

Course Content of IBM Cognos Data Manger

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