CORSEN AI Academy

Async Requests & Advanced Patterns

Course syllabus

Version 2026-11

Overview

AsyncClient, semaphores, maximum concurrency, hybrid tools, and cache optimization to scale your applications.

Learning objectives

- Implement concurrent calls with the AsyncClient from the xAI or AsyncOpenAI SDK and httpx.Timeout
- Limit concurrency via semaphore and process batches of requests with asyncio.gather
- Handle HTTP 429 errors with exponential backoff while respecting RPM/TPM limits
- Combine server and client tools over multiple turns while securing stored context
- Validate an asynchronous deployment with conversational cache, the Batch API, and a checklist

Audience and prerequisites

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

Confirmed experience in application development and deployment.

Duration and format

Estimated duration : 45 min. 100% online self-paced course, accessible 24/7 from a browser. Progress saved, resume anytime. Estimated duration: 45 min.

Content

- AsyncClient (3 lessons)
- Concurrency (4 lessons)
- Hybrid Tools (3 lessons)
- Optimization (2 lessons)

Assessment

Self-assessment based on the Key takeaways concluding each lesson, and direct implementation of examples on your own examples. A final quiz of 5 corrected questions, at the end of the last lesson, validates skills.

Accessibility

Course accessible to people with disabilities: text content compatible with screen readers, keyboard navigation, and compliant contrasts. 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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