**Introduction**

In-Memory Computing

Evolution of In-Memory computing at SAP

History HANA

IMC Products

HANA compare to BWA

Product Availability Matrix

**Architecture**

 Overview

IMCE surroundings

Row Store

Column Store

Persistency Layer

Business Impact of new architecture

**Modeling**

Key Concepts in Data Modeling

Components of HANA data model

Table Creation

Inserting Data into Table

 **Attribute Views**

How to connect tables using

Inner Join

Left Outer Join

Right Outer Join

Full Outer Join

Text Join

Referential Join

Union

 **Analytical Views**

Left Outer Join – Attribute View

Inner Join – Analytical View

Right Outer Join – Analytical View

Referential Join – Analytical View

 Calculation Views

Time Dimension

**SAP HANA SQL**

Overview SQL Language Elements

Identifiers

SQL Data Types

Functions and Expressions

SQL Statements - Examples

**Advance Modeling**

Calculation Views

SQL Script Overview

Procedure

Debugging & Troubleshooting SQL script

Hierarchies

Restricted & Calculated Measures

Filter Operations and

**Variables**

Creating Attribute Value Variables

Creating Static Value Lists

Creating Variables with Formulas

Creating Date Variables

Currency conversion

Transports/Delivery units

**Performance Tuning**

Index Creation

Data Base Partition

**Data Provisioning**

Overview

**Trigger Based Replication**

Overview on Configuration Aspects

Data Replication at a Glance

SLT based transformation concepts

Selective Data Replication

Transformation of Data

Extension of (target) table structure

Specific Considerations

Data load performance tuning

Data loads acceleration

**ETL Based Replication**

Intro to BODS 4

Basic Data service Connection types

Create and execute a Data Service Job to Populate HANA

Load SAP ECC Data in to HANA

Load SAP BW Data into HANA

**Creating a batch job**
Create a project, job, work flow, and data flow
Using the Query transform in a data flow
Using template tables

**Data Services Advance Level**

Using built-in transforms and nested data
Using the case, merge, and validation transforms

**Data Services SAP System Handling**

SAP Systems-Introduction
SAP BODS and SAP ERP/BW integration Creation of SAP ERP Datastore and overview of properties
Creation of SAP BW source & target
Datastores and overview of properties
SAP ERP Tables data extraction

**Security & User Management**

Creating Users

Creating Roles

Privileges

Authorization challages

User Administration

Backup & Recovery

**Reporting**

Connectivity options

Excel reporting on HANA

Business Objects BI 4.0

Business Objects BI 4.0 Explorer

Information Design Tool

Web Intelligence

Crystal Reports via ODBC/JDBC Connections

Analysis Office

Information Composer

Visual Intelligence

**BW 7.3 powered by HANA Overview**

BW7.30-HANA Optimized Info Cube

BW7.30-HANA Optimized Info DSO

Importing SAP BW7.30 Models into HANA Modeling environment

Publish Standalone HANA Models into SAP BW 7.30 on HANA