B5280G

IBM Cognos Data Manager: Build Data Marts with Enterprise Data (V10.2)

Durata: 5 gg

Descrizione

IBM Cognos Data Manager: Build Data Marts with Enterprise Data (V10.2) is a five-day, instructor-led course that teaches participants how to move, merge, consolidate, and transform data from a range of data sources to build and maintain subject-area data marts. In the process, students will create a catalog and add connections to data sources and targets. They will also deliver fact and dimension data to a data mart through the use of builds and the dimensional framework. In addition, students will learn how to automate common functionality and handle complex data issues, such as unbalanced hierarchical structures.
Objectives:Please refer to course overview for description information.

A chi è rivolto?

This course is intended for Developers.

Prerequisiti

You should have:

•a knowledge of basic Windows functionality, database and dimensional analysis concepts, as well as a working knowledge of SQL

Contenuti

Getting Started

•Identify the purpose of IBM Cognos Data Manager

•Define data warehousing and its key underlying concepts

•Identify how Data Manager creates data warehouses

•Examine the Data Manager architecture and user interface

Create a Catalog

•Examine the purpose and contents of Data Manager catalogs

•Create a catalog

•Define connections to source and target data

•Access data using SQLTerm

•Configure flat data source files using SQLTXT

Create Hierarchies

•Examine the role of the dimensional framework in Data Manager

•Examine hierarchies and their data sources

•Identify how to create hierarchies from the columns of one table, the rows of one table, and from multiple tables

•Test and view hierarchies

•Create a hierarchy of static date values

•Handle weeks in a date hierarchy

Create Basic Builds
- •Examine Data Manager builds and build-related terminology
- •Create a dimension build using the Dimension Build wizard
- •Create a fact build using the Fact Build wizard
- •Test and execute a fact build
- •Document a catalog
- •Create catalog schema

Create Derivations
- •Examine derivations
- •Apply operators and functions to derivations
- •Examine the derivation timing model
- •Add derivations to a fact build

Create Conformed Dimensions
- •Examine conformed dimensions and their advantages
- •Design conformed dimensions
- •Create conformed dimensions
- •Create data integrity lookups that use conformed dimensions

Customize Reference Structures
- •Create hierarchies manually using different approaches
- •Examine the features of a hierarchy
- •Examine literals
- •Set data access for hierarchy levels
- •Examine static and dynamic members
- •Examine fostering
- •Use derivations in a hierarchy

Process Dimensional History and Late Arriving Facts
- •Examine slowly changing dimensions (SCDs)
- •Use surrogate keys in SCDs
- •Manage type 1 and type 2 changes to dimensional data
- •Load historical data for a dimension
- •Examine late arriving facts
- •Process late arriving facts in a fact build

Transform Data Using Lookups and Derived Dimensions
- •Identify when to use lookups
- •Identify the requirements for a lookup
- •Create a translation lookup
- •Create an optional lookup
- •Add derived dimensions to fact builds

Customize Data Delivery
- •Configure fact and dimension delivery modules
- •Create indexes on fact and dimension tables
- •Update fact data using keys

Customize Fact Data Processing
- •Filter fact data
- •Merge duplicate fact data

- Examine fact data integrity checking
- Reject fact data

Aggregate, Filter, and Partition Fact Data
- Aggregate fact data
- Examine aggregate rules
- Vertically restrict fact data
- Horizontally restrict fact data
- Partition fact data

Implement Job Control
- Examine where job control fits into the data warehouse lifecycle
- Create a JobStream
- Add, link, and reposition nodes
- Execute a JobStream and view the results

Automate Functionality Using Commands
- Differentiate between the Command Line Interface (CLI) and Data Manager Designer
- Identify common commands
- Use commands in a batch file
- Examine variables

Customize Functionality with User-Defined Functions and Variables
- Examine user defined functions (UDFs)
- Create an internal UDF
- Create a user-defined variable

Process Unbalanced Hierarchical Data
- Examine balanced, unbalanced, and ragged hierarchies
- Add a recursive level to a hierarchy
- Identify ways to balance a hierarchy and delivered flattened data
- Examine circular references

Pivot Fact Data
- Examine pivoting
- Use the single pivot technique
- Use the advanced pivot technique
- Examine reverse pivoting

Resolve Data Quality Issues
- Identify data quality and cleansing issues
- Handle fostered and unmatched members
- Perform debugging using SQLTerm and functions
- Assess the quality of output data

Troubleshoot and Tune the Data Manager Environment
- Use build logging to ensure that data marts are being loaded properly
- Perform dimension breaking
- Manage memory and resources
- Export DDL statements

Organize and Package Data Manager Components
- Export and import components using packages
- Search for components in a catalog using Navigator

Integrate with IBM Cognos BI
- •Examine IBM Cognos BI
- •Identify the role of metadata dimensions, metadata collections, and metadata stars
- •Export Data Manager metadata to XML
- •Import Data Manager XML into Framework Manager
- •Use Data Manager metadata with IBM Cognos BI
- •Publish a data movement task to IBM Cognos Connection

End-to-End Workshop

Entity-Relationship Model of the GO_Demo Database (Optional)

Work in a Multi-Developer Environment (Optional)
- •Examine collaborative development support
- •Examine the source code repository
- •Examine the component dependency model
- •Identify planning considerations

Standardizing Dimensions and Facts Exercise (Optional)

Review of Data Manager Essentials (Optional)
- •Data warehouse design
- •The purpose of Data Manager components
- •Development steps in Data Manager to create data marts
- •Track dimensional changes and late arriving facts

Work with SAP R/3 Data (Optional)
- •Identify how to access SAP R/3 data sources using the IBM Cognos Data Manager Connector for SAP R/3 tool