Data modelling for project management

Hands-on course of 2 days - 14h
Ref.: MDO - Price 2026: 1 540 (excl. taxes)

EDUCATIONAL OBJECTIVES
At the end of the training, the trainee will be able to:

Develop and describe system data

Develop a UML class diagram from a dictionary

Check the normality of a model

Understand how to move from a semantic model to a logical model

THE PROGRAMME

last updated: 01/2024

1) Introduction
- The role of data in the IS.
- Overview of modeling techniques and methods.

2) Data Dictionary
- Data search.
- Sources: Review of existing applications, management documents, strategic choices of the company.
- Data description: Naming rules, definition rules. Documenting existing systems.
Hands-on work : Writing a data dictionary.

3) Semantic data modeling
- How to define data independently of the logical and physical infrastructure.
- Data modeling levels: Specification level; design specification level.
- Approaching this problem with UML. The UML class diagram. Classes, attributes, objects, associations, constraints.
- How can the same problem be handled with another formalism? The entity-relationship diagram.
- Standardization. How do normal forms help to understand the data?
- The role of data in the description of business and oversight processes.
- Get users involved in data modeling. Validation.
- Addressing data in the context of detailed specification validation.
Hands-on work : Develop a UML class diagram from a dictionary Transform the created model into an entity-relationship model. Check the normality of the previous models.

4) Logical data modeling
- The stages of model transformation.
- The rules for moving from a semantic (conceptual) model to a logical model.
- The passage from a logical model to the physical model, the optimization work.
- Project manager's participation in the optimization work.
Hands-on work : Turning a model into a logic model.

5) Modeling tools
- Presentation of a UML tool (StarUML and/or PowerAMC).
- Presentation of an entity-relationship tool (PowerDesigner "MCD version").

DATES

REMOTE CLASS
2026 : 30 mars, 04 juin, 17 sept.,
26 nov.