DDI Alliance Controlled Vocabulary for DataType

CV definition

Identifies the type of data, which has a bearing on the acceptable data values, the operations that can be performed with the data, and the ways in which the data are stored.

Details

CV short name: DataType
CV name: Data Type
CV notes:
This vocabulary was first published by the DDI Alliance. Please see: https://ddialliance.org/controlled-vocabularies/all. The present list is based on the W3C data types (http://www.w3.org/TR/xmlschema-2/), and includes the terms relevant for documenting research data.
Language: English (en)
Version: 1.0
Version notes:
Version changes:
Canonical URI: urn:ddi:int.ddi.cv:DataType:1.0
Agency: DDI Alliance

Code List

Code value	Code descriptive term	Code definition
String	String	Finite sequences of characters. A character is an atomic unit of written communication; it is not further specified except to note that every character has a corresponding Universal Character Set code point (which is an integer).
NormalizedString	Normalized string	Type of string in which any occurrence of whitespace (including tabs, line feeds, and carriage returns) is replaced by a single space.
Boolean	Boolean	True or false. Can be represented by 1 and 0 correspondingly.
Decimal	Decimal	A subset of real numbers, which can be represented by a finite-length sequence of decimal digits (0-9) separated by a period as a decimal indicator. An optional leading sign is allowed. If the sign is omitted, "+" is assumed. Leading and trailing zeroes are

		optional. If the fractional part is zero, the period and following zero(es) can be omitted. For example: -1.23, 12678967.543233, +100000.00, 210.
Integer	Integer	Whole numbers, the infinite set of integers, no minimum or maximum value.
PositiveInteger	Positive integer	Whole numbers greater than 0.
NegativeInteger	Negative integer	Whole numbers less than 0.
NonNegativeInteger	Non-negative integer	Whole numbers greater than -1.
NonPositiveInteger	Non-positive integer	Whole numbers less than 1.
Long	Long	Whole numbers in the range -9223372036854775808 .. 9223372036854775807.
Int	Int	Whole numbers in the range -2147483648 .. 2147483647.
Short	Short	Whole numbers in the range -32768 .. 32767.
Byte	Byte	Whole numbers in the range -128 .. 127.
UnsignedLong	Unsigned long	Whole numbers in the range 0 .. 18446744073709551615.
UnsignedInt	Unsigned int	Whole numbers in the range 0 .. 4294967295.
UnsignedShort	Unsigned short	Whole numbers in the range 0 .. 65535.
UnsignedByte	Unsigned byte	Whole numbers in the range 0 .. 255 (system dependent).
Float	Float	Single-precision 32-bit floating point type: The basic value space of float consists of the values m2 to the power of e, where m is an integer whose absolute value is less than 2 to the power of 24, and e is an integer between -149 and 104, inclusive. In addition, it also contains the following three special values: positive and negative infinity and not-a-number (NaN). The special values positive and negative infinity and not-a-number have lexical representations INF, -INF and NaN, respectively. Lexical representations for zero may take a positive or negative sign. For example, -1E4, 1267.43233E12, 12.78e-2, 12 , -0, 0 and INF are all legal literals for float.
Double	Double	Double-precision 64-bit floating point type. The basic value space of double consists of the values m 2 to the power of e, where m is an integer whose absolute value is less than 2 to the power of 53, and e is an integer between -1075 and 970, inclusive. In addition to the basic value space described above, the value space of double also contains the following three special values: positive and negative infinity and not-a-number (NaN). The special values positive and negative infinity and not-a-number have lexical representations INF, -INF and NaN, respectively. Lexical representations for zero may take a positive or negative sign. For example, -1E4, 1267.43233E12, 12.78e-2, 12 , -0, 0 and INF are all legal literals for double.
DateTime	DateTime	Integer-valued year, month, day, hour and minute, plus

		decimal-valued second property, and time zone hour and minute (e.g., 2002-10-10T12:00:00-05:00).
Time	Time	Left-truncated dateTime, e.g., 13:20:00-05:00 (1:20 pm for Eastern Standard Time U.S.).
Date	Date	Integer-valued year, month, day, and time zone hour and minutes, e.g., 2003-06-30-05:00 (30 June 2003 Eastern Standard Time U.S.).
GYearMonth	YearMonth	Integer-valued year and month, e.g., 2004-11.
GYear	Year	Integer-valued year, e.g., 2005.
GMonthDay	MonthDay	Integer-valued month and day, e.g., 12-31.
GDay	Day	Integer-valued day, e.g., 24.
GMonth	Month	Integer-valued month, e.g., 03.
Duration	Duration	A duration of time. The value space of "duration" is a six-dimensional space in which the coordinates designate the Gregorian year, month, day, hour, minute, and second components as defined in ISO 8601. These components are ordered in their significance by their order of appearance as year, month, day, hour, minute, and second. The lexical representation of duration is the extended format PnYnMnDTnHnMnS, where P is the flag for duration (i. e., Period) and is constant, nY represents the number of years, nM the number of months, nD the number of days, T is the date/time separator, nH the number of hours, nM the number of minutes and nS the number of seconds. The number of seconds can include decimal digits to arbitrary precision. For example, to indicate a duration of 1 year, 2 months, 3 days, 10 hours, and 30 minutes, one would write: "P1Y2M3DT10H30M." An optional preceding minus sign ("-") is allowed, to indicate a negative duration: a duration of minus 120 days would be indicated as: "-P120D" (from: http://www.w3.org/TR/xmlschema-2/#duration).
HexBinary	hexBinary	Even-lengthed sequence of hexadecimal digits representing an N times 8-bit integer.
Base64Binary	base64Binary	Sequence of multiples of four base64 digits, where each 4-tuple represents a 24-bit integer. Each digit (a-z, A-Z, 0-9, +, /) represents a 6-bit integer between 0 and 63.
AnyURI	anyURI	A Uniform Resource Identifier such as ftp, http or mailto, e.g., http://www.w3.org/TR/xmlschema-2.
Other	Other	Use if the data type is known, but not found in the list.

Usage

DDI 3.2
Module name: reusable
Element name: DefaultDataType
RecommendedDataType

DDI 2.5
Element/Attribute name: varFormat@category

Copyright and License

Citation: DDI Alliance. (2019). Data Type (Version 1.0) [Controlled vocabulary]. CESSDA. urn:ddi:int.ddi.cv:DataType:1.0. Available from: http://vocabularies.cessda.eu:80/urn/urn:ddi:int.ddi.cv:DataType:1.0