



# COGNOS TRAINING

## Presented By

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## Course catalog

### DW fundamentals

#### Data Warehousing Concepts

- What are DW and BI? Differences.
- Introduction to (DW) Data Warehouse.
- Introduction to (BI) Business Intelligence.
- RDBMS – Concepts – Structures and Indexing.
- Need for a Warehouse?
- Advantages and disadvantages of Warehousing.
- OLTP & OLAP Databases
- Dimensions and Facts.
- Data Marts – Need, Advantages and Differences between Warehouses.
- ODS -Need, Advantages and Differences between Warehouses.
- Data Models and Design Operators.
- Drill up & Drill Down and Slicing & Dicing of data.
- DMR, ROLAP, MOLAP and HOLAP.
- Data Mining, Data Cleansing and Data Integrating.

### Framework Manager

#### FM Introduction

- Define FM and Its purpose
- Architecture and integration with Cognos 8
- Overview User Interface
- Role of a Metadata-Modeler

#### **Designing a Project**

- Define Project files and Learn to create them.
- Importing Metadata.
- Using Multiple Data sources.
- Multi-Lingual metadata.
- Relationships and Cardinality Overview
- Define Segment
- What is a Link

#### **Working with Data sources**

- Working with Data sources
- Creating Data sources in cognos Connection and FM.
- Study its various Properties
- Aggregates property

- ETL – Extract, Transform and Load Process.
- Query Processing Type

### **Data Warehouse Life Cycle – Architecture**

- Characteristics of a Data Warehouse
- OLAP Databases and Differences
- Dimension Tables, Fact Tables (Attributes & Measures)Architecture of Data Warehouse

### **Types of Dimensions and Fact Tables**

- Slowly Changing Dimensions
- Surrogate Key
- Degenerate Dimension
- Conformed Dimension
- Time Dimension
- Fact Less Fact tables

### **Dimensional Modeling Layouts**

- Dimension and Fact Tables
- Star Schema
- Snow Flake Schema
- Multi-Star Schema
- Multi- Snow Flake Schema

### **Data Warehouse Modeling Techniques**

- Normalization and De-Normalization.
- Multi-Dimensional Modeling.

### **Designing and Preparing Metadata Model**

- Studying RDBMS Model
- Query Subjects- Data source, Model and Stored Procedure
- Verifying Relationships
- Cardinality , Its Importance in Cognos 8
- Dimensional Modeling
- Object Explorer and Dimension Map
- DMR- Dimensionally Modeled Relational structure
- Identify the advantages of modeling as a star schema

### **Multi-Lingual Project Modeling**

- Multi-Lingual Meta data modeling
- Export and Import Translation file
- Multi-Lingual Data modeling
- Dynamic Column selection SQL

### **Working with Dimensions**

- Regular Dimension
- Measure Dimension
- Model Regular Dimension
- Model Measure Dimension

- DFD - Data Flow Diagrams.
- E-R - Entity Relationship Diagrams.
- Relational Modeling and Dimensional Modeling.
- Designing Star Schema, Snowflake Schema and Multi-Star Schema.

### Data Load Types

- Load Jobs
- Full Initial Load

### Introduction Cognos 8 BI

- Discuss Cognos 8 BI Architecture

### Set Security in Framework Manager

- Security and its importance
- Different kinds of security
- Object Level Security
- Data Level Security
- Package Level Security

### Cognos Connection

#### Introduction

- Overview
- Architecture and Integration with Cognos 8 BI
- Walk-Thru elements on the screen

### Manage Public Folders

- Organize Folders and Packages

- Specify Determinants
- Scope Relationship
- Set Scope using Dimension Map

### Working with Packages

- Introduction and its Importance
- Create Package
- Set Governors
- Externalize Query Subjects
- Verifying Model
- Publish Packages
- Create a List Report
- Add and Remove Data
- Summarized Measures
- Grouping
- Page Breaks

### Introduction to Crosstabs and Charts

- Crosstab Basics
- Swap Rows and Columns
- Create and Modify Charts
- Display Crosstabs and Charts

### Introduction to Filters

- Creating, Editing and Removing Filters

### Parameters & Prompts

- Setup security
- Add groups and Roles
- Run a Report
- Report Views
- Export a report into other formats

### **Schedule Management**

- Setup Report Scheduling
- Setting Email Notifications
- Schedule Management

### **Cognos 8 Query Studio**

#### Overview of Reports

- Adhoc Reporting Vs Stand Alone Reporting
- Study Query Studio Interface
- Create a sample report

#### **Reporting using Query Studio**

- Create List Report
- Create Cross-Tab Report
- Create Charts - Pie Charts
- Grouping of Data

#### **Working with Data**

- Add Filters
- Sorting Data
- Create Custom Calculations
- Drilling To View detailed Information

- Definitions
- Create Prompt Pages
- Multiple Prompts in a Single Report

### **Calculations**

- Define Calculations
- Subtotals
- Detail, Group and Layout Calculations
- Use Functions in Calculations

### **Formatting**

- Fonts & Styles
- Headers and Footers
- Sections
- Blocks, Tables and Graphics in Reports
- Reuse Objects

### **Advanced Charting & Mapping**

- Bubble Charts & Tooltips
- Introduction to Mapping

### **Complex Reports**

- Multi-display Reports
- Drill Through Reports
- Master-Detail Reports
- Condensed Reports

### **Conditional Formatting**

- Exporting data
- Turn off Auto-Summarization
- Overview all other controls on the screen

### **Cognos 8 Report Studio**

#### Overview of Cognos 8

- Overview of Cognos 8
- Overview of Studios

#### **Overview of Cognos 8 Components**

- Cognos Connection Interface
- Navigating in Cognos Connection
- Running and Saving Reports and Report Views

#### **Introduction to Report Studio**

- Definitions
- The Report Studio Interface
- Templates

#### **Advanced Prompting**

- Review of prompts
- Prompts with static values
- Prompts that perform sorting
- Conditional formatting with prompts

#### **Import and Export XML Reports**

- View and understand the report specification

- The Condition Explorer
- Creating a Conditional Format

#### Saving and Scheduling Reports

- Save and Export Reports
- Using the Scheduler

#### Cognos 8 Advanced Reporting Topics

#### Review of Cognos 8 & Report Studio

- Review of Cognos 8
- Review of Report Studio Reporting Techniques

#### **Introduction to the Query Explorer**

- Query Components
- Build and modify queries from the Query Explorer
- Create join queries
- Create queries with SQL
- Create child queries

#### **Introduction to Bursting**

- Definitions
- Create a bursted report

#### **Event Studio**

#### **Introduction Event Studio**

- Discuss the Event Studio Window
- Events

- Import XML report specifications
- Export XML report

### Specifications

- Create templates

### Advanced Reporting

- Complex report examples
- Advanced Drill Through
- Complex calculations
- Dynamic time periods

### Working with Dimensional Models

- MDX and Unique Member Names
- Working with Dimensional functions
- Period to Date ts
- Zero suppression
- calculations
- Tree Prompts

### HTML Items

- Basic HTML in Report Studio

### Comprehensive Workshop

- Create a series of complex report

### Cognos 8 Analysis Studio

#### Analysis Studio Basics

- Definitions

- Agents
- Tasks
- Notification Methods

### Advanced Topics

- Creating an Agent
- Specify an Event Condition
- Define a Parameter
- Define a Calculation
- Adding Tasks
- Specify the Task Execution Rules
- Preview the Data
- Create a Schedule for an Agent
- Specify Default Options for an Agent
- Allow Users to Subscribe to the Alert List of the Agent
- Change the Order in Which to Run Tasks
- Modify an Event Condition
- Modify or Delete a Task
- Modify the Task Execution Rules
- Test an Agent
- Run an Agent
- Remove Previous Event Instances for an Agent
- Working With Agents in Cognos Connection

- Dimensions and Sets
- The Analysis Studio Interface
- The Work Area and Crosstabs

#### **Analyzing Data in Analysis Studio**

- Change rows and columns
- Swap rows and columns
- Change measures & measure display
- Drill down
- Basic Filters (rows and columns)
- Context filters
- Advanced filtering

#### **Enhancing Your Analysis**

- Sorting
- Ranking
- Charts
- Split Displays
- Nesting

#### **Advanced Techniques**

- Calculations
- Stacked Sets
- Complex crosstabs
- Advanced Sorting
- Custom Sets

### **Cognos 8 Transformer OLAP Modeling**

#### **Topics Covered**

- Overview of Cognos 8 BI
- Discuss the fundamentals of OLAP modeling
- Plan, design, and work with the model plan
- Work with data sources and build a model
- Examine the time dimension and relative time
- Use multiple data sources and address uniqueness
- Work with measures and currency conversion
- Create alternate hierarchies within a dimension. Advanced dimensional modeling. Customize cube content
- Examine Cognos 8 security
- Apply security
- Maintain models and Power Cubes
- Optimize and partition Power Cubes
- Model for Drill-Through
- Identify common data structures.

#### **Intended Audience**

- OLAP Modelers who will build Power Cubes for use in Cognos 8 BI.

#### **Prerequisites**

- Understand the business need for ad hoc queries and analysis

- Saving and Exporting

### **Metrics Manager Topics**

This course covers both Metrics Studio and Metrics Designer.

#### **Metric Studio Introduction**

- Define Metrics and Its purpose
- Performance Management
- Define Scorecards
- Define Dashboard
- Differences between Dashboard and Scorecard
- Introduce Metric Studio Screens

#### **Key Terms and Concepts**

- Metric Type
- Metric, Score and Scorecard
- Qualifiers
- Trend and History Charts
- Color Indicators, Status

#### **Metric Studio Architecture and Setup**

- Architecture and Workflow
- Integration with Cognos 8
- Application Environment and
- Aggregates property
- Query Processing Type

#### **Create Metric Studio Application**

- Cognos 8 BI: Reporting and Analyzing Data for Business Authors (recommended)
- Experience using basic Windows functionality.
- Data Movement Entries

#### **Security Administration**

- Security Model
- Users, Groups, and Roles
- Access Permissions
- Securing Functions and Features
- Initial Security

#### **Content Administration in Cognos Connection**

- Cognos Connection
- Pages and Dashboards
- Activities Management
- Schedule Management
- Deployment
- Administering Packages
- Managing User Profiles
- Administering Microsoft Office Documents

#### **Report, Agent, and Metric Administration**

- Reports and Cubes
- Agents
- Metric Studio Metrics

- Create Metric Store
- Create Data source Connection
- Create Metric package
- Create Scorecard
- Create Metric Type and Metric
- Setup Score Calculations and Other Settings under Tools Recalculate metric derived values
- Transfer data from staging into metric store

#### **Data Import - Metric Designer**

- Import data into scorecards using Text files
- Export Data
- Metric designer introduction
- Create Metric Extracts
- Power play Cube based Metrics extract
- Relational framework manager based extract
- Execution, Schedule and publish extracts
- Create a complete extract, publish and execute

#### **Performance Analysis and Monitoring**

- Watch Lists
- Diagrams , Strategy Maps
- Impact Diagrams
- History Charts
- Projects, Actions

- Drill-through Access

#### **Portal Services Administration**

- Managing Portlets and Styles
- Deploying Cognos Portlets to Third-party Portals Customization
- Customizing the Appearance of Cognos 8
- Customizing the Functionality of Cognos 8

#### **Cognos 8 Planning Analyst Model Building**

##### Cognos 8 Planning Architecture

##### Introduction to Cognos 8 Planning - Analyst

- Create D-Lists , D-Cubes and D-Link
- Load Data
- Enhance D-Lists , D-Cubes and D-Link
- Distribute Data
- Create and Distribute an Income Statement
- Forecast Data
- Automate Processes
- Object Maintenance and Administration
- Use Complex Calculations
- Examine Advanced Concepts
- Design for Reporting.
- Enhance Functionality Using the Excel Add-In
- Illustrate the Model Using Cognos 8 Planning Manager

- Manual edits on scorecard

## Cognos 8 Administration

Introduction Cognos 8 Administration

### System Administration

- System Performance Metrics
- Server Administration

### Data Management

- Data Sources and Connections
- Back Up Data

Cognos 8 Planning Contributor Application Administration

Introduction to Cognos 8 Planning - Contributor Administration

- Build a Contributor Application
- Manage Workflow and Web Activities
- Apply Security
- Administer Applications
- Manage Data
- Use Extensions
- Automate Applications
- Additional Integration with Cognos 8
- Case Study
- Use the Add-In for Excel (optional)
- Move Data between Analyst and Contributor

- Use Cognos 8 Planning - Analyst with Cognos 8 Planning - Contributor (Optional)

- Use Cognos 8 Planning - Analyst with Cognos Finance (Optional)

### Intended Audience

- Application Administrators and Model Designers

### Prerequisites

- Knowledge of your organization's data and structure ,Microsoft Excel

### Transfer Data into Your Model Using Scripts

- Add a subset to a dimension
- Use logic in scripts
- Move data between versions
- Construct chores

### Customize Drill Paths

- View related data
- Create a Drill Process
- Create a Drill Assignment Rule
- Edit a drill process

### Using Rules for Advanced Modeling

- Discuss virtual cubes
- List uses for lookup cubes
- Create and use a spread profile cube

(optional)

- Translate an Application (optional).
- Prerequisites
- Cognos 8 Planning Analyst Model Building

- Implement moving balances in a cube

#### Convert Currencies

- Discuss currency challenges
- Create currency dimension
- Create currency cube
- Create rules for currency conversion
- Use TM1 techniques to reduce maintenance

### Cognos TM1

#### Introduction to IBM Cognos TM1

- Review financial performance management
- Discuss Online Analytical Processing (OLAP)
- Identify the TM1 position in the financial performance management system
- Describe the architecture and components of TM1
- Identify the basic tasks required to create a TM1 application and deploy it

#### Model for Different Fiscal Requirements

- Discuss time considerations
- Use discrete time dimensions
- Implement a continuous time dimension model

#### Contribute Data to Managed Planning Applications

- Examine Managed Planning Applications
- Explore user roles and built-in Workflow
- Use the TM1 Contributor Web grid

#### Create Dimensions

- Review cubes and dimensions
- Create dimensions manually
- Edit dimensions
- Create dimensions using Turbo Integrator

#### Create and Deploy Planning Applications to the Web

- Create a Managed Planning Application
- Manage Existing Applications
- Examine Design Techniques and Best Practices for Building Applications

#### Build Cubes and Views

- Discuss cubes and data points
- Create cubes
- Construct views of data in cubes

#### Load and Maintain Data

- Identify data sources
- Create processes to load data
- Create a process to delete data in a cube
- Create processes to update and maintain the model

#### Add Business Rules

- Discuss a rule
- Construct rules for elements or consolidations
- Use functions in rules
- Optimize rule performance
- Discuss rules in a Rule Worksheet

#### Optimize Rule Performance

- Optimize rule performance
- Use Skipcheck and Feeders
- Employ tools to enhance rules and feeders