Cognos 8 BI Data Manager: Building Datamarts with Enterprise Data (version 8.3)

Cognos 8 BI Data Manager: Building Datamarts with Enterprise Data (version 8.3) 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.

Topics Covered

- Examine the Cognos approach to data warehousing and the role of Data Manager
- Create and administer catalogs
- Connect to source and target data
- Build and customize the dimensional framework
- Create builds to deliver data to a data mart
- Create conformed dimensions and manage dimensional history
- Aggregate, merge, and partition fact data
- Automate functionality using JobStreams and commands
- Resolve common data quality issues
- Create business intelligence from data mart data using Cognos 8

Intended Audience

- Data Manager Developers

Prerequisites

- Experience using basic Windows functionality
- Knowledge of database concepts
- Knowledge of dimensional analysis concepts
- Working knowledge of SQL

Let Us Help You

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1: Getting Started

- identify the purpose of Cognos Data Manager
- define data warehousing and its key underlying concepts
- identify how Cognos Data Manager creates data warehouses
- examine the Cognos Data Manager architecture and user interface

2: Create a Catalog

- examine the purpose and contents of Data Manager catalogs
- create a catalog
- define connections to source and target data
- perform basic administration for a catalog
- access data using SQLTerm
- configure flat data source files using SQLTXT

3: Create Hierarchies

- examine the role of the dimensional framework in Data Manager
- examine hierarchies and their data sources
- create hierarchies from the columns of one table, the rows or one table, and from multiple tables
- test and view hierarchies
- create a hierarchy of static date values
- handle weeks in a date hierarchy

4: 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

5: Create Derivations and Derived Dimensions

- examine derivations
- apply operators and functions to derivations
- examine the derivation timing model
- add derivations to a fact build
- add a derived dimension to a fact build

6: Create Conformed Dimensions

- examine conformed dimensions and their advantages
- design conformed dimensions
- create conformed dimensions
- create data integrity lookups that use conformed dimensions

7: 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

8: Preserve and Process Dimensional History

- 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

9: Transform Data Using Lookups

- identify when to use lookups
- identify the requirements for a lookup
- create a translation lookup
- create an optional lookup

10: Customize Data Delivery

- configure fact and dimension delivery modules
- create indexes on fact and dimension tables
- update fact data using keys

11: Process Late Arriving Facts

- examine late arriving facts
- create a lookup for late arriving facts
- process late arriving facts in a fact build

12: Customize Fact Data Processing

- filter fact data
- merge duplicate fact data
- examine fact data integrity checking
- reject fact data

13: Aggregate, Filter, and Partition Fact Data

- aggregate fact data
- examine aggregation exceptions
- vertically restrict fact data
- horizontally restrict fact data
- partition fact data

14: 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

15: Automate Data Manager 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

16: Customize Functionality with User-Defined Functions and Variables

- examine user defined functions (UDFs)
- create an internal UDF
- create a user-defined variable

17: Process Unbalanced Hierarchical Data

- examine balanced, unbalanced, and ragged hierarchies
- add a recursive level to a hierarchy
- balance a hierarchy and delivered flattened data
- examine circular references

18: Pivot Fact Data

- examine pivoting
- use the single pivot technique
- use the advanced-pivot technique

19: 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

20: 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

21: Organize and Package Data Manager Components

- export and import components using packages
- search for components in a catalog using Navigator

22: Report on Data with Cognos 8

- examine Cognos 8 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 Cognos 8

Work in a Multi-Developer Environment (Optional)

- examine collaborative development support
- examine the source code repository
- examine the component dependency model
- identify planning considerations