



GLOSSARY OF SAP S/4HANA BTP RAP (ABAP RESTFUL APPLICATION PROGRAMMING MODEL)

**A Quick Reference Guide to
SAP Terminologies**

Concept/Term	Definition
SAP BTP	SAP Business Technology Platform – SAP's integrated offering combining database, data management, analytics, integration, and application development.
RAP	ABAP RESTful Application Programming Model – A framework for developing modern, cloud-ready, REST-based applications using ABAP.
ABAP	Advanced Business Application Programming – SAP's proprietary programming language used for developing enterprise applications.
RESTful	An architectural style for APIs that uses HTTP methods (GET, POST, PUT, DELETE) and stateless communication.
Managed Scenario	A RAP development approach where the framework handles common CRUD operations, reducing developer effort.

Concept/Term	Definition
Unmanaged Scenario	A RAP development style where the developer writes full implementation logic, offering more flexibility.
Behavior Definition (BDEF)	A RAP artifact that defines how business objects behave (e.g., create, update, delete) in a declarative way.
Behavior Implementation (BIMP)	The ABAP class where actual logic behind the behavior definition is implemented.
Business Object (BO)	A central RAP entity representing a real-world object, consisting of nodes, behaviors, and transactional consistency.
Projection View	A CDS view that exposes a limited or specific subset of the data from a root view to external consumers.
Root View	The base CDS view in RAP that represents the main entity (node) of a business object.

Concept/Term	Definition
CDS View	Core Data Services view – A virtual data model in ABAP used to define semantic layers over database tables.
Service Definition	A RAP artifact that exposes a CDS-based data model to the outside world as a service.
Service Binding	Defines how a RAP service is exposed (e.g., as an OData V4 service), and controls access and consumption.
OData	Open Data Protocol – A REST-based protocol used to expose and consume data in SAP systems, especially RAP.
OData V4	The latest version of OData protocol supported by RAP for improved performance, metadata handling, and features.

Concept/Term	Definition
Draft Handling	A RAP feature that allows saving incomplete data entries temporarily, enabling resume and recovery of partially filled data.
ETag	Entity Tag – A mechanism used in OData to manage concurrency control and data versioning.
Validation	A check performed before data is saved to ensure it meets defined business rules, typically defined in behavior definitions.
Authorization Check	Security validations performed to ensure users have the correct permissions to access or modify data in RAP.
Late Numbering	A RAP feature where the key for an entity is generated only upon final save, useful in draft scenarios.

Concept/Term	Definition
Early Numbering	A RAP feature where a key is generated at the time of entity creation, useful in non-draft scenarios.
Data Definition Language (DDL)	Used in ABAP CDS to define views, elements, and associations in RAP.
Data Control Language (DCL)	Defines authorization logic and access control for CDS views.
Association	A relationship defined in CDS between different data models or entities.
Composition	A RAP-specific relationship where a parent entity owns and manages the lifecycle of a child node.
Side Effects	Notifications to the UI when certain actions or updates impact other fields or entities in the model.

Concept/Term	Definition
Feature Control	Enables or disables specific features (e.g., update, delete) in the RAP service dynamically or statically.
Derived Types	Predefined structures generated from CDS views to facilitate coding in ABAP classes.
Field Control	A mechanism to define the properties of UI fields (e.g., editable, hidden, mandatory) dynamically.
Determination	Automatically executed logic in RAP that adjusts data after specific events (e.g., on creation or update).
Action	A custom-defined operation on a RAP business object, such as approve or reject, not part of standard CRUD.
Function Import	A method exposed via OData services for executing server-side logic, typically custom read-only operations.

Concept/Term	Definition
Event Handler	A method in RAP triggered by lifecycle events of a business object (e.g., validation, determination, action).
Service Consumption Model	Used to consume external services (like APIs) within RAP applications.
Metadata Extension	Enhances CDS views with UI annotations (labels, field groups) to guide UI generation.
UI Annotations	Metadata that informs Fiori/UI frameworks how to render and behave based on CDS view definitions.
SAP Fiori Elements	A framework that automatically generates UIs from CDS views and annotations, widely used with RAP.
Business Service	A representation of the exposed RAP service that interacts with external systems or frontend apps.

Concept/Term	Definition
Extensibility	The ability to enhance or adapt RAP-based apps without modifying the core logic, using techniques like in-app extensibility.
Test Double Framework (TDF)	A testing tool in ABAP used to mock dependencies during unit testing of RAP implementations.
SAP Gateway	The OData enablement framework that was used in traditional ABAP REST services but largely replaced by RAP for new developments.
Mock Server	A tool to simulate backend RAP services for testing frontend applications without backend dependency.
Code Push Down	A concept in ABAP CDS that emphasizes moving logic to the database layer for performance gains.

Concept/Term	Definition
Cloud Foundry	A cloud environment supported by SAP BTP for deploying RAP-based cloud-native applications.
Tenant Isolation	A feature of SAP BTP that ensures data and service separation between multiple customers in a multi-tenant app.
Consumption View	A CDS view used to expose data in a form ready for application or UI consumption.
Virtual Data Model (VDM)	A layered model used in S/4HANA and RAP to structure CDS views into basic, composite, and consumption layers.
ABAP RESTful Environment	The overall development environment in Eclipse for building RAP-based applications.