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Register

Cognos Data Modeling Training

2 days (14 hours)

Overview

This two-day training course immerses you in Cognos Data Modeling, with two objectives: to build a high-performance model governed by Framework Manager, and to master self-service modeling using the Data Modules integrated into Cognos Analytics.

You will first study relational and dimensional modeling via FM, with package publishing and constraint management. You will then tackle the agile and preset approach of Data Modules: file import, calculations, security, navigation, ideal for rapid business needs.

Practical workshops punctuate the modules.

Adaptable to both face-to-face and distance learning, the interactive format alternates between presentations, guided demonstrations, practical work, and discussions to reinforce knowledge.

Objectives

- Understand the architecture and value of the Cognos semantic layer
- Know how to create and optimize a relational or dimensional model with FM
- Master the publication of packages and their business use
- Design self-service Data Modules including calculations, filters, and security
- Apply best practices in modeling, performance, and governance

Target audience

- Data analysts, BI developers, data engineers
- Anyone with a solid understanding of SQL and data schemas, but who is new to Cognos

Prerequisites

- Knowledge of data/formal bases (tables, joins, cardinalities)
- Basic knowledge of BI/reporting or use of Cognos tools (Author Reports)

Cognos Data Modeling training program

Introduction to Cognos and semantic modeling

- Context and challenges of the data model in Cognos Analytics
- Differences between Framework Manager, Data Modules, and Dynamic Cubes
- Semantic layer architecture and the role of the model in BI
- Business vs. technical terminology: Query Subjects, Relationships, Dimensions
- Publication: FM package vs. web data module
- Discovering the Cognos environment (connection, navigation, exploring a model)

Framework Manager: creating a relational model

- Creating an FM project and connecting to data sources
- Importing tables and organizing the physical layer
- Defining joins, cardinalities, and join filters
- Concept of Query Subjects: physical, logical, presentation
- Creating simple calculations and static filters
- Publishing an FM package
- Building a mini relational model, creating joins, and publishing

Framework Manager: dimensional modeling

- The concepts of facts and dimensions, typical star schema
- Creating DMR (Dimensionally Modeled Relational) models
- Implementing temporal dimensions and hierarchies
- Detection and resolution of pitfalls: strange cardinalities, double counting
- Use of determinants and column dependencies
- Consolidation in presentation layer
- Publishing and testing with a simple report

Introduction to Data Modules (self-service)

- Why Data Modules? FM add-on for agile use
- Creating a web module: importing Excel files, DB sources
- Automatic or manual definition of relationships
- Renaming, hiding, and organizing objects

- Simple calculations, filters, and groups
- Publishing the module and using it for reporting

Advanced functions in Data Modules

- Advanced relationships, cardinality, and null-safe joins
- Creating measures, custom sorting, and calculated classes
- Navigation paths and groups
- Row-level security
- Optimization: caching, summaries, performance
- Complex joins, security, navigation paths

Summary, comparison, and best practices

- Comparison: Framework Manager vs. Data Modules
- When to use which tool? Complexity, performance, maintenance
- Governance, updates, and version management
- Security: filters, roles, secure publishing
- Optimization tips: aggregates, modeling design accelerator, caching
- Business/IT exchanges and recommendations

Companies concerned

This training is intended for both individuals and companies, large or small, wishing to train their teams in new advanced IT technology or to acquire specific business knowledge or modern methods.

Placement at the start of training

The placement test at the start of training complies with Qualiopi quality criteria. Once they have finalized their registration, learners receive a self-assessment questionnaire that allows us to assess their estimated level of proficiency in different types of technologies, as well as their expectations and personal objectives for the upcoming training, within the limits imposed by the selected format. This questionnaire also allows us to anticipate certain connection or internal security issues within the company (intra-company or virtual classroom) that could be problematic for the monitoring and smooth running of the training session.

Teaching methods

Practical training: 60% practical, 40% theory. Training materials distributed in digital format to all participants.

Organization

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

Assessment

At the end of the session, a multiple-choice questionnaire is used to verify that the skills have been correctly acquired.

Certification

A certificate will be issued to each trainee who has completed the entire training course.