



Teaching Style: https://www.youtube.com/watch?v=TJzQ18jUUhA
Day1 Demo: https://www.youtube.com/watch?v=7koNr8DUAHc

Real-World BTP Project Overview: https://www.youtube.com/watch?v=EOYMSej9Dgk

DAY 1





DAY1 - Chapters

1. Preface:

1.1 SAP Technology Evaluation

Brief History of SAP Technology Evaluation

1.2 Basics of Application Development

Software and Application Development Components: Infrastructure, OS, Application Runtime

1.3 On-Premise Vs Cloud Computing

On-Prem, laaS, Paas, SaaS

2. Introduction to BTP Developments:

2.1 Motivation of SAP BTP

Data lake, Keep Core Clean, Integration Flexibility, Agility, Modern UX, Faster Business Insights, Innovation & Automation

2.2 BTP Application Development Environment

Cloud Foundry, Kyma, neo, ABAP

3 Detailed Architecture of Cloud Foundry

Cloud Foundry 3D architecture.
Routing & Auth Layer, Application Lifecycle, App Store and Execution, Services, Msg & Log









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DAY 2





DAY2 Chapters

4. BTP Management

4.1 Data Centre - Regions

Overview of BTP Data centres.

Discovery Centre.

4.2 BTP Landscape

Global Account, Subaccount, Space Practical Overview of BTP landscape in 3D Model

4.3 Hands-On

BTP Landscape Setup,
User Onboarding, Service Enablement, HANA Cloud setup

5. Preparing for BTP app development

4.1 Cloud Foundry Development Tools & IDEsCF CLI, SAP BAS, VS Code

4.2 CF CLI Commands

Cloud Foundry Commands

6. Hands-On

"Hello World" from BTP using NodeJS









DAY 3







DAY3 Chapters

6. Developer Perspective (Continue from Day 2...)

- 6.1 BAS Overview
- 6.2 Rebuild the "Hello World" Application in BAS ★

7. BTP App with 3rd party API data ★ ★ ★

- 7.1 What to Build Weather App Demo
- 7.2 API test in Postman (rest client)
- 7.3 Hands-On: Build & Deploy weather app in BTP

8. Application Scaling 🖈

- 8.1 Horizontal scaling
- 8.2 Vertical scaling
- 8.3 Hands-On

9. Code Version Management *

- 9.1 Git Overview
- 9.2 Hands-On: Git









DAY 4





DAY4 Chapters

10. Developer Perspective

10.1 BTP Development Architecture with 3D model

11. Architecture for SAP CAPM in 3D Model

- 11.1 CAPM structure explanation from development perspective (file/folder structures)
- 11.2 Why CAPM?
- 11.3 Database Layer (CDS, HDI, DB Artifacts, CDL, CQL)
- 11.4 Application Layer (Data sources, CDS Service, CDS Connect, CDS QL, CDS Users, CDS logs
- 11.5 Presentation Layer (View, Controller, CDS Annotations)











12. Setup for CAPM Application Development

- 12.1 HANA Cloud and Service instance
- 12.2 BAS Business Application Studio
- 12.3 Data Structure Computer Shop Application
- 12.4 Design time Artifacts and Runtime Objects Concepts

DAY 5





DAY5 Chapters

13. Hands-On . CAPM (Backend = DB + SRV)



- 13.2 Explanation of mta.yaml file
- 13.3 Deploy Application Backend to BTP Cloud Foundry
- 13.4 Test deployed Service API (OData) from Postman CRUD Operation



14. Application Security

14.1 Authentication & Authorization Concepts with Examples

14.2 Secure backend service using Approuter and XSUAA

14.3 Hands-On : Secure your backend service









DAY 6





DAY6 Chapters

15. Hands-On . User Interface



- 15.1 Create Destination
- 15.2 Build UI5 application with low-code
- 15.3 Create SO Create FIORI Element app
- 15.4 Create SO Display FIORI Element app
- 15.5 Deploy UI/FIORI application in BTP

16. Central Launchpad



- 16.1 Cloud Launchpad Service
- 16.2 Create Site
- 16.3 Content Provider, Content Explorer
- 16.4 Create Group
- 16.2 Test UI for CRUD operation Code Repo...

17. BTP Application Extension (Side-by-Side)

Architecture(s) – Side-by-side

17.0 Side-by-side Vs. In-App

Vs. Custom Development

17.1 API First Architecture

17.2 API First & SDI Architecture

17.3 CPI Centric Architecture

17.4 Event Driven Architecture









DAY 7





DAY7 Chapters

18. HANA Application Development in BTP



- 18.2 Realize SDI Architecture again
- 18.3 Architecture for SDI Data Access
- 18.4 SDI/HANA project prerequisites check
- 18.5 HDI Container more details
- 18.6 S/4 HANA or ECC data integration with SDI

(Virtual Tables, Calculation Views)

18.7 All possible data integrations with SDI



19. Real-world Use-Case of BTP

19.1 API First & SDI Architecture

19.2 Case Study on real-world use case..

S/4 HANA Extension application (Ex: Sales

Order)

SDI (Smart Data Integration)

HANA Cloud

Data Models

CAPM Service building

Chatbot using CAI

Cloud Workflow

Job Scheduling

Alert Notification

SAC overview

BAS – Destination Service – App Security –

cTMS







DAY 8







DAY8 Chapters

20. HANA Cloud Architecture

20.1 HANA as multi-model DB & Platform

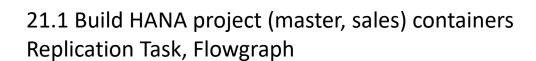
20.2 HANA Architecture in 3D

20.3 Containerization Methodology & Best Practice

20.4 Cross Container Access Technique



21 HANA Cloud Hands-On ★★★★★ [Cross Container Access]



- 21.2 Work on container roles
- 21.3 Build CAPM project as consumer for Containers
- 21.4 Synonym options(UPS & Dynamically schema access)
- 21.4 Work on Synonym (with grants)
- 21.5 Test CAPM service with S/4 data validation









DAY 9





DAY9 Chapters

22. HANA Cloud Artifacts

- 22.1 Classic Schema Artifacts
- 22.2 Container Artifacts
- 22.3 Troubleshooting with Diagnostic files

23. Business Logics options

Calculation View
Database Procedure
CAPM NodeJS

24. Cloud Workflow Hands-On * *



WF Builder

Build Purchase Requisition WF in BAS

Test end-to-end Scenario with Security mechanism

Code Repo..



25. S/4 HANA OData Analysis (API Business Hub)



2.5 – 3 HRS







DAY 10







DAY10 Chapters

26. Job Scheduling 🖈

Job Schd. Service
Call CAPM function form Job Schd.
Create SO in S/4 HANA



27. SAP BTP Intelligent Technologies

27.1 SAP Conversational AI (Chatbot)

- a) Introduction
- b) Intent, Expression, Entity,
- c) Prompt, Skills
- d) SAP CAI Framework
- e) Chatbot Architecture
- f) Hands-On (FAQ Bot)
- g) Hands-On (Car Rental Bot)
- h) STT-TTS









DAY 11





DAY11 Chapters

28. SAP AI Business Services 🖈



- a) Understand All Al Services
- b) Hands-On Document Information **Extraction Service**

29. Learnings so far...

end-to-end real-world BTP Project realization Code Repo..

30. AppGyver ★★



- a) Low/No Code App Development
- b) Static View
- c) List/Object page with backend data
- d) Mobile functionality Scan product to get details











DAY 12





DAY12 Chapters

31. TMS - CI/CD - Alert Notification



- a) Transport Object/App/Service (TMS)
- b) Automate Transport
- c) CI/CD Continuous Integration & Continuous Delivery
- d) Get Alert of Deployment in Outlook Email

32. BTP Development Personas

33. BTP Pricing Model

34. BTP Certifications







