CORSEN AI Academy

Function Calling with Grok

Course syllabus

Version 2026-11

Overview

Build intelligent agents: JSON schemas, tool_choice, parallel calls, and tool combination. Complete examples included.

Learning objectives

- Describe a tool in a JSON schema with descriptions explicit enough to be chosen appropriately
- Implement the complete tool-calling loop: trigger, local execution, and return of the result to the model
- Control model behavior with tool_choice and use parallel calls
- Declare typed tools with Pydantic and the @tool decorator to make arguments more reliable
- Build a multi-turn agent combining server and client tools, streaming, and a multi-tool pipeline

Audience and prerequisites

Developers, engineers, and integrators looking to use Grok via API in their applications.

Ability to read Python and JSON, command-line basics. An API key from the xAI console to try the examples.

Duration and format

Estimated duration : 1 h. A 100% online, self-paced course accessible 24/7 from a browser. Progress is saved, and you can resume at any time. Estimated duration: 1 h.

Content

- Concept (3 lessons)
- Implementation (4 lessons)
- Advanced (4 lessons)
- Patterns (3 lessons)

Assessment

Self-assessment based on the Key takeaways that conclude each lesson, and direct practice applying the examples on your own examples. A final 5-question quiz with corrections at the end of the last lesson validates what you have learned.

Accessibility

Course accessible to people with disabilities: text content compatible with screen readers, keyboard navigation, and compliant contrast. For any adaptation needs, email hello@corsen.ai.

Price and recognition

Free

Certificate of completion issued by Corsen AI.

Access time

Immediate after account creation and email confirmation.

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