Course : Developing your own intelligent agents

Master RAG, RIG, GraphRAG and StructRAG to boost your productivity

Practical course - 2d - 14h00 - Ref. IAW

Price : 1430 € E.T.

4,5 / 5

NEW

Design high-performance intelligent agents using RAG, RIG, GraphRAG and StructRAG architectures! Learn how to program them, optimize them and guarantee their compliance for various applications (finance, customer relations...). Improve efficiency and innovation with advanced generative AI.

Teaching objectives

At the end of the training, the participant will be able to:

- Understanding generative AI and how it differs from conversational agents
- Explore RAG, RIG, GraphRAG and StructRAG concepts and architectures
- Developing intelligent agents for various use cases
- Optimize agent performance through contextual conditioning and continuous learning
- Use GraphRAG and StructRAG to enrich and structure generated content
- Evaluate agent performance with appropriate metrics and improve efficiency
- Mastering ethical issues, bias management and regulatory compliance

Intended audience

Professional profiles looking to exploit generative AI and intelligent agents in their field.

Prerequisites

Notions in generative artificial intelligence. Minimal programming skills desirable. Analytical skills: ability to model use cases.

Course schedule

PARTICIPANTS

Professional profiles looking to exploit generative AI and intelligent agents in their field.

PREREQUISITES

Notions in generative artificial intelligence. Minimal programming skills desirable. Analytical skills: ability to model use cases.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

1 Introduction to generative AI and intelligent agents

- Understanding generative AI and its applications.
- Differences between conversational agents and agents based on generative AI.
- Introduction to RAG, RIG, GraphRAG and StructRAG architectures.

2 Fundamentals of RAG and RIG architectures

- What is Retrieval Augmented Generation (RAG)? Concepts and use cases.
- Understand direct integration with Retrieval Interleaved Generation (RIG): strengths, weaknesses and applications.
- The role of knowledge bases and information retrieval systems.

3 Exploring GraphRAG and StructRAG architectures

- Introduction to GraphRAG: using graphs to enrich content generation.
- StructRAG: data structure for precision and organization.

Hands-on work

Use cases for GraphRAG and StructRAG in complex scenarios.

4 Agent design and programming with RAG and RIG

- Introduction to the creation of an intelligent agent based on RAG.
- Configuration of recovery bases and integration with generation models.
- Agent development using seamless integration between retrieval and generation.
- Advanced techniques for contextual conditioning.

Hands-on work

Development of a personalized assistant.

5 Advanced applications with GraphRAG and StructRAG

- Designing agents using knowledge graphs (GraphRAG).
- Workflow optimization with StructRAG.

Hands-on work

Generate dynamic, structured reports.

6 Optimization and performance of intelligent agents

- Key metrics for measuring agent performance and its impact on employee performance.
- Techniques to improve agent precision and efficiency.
- Knowledge base management for continuous learning.

7 Managing ethical issues and compliance

- Identification and resolution of biases in RAG and RIG architectures.
- Managing confidentiality and regulatory compliance.
- Best practices to ensure transparency in agent interactions.

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

8 Future prospects and innovations in intelligent agents

- Future trends in intelligent agent development.
- Potential innovations in RAG, RIG, GraphRAG and StructRAG architectures.

Storyboarding workshops
Discussion on the future of intelligent agents in various sectors.

Dates and locations

REMOTE CLASS
2026 : 2 July, 1 Oct., 12 Nov.

PARIS LA DÉFENSE
2026 : 25 June, 24 Sep., 5 Nov.