SAP BTP Course

Module 1: Introduction to SAP BTP

- What is SAP BTP? Overview & architecture
- Key pillars of BTP:
  - Database & Data Management
  - Analytics
  - Application Development & Automation
  - Integration
- Differences between SAP BTP, SAP Cloud Platform (Private & Public), and on-premises SAP
- Global account, subaccounts, entitlements, quotas, environments

Module 2: BTP Account Model & Security

- BTP cockpit navigation
- Global Account, Subaccount, Spaces
- Identity Authentication Service (IAS) & Identity Provisioning Service (IPS)
- Role collections, authorizations, user management
- Connectivity & destinations

📌 Hands-on: Set up a trial BTP subaccount with role assignments

Module 3: SAP HANA Cloud & Data Management

- Introduction to SAP HANA Cloud (database-as-a-service)
- Schema, tables, views, HDI containers
- Core Data Services (CDS)
- Calculation views
- Accessing HANA Cloud with SAP Business Application Studio (BAS)
- Data provisioning with SDI/SDQ

📌 Mini Project: Create a database schema and query with CDS

Module 4: Application Development on BTP

- SAP Business Application Studio (BAS) overview
- **Cloud Foundry Environment** basics
- Node.js, Java, and Python runtimes
- **CAP** (Cloud Application Programming) model
  - Entities, services, annotations, Draft Handling, Approuter
  - OData V2/V4 & REST APIs with CAP
- Multitarget Applications (MTA) deployment

📌 Mini Project: Build a CAP-based service with OData API

Module 5: ABAP Environment basics

- **EML**
- **RAP** (RESTful Application Programming) model
  - Entities, services, annotations, Draft Handling
  - **OData V2/V4** & REST APIs with RAP

📌 Mini Project: Build a RAP-based service with OData API

Module 6: SAP Fiori & UI Development on BTP

- Introduction to Fiori Elements & SAPUI5
- Developing apps with BAS
- UI5 Freestyle vs Fiori Elements apps
- Consuming OData services in UI5 apps
- Launchpad service & app deployment

📌 Mini Project: Create & deploy a Fiori Elements app on BTP

Module 7: Integration Suite

- Overview of SAP Integration Suite
- Cloud Integration (iFlows, adapters, APIs)
- API Management (create, secure, publish APIs)
- Event Mesh (event-driven architecture)
- Connectivity with on-prem systems via Cloud Connector

📌 Mini Project: Connect an on-prem SAP S/4HANA system with BTP via Integration Suite

Module 8: Analytics & Planning on BTP

- SAP Analytics Cloud (SAC) overview
- Data modeling, visualizations, and dashboards
- Live vs import data connections
- Predictive analytics in SAC
- Integration with HANA Cloud

📌 Mini Project: Create a sales dashboard in SAC using HANA Cloud data

Module 9: Extensions & Automation

- Extending SAP S/4HANA with BTP
- Side-by-side vs in-app extensions (Developer & Key User)
- SAP Workflow Management
- SAP Business Rules Service
- SAP Process Automation (iRPA) basics

📌 Mini Project: Automate a leave approval workflow with SAP Workflow Service

Module 10: Advanced Topics

- Kyma runtime & Kubernetes basics
- Multi-cloud strategy (AWS, Azure, GCP integration)
- Event-driven applications with Kyma + Event Mesh
- Security best practices (XSUAA, OAuth2, SAML, JWT)
- DevOps on BTP: CI/CD with GitHub Actions & Jenkins

Module 11: Real-Time Scenarios & Capstone Project

- End-to-End BTP project:

Build a CAP service → expose via OData → consume in Fiori app → integrate with SAC → deploy to Launchpad

- Industry scenarios (E-commerce, Logistics, HR automation, IoT)
- Best practices & cost optimization in BTP