



## SAP HANA

### Course description

With SAP HANA, you have the opportunity to build applications that integrate the business logic, control logic, and the database layer with unprecedented performance. As a developer, one of the key questions is how you can minimize data movements. The more you can do directly on the data in memory next to the CPUs, the better the application will perform. This course will introduce you to native software development on SAP HANA

### Student Take away

- Study Material
- Learning stuff
- Sample project for practice

## SAP HANA Online Training Curriculum

### Introduction

Introduction to SAP HANA  
SAP In-Memory Strategy  
HANA compare to BWA

### Look and Feel

In-Memory Computing Studio  
Administration view  
Navigator View  
System Monitor  
Information Modeler

### Architecture

Architecture Overview  
IMCE and Surroundings  
Row Store  
Column Store  
Loading data into HANA  
Data Modeling  
Reporting  
Persistent Layer  
Backup & Recovery

### Data Provisioning

## **Method 1 - Data Provisioning using FLAT FILES**

## **Method 2 - Data Provisioning using BODS 4.0 (ETL Based Approach Building AGILE Data Marts)**

- BODS 4.0 Architecture in detail
- Data Stores in BODS
- Meta Data
- BODS Objects and components Hierarchy
- Building Data Flows in Designer (to Load the Data to SAP HANA)
- Query Transform in the Data Flow
- Loading the Data from diff files to SAP HANA using SAP BODS (Text files, spread sheets, XML files and COBOL copybooks)
- Using Merge Transforms, Date Generation Transforms, SQL Transforms, Pivot Transforms, Reverse Pivot, Match Transform, Match Results Transform, Case Transforms, Validation Transforms, KEY Generation Transform, R Generation Transform, Table Comparison Transform, History Preservation Transform, Map operation Transform with Insert, Map Operation transform with Updates in BODS Data Flow to load the data to SAP HANA
- Creating Repository Users
- Creating a Local Repository
- Setup Central Management Server (CMC)
- Setup of Data Service Job Server
- Creating Central repository and using it
- Loading the Data from different SAP ERPS (like ECC, CRM) using SAP BODS to DSAP HANA for COPA Scenarios, FI Scenarios, Sales Scenarios, Purchasing Scenarios, Marketing Scenarios and Opportunity Scenarios and Service Scenarios

## **SMART DATA ACCESS**

- Connecting to Remote SQL SERVER using SMART DATA Access
- Creating Calculation view Using Remote Data Source
- SAP RIVER

## **Workbench User Interface**

- Replication job editor
- Data store editor
- Data Flow editor
- Monitoring editor
- File Format editor

## **Information Steward**

- Getting started with Cleansing Package Builder
- About cleansing data
- About cleansing packages
- Cleansing package types
- Create cleansing packages
- Assign standard forms and variations
- Updating a published cleansing package
- Viewing published cleansing packages
- Person and firm cleansing

### **Data Provisioning using SLT**

- Positioning and Key Concepts
- Overview on Configuration Aspects
- Selective Data replication

### **Data Provisioning using Direct Extractor Connection (DCX)**

- Using SAP provided Business Content Extractor
- ABAP Data Flows for Table and Pool clusters

### **Modeling**

- Purpose of Information Modeler
- Levels of Modeling in SAP HANA
- Attribute Views
- Analytic Views
- Calculation Views
- Creating Advanced Calculation Views using GUI and SCRIPT methods
- Creating Attribute Views, Analytical Views, Calculation Views for FI scenarios, COPA scenarios, Sales Scenarios, Purchasing Scenarios and Marketing Scenarios
- Export & Import - Server and Client sides
- Using Hierarchies (Level Based and Parent-Child Hierarchies)
- Creating Restricted and Calculated Measures
- Using Filter Operations
- Using Variables, input parameters
- SAP HANA SQL Introduction
- SQL Script and Procedures
- Using Currency Conversions, Create hyperlinks
- Persistency Considerations
- SAP HANA Engine Overview
- Choosing Views For Information
- Using SAP HANA Information Composer for Modeling
- Procession Information Models
- Validating Models
- Comparing Versions of Information Objects
- Checking Model References
- Generate Auto Documentation
- Connecting Tables
- Joins (Inner, Left Outer, Right Outer, Full Outer, Text, Referential and Union)
- Managing Modeling Content
- Manage Schemas
- Import and Export data Models
- Copy Information Objects

### **Reporting**

- HANA, Reporting Layer
- Connectivity options
- SAP Business Objects BI 4.1
- Designing Complex Universes in IDT based on HANA Tables and HANA Views

- Webi 4.0 on HANA
- Crystal Report for Enterprise with HANA
- Designing the Dashboards using Query Browser on HANA Universes using Dashboard Design 4.0
- SAP Business Objects BI 4.1 Explorers
- Designing Information Space based on SAP HANA Information Model using BO Explorer 4.1
- Exploring the Data using BO 4.1 explorer based on Information Spaces created on HANA
- Creating Analysis Views using Analysis edition for OLAP (HANA OLAP connection)
- Analysis edition for Microsoft Excel, Microsoft PowerPoint
- SAP Visual Intelligence on HANA
- Crystal Reports via ODBC/JDBC Connections
- Others & MS Excel 2010

#### **User Management**

- Creation of Users
- Creation of Roles
- Creation of Role Hierarchy
- Assignment of Users to Roles
- Authentication
- IMCE Authorizations

#### **Security and Authorizations**

- User Management and Security
- Types of Privileges
- Template Roles
- Administrative

#### **User Management**

- User Management (SAP BI 4.0 Integration)
- User Management (Single-Sign-on SSO)