

# Generative Artificial Intelligence in Azure

This training program is designed to provide participants with a comprehensive, practical understanding of modern Generative Artificial Intelligence and its implementation within the Microsoft ecosystem. The course covers the full development lifecycle of generative AI solutions—from selecting and deploying models to building intelligent agents and multimodal applications.

Throughout the program, participants will work with Microsoft Foundry, Azure AI Services, and the latest tooling for natural language processing, computer vision, information extraction, and AI agent development. By the end of the course, attendees will be equipped to design, build, evaluate, and operate end-to-end generative AI systems in production environments.



## Training recipients

The course is designed for:

- Software developers and AI engineers who want to build applications powered by generative AI and multimodal capabilities.
- Data scientists and ML practitioners interested in fine-tuning models, evaluating AI systems, and leveraging Azure's advanced AI tools.
- Solution architects responsible for designing end-to-end AI solutions in enterprise environments.
- Technical consultants and IT professionals who support organizations in adopting modern AI technologies.
- Innovation leaders and technology decision-makers seeking to understand how generative AI can be leveraged to build intelligent applications and agents.



## Benefits

- Participants will:
- Gain practical skills in building generative AI applications using Microsoft Foundry and Azure AI.
- Learn how to select, deploy, and fine-tune state-of-the-art AI models.
- Understand how to design responsible, secure, and reliable AI solutions.
- Develop hands-on experience with natural language processing, computer vision, and multimodal AI.
- Acquire the ability to design and build intelligent agents and multi-agent systems.

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During the training, you will work directly with the tools and frameworks used to build modern generative AI solutions, so you'll leave with practical, repeatable skills—not just theory.

You'll learn how to confidently choose and deploy models, adapt them to your needs, and fine-tune them for better accuracy. You'll also see how to build AI responsibly, ensuring your solutions are safe, explainable, and aligned with organizational requirements.

By exploring NLP, vision, and multimodal AI, you'll expand your technical toolkit and learn how to build richer, more capable applications. And when we get to AI agents, you'll discover how to design intelligent systems that can reason, plan, and use tools—skills that are becoming essential in modern AI development.

Finally, you'll gain a broader perspective on where and how generative AI creates value, helping you apply your new skills effectively in real business scenarios.

- Improve their ability to evaluate AI system performance and optimize real-world solutions.
- Strengthen their strategic understanding of how generative AI can transform business processes.



## Training program

1. Introducing Generative Artificial Intelligence
2. Microsoft Foundry & Generative AI development
  - Introduction to Microsoft Foundry
  - Selecting and deploying models
  - Developing AI applications with Microsoft Foundry SDK
  - Fine-tuning language models in Microsoft Foundry
  - Responsible Generative AI
  - Evaluating the performance of generative AI applications
3. Developing natural language solutions
  - Overview of Azure AI Services
  - Introduction to Microsoft Foundry tools
  - Text analysis
  - Speech recognition and synthesis

- Translation
- 4. Developing Computer Vision solutions
  - Introduction to Computer Vision
  - Images analysis with Azure AI
  - Image retrieval and similarity search
  - Azure AI Custom Vision
  - Develop a vision-enabled generative AI application
- 5. Developing AI information extraction solutions
  - Extracting form data with Azure Document Intelligence
  - Building a multimodal analysis solution with Azure Content Understanding
  - Developing knowledge mining solutions with Azure AI Search
- 6. Designing and building intelligent agents
  - Introduction to AI Agents
  - Building an AI agent with Azure AI Agent Service
  - Integrating custom tools into your agent
  - Extending agents with Model Context Protocol (MCP)
  - Developing a multi-agent solution with Azure AI Agent Service



## Expected preparation of the participant

Participants are expected to have:

- Basic programming skills, preferably in languages commonly used for AI development (such as Python or C#).
- Familiarity with cloud computing concepts, especially related to Azure or other major cloud platforms.
- Foundational understanding of machine learning principles, such as model training, evaluation, and data preparation.
- Experience working with APIs or SDKs, including calling services from applications.
- General knowledge of data processing workflows, including working with structured or unstructured data.
- Ability to navigate development tools, such as VS Code, Git, or similar environments.



## Training Includes

- manual in electronic form available on the platform: <https://www.altkomakademia.pl/>
- access to Altkom Akademia's student portal



## Duration

3 days / 21 hours

## Language

- **Training:** English
- **Materials:** English