

Agile Architecture in Digital Era : Concepts and Practices

Duration: 2 days

Audience: Chargé de projet

Who is this training for?

- Any architect who wants to update their knowledge of agile architecture.
- Any analyst, designer, or developer who aspires to become an agile architect.

Training objectives

- Understand the role of the solution architect in an agile context.
- Understand the challenges that agility represents for the solution architect today.
- Provide architects with the basic tools (concepts and practices) to better approach architecture activities in the context of agile development.

Summary

Agile architecture is a set of values, practices, and collaborations that support a dynamic and scalable architecture of a system. Agility and the implementation of its best practices are disrupting the role of architects. However, this role has never been more important, since the success of the project depends largely on them. Since Agile welcomes transparency, introspection and adaptation, architecture must be able to reflect these three main pillars of Agility. This is why it is essential that the architect knows how to put all the winning conditions in place to maximize the chances of success of the project.

Course outline

Introduction to Agile Architecture

- Refresher on the Basics of Agility
- Refresher on the Fundamentals of Software Architecture

Posture and Leadership

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Interpersonal Skills of an Agile Architect

- Know-How of an Agile Architect
- Leadership Styles
- Roles and Responsibilities
- Quiz

Architecture Patterns

- Layered Architecture
- Event-Driven Architecture
- Plug-in Architecture (Microkernel)
- Micro-Services Architecture
- Space-based Architecture
- Other patterns
- Quiz

Agile Architecture Principles

- Simplicity Principle
- Decoupling Principle and Cohesion
- Dependency Principle
- Decomposition Principle
- Scalability Principle
- Other Principles
- Quiz

Architecture Approaches

- Emerging
- Intentional
- Continuous
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Custom

- Quiz

Agile Specification

- Functional Specifications
- Non-Functional Specifications
- Quiz

Lab Quiz : Putting it into Practice

- Using a case study, you will experience the implementation of Practice of the concepts presented

Communication and presentation

- Documentation levels
- Types of documentation
- Common and technical vocabulary
- Audience adjustment
- Quiz

Agile development techniques

- Design techniques
- Programming techniques
- Testing techniques
- Quiz

DevOps and automation

- Branch management
- Continuous integration and deployment
- Security
- Quiz

Architectural health

- Health measures
- Observability
- Quiz

Legacy code

- Better understand the heritage code and technical debt
- Refactoring approaches
- From monolith to micro-services
- Quiz in DDD (C4 Modeling)

Agile architecture Sprint

- Context
- Entity and aggregates
- Value of objects
- Repositories
- Service

Lab quiz : Putting it into practice

- With the help of a case study, you will experience the application of the concepts presented

Approach and methodology

The pedagogical approach combines practical explanations, watching video clips, labs in split sessions, group discussions and quizzes.

Prerequisites

- Basic principles in OO (having watched the video on object-oriented).
- Agile Fundamentals (have watched the agility video).

Recommendations

- Solid technical or functional expertise
- Mastery of Agile methods (Scrum + SAFe)
- Ability to make the link between strategy and technique
- Collaborative leadership

Legal notices

This training uses the Miro collaboration tool (www.miro.com). Access will be provided to you by the trainer. Make sure your organization allows you access to this product before the training begins.