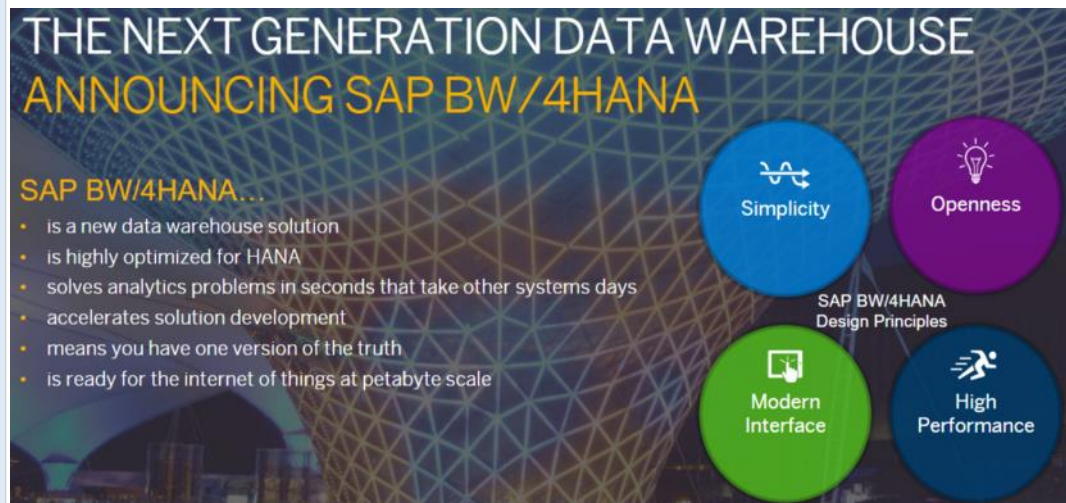


Good Morning | Good Evening.
Warm Welcome to this Introductory session on BW4HANA 2.0.
The session will begin shortly...



THE NEXT GENERATION DATA WAREHOUSE
ANNOUNCING SAP BW/4HANA

SAP BW/4HANA...

- is a new data warehouse solution
- is highly optimized for HANA
- solves analytics problems in seconds that take other systems days
- accelerates solution development
- means you have one version of the truth
- is ready for the internet of things at petabyte scale

SAP BW/4HANA Design Principles

- Simplicity** (Icon: Wires and plug)
- Openness** (Icon: Lightbulb)
- Modern Interface** (Icon: Hand pointing at screen)
- High Performance** (Icon: Running person)

Agenda	<ol style="list-style-type: none">1. Trainer Bio2. BW4HANA Concepts & FAQs3. Demo4. Course Structure & Details5. Q & A
--------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Trainer Bio




DEBANSHU MUKHERJEE

SAP BW: 14+ yrs
(8 implementations)

SAP HANA: 6+ yrs
(5 implementations)

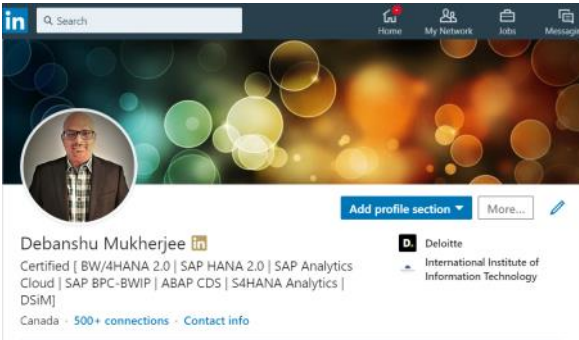
SAP BPC/BW-IP: 4 yrs
(4 implementations)

SAP ABAP: 10 yrs

SAC: 1 yr
(2 implementations)

LinkedIn

www.linkedin.com/in/debanshu-mukherjee

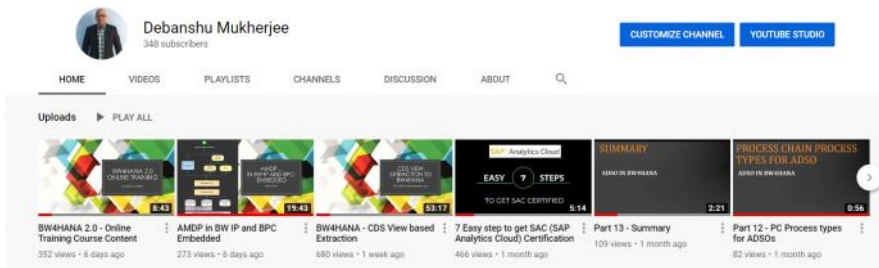


Debanshu Mukherjee

Certified [BW/4HANA 2.0 | SAP HANA 2.0 | SAP Analytics Cloud | SAP BPC-BWIP | ABAP CDS | S4HANA Analytics | DSIM]

Canada · 500+ connections · Contact info

YouTube Channel



Debanshu Mukherjee
348 subscribers

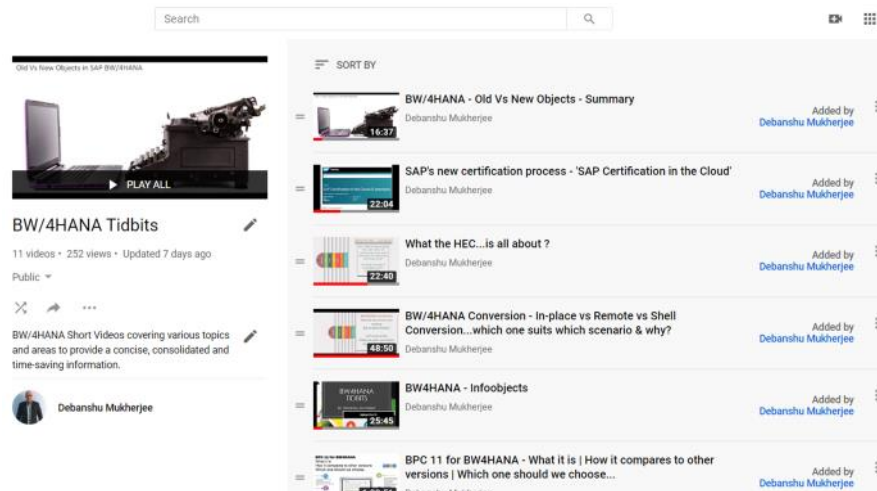
HOME VIDEOS PLAYLISTS CHANNELS DISCUSSION ABOUT

Uploads

- BW/4HANA 2.0 - Online Training Course Content (352 views · 8 days ago)
- AMDP in BW IP and BPC Embedded (273 views · 8 days ago)
- BW/4HANA - CDS View based Extraction (680 views · 1 week ago)
- 7 Easy step to get SAC (SAP Analytics Cloud) Certification (466 views · 1 month ago)
- Part 13 - Summary (109 views · 1 month ago)
- Part 12 - PC Process types for ADSOs (82 views · 1 month ago)

Playlists:

[BW/4HANA Tidbits](#)

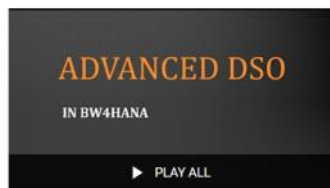


Search

Sort by

- BW/4HANA - Old Vs New Objects - Summary (Added by Debanshu Mukherjee)
- SAP's new certification process - 'SAP Certification in the Cloud' (Added by Debanshu Mukherjee)
- What the HEC...is all about ? (Added by Debanshu Mukherjee)
- BW/4HANA Conversion - In-place vs Remote vs Shell Conversion...which one suits which scenario & why? (Added by Debanshu Mukherjee)
- BW/4HANA - Infoobjects (Added by Debanshu Mukherjee)
- BPC 11 for BW/4HANA - What it is | How it compares to other versions | Which one should we choose... (Added by Debanshu Mukherjee)

[BW/4HANA Tidbits - Advanced DSO in BW/4HANA](#)



BW4HANA Tidbits - Advanced DSO in BW4HANA

13 videos • 1,097 views • Last updated on Apr 4, 2020

Public



SORT BY



Part 1 - Introduction and Positioning

Debanshu Mukherjee



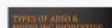
Part 2 - Positioning and Salient Points

Debanshu Mukherjee



Part 3 - Limitations of ADSOs

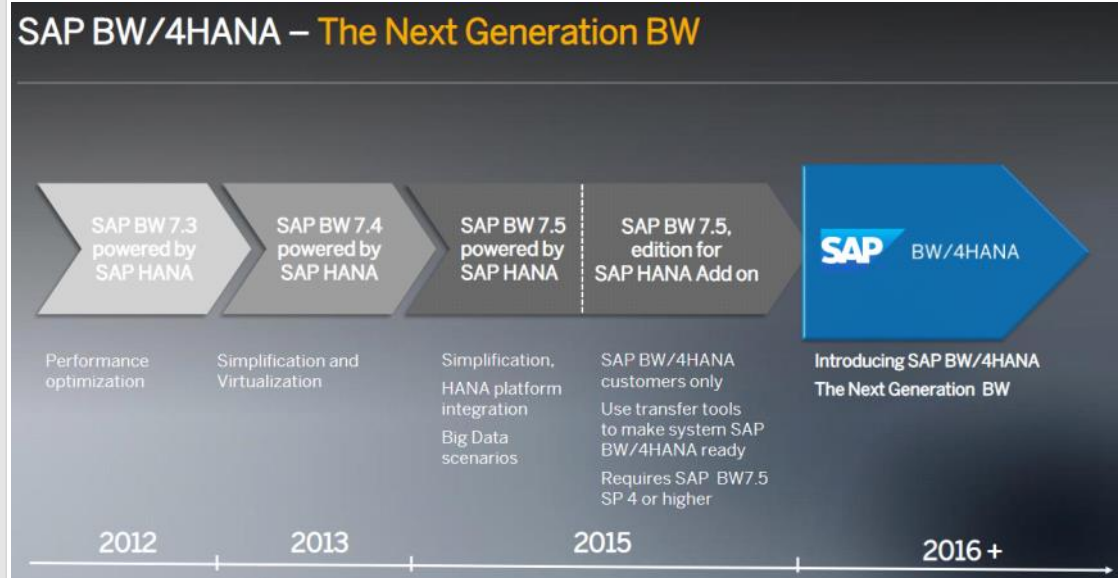
Debanshu Mukherjee



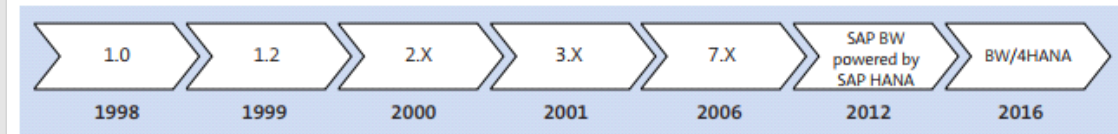
Part 4 - Types of ADSOs & Modeling Properties

What is BW4HANA

BW4HANA is SAP's proprietary Datawarehousing Software.
New Product (version starting from 1.x, 2.x...)



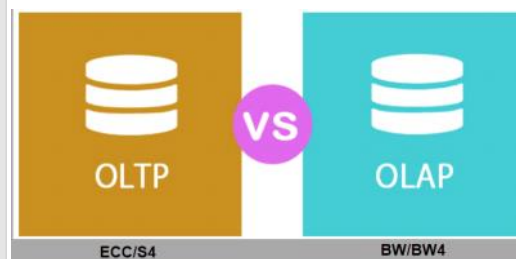
History of BW



BW4HANA 2.0 - Feb'25 2019

What is a Datawarehouse?
How is it different from a transactional system such as SAP ECC or S4H?

Transactional System, a.k.a OLTP, is the Developer, doing the day-to-day work.
Datawarehouse, a.k.a OLAP, is the Manager, who collects status and data from different developers and reports to top mgmt.



With S4H, why do we require BW4H?

Yes, we do require BW4 because....

1. Most of the organizations don't have just S4 as your source but multiple systems.
2. S4H can definitely handle both transactions and reporting but after a certain point starts to slow down.
3. S4H downtimes will result in reporting downtime.
4. Any upgrades relevant only for S4, will result in reporting downtimes/unavailability.

Embedded BW (BW 7.5 on HANA)

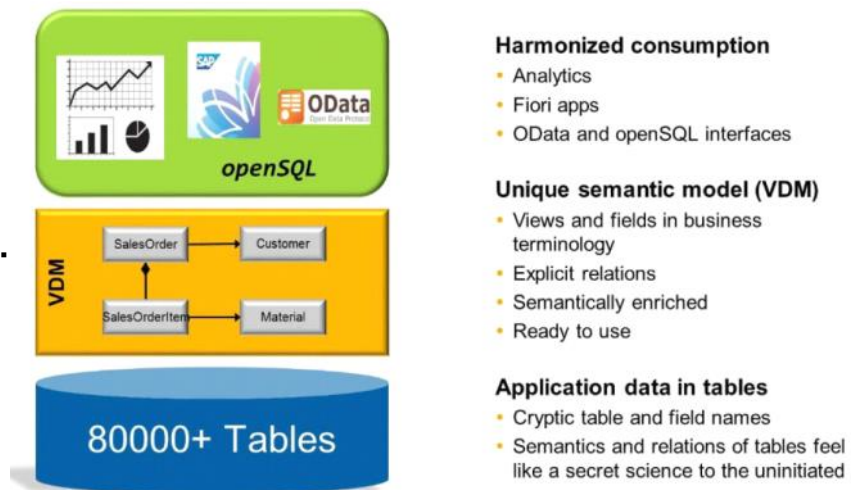
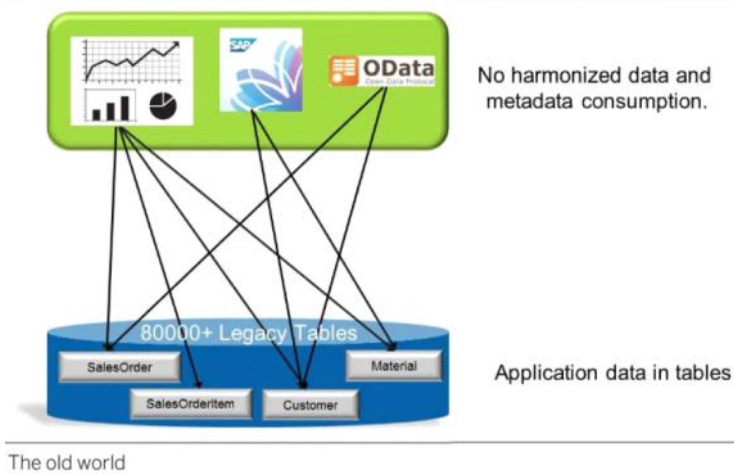
What's the difference between BWoH and BW4H?

BWoH (a.k.a BW powered by HANA)

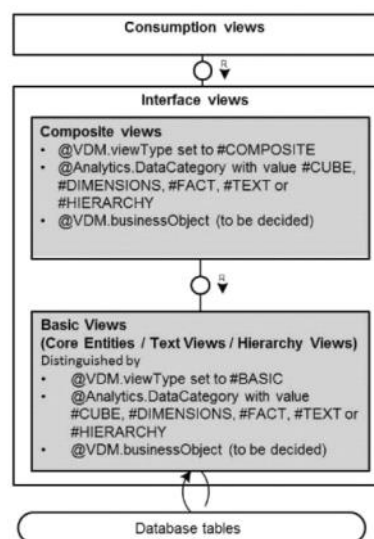
BWoH	BW4H
InfoCube & Multiprov still allowed	Only new objects (ADSO & CompProv)
CDS Views based Stnd Datasources not there in BW on HANA	CDS Views based Stnd Datasources there in BW4HANA
Infoobjects and Fields	InfoObjects and Fields. InfoObjects enhanced.
RSA1 tcode - Modeling tab available	No modeling tab in RSA1. Modeling in Eclipse.
Not cloud-ready	Cloud-ready and compatible
Modeling objects: 10	Modeling objects: 4
Part of Netweaver and Java stack available	Not a part of Netweaver. No Java stack.
No data flow modeler.	Data flow modeler.
GUI based administration and monitoring	Fiori based (BW4 Cockpit) administration and monitoring
ODP is optional. Traditional SAPI source	ODP is the default source system type.

	<div>system is the default source system type.</div> <div>IP and DTP</div> <div>PSA mandatory</div>	<div>Only DTP</div> <div>PSA Obsolete. Replaced by Inbound table.</div>																					
Evolution of BW Objects																							
What happens to older BW version?	<div>Still supported</div> <table border="1"> <thead> <tr> <th>Version</th><th>RTC</th><th>End of Maintenance</th></tr> </thead> <tbody> <tr> <td>BW4 2.0</td><td>25.02.2019</td><td>31.12.2024</td></tr> <tr> <td>BW4 1.0</td><td>07.09.2016</td><td>31.12.2021</td></tr> <tr> <td>BW 7.5</td><td>20.10.2015</td><td>31.12.2027</td></tr> <tr> <td>BW 7.4</td><td>10.05.2013</td><td>31.12.2020</td></tr> <tr> <td>BW 7.3</td><td>30.05.2011</td><td>31.12.2020</td></tr> <tr> <td>BW 7.0</td><td>06.06.2006</td><td>31.12.2017 Extnd till : 2027</td></tr> </tbody> </table> <div>SAP Note: 1648480</div> <p>In February 2020, SAP announced an extension of the mainstream maintenance for SAP Business Suite 7 core applications including SAP ERP 6.0 as well as SAP Business Suite powered by SAP HANA, from end of December 2025 to end of December 2027.</p> <p>In addition, SAP announced to offer extended maintenance until end of December of 2030.</p> <p>This gives SAP customers long-term predictability and planning security.</p>		Version	RTC	End of Maintenance	BW4 2.0	25.02.2019	31.12.2024	BW4 1.0	07.09.2016	31.12.2021	BW 7.5	20.10.2015	31.12.2027	BW 7.4	10.05.2013	31.12.2020	BW 7.3	30.05.2011	31.12.2020	BW 7.0	06.06.2006	31.12.2017 Extnd till : 2027
Version	RTC	End of Maintenance																					
BW4 2.0	25.02.2019	31.12.2024																					
BW4 1.0	07.09.2016	31.12.2021																					
BW 7.5	20.10.2015	31.12.2027																					
BW 7.4	10.05.2013	31.12.2020																					
BW 7.3	30.05.2011	31.12.2020																					
BW 7.0	06.06.2006	31.12.2017 Extnd till : 2027																					
Is S4H mandatory for BW4?	<p>No, BW4 can be implemented with source ECC as well as S4.</p> <p>For ECC sources, if we want to use ODP, we need to implement note: 2232584 - Release of SAP extractors for ODP replication (ODP SAPI)</p> <p>Similarly, for S4, BW4 is not a prerequisite.</p>																						
How about HANA DB versions?	<p>BW4H 1.0 can run on both HANA 1.0 and HANA 2.0.</p> <p>BW4H 2.0 can run only on HANA 2.0.</p>																						
How about SAP Source systems?	<p>Yes, there are minimum Source system version requirements:</p> <p>SAP ECC / ERP 6.0 or higher</p> <p>SAP Customer Relationship Management (SAP CRM) 5.0 or higher</p> <p>SAP Supply Chain Management (SAP SCM) 5.0 or higher</p>																						
Can I go directly from BW 7.x to BW4H 2.0?	<p>Direct conversion to SAP BW/4HANA 2.0 will be supported with SAP BW/4HANA 2.0 SP2</p>																						
What about non-SAP source systems?	<p>Systems that are not based on SAP ABAP application server (i.e. non-SAP systems) and used as a source for SAP BW/4HANA must be compatible with SAP HANA smart data access and/or smart data integration.</p>																						
Does stnd content such as LO Cockpit still the same ?	<ol style="list-style-type: none"> Yes, LO Cockpit (RSA5, RSA6, LBWE etc.) stays the same. Process to activate the stnd extractors stays the same. Process to enhance the stnd extractors now recommended only with BADI (RSU5_SAPI_BADI). Enhancement via RSAP0001, is obsolete and should not be used anymore in new implementations. New process of enhancing CDS view based extractors via: Extension CDS Views 																						
I have heard terms like CDS views, Embedded Analytics and AMDP...what are those?	<p>CDS Views: A new way to create a SELECT Query on multiple tables.</p> <p>AMDP (ABAP Managed DB Procedure) A new way to implement ABAP methods.</p> <hr/> <p>CDS Views are the future tool for:</p>																						

1. Std and Custom Datasources for BW4H.
2. Technical Content in BW4H



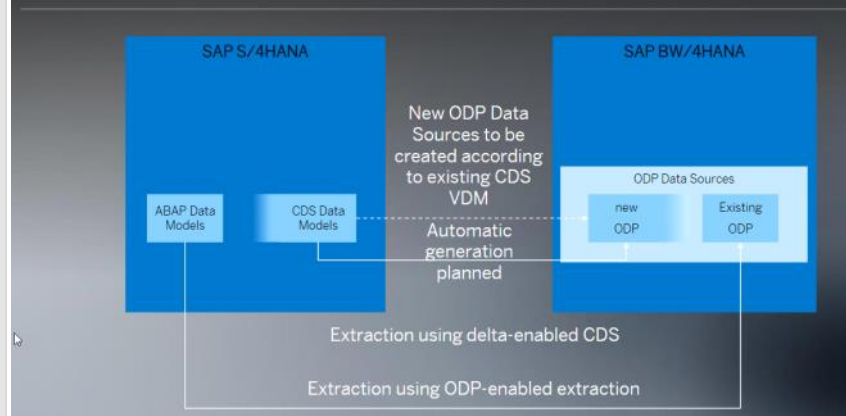
Annotations in CDS Views



Composite views are built selecting from the basic views and exploring the associations between basic views. They can be specific to a consumption domain or reusable in many.

Basic views form the low-redundancy model on top of the Suite database tables. Core entity views contain the associations to other core entity views.

Future Direction



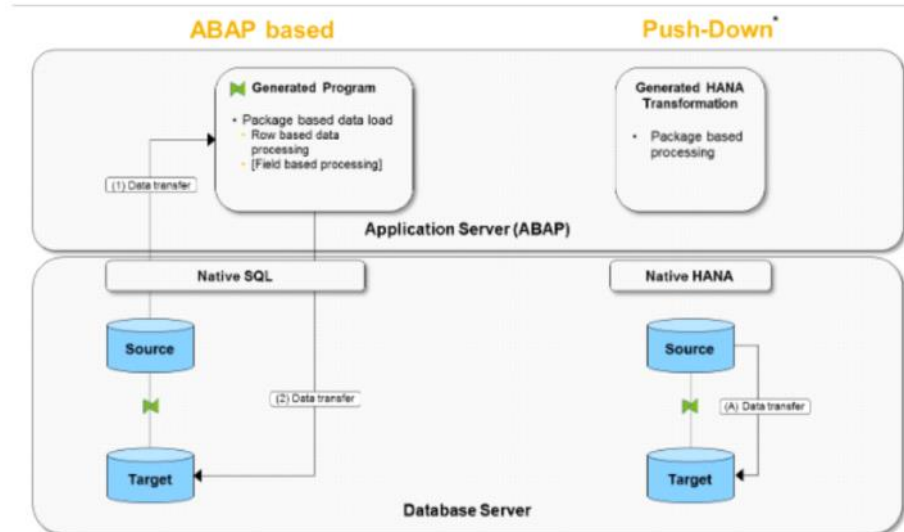
Embedded Analytics:

1. CDS views for Operational reporting within S4.
2. Previously called HANA Live (based on HANA CVs).

AMDP is the future tool for :

1. BW Transformations (Routines)
2. Custom Pgms

Transformation – Processing



An AMDP Class will be generated with default method – PROCEDURE.
A mandatory interface will be included – IF_AMDP_MARKER_HDB

Is GUI used for any activity anymore?

Yes, certain activities such as

1. Business Content Activation
2. Transports

are still better with GUI based editors but GUI can be used within Eclipse.

When to use what:
 BW4HANA
 Native HANA
 DWC (Data Warehouse Cloud)
 Embedded Analytics
 Future?

Any Enterprise Software company has to keep both on-premise and Cloud tools but at the same time keep the no of tools limited and consolidated. SAP is also consolidating its tools into few tools and this will continue and for now, these are the tools available to cater to different client requirements coz every client has different setup and needs:

On-premise tools for DW

1. BW4HANA - Preferred if you have S4HANA and other SAP sources. You can leverage stnd extractors, CDS views etc.
2. Native SQL HANA - Preferred if no SAP data sources and all are non-SAP. You can leverage SLT/SDI/BODS to get data in and build DW.
3. Embedded Analytics (within S4) - This is preferred if you don't have any other source other than S4 and need operational reporting. Caveat: With volumes going to billions and users climbing to thousands, heavy reporting can slow down S4 after some time.
4. Hybrid - This is also recommended if you have SAP and non-SAP sources and want to leverage best of both worlds.

SAP has also given tools to migrate amongst the tools mentioned above.

Cloud Tools for DW

1. DWC - This is preferred if you don't have SAP BW and are ready for Cloud.
2. DWC with BW4 - This is preferred if you want to use Hybrid of on-premise and Cloud. On-premise models and data can be kept in BW4 and Cloud can go to DWC.
3. DWC with Native HANA - This is preferred if you want to use Hybrid of on-premise and Cloud. On-premise models and data can be kept in Native HANA and Cloud can go to DWC.

SAP has also given tools to migrate amongst the tools mentioned above.

System Demo



Who is this course for?

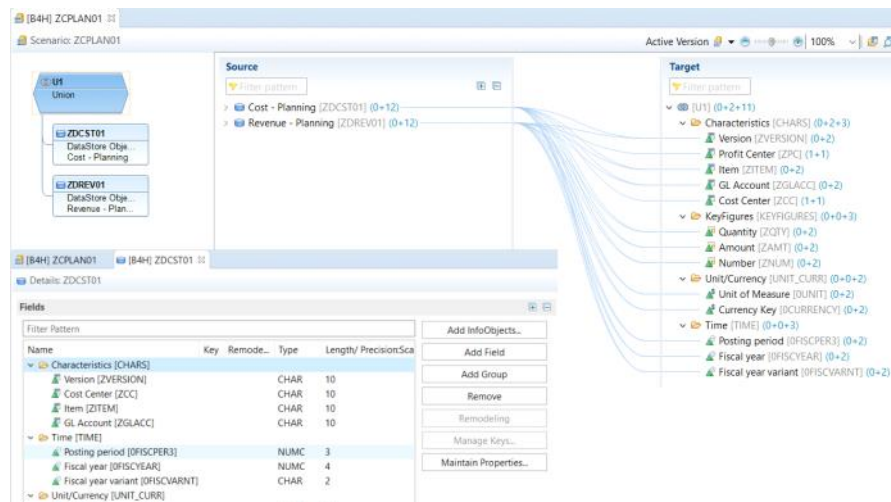
1. BW consultants with basic knowledge.
2. Seasoned BW consultants looking for upskilling in BW4HANA.
3. Frontend consultants (Functional/Reporting users/BPC/SAC) interested to know the backend infrastructure.
4. Anyone who's interested to know about or start a career in BW (will require additional efforts)

Certifications

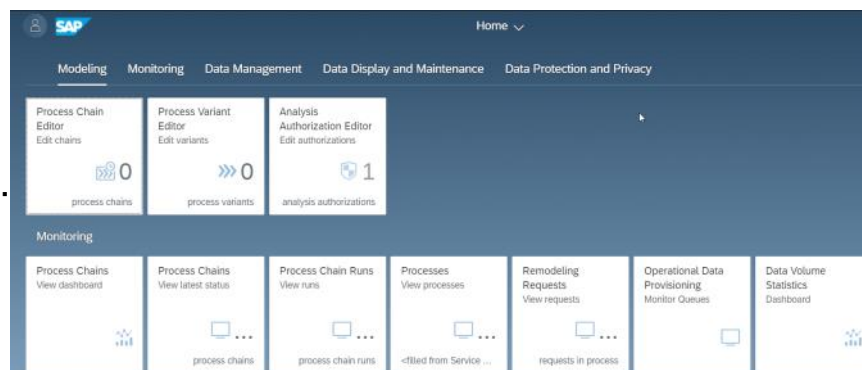
E_BW4HANA200	- This is specialist/delta certification which I did. This you can only do if you have BW on HANA certification. BW On HANA (7.3, 7.3, 7.5) https://training.sap.com/certification/e_bw4hana200-sap-certified-application-specialist--sap-bw4hana-20-delta-g/
C_BW4HANA_20 -	This is full certification meaning if you don't have BW on HANA certification then you can take this. This has no pre-requisite. https://training.sap.com/certification/c_bw4hana_20-sap-certified-application-associate---reporting-modeling-and-data-acquisition-with-sap-bw4hana-2x-g/

Tools Used

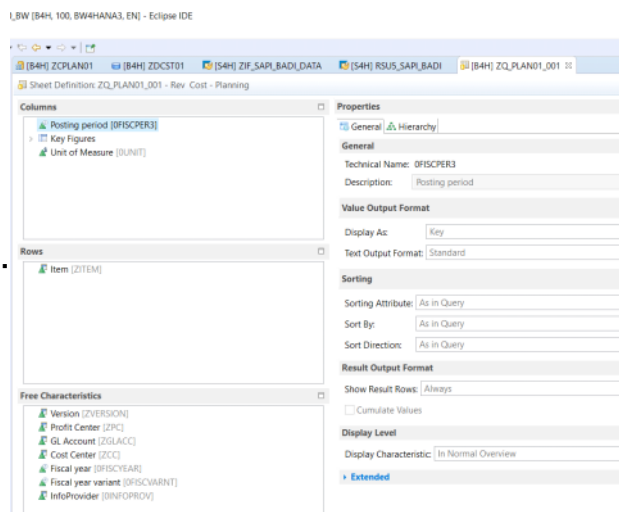
- Completely Eclipse-based Modeling for BW4HANA Infoproviders.




- Tcode based navigation within Eclipse wherever necessary.
- BW4 Cockpit based modeling, data maintenance and monitoring.



- Eclipse based BW Query creation.



	▪SAC to BW4 Integration and connecting the BW Queries to SAC and building Live data based models and stories.																			
Server Vendors	Get Trained GT	sruthi.getraind@gmail.com	Best server and Support. SAC Integration.																	
	BW4 - 2.0 SP4 S4H - 1909 CDS views capability ODP_SAP ODP_CDS SAC-BW4HANA Integration Excellent support																			
Course Modus Operandi	Business Scenario based	<ul style="list-style-type: none">▪Requirement for a custom story from business in SAC.▪We'll start with business blueprint of reports and story.▪Create Native HANA models using the HANA CVs, Table function and DB Procedures based on SDA virtual tables.▪Then create and enhance BW Stnd Datasources.▪Create and enhance CDS Views and extractors based on CDS Views.▪Creation of custom CDS Views in S4.<ul style="list-style-type: none">• Introduction to CDS Views and types of CDS Views.• Main CDS View + Extension CDS View▪Activate delta from CDS view based extractors - generic and ODQ-based.▪Using ODQ and understand the new subscription based model.▪Custom ADSOs, DTPs and Transformations creation in BW.<ul style="list-style-type: none">▪Staging ADSO based on fields as Corporate memory layer.▪Standard ADSO based on InfoObjects in DWH layer.▪Custom routines in transformations using AMDP Class and Methods.▪Creating OpenODS views for virtual access using SDA.▪Creating Composite Provider based on the ADSOs, OpenODS Views and HANA CV using UNION/JOIN.▪Using new Composite Provider features such as Aggregation, Projection, SQL filter and Calculated column.▪Create Custom BW Query in Eclipse for Sales Hdr and Sales Item.▪Creating customer exit variables using Enhancement Spot RSROA_VARIABLES_EXIT_BADI.▪Creating HANA Exit variables using RSROA_VARIABLES_HANA_EXIT and AMDP Class and method.▪Custom BW process chain creation and monitoring in BW4 Cockpit.▪Activating streaming process chain feature for near-real time extraction.▪Data manipulation using Inbound table - replacement of PSA-based data modifications.▪Configuring SAC to BW connectivity using CORS.▪Consuming BW Query in SAC and creating SAC Model and Story.																		
	Optional (Based on time availability)	Setting up analysis authorizations on ADSOs. Generation of CVs from ADSOs, CompProvs and BW Queries. Inventory Data Flow Streaming process chain OpenHub Migration scenarios																		
Duration and Timing	1. Course Duration : 7 weeks (Weekends-only : Saturday Sunday). 1st Aug to 13th Sept 2. Course timing <table><tr><td>Weekends</td><td>Time (EST - Canada)</td><td>Time (IST - India)</td><td>Time (UTC - UK)</td><td>Time (AEDT - Australia)**</td></tr><tr><td>Saturday</td><td>8:30 AM - 10:30 AM</td><td>6:00 PM - 8:00 PM</td><td>1:30 PM - 3:30 PM</td><td>Saturday (10:30 PM - 12:30 AM)</td></tr><tr><td>Sunday</td><td>8:30 AM - 10:30 AM</td><td>6:00 PM - 8:00 PM</td><td>1:30 PM - 3:30 PM</td><td>Sunday (10:30 PM - 12:30 AM)</td></tr></table> **For Australian timezone, this might be nonviable.					Weekends	Time (EST - Canada)	Time (IST - India)	Time (UTC - UK)	Time (AEDT - Australia)**	Saturday	8:30 AM - 10:30 AM	6:00 PM - 8:00 PM	1:30 PM - 3:30 PM	Saturday (10:30 PM - 12:30 AM)	Sunday	8:30 AM - 10:30 AM	6:00 PM - 8:00 PM	1:30 PM - 3:30 PM	Sunday (10:30 PM - 12:30 AM)
Weekends	Time (EST - Canada)	Time (IST - India)	Time (UTC - UK)	Time (AEDT - Australia)**																
Saturday	8:30 AM - 10:30 AM	6:00 PM - 8:00 PM	1:30 PM - 3:30 PM	Saturday (10:30 PM - 12:30 AM)																
Sunday	8:30 AM - 10:30 AM	6:00 PM - 8:00 PM	1:30 PM - 3:30 PM	Sunday (10:30 PM - 12:30 AM)																
Registration Deadline	30th Jul' 2020 11:59:59 PM EST																			
Software Used	Zoom Meeting. Link will be sent before the class.																			
Recordings	Available to view-only on YouTube Channel (Lifetime Access) BW4HANA - Training 																			
	Downloadable: No Recording Availability: Next Day																			
Q & A	30 min before the main session 30 min after the main session.																			

Topics and Timing

Topic	Description	Date Time
Getting Started	<ol style="list-style-type: none"> 1. Definition of SAP BW and Evolution of SAP BW to BW4HANA 2.0 2. Architecture of SAP BW4 2.0 3. Difference between HANA & BW4HANA modeling. 4. The new Eclipse feature and tools to work with BW4 5. Salient features of SAP HANA as a DB 6. BW4 Cockpit 	1st Aug: 8:30 AM - 10:30 AM
SAP Native HANA Modeling Fundamentals - Part 1	<ol style="list-style-type: none"> 1. HANA Calculation Views 2. HANA Virtual Tables 3. HANA Analytic Privileges 4. HANA DB Procedure 5. HANA XS Jobs - scheduling DB Procedures 	2nd Aug: 8:30 AM - 10:30 AM
SAP Native HANA Modeling Fundamentals - Part 2	<ol style="list-style-type: none"> 1. HANA Calculation Views 2. HANA Virtual Tables 3. HANA Analytic Privileges 4. HANA DB Procedure 5. HANA XS Jobs - scheduling DB Procedures 	8th Aug: 8:30 AM - 10:30 AM
B4H - Intro, Architecture & LSA++	<ol style="list-style-type: none"> 1. B4H Introduction 2. Old vs New modeling Objects 3. B4H Architecture 4. LSA++ flow 5. New CDS View based Datasources 	9th Aug: 8:30 AM - 10:30 AM
Datasources, Enhancements & ODQ - Part 1	<ol style="list-style-type: none"> 1. Scenario Introduction - Report from User 2. LO Cockpit Datasource activation process 3. 2LIS_11_VAHDR Activation 4. 2LIS_11_VAHDR Enhancement <ol style="list-style-type: none"> 1. Old way 2. New way - RSUS_SAPI_BADI 3. Method 1 - New BADI Implementation for every DS. Method 2 - New method for every DS 5. 2LIS_11_VAITEM Activation 6. 2LIS_11_VAITEM Enhancement using Method 2 	15th Aug: 8:30 AM - 10:30 AM
Datasources, Enhancements & ODQ - Part 2	<ol style="list-style-type: none"> 1. ODP concept 2. ODQs and Delta 3. Delta from stnd datasources - 2LIS_11_VAHDR/ITM 4. CDS View Intro 5. Datasource based on CDS View - Full. 6. Datasource based on CDS View - Delta (Generic w/o ODQs) 7. Datasource based on CDS View - Delta (Generic with ODQs) 8. Enhancing datasource based on CDS views using extension CDS Views. 	16th Aug: 8:30 AM - 10:30 AM
Datasources, Enhancements & ODQ - Part 3	<ol style="list-style-type: none"> 1. ODP concept 2. ODQs and Delta 3. Delta from stnd datasources - 2LIS_11_VAHDR/ITM 4. CDS View Intro 5. Datasource based on CDS View - Full. 6. Datasource based on CDS View - Delta (Generic w/o ODQs) 7. Datasource based on CDS View - Delta (Generic with ODQs) 8. Enhancing datasource based on CDS views using extension CDS Views. 9. More on CDS Views 	22nd Aug: 8:30 AM - 10:30 AM
B4H - Modeling - Part 1 ADSOs	<ol style="list-style-type: none"> 1. Definition and Positioning 2. Types of ADSOs 3. Mapping to previous versions 4. Details on each type of ADSO 5. Active/Nonactive concept 6. Partitioning and Indexing 	23rd Aug: 8:30 AM - 10:30 AM
B4H - Modeling - Part 2 ADSOs & Transformations	<ol style="list-style-type: none"> 1. Transformations in BW4HANA. 2. DTP in BW4HANA 3. Creating LSA++ flow for Header and Item. Header from stnd DS and Item from CDS View DS. 4. Enhance CDS view for item for material type. 5. Create Infosource for Header and Item 6. Create transformation (1st level) 7. Create transformation (2nd level) 8. Create lookups 9. Create formulae 10. Create AMDP based Start routine for removing special characters. 11. Create AMDP based field routine for quantity conversion from sales unit to base unit (OQUANT_B) 12. Create ABAP based end routine to populate update date.(OUPD_DATE) 13. Debug AMDP transformation. 14. Test the overall flow. 	29th Aug: 8:30 AM - 10:30 AM
B4H - Modeling - Part 3 OpenODS Views	<ol style="list-style-type: none"> 1. Purpose 2. Usage 3. Types 4. OpenODS view - virtual model using SDA 5. OpenODS view - Generate Data Flow 	30th Aug: 8:30 AM - 10:30 AM
B4H - Modeling - Part 4 Composite Providers	<ol style="list-style-type: none"> 1. Purpose 2. Usage 3. UNION & JOIN 4. 2.0 Enhancements 5. Navigation Attribute 	5th Sep: 8:30 AM - 10:30 AM
B4H - Reporting - Part 1	<ol style="list-style-type: none"> 1. BW Query 	6th Sep: 8:30 AM - 10:30 AM

BW Query & exit variables	2. Customer Exit Variables using BADI 3. HANA Exit Variables using AMDP Class and Method 4. Debugging customer exit variables. 5. Debugging HANA exit variables.	
B4H - Reporting - Part 2 B4H - SAC Integration	1. What is SAC (SAP Analytics Cloud) 2. Live vs Import Data connections 3. BW4-SAC Live data connectivity via CORS 4. BW4-SAC features 5. SAC Models and Stories using B4H Queries	12th Sep: 8:30 AM - 10:30 AM
BW4 - Miscellaneous Topics - Part 2	1. Inventory Mgmt 2. Streaming Process Chains 3. Migration Scenarios	13th Sep: 8:30 AM - 10:30 AM
B4H Useful Tcodes	List of handy BW4 tcodes and programs	5th July: 10 AM - 12 Noon
BW4 Interview Questions	List of questions for BW4 interview	5th July: 10 AM - 12 Noon
Resume Preparation Tips	Resume preparation tips	5th July: 10 AM - 12 Noon
B4H Certification Practice Questionnaire	List of 80 questions for practice Useful for certification	

