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Data Mesh training

2 days (14 hours)

Presentation

Data Mesh is a new, structured approach to managing, storing and leveraging data. The aim of Data Mesh is to make data easily accessible and interconnected throughout your organization.

Data Mesh solves organizational problems such as conflicts between different departments. Thanks to its self-service features, Data Mesh enables cross-functional teams to use their unit's data.

Data Mesh offers a more reliable, scalable and easy-to-manage data architecture. It adapts to the company's evolution and growth, as well as to users' data needs.

At the end of our Data Mesh training course, we'll give you a comprehensive overview of the concepts behind data meshing, how it works, its benefits and use cases. You'll know how to set up a data architecture, both technologically and organizationally.

Objectives

- Discover the Data Mesh concept and its functionalities
- Mastering a Data Mesh architecture
- Transform a monolithic architecture into a decentralized one

Target audience

- Chief data officers
- Data architects
- Data engineers
- Data scientists

- Data analysts
- Data miners

Prerequisites

- Knowledge of domain-driven architecture
- Knowledge of product management
- Knowledge of key data governance principles
- Basic knowledge of Python

Our Data Mesh training program

Introduction to Data Mesh

- The Data Warehouse, the Data Lake, centralized data management
- Why the Data Mesh revolution? To meet what challenges?
- Data Mesh objectives
- The 4 pillars of the data Mesh approach
- What are the data characteristics considered by the Data Mesh (Accessibility, Auditability, Availability, Integrity, etc.)?

Data Mesh - Domain-driven Ownership

- Introduction to Domain-Driven architecture
- Introduction to Domain-Oriented Ownership
- Data source and data domain alignment
- Key elements to consider when adopting Domain-Oriented Ownership
- An example of Domain-Oriented Ownership in action

Data as a Product

- Product features
- Introduction to Data as a Product
- Source-Oriented, Aggregated and consumer-Oriented Data Products
- Interoperability: Data model versus exchange protocol
- Integrating Data Products into a legacy ecosystem

Self-serve Data Infrastructure

- Introduction to platform thinking in the context of data meshing
- Data Mesh Experience Plane: Principles and features
- Data Product Experience Plane: Principles and features
- Utility Plane: Principles and features
- Example of a Self-Service Data Platform

Federated computational Governance

- Fundamental principles of data governance
- How does governance operate the self-service Data Platform, domains and products?
- Case studies

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.