

Core / Built-in Types

The following table lists the built-in types available to all CDS models, and can be used to define entity elements or custom types as follows:

```
entity Books {  
    key ID : UUID;  
    title  : String(111);  
    stock  : Integer;  
    price  : Price;  
}  
type Price : Decimal;
```

cds

These types are used to define the structure of entities and services, and are mapped to respective database types when the model is deployed.

CDS Type	Remarks	ANSI SQL ⁽¹⁾
<i>UUID</i>	CAP generates RFC 4122 -compliant UUIDs ⁽²⁾	<i>NVARCHAR(36)</i>
<i>Boolean</i>	Values: <i>true</i> , <i>false</i> , <i>null</i> , <i>0</i> , <i>1</i>	<i>BOOLEAN</i>
<i>Integer</i>	Same as <i>Int32</i> by default	<i>INTEGER</i>
<i>Int16</i>	Signed 16-bit integer, range [-2^{15} ... $+2^{15}$)	<i>SMALLINT</i>
<i>Int32</i>	Signed 32-bit integer, range [-2^{31} ... $+2^{31}$)	<i>INTEGER</i>
<i>Int64</i>	Signed 64-bit integer, range [-2^{63} ... $+2^{63}$)	<i>BIGINT</i>
<i>UInt8</i>	Unsigned 8-bit integer, range [<i>0</i> ... <i>255</i>]	<i>TINYINT</i> ⁽³⁾
<i>Decimal</i> (<i>prec</i> , <i>scale</i>)	A <i>decfloat</i> type is used if arguments are omitted	<i>DECIMAL</i>
<i>Double</i>	Floating point with binary mantissa	<i>DOUBLE</i>

CDS Type	Remarks	ANSI SQL ⁽¹⁾
<i>Date</i>	e.g. 2022-12-31	DATE
<i>Time</i>	e.g. 23:59:59	TIME
<i>DateTime</i>	sec precision	TIMESTAMP
<i>Timestamp</i>	µs precision, with up to 7 fractional digits	TIMESTAMP
<i>String</i> (<i>length</i>)	Default <i>length</i> : 255; on HANA: 5000 ⁽⁴⁾⁽⁵⁾	NVARCHAR
<i>Binary</i> (<i>length</i>)	Default <i>length</i> : 255; on HANA: 5000 ⁽⁴⁾⁽⁶⁾	VARBINARY
<i>LargeBinary</i>	Unlimited data, usually streamed at runtime	BLOB
<i>LargeString</i>	Unlimited data, usually streamed at runtime	NCLOB
<i>Map</i>	Mapped to NCLOB for HANA.	JSON type
<i>Vector</i> (<i>dimension</i>)	Requires SAP HANA Cloud QRC 1/2024, or later	REAL_VECTOR

(1) Concrete mappings to specific databases may differ.

(2) See also [Best Practices](#).

(3) SMALLINT on PostgreSQL and H2.

(4) Productive apps should always use an explicit length. Use the default only for rapid prototyping.

(5) Configurable through `cds.cdsc.defaultStringLength`.

(6) Configurable through `cds.cdsc.defaultBinaryLength`.

See also...

↳ *Additional Reuse Types and Aspects by @sap/cds/common*

↳ *Mapping to OData EDM types*

↳ *HANA-native Data Types*

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