

Training Program

AZ-2005: Develop generative AI applications with Azure OpenAI and Semantic Kernel

(Updated on 26/08/2025)

DESCRIPTION OF THE TRAINING:

This course teaches you how to master the Semantic Kernel by exploring the creation and use of kernels and plug-ins to fully harness the power of language models. You'll learn the fundamentals of prompts and techniques to improve their efficiency, learn how to run and develop your own plug-ins, and how to combine native functions to enrich your scenarios. Finally, you will put this knowledge into practice by building a DevOps assistant capable of automating tasks thanks to the Semantic Kernel SDK.

EDUCATIONAL OBJECTIVES:

At the end of this training, participants will be able to:

- Build your kernel
- Running queries with Semantic Kernel
- Create Semantic Kernel Plugins
- Apply filters to features
- Create a DevOps Assistant with the Semantic Kernel SDK.

TEACHING METHODS AND METHODS:

- This training will mainly consist of theory and technical workshops that will allow you to be quickly operational.
- Support: Official Microsoft course materials will be provided to participants in electronic format.
- Evaluation: The achievements are evaluated throughout the training by the trainer (prerequisites evaluated before the training, regular questions, practical work, MCQs or other methods).
- Trainer: all led by an experienced consultant-trainer, with field experience, and Microsoft Certified Trainer accredited.
- Satisfaction: at the end of the training, each participant answers an evaluation questionnaire which is then analysed with a view to maintaining and improving the quality of our training.
- Follow-up: one attendance sheet for each half-day of attendance is signed by each participant.
- This training can be provided in an inter-company or intra-company format on request and in face-to-face or distance mode.

TRAINING PROGRAM:

Build your kernel

- Understand the purpose of a semantic core.

- Understand the basic concepts of prompts.
- Learn techniques to improve prompt efficiency.

Running queries with Semantic Kernel

- Understand the purpose of semantic kernel plugins.
- Use predefined plug-ins.
- How to create your own plug-ins.

Create Semantic Kernel Plugins

- Understand the native functions in the semantic kernel SDK.
- Create native function plug-ins.
- Combine queries with native functions.

Apply filters to features

- Create plug-ins with the Semantic Core SDK.
- Combine queries with native functions.

Create a DevOps Assistant with the Semantic Kernel SDK

- Create plug-ins for the semantic kernel.
- Create prompts to get the best responses from the Large Language Model (LLM).
- Embed expressions in prompts to manually invoke functions.
- Automatically call the appropriate plug-ins to perform tasks.
- Apply filters to the plugin's functions.

PREREQUISITE:

To participate in this course, you must have experience in C# programming, use the Visual Studio Code IDE, know Azure and its portal, and have access to Azure OpenAI.

A B1 level of English is recommended, find the levels on this link: [Classification of language levels](#).

DURATION: 1 day (7 hours).

CONTACT PERSONS: Developers.

LEVEL: Intermediate.