Note: Before You see the Course Content, lets Read out few Basics understandings about the subject.

### What is BTP?

- SAP Business Technology Platform (SAP BTP) is a comprehensive suite of services and tools that enables businesses to integrate, extend, and innovate their SAP and third-party applications. It encompasses database and data management, analytics, application development, and intelligent technologies.
- Customers can achieve agility, business value, and continual innovation through integration, data to value, and extensibility of all Standard and third-party applications & data assets.

### **Advantages of BTP**

- Integration and Extension: Seamlessly integrates SAP and third-party applications, allowing for the extension and customization of existing solutions.
- Data Management and Analytics: Provides robust data management and real-time analytics capabilities to drive informed decision-making.
- Innovation and Flexibility: Supports rapid development and deployment of innovative applications using various development tools and services, enhancing business agility and responsiveness.

### **Major Components of BTP Training**

- Business Technology Platform (BTP)
- Cloud Foundry (CF)
- Cloud Application Programming Model (CAPM)
  - Core Data Services (CDS)
  - o Node JS

#### **Course Content.**

### NodeJS and JavaScript:

- Queries in NodeJS.
- Modules (npm Packages) in NodeJS.
- Events in NodeJS.
- Methods and Functions in NodeJS.
- Triggering Custom Actions in NodeJS.
- Async & Await in NodeJS.
- Promises in NodeJS.
- File Handling in NodeJS.
- HTTP/Rest API.
- Handling API and External Third-Party Services.
- Debugging.

#### **Introduction to BTP**

- Introduction to BTP.
- Understanding BTP Services & its Architecture.
- Setting up your BTP Account.
- Understanding BTP Regions and Landscape.
- Understanding and Creating BTP Sub Account and Directories.

## **Introduction to BTP CAP using NodeJS (Extension Suite)**

- Understanding BTP CAP using NodeJS.
- Creating your First BTP CAP Project in BAS.
- Understanding Complete Project Structure of CAP.

## **Data Modelling in SAP BTP CAP using NodeJS**

- Data Modelling in SAP BTP CAP.
- Understanding and Creating CDS in CAP.
- Implementing Entities, Attributes and Relationships in Data Modelling.
- Associations & Compositions in Data Modelling.
- Reusable Types and Aspect Concepts.

### Service Handling - OData (v2 & v4) in CAP

- Defining OData Services in CAP.
- Event Handlers in CAP.
- Custom Actions and Functions in CAP.
- Custom Business Logic in CAP.

- Virtual Elements and Calculated Fields in CAP.
- Create HTTP Files to Test Services.

### Database Management in CAP (HANA DB Cloud & SQLite)

- Overview of DB Supported by CAP.
- Understating HANA Cockpit Data Explorer in HANA Cloud Central
- Working with SAP HANA DB Cloud and SQLite.
- Creating and Managing Tables and views in SAP HANA.
- In Memory Database in DB cloud.
- Data Persistence in CAP.
- Namespace Concept and CSV Files.
- DB Deployment in CAP.
- HDI Containers and Cloud Instance.

### Creating SAPUI5 Freestyle & Fiori Elements Applications with BTP CAP

- Creating your List Report Based Fiori Application using CAP.
- Integrating CAP Services in Fiori Application.
- Implementing UI Annotations for Fiori Application.
- CRUDQ in List Report & UI5 Freestyle using BTP CAP.
- Draft Functionality in List Report using BTP CAP.
- Object Page Implementing in List Report using BTP CAP.
- Custom Actions in List Report using BTP CAP.
- Side Effects in List Report using BTP CAP.
- Side by Side Extension in List Report using BTP CAP.

### **Authorization and Authentication in BTP CAP Applications**

- XSUAA in BTP CAP.
- App Router in BTP CAP.
- Service Level Restrictions in BTP CAP.
- Scopes and Role Templates in BTP CAP.
- Role Collections in BTP.

## **Deployment of BTP CAP Projects**

- Deploying CAP Project on Cloud Foundry.
- MTA Project.
- API End Point and Service logs.
- Configuration of Fiori Applications on Cloud Foundry.
- Tile Configurations in SAP Build Work zone.
- SAP BTP Theme Designer.
- Roles, Catalogs and Groups in Site Manager.
- Spaces and Pages in Site Manager.
- Role Collections in BTP Cockpit.

# Deep dive into third-party API integration

- Understand Generic Handlers on, before, after, and How to Handle Custom Logic: Explore the use of generic handlers and custom logic in CAP services.
- Bound and Unbound Actions
- Understanding Transactions Functionality for Remote Calls
- Mock Users, Assign Roles to Mock Users.
- Get User Info in the Handlers.
- Consume ABAP on Premise S4HANA Service in CAP.
- Destinations and cloud Connector Configurations in BTP CAP.