

TECHSCHOLARSS EDUCATION & TRAINING SERVICES PVT LTD

SAP BI/BW Course Curriculum

Business Intelligence & Data Warehousing | SAP BW/4HANA

Industry-focused SAP BI/BW training covering data warehousing concepts, SAP BW architecture, InfoObjects, ADSOs, CompositeProviders, data flows, transformations, DTPs, process chains, queries, reporting, BW/4HANA, HANA integration, extraction from SAP and non-SAP sources, performance optimization and real-world BI projects.

Website: www.techscholarss.com

Course Overview

The SAP BI/BW curriculum is designed to build practical skills for enterprise data warehousing, data modeling, extraction, transformation, loading and reporting. The program covers classic SAP BW concepts together with modern BW/4HANA architecture and HANA-optimized modeling approaches.

Course Objectives

- Understand SAP BI/BW architecture and enterprise data-warehouse concepts.
- Work with InfoObjects, InfoProviders and modern BW/4HANA objects.
- Design ADSOs, CompositeProviders and end-to-end data flows.
- Configure DataSources and extract data from SAP application systems.
- Build transformations, DTPs and routines for data cleansing and transformation.
- Create and schedule process chains for automated data loading.
- Develop queries, calculated key figures, restricted key figures and reporting structures.
- Understand BW/4HANA and SAP HANA integration and pushdown concepts.
- Perform monitoring, error handling and performance optimization.
- Apply SAP BI/BW skills to real-world reporting and data-warehouse projects.

Module 1: SAP BI/BW Introduction & Data Warehousing

Tools Covered: SAP BW, BW/4HANA, SAP HANA

- Business Intelligence and Data Warehousing concepts
- SAP BI/BW architecture
- OLTP versus OLAP
- Data warehouse layers
- InfoProvider concept
- BW objects overview
- Data staging and reporting flow
- BW consultant responsibilities
- Implementation and support project lifecycle

Module 2: SAP BW Architecture & System Landscape

Tools Covered: SAP BW/BW/4HANA, SAP GUI, Eclipse

- BW application and database layers
- BW system architecture
- Development, Quality and Production landscapes
- BW/4HANA architecture overview
- HANA database role in BW
- Transport landscape
- Development tools and modeling environments
- Technical system concepts

Module 3: InfoObjects & Master Data

Tools Covered: InfoObjects, Characteristics, Key Figures

- Characteristics and key figures
- InfoObject attributes
- Master data and texts
- Attributes and navigation attributes
- Compounding
- Units and currencies
- Display and reference characteristics
- InfoObject maintenance
- Master-data activation and monitoring

Module 4: DataSources & Data Extraction

Tools Covered: SAP DataSources, ODP, RSA3

- Data extraction architecture

- SAP application DataSources
- ODP framework overview
- Delta extraction concepts
- Full and delta loads
- DataSource activation and replication
- Extraction from SAP ECC/S/4HANA
- Non-SAP source integration overview
- Extraction monitoring and troubleshooting

Module 5: Advanced DataStore Objects (ADSO)

Tools Covered: BW/4HANA, ADSO, Eclipse

- ADSO concept and architecture
- Standard, staging and reporting ADSO concepts
- Inbound and active data tables
- Data activation
- Overwrite and additive data models
- Key fields and semantic properties
- ADSO reporting enablement
- Data loading into ADSO
- ADSO monitoring and troubleshooting

Module 6: CompositeProviders & Data Modeling

Tools Covered: CompositeProvider, BW Modeling Tools

- CompositeProvider architecture
- Union and join scenarios
- Combining multiple providers
- Modeling reusable reporting layers
- Navigation attributes
- Semantic groups and modeling considerations
- CompositeProvider activation
- Query-ready data models
- Real-world data-model design

Module 7: Transformations & Data Transfer Processes

Tools Covered: Transformation, DTP, ABAP Routines

- Transformation architecture
- Source and target mapping
- Rules and routines
- Start and end routines
- Field routines
- ABAP transformation routines overview
- Data Transfer Processes
- Full and delta DTPs
- Error handling
- DTP monitoring and troubleshooting

Module 8: Process Chains & Data Load Automation

Tools Covered: Process Chains, DTP, Background Processing

- Process-chain architecture
- Start processes
- Data-load process types
- DTP execution
- Attribute and master-data loads
- Dependencies and scheduling
- Variants and chain monitoring
- Parallel processing concepts
- Error handling and restart
- Production scheduling practices

Module 9: BW Query Design & Reporting

Tools Covered: BW Query Designer, BEx, Eclipse

- Query architecture
- Characteristics and key figures
- Restricted key figures
- Calculated key figures
- Filters and variables
- Conditions and exceptions
- Structures and cells
- Drilldown and navigation
- Query performance
- Report validation and testing

Module 10: BW/4HANA & SAP HANA Integration

Tools Covered: BW/4HANA, SAP HANA, Eclipse

- BW/4HANA architecture
- HANA-optimized data warehousing
- Open ODS concepts
- HANA views and integration overview
- Pushdown concepts
- HANA calculation and analytical capabilities
- SQL-based analysis overview
- BW/4HANA modeling best practices
- Migration concepts from classic BW

Module 11: Open ODS Views & External Data

Tools Covered: Open ODS, External Sources, HANA

- Open ODS architecture
- Virtual access to external data
- External database sources
- File and flat-file integration concepts
- Data virtualization
- Combining Open ODS with BW providers
- External-data modeling
- Use cases and limitations
- Monitoring external access

Module 12: SAP BI/BW Reporting & Analytics

Tools Covered: BW Queries, Fiori, SAP Analytics

- Operational and analytical reporting
- Query consumption concepts
- Dashboards and KPI reporting
- Fiori analytical applications overview
- Integration with SAP Analytics Cloud overview
- Reporting authorization concepts
- Business-user requirements
- Report validation and reconciliation
- Analytics performance

Module 13: Authorizations & BW Security

Tools Covered: PFCG, BW Analysis Authorizations

- BW security architecture
- Roles and authorization objects
- Analysis authorizations
- Characteristic-based restrictions
- Reporting authorization scenarios
- User and role assignment
- Authorization troubleshooting
- Data access governance
- Security best practices

Module 14: BW Monitoring, Error Handling & Support

Tools Covered: RSPM, Process Chains, DTP Monitoring

- Daily BW monitoring
- Data-load monitoring
- Process-chain monitoring
- DTP request analysis
- Failed request troubleshooting
- Data activation errors
- Transformation errors
- Short dumps and technical logs overview
- Support-ticket analysis
- Root-cause analysis and incident resolution

Module 15: Performance Tuning & Data Volume Management

Tools Covered: BW/4HANA, HANA, Query Analysis

- Query performance analysis
- Data-load performance
- Partitioning concepts
- Data aging and housekeeping concepts
- HANA pushdown
- Efficient data models
- Compression and storage concepts
- Process-chain optimization
- Avoiding unnecessary data movement
- Performance troubleshooting

Module 16: BW Administration, Transport & Lifecycle

Tools Covered: CTS, Transport Management, BW/4HANA

- BW object transports
- Transport requests
- Development-to-production lifecycle
- Dependencies and transport sequencing
- Content and object management
- System refresh concepts
- Housekeeping
- Archiving concepts
- Upgrade and migration overview
- Production change-management practices

Module 17: Real-World SAP BI/BW Projects

Tools Covered: SAP BW/4HANA, SAP HANA, S/4HANA

- Sales reporting data warehouse project
- Finance KPI and reporting project
- Procurement analytics project
- Inventory and material reporting project
- End-to-end extraction-to-reporting project
- ADSO and CompositeProvider modeling project
- Transformation and DTP project
- Process-chain automation project
- BW query and dashboard project
- BW monitoring and production-support case study
- BW/4HANA migration and optimization scenario

Module 18: Resume Building & Interview Preparation

Tools Covered: SAP BI/BW Scenarios, Mock Interviews

- SAP BI/BW resume preparation
- Project profile preparation
- End-to-end data-flow explanation
- DataSource and extraction questions
- ADSO and CompositeProvider questions
- Transformation and DTP questions
- Process-chain questions
- BW query and reporting questions
- BW/4HANA and HANA questions
- Performance and troubleshooting scenarios
- Production-support questions
- Mock interviews and HR preparation

Tools & Technologies Covered

- SAP BW / SAP BW/4HANA
- SAP HANA
- SAP S/4HANA Data Extraction
- BW Modeling Tools / Eclipse
- InfoObjects
- ADSO
- CompositeProvider
- DataSources / ODP

- Transformations
- DTP
- Process Chains
- BW Queries and Reporting
- ABAP Routines
- Analysis Authorizations
- BW Monitoring and Performance Analysis
- SAP Analytics Cloud Integration Concepts

Career Opportunities After This Program

- SAP BI/BW Consultant
- SAP BW/4HANA Consultant
- SAP BW Developer
- SAP HANA BI Consultant
- SAP Data Warehouse Consultant
- SAP BI Technical Consultant
- SAP Reporting Consultant
- SAP Analytics Consultant
- SAP Data Integration Consultant
- SAP BW Support Consultant
- SAP S/4HANA Analytics Consultant
- SAP Business Intelligence Analyst

Why Choose TechScholarss?

- Industry-oriented SAP BI/BW and BW/4HANA curriculum
- Hands-on data modeling and loading practice
- Real-world reporting scenarios
- Live project-based learning
- Practical extraction and transformation exercises
- Experienced trainers
- Flexible online and offline batches
- Resume and interview preparation
- Internship support
- Placement assistance
- Industry-focused certification

Certification & Program Outcome

Students completing the program can receive a TechScholarss SAP BI/BW Course Certificate, subject to the institute's completion criteria. By the end of the program, learners should be able to understand SAP BI/BW architecture, build modern BW/4HANA data models, configure extraction and data loads, develop transformations and DTPs, automate process chains, create analytical queries, monitor production loads, troubleshoot common issues and participate in SAP

BI/BW implementation and support projects.

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