

BI - SAP BW + BEX

Lesson 00: Course Overview



Course Audience

➤ This course is designed for:

- Analysts, Designers and Developers involved in Design, Development, and Maintenance of Business information Warehousing Applications



Course Goals and Non Goals

➤ Course Goals

- To understand BI/ BW as an ETL tool

➤ Course Non Goals

- Powercenter Administration



Pre-requisites

- Fair knowledge of programming
- Fair knowledge of Data Warehousing Concepts



Intended Audience

➤ Professional Data warehousing experts, or anyone requiring a foundation knowledge in ETL process



Day Wise Schedule

➤ Day 1

- Lesson 1: SAP Technology and BI Essentials

➤ Day 2

- Lesson 2: Objects in the BI Data Warehouse Layer - Modeling 1

➤ Day 3

- Lesson 3: Objects in the BI Data Warehouse Layer - Modeling 2

➤ Day 4

- Lesson 4: Data Acquisition and Transformation from SAP Source Systems [ETL-1]

➤ Day 5

- Lesson 5: Data Acquisition from Other Systems [ETL-2]

➤ Day 6

- Lesson 6 : BI Content and Other InfoProviders



Day Wise Schedule

➤ Day 7

- Lesson 7: Administration of Data Targets

➤ Day 8

- Lesson 8: BI Enterprise Reporting 1

➤ Day 9

- Lesson 9: BI Enterprise Reporting 2

➤ Day 10

- Lesson 10: Security Components in BI

➤ Day 11

- Lesson 11: BI related ABAP Overview



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➤ Lesson 1: SAP Technology and BI Essentials

- 1.1. SAP Product Overview
- 1.2. SAP Application Navigation
- 1.3. ETL Process
- 1.4. Approach – ASAP Methodology
- 1.5. SAP Application Server Overview
- 1.6. OLTP,OLAP
- 1.7. SAP BI Case Study
- 1.8. SAP BI Architecture and Terminology & Case Study
- 1.9. EDW / LSA Model

➤ Lesson 2: Objects in the BI Data Warehouse Layer - Modeling 1

- 2.1. Modeling Process Overview
- 2.2. Master Data for Modeling
- 2.3. Data Warehousing Workbench



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- 2.3. Technical Implementation in SAP BW
- 2.4. Reference Characteristics
- 2.5. Key Figure Info Objects
- 2.6. Tracking History

➤ Lesson 3: Objects in the BI Data Warehouse Layer – Modeling

- 3.1 Multi Dimensional Modeling
- 3.2. The SAP BW Star Schema Concept
- 3.3. The BI InfoCube: An Extended Star Schema
- 3.4. Designing the Dimensions
- 3.5. InfoProviders: Business Purpose
- 3.6. DataStore Objects
- 3.7. MultiProviders
- 3.8. BI Infosets



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➤ Lesson 4: Data Acquisition and Transformation from SAP Source Systems [ETL-1]

- 4.1. Data Flow: Overview
- 4.2. Transformation Process
- 4.3. Source System, Datasource
- 4.4. IPKG, Transformation, DTP
- 4.5. Loading Transaction Data from an SAP Source System
- 4.6. ETL Processes and Loading Hierarchies
- 4.7. Delta Management: Overview
- 4.8. Update Mode and Delta Process
- 4.9. Examples from Applications and Source Systems
- 4.10. Additional Features of Delta Data Acquisition



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➤ Lesson 5: Data Acquisition from Other Systems [ETL-2]

- 5.1. Flat File Loading
- 5.2. Data Acquisition with the Service API
- 5.3. Connecting SAP Source Systems to a BI System
- 5.4. Basics of the BI Service API
- 5.5. Logistics Data Acquisition
- 5.6. Generic Data Acquisition
- 5.6. Extraction from Non-SAP Systems: Overview
- 5.7. Data Acquisition with DB Connect
- 5.8. Enhancement of Business Content DataSources



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➤ Lesson 6: BI Content and Other InfoProviders

- 6.1. BI Content Discovery (Metadata Repository)
- 6.2. BI Content Activation
- 6.3. Comparing the Model with BI Content
- 6.4. BI Content Analyzer
- 6.5. BI Content Browser
- 6.6. Transfer of Business Content DataSources
- 6.7. Analysis Process Design (APDs)

➤ Lesson 7: Administration of Data Targets

- 7.1. System Administration Tasks in BI: Overview
- 7.2. Administration of InfoCubes
- 7.3. Process Chains
- 7.4. VirtualProviders and Real-Time Data Acquisition
- 7.5. Direct Access to Source System Data
- 7.6. Remodeling



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➤ Lesson 8: BI Enterprise Reporting 1

- 8.1. Query Designer
- 8.2. InfoProviders in the BEx Query Designer
- 8.3. Restricted Key Figures
- 8.4. Calculated Key Figures
- 8.5. Properties of Key Figures
- 8.6. Properties and Attributes of Characteristics
- 8.7. Integrating Hierarchies into Reports
- 8.8. Creating User-defined Hierarchies
- 8.9. Variables
- 8.10. Exceptions and Conditions



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➤ Lesson 9: BI Enterprise Reporting 2

- 9.1. BEx Analyzer
- 9.2. Information Broadcasting
- 9.3. Workbook Precalculation
- 9.4. Introduction to Query Performance Optimization
- 9.5. Reporting Performance
- 9.6. OLAP Caching
- 9.7. BI Statistics and Monitoring
- 9.8. Aggregates
- 9.9. BI Accelerator



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➤ Lesson 10: Security Components in BI

- 10.1. Security Components in BI
- 10.2. Comparison of OLTP and OLAP Security Needs
- 10.3. Securing Data Access for Reporting Users
- 10.4. Analysis Authorization
- 10.5. How to Use BI-Specific Authorization Values
- 10.6. Defining Security Using Hierarchies
- 10.7. Monitoring Analysis Authorizations (Trace Functions)
- 10.8. Saving BEx Objects to BI Roles
- 10.9. Securing Workbooks
- 10.10. Securing Data Access for Administration Users
- 10.11. Maintaining Authorizations



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➤ Lesson 11 : BI related ABAP Overview - 1

- 11.1. Introduction to ABAP
- 11.2. Role of ABAP in BI
- 11.3. ABAP Start Routine
- 11.4. ABAP End Routine
- 11.5. ABAP Expert Routine
- 11.6. BI related ABAP Overview & open-hub
- 11.7. DataSources Enhancements
- 11.8. Query level Bex user Exits
- 11.9. Implementing the Open Hub Service



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➤ Lesson 22: Metadata Tables and Views

- 22.1. Types Of Session Parameter
- 22.2. User Of Parameter file
- 22.3. Parameter file format

➤ Lesson 23: Standards and Tips

- 23.1. Naming Standards
- 23.2. Tuning Tips