitLab to invoke built-in or custom agents for tasks like drafting issues or kicking off workflows. Software Development Flow: Deploy a multi-step automated flow spanning planning, coding, review, and merge — connecting agents, conditions, and outputs across the SDLC. SAST Vulnerability Resolution: Use the Security Analyst agent to triage SAST findings, prioritize critical vulnerabilities, and generate remediation recommendations in context.

AUDIENCE PROFILE

- Developers seeking efficiency within their workflows
- AIOps or Platform Engineers developing custom agents and flows
- Teams looking to integrate agentic tools into their development processes
- CI/CD and AI Champions designated to drive internal adoption

PREREQUISITES

- GitLab Fundamentals and CI/CD experience
- Understanding of basic AI principles
- No agentic AI experience required

COURSE OBJECTIVES

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

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Module 1: Introduction to DAP

- Learn how DAP's three core components (agents, flows, and orchestration) work together to solve disconnected tools, lost context, and repetitive work across the SDLC.

Module 2: Agents and Flows

- Distinguish between foundational, custom, and external agent types.
- Learn when to invoke an agent on demand versus triggering a flow automatically from a GitLab event.
- Lab: Use a Foundational Flow

Module 3: Agentic Chat

- Invoke agents through conversation inside GitLab.
- Explore the four built-in agents, the AI Catalog for discovering and sharing agents, and the Duo Prompt Library for ready-to-use prompts.
- Lab: Use Agentic Chat to Create an Issue

Module 4: Building Custom Agents

- Create team-specific agents using system prompts, tool selection, and visibility settings.
- Apply security best practices including least privilege, narrow scope, and prompt injection awareness.
- Lab: Build a Custom Agent

Module 5: Building Custom Flows

- Design automated multi-step workflows built on five core components: triggers, agents, steps, conditions, and outputs.
- Combine foundational and custom agents and manage sessions to audit activity.
- Lab: Create a Custom Flow

Module 6: DAP and MCP

- Connect DAP to external tools like Jira, Confluence, and Slack using the Model Context Protocol (MCP).
- Configure MCP servers in the IDE and understand how DAP functions as both an MCP client and server.

Module 7: DAP for Code Quality and Security

- Generate and review code with DAP and trigger automated MR reviews via the Code Review Flow.
- Use the Security Analyst agent to triage and remediate vulnerabilities without leaving GitLab.
- Lab: Create and Secure Code with DAP

Module 8: Best Practices with DAP

- Learn how to select the right DAP capability for each use case.
- Measure ROI using a time-saved framework, choose the right AI model, and understand GitLab's credit-based pricing across tiers.