Package ‘stencilaschema’

October 14, 2022

**Title**  Bindings for Stencila Schema

**Description**  Provides R bindings for the Stencila Schema <https://schema.stenci.la>. This package is primarily aimed at R developers wanting to programmatically generate, or modify, executable documents.

**URL**  https://github.com/stencila/schema#readme

**BugReports**  https://github.com/stencila/schema/issues

**License**  Apache License (>= 2)

**Language**  en-gb

**Version**  1.0.0

**Encoding**  UTF-8

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**Collate**  ‘typing.R’ ‘types.R’

**NeedsCompilation**  no

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### Any

**Description**
Any type

**Usage**
Any()

**Value**
A list of class Any

**Examples**
Any()

### Array

**Description**
Array type

**Usage**
Array(items)

**Arguments**
- **items**
  The type that items in the array should be

**Value**
A list of class Array describing the valid items of an array

**Examples**
Array(numeric)
Array("numeric")
Array(Person)
Array(Union(character, Person))
ArrayValidator

A validator specifying constraints on an array node.

Description

A validator specifying constraints on an array node.

Usage

ArrayValidator(
    contains,
    id,
    itemsValidator,
    maxItems,
    meta,
    minItems,
    uniqueItems
)

Arguments

contains An array node is valid if at least one of its items is valid against the contains schema.

id The identifier for this item.

itemsValidator Another validator node specifying the constraints on all items in the array.

maxItems An array node is valid if its size is less than, or equal to, this value.

meta Metadata associated with this item.

minItems An array node is valid if its size is greater than, or equal to, this value.

uniqueItems A flag to indicate that each value in the array should be unique.

Value

A list of class ArrayValidator

See Also

Entity
Article

An article, including news and scholarly articles.

Description

An article, including news and scholarly articles.

Usage

```python
Article(
    about,
    alternateNames, 
    authors,
    comments,
    content,
    dateAccepted, 
    dateCreated, 
    dateModified, 
    datePublished, 
    dateReceived, 
    description,
    editors,
    fundedBy,
    funders,
    genre, 
    id,
    identifiers,
    images,
    isPartOf,
    keywords,
    licenses,
    maintainers, 
    meta,
    name, 
    pageEnd,
    pageStart,
    pagination, 
    parts, 
    publisher, 
    references, 
    text, 
    title, 
    url, 
    version
)
```
Arguments

about The subject matter of the content.
alternateNames Alternate names (aliases) for the item.
authors The authors of this creative work.
comments Comments about this creative work.
content The structured content of this creative work c.f. property text.
dateAccepted Date/time of acceptance.
dateCreated Date/time of creation.
dateModified Date/time of most recent modification.
datePublished Date of first publication.
dateReceived Date/time that work was received.
description A description of the item.
editors People who edited the CreativeWork.
fundedBy Grants that funded the CreativeWork; reverse of fundedItems.
funders People or organizations that funded the CreativeWork.
genre Genre of the creative work, broadcast channel or group.
id The identifier for this item.
identifiers Any kind of identifier for any kind of Thing.
images Images of the item.
isPartOf An item or other CreativeWork that this CreativeWork is a part of.
keywords Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.
licenses License documents that applies to this content, typically indicated by URL.
maintainers The people or organizations who maintain this CreativeWork.
meta Metadata associated with this item.
name The name of the item.
pagination Any description of pages that is not separated into pageStart and pageEnd; for example, "1-6, 9, 55".
parts Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.
publisher A publisher of the CreativeWork.
references References to other creative works, such as another publication, web page, scholarly article, etc.
text The textual content of this creative work.
title The title of the creative work.
url The URL of the item.
version The version of the creative work.
as_type

Value
A list of class Article

See Also
CreativeWork

as_scalar
Declare that a node is scalar

Description
Declare that a node is scalar

Usage
as_scalar(node)

Arguments
node The node to declare as a scalar

Value
The node with the scalar class added to it

as_type
Coerce a value to conform to the type Principally, marks values as scalar where possible

Description
Coerce a value to conform to the type Principally, marks values as scalar where possible

Usage
as_type(value, type)

Arguments
value The value to coerce
type The type to coerce it to

Value
The value, possibly coerced to the type
AudioObject

An audio file

Description

An audio file

Usage

AudioObject(
    contentUrl,
    about,
    alternateNames,
    authors,
    bitrate,
    caption,
    comments,
    content,
    contentSize,
    dateAccepted,
    dateCreated,
    dateModified,
    datePublished,
    dateReceived,
    description,
    editors,
    embedUrl,
    format,
    fundedBy,
    funders,
    genre,
    id,
    identifiers,
    images,
    isPartOf,
    keywords,
    licenses,
    maintainers,
    meta,
    name,
    parts,
    publisher,
    references,
    text,
    title,
    transcript,
    url,
version
)

Arguments

**contentUrl** URL for the actual bytes of the media object, for example the image file or video file. **Required.**

**about** The subject matter of the content.

**alternateNames** Alternate names (aliases) for the item.

**authors** The authors of this creative work.

**bitrate** Bitrate in megabits per second (Mbit/s, Mb/s, Mbps).

**caption** The caption for this audio recording.

**comments** Comments about this creative work.

**content** The structured content of this creative work c.f. property text.

**contentSize** File size in megabits (Mbit, Mb).

**dateAccepted** Date/time of acceptance.

**dateCreated** Date/time of creation.

**dateModified** Date/time of most recent modification.

**datePublished** Date of first publication.

**dateReceived** Date/time that work was received.

**description** A description of the item.

**editors** People who edited the CreativeWork.

**embedUrl** URL that can be used to embed the media on a web page via a specific media player.

**format** Media type (MIME type) as per http://www.iana.org/assignments/media-types/media-types.xhtml.

**fundedBy** Grants that funded the CreativeWork; reverse of fundedItems.

**funders** People or organizations that funded the CreativeWork.

**genre** Genre of the creative work, broadcast channel or group.

**id** The identifier for this item.

**identifiers** Any kind of identifier for any kind of Thing.

**images** Images of the item.

**isPartOf** An item or other CreativeWork that this CreativeWork is a part of.

**keywords** Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.

**licenses** License documents that applies to this content, typically indicated by URL.

**maintainers** The people or organizations who maintain this CreativeWork.

**meta** Metadata associated with this item.

**name** The name of the item.
BlockContent

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>parts</td>
<td>Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.</td>
</tr>
<tr>
<td>publisher</td>
<td>A publisher of the CreativeWork.</td>
</tr>
<tr>
<td>references</td>
<td>References to other creative works, such as another publication, web page, scholarly article, etc.</td>
</tr>
<tr>
<td>text</td>
<td>The textual content of this creative work.</td>
</tr>
<tr>
<td>title</td>
<td>The title of the creative work.</td>
</tr>
<tr>
<td>transcript</td>
<td>The transcript of this audio recording.</td>
</tr>
<tr>
<td>url</td>
<td>The URL of the item.</td>
</tr>
<tr>
<td>version</td>
<td>The version of the creative work.</td>
</tr>
</tbody>
</table>

Value

A list of class AudioObject

See Also

MediaObject

---

**Description**

Union type for valid block content.

**Usage**

BlockContent

**Format**

An object of class Union of length 1.

**Value**

A list of class Union describing valid subtypes of this type
### BooleanValidator

*A schema specifying that a node must be a boolean value.*

**Description**

A schema specifying that a node must be a boolean value.

**Usage**

BooleanValidator(id, meta)

**Arguments**

- **id**
  - The identifier for this item.
- **meta**
  - Metadata associated with this item.

**Value**

A list of class BooleanValidator

**See Also**

Entity

### Brand

*A brand used by an organization or person for labeling a product, product group, or similar.*

**Description**

A brand used by an organization or person for labeling a product, product group, or similar.

**Usage**

Brand(
    name,
    alternateNames,
    description,
    id,
    identifiers,
    images,
    logo,
    meta,
    reviews,
    url
)
check_property

Arguments

- **name**: The name of the item. **Required**.
- **alternateNames**: Alternate names (aliases) for the item.
- **description**: A description of the item.
- **id**: The identifier for this item.
- **identifiers**: Any kind of identifier for any kind of Thing.
- **images**: Images of the item.
- **logo**: A logo associated with the brand.
- **meta**: Metadata associated with this item.
- **reviews**: Reviews of the brand.
- **url**: The URL of the item.

Value

A list of class Brand

See Also

**Thing**

---

check_property **Check that a value is present if required and conforms to the specified type for a property.**

Description

Check that a value is present if required and conforms to the specified type for a property.

Usage

check_property(type_name, property_name, is_required, is_missing, type, value)

Arguments

- **type_name**: The name of the type that they property is on
- **property_name**: The name of the property
- **is_required**: Is a value for the property required?
- **is_missing**: Is a value for the property missing?
- **type**: The type to check against
- **value**: The value to check

Value

The value, if it is valid, nothing otherwise
A reference to a CreativeWork that is cited in another CreativeWork.

Usage

```plaintext
Cite(
    target,    
citationMode, 
    content,    
id,         
meta,       
pageEnd,    
pageStart,  
pagination, 
prefix,     
suffix
)
```

Arguments

- **target**: The target of the citation (URL or reference ID). **Required**.
- **citationMode**: How the cite is rendered in the surrounding text.
- **content**: Optional structured content/text of this citation.
- **id**: The identifier for this item.
- **meta**: Metadata associated with this item.
- **pageEnd**: The page on which the work ends; for example "138" or "xvi".
- **pageStart**: The page on which the work starts; for example "135" or "xiii".
- **pagination**: Any description of pages that is not separated into pageStart and pageEnd; for example, "1-6, 9, 55".
- **prefix**: A prefix to show before the citation.
- **suffix**: A suffix to show after the citation.

Value

A list of class Cite

See Also

Entity
CiteGroup

A group of Cite nodes

Description

A group of Cite nodes

Usage

CiteGroup(items, id, meta)

Arguments

items One or more Cites to be referenced in the same surrounding text. Required.
id The identifier for this item.
meta Metadata associated with this item.

Value

A list of class CiteGroup

See Also

Entity

Code

Base type for code nodes e.g. CodeBlock, CodeExpression.

Description

Base type for code nodes e.g. CodeBlock, CodeExpression.

Usage

Code(text, format, id, meta, programmingLanguage)

Arguments

text The text of the code. Required.
format Media type, typically expressed using a MIME format, of the code.
id The identifier for this item.
meta Metadata associated with this item.
programmingLanguage The programming language of the code.
Value

A list of class Code

See Also

Entity

<table>
<thead>
<tr>
<th>CodeBlock</th>
<th>A code block.</th>
</tr>
</thead>
</table>

Description

A code block.

Usage

CodeBlock(text, exportFrom, format, id, importTo, meta, programmingLanguage)

Arguments

text  The text of the code. Required.
exportFrom  A compilation directive giving the name of the variable to export into the content of the code block.
format  Media type, typically expressed using a MIME format, of the code.
id  The identifier for this item.
importTo  A compilation directive giving the name of the variable to import the content of the code block as.
meta  Metadata associated with this item.
programmingLanguage  The programming language of the code.

Value

A list of class CodeBlock

See Also

Code
CodeBlockTypes

All type schemas that are derived from CodeBlock

Description
All type schemas that are derived from CodeBlock

Usage
CodeBlockTypes

Format
An object of class Union of length 1.

Value
A list of class Union describing valid subtypes of this type

CodeChunk
A executable chunk of code.

Description
A executable chunk of code.

Usage
CodeChunk(
    text,
    alters,
    assigns,
    caption,
    declares,
    duration,
    errors,
    exportFrom,
    format,
    id,
    importTo,
    imports,
    label,
    meta,
    outputs,
    programmingLanguage,
    reads,
    uses
)
Arguments

text  The text of the code. **Required.**
alters  Names of variables that the code chunk alters.
assigns  Variables that the code chunk assigns to.
caption  A caption for the CodeChunk.
declares  Variables that the code chunk declares.
duration  Duration in seconds of the last execution of the chunk.
errors  Errors when compiling or executing the chunk.
exportFrom  A compilation directive giving the name of the variable to export into the content of the code block.
format  Media type, typically expressed using a MIME format, of the code.
id  The identifier for this item.
importTo  A compilation directive giving the name of the variable to import the content of the code block as.
imports  Software packages that the code chunk imports
label  A short label for the CodeChunk.
meta  Metadata associated with this item.
outputs  Outputs from executing the chunk.
programmingLanguage  The programming language of the code.
reads  Filesystem paths that this code chunk reads from.
uses  Names of variables that the code chunk uses (but does not alter).

Value

A list of class CodeChunk

See Also

CodeBlock

Examples

CodeChunk(
  programmingLanguage = "r",
  text = "plot(1)",
  label = "Figure 1",
  id = "fig1",
  caption = list(
    Heading(
      content = list("Figure title"),
      depth = 2
    ),
    Paragraph(
      ...
    )
  )
)
content = list(
    "A paragraph with some",
    Strong(content = list("strong emphasis")),
    "in it."
)
)
)
)

<table>
<thead>
<tr>
<th>CodeError</th>
<th>An error that occurred when parsing, compiling or executing a Code node.</th>
</tr>
</thead>
</table>

**Description**

An error that occurred when parsing, compiling or executing a Code node.

**Usage**

CodeError(errorMessage, errorType, id, meta, stackTrace)

**Arguments**

- **errorMessage** The error message or brief description of the error. **Required.**
- **errorType** The type of error e.g. "SyntaxError", "ZeroDivisionError".
- **id** The identifier for this item.
- **meta** Metadata associated with this item.
- **stackTrace** Stack trace leading up to the error.

**Value**

A list of class CodeError

**See Also**

Entity
CodeExpression

An expression defined in programming language source code.

Description

An expression defined in programming language source code.

Usage

CodeExpression(text, errors, format, id, meta, output, programmingLanguage)

Arguments

text    The text of the code. Required.
errors  Errors when compiling or executing the chunk.
format  Media type, typically expressed using a MIME format, of the code.
id      The identifier for this item.
meta    Metadata associated with this item.
output  The value of the expression when it was last evaluated.
programmingLanguage  The programming language of the code.

Value

A list of class CodeExpression

See Also

CodeFragment

CodeFragment

Inline code.

Description

Inline code.

Usage

CodeFragment(text, format, id, meta, programmingLanguage)
Arguments

text  The text of the code. **Required.**
format  Media type, typically expressed using a MIME format, of the code.
id  The identifier for this item.
meta  Metadata associated with this item.
programmingLanguage  The programming language of the code.

Value

A list of class CodeFragment

See Also

Code

Description

All type schemas that are derived from CodeFragment

Usage

CodeFragmentTypes

Format

An object of class Union of length 1.

Value

A list of class Union describing valid subtypes of this type
Collection

CodeTypes  
All type schemas that are derived from Code

Description
All type schemas that are derived from Code

Usage
CodeTypes

Format
An object of class Union of length 1.

Value
A list of class Union describing valid subtypes of this type

Collection  
A created collection of CreativeWorks or other artefacts.

Description
A created collection of CreativeWorks or other artefacts.

Usage
Collection(  
parts,
about,
alternateNames,
authors,
comments,
content,
dateAccepted,
dateCreated,
dateModified,
datePublished,
dateReceived,
description,
editors,
fundedBy,
funders,
genre,
id,
identifiers, images, isPartOf, keywords, licenses, maintainers, meta, name, publisher, references, text, title, url, version
)

Arguments

parts Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more. Required.
about The subject matter of the content.
alternateNames Alternate names (aliases) for the item.
authors The authors of this creative work.
comments Comments about this creative work.
content The structured content of this creative work c.f. property text.
dateAccepted Date/time of acceptance.
dateCreated Date/time of creation.
dateModified Date/time of most recent modification.
datePublished Date of first publication.
dateReceived Date/time that work was received.
description A description of the item.
editors People who edited the CreativeWork.
fundedBy Grants that funded the CreativeWork; reverse of fundedItems.
funders People or organizations that funded the CreativeWork.
genre Genre of the creative work, broadcast channel or group.
id The identifier for this item.
identifiers Any kind of identifier for any kind of Thing.
images Images of the item.
isPartOf An item or other CreativeWork that this CreativeWork is a part of.
keywords Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.
licenses License documents that applies to this content, typically indicated by URL.
maintainers  The people or organizations who maintain this CreativeWork.
meta        Metadata associated with this item.
name        The name of the item.
publisher   A publisher of the CreativeWork.
references  References to other creative works, such as another publication, web page, scholarly article, etc.
text        The textual content of this creative work.
title       The title of the creative work.
url         The URL of the item.
version     The version of the creative work.

Value
A list of class Collection

See Also
CreativeWork

Comment

A comment on an item, e.g. on a Article, or SoftwareSourceCode.

Description
A comment on an item, e.g. on a Article, or SoftwareSourceCode.

Usage
Comment(
    about,
    alternateNames,
    authors,
    commentAspect,
    comments,
    content,
    dateAccepted,
    dateCreated,
    dateModified,
    datePublished,
    dateReceived,
    description,
    editors,
    fundedBy,
    funders,
    genre,
id, identifiers, images, isPartOf, keywords, licenses, maintainers, meta, name, parentItem, parts, publisher, references, text, title, url, version
)

Arguments

about The subject matter of the content.
alternateNames Alternate names (aliases) for the item.
authors The authors of this creative work.
commentAspect The part or facet of the item that is being commented on.
comments Comments about this creative work.
content The structured content of this creative work c.f. property text.
dateAccepted Date/time of acceptance.
dateCreated Date/time of creation.
dateModified Date/time of most recent modification.
datePublished Date of first publication.
dateReceived Date/time that work was received.
description A description of the item.
editors People who edited the CreativeWork.
fundedBy Grants that funded the CreativeWork; reverse of fundedItems.
funders People or organizations that funded the CreativeWork.
genre Genre of the creative work, broadcast channel or group.
id The identifier for this item.
identifiers Any kind of identifier for any kind of Thing.
images Images of the item.
isPartOf An item or other CreativeWork that this CreativeWork is a part of.
keywords Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.
ConstantValidator

A validator specifying a constant value that a node must have.

Description

A validator specifying a constant value that a node must have.

Usage

ConstantValidator(id, meta, value)

Arguments

id The identifier for this item.
meta Metadata associated with this item.
value The value associated with the node.

Value

A list of class ConstantValidator

See Also

Entity
Description

A contact point, for example, a R&D department.

Usage

ContactPoint(
    alternateNames,
    availableLanguages,
    description,
    emails,
    id,
    identifiers,
    images,
    meta,
    name,
    telephoneNumbers,
    url
)

Arguments

alternateNames  Alternate names (aliases) for the item.
availableLanguages
    Languages (human not programming) in which it is possible to communicate
    with the organization/department etc.
description  A description of the item.
emails  Email address for correspondence.
id  The identifier for this item.
identifiers  Any kind of identifier for any kind of Thing.
images  Images of the item.
meta  Metadata associated with this item.
name  The name of the item.
televisionNumbers  Telephone numbers for the contact point.
url  The URL of the item.

Value

A list of class ContactPoint
See Also

Thing

---

ContactPointTypes  
All type schemas that are derived from ContactPoint

---

Description

All type schemas that are derived from ContactPoint

Usage

ContactPointTypes

Format

An object of class Union of length 1.

Value

A list of class Union describing valid subtypes of this type

---

CreativeWork  
A creative work, including books, movies, photographs, software programs, etc.

---

Description

A creative work, including books, movies, photographs, software programs, etc.

Usage

CreativeWork(
    about,
    alternateNames,
    authors,
    comments,
    content,
    dateAccepted,
    dateCreated,
    dateModified,
    datePublished,
    dateReceived,
    description,
    editors,
Arguments

about The subject matter of the content.
alternateNames Alternate names (aliases) for the item.
authors The authors of this creative work.
comments Comments about this creative work.
content The structured content of this creative work c.f. property text.
dateAccepted Date/time of acceptance.
dateCreated Date/time of creation.
dateModified Date/time of most recent modification.
datePublished Date of first publication.
dateReceived Date/time that work was received.
description A description of the item.
editors People who edited the CreativeWork.
fundedBy Grants that funded the CreativeWork; reverse of fundedItems.
funders People or organizations that funded the CreativeWork.
genre Genre of the creative work, broadcast channel or group.
id The identifier for this item.
identifiers Any kind of identifier for any kind of Thing.
images Images of the item.
isPartOf An item or other CreativeWork that this CreativeWork is a part of.
keywords
Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.

licenses
License documents that applies to this content, typically indicated by URL.

maintainers
The people or organizations who maintain this CreativeWork.

meta
Metadata associated with this item.

name
The name of the item.

parts
Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.

publisher
A publisher of the CreativeWork.

references
References to other creative works, such as another publication, web page, scholarly article, etc.

text
The textual content of this creative work.

title
The title of the creative work.

url
The URL of the item.

version
The version of the creative work.

Value
A list of class CreativeWork

See Also
Thing

CreativeWorkTypes

All type schemas that are derived from CreativeWork

Description
All type schemas that are derived from CreativeWork

Usage
CreativeWorkTypes

Format
An object of class Union of length 1.

Value
A list of class Union describing valid subtypes of this type
Datatable

A table of data.

Description

A table of data.

Usage

```python
Datatable(
    columns,
    about,
    alternateNames,
    authors,
    comments,
    content,
    dateAccepted,
    dateCreated,
    dateModified,
    datePublished,
    dateReceived,
    description,
    editors,
    fundedBy,
    funders,
    genre,
    id,
    identifiers,
    images,
    isPartOf,
    keywords,
    licenses,
    maintainers,
    meta,
    name,
    parts,
    publisher,
    references,
    text,
    title,
    url,
    version
)
```

Arguments

- **columns**  The columns of data. **Required.**
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>about</td>
<td>The subject matter of the content.</td>
</tr>
<tr>
<td>alternateNames</td>
<td>Alternate names (aliases) for the item.</td>
</tr>
<tr>
<td>authors</td>
<td>The authors of this creative work.</td>
</tr>
<tr>
<td>comments</td>
<td>Comments about this creative work.</td>
</tr>
<tr>
<td>content</td>
<td>The structured content of this creative work c.f. property text.</td>
</tr>
<tr>
<td>dateAccepted</td>
<td>Date/time of acceptance.</td>
</tr>
<tr>
<td>dateCreated</td>
<td>Date/time of creation.</td>
</tr>
<tr>
<td>dateModified</td>
<td>Date/time of most recent modification.</td>
</tr>
<tr>
<td>datePublished</td>
<td>Date of first publication.</td>
</tr>
<tr>
<td>dateReceived</td>
<td>Date/time that work was received.</td>
</tr>
<tr>
<td>description</td>
<td>A description of the item.</td>
</tr>
<tr>
<td>editors</td>
<td>People who edited the CreativeWork.</td>
</tr>
<tr>
<td>fundedBy</td>
<td>Grants that funded the CreativeWork; reverse of fundedItems.</td>
</tr>
<tr>
<td>funders</td>
<td>People or organizations that funded the CreativeWork.</td>
</tr>
<tr>
<td>genre</td>
<td>Genre of the creative work, broadcast channel or group.</td>
</tr>
<tr>
<td>id</td>
<td>The identifier for this item.</td>
</tr>
<tr>
<td>identifiers</td>
<td>Any kind of identifier for any kind of Thing.</td>
</tr>
<tr>
<td>images</td>
<td>Images of the item.</td>
</tr>
<tr>
<td>isPartOf</td>
<td>An item or other CreativeWork that this CreativeWork is a part of.</td>
</tr>
<tr>
<td>keywords</td>
<td>Keywords or tags used to describe this content. Multiple entries in a keywords</td>
</tr>
<tr>
<td></td>
<td>list are typically delimited by commas.</td>
</tr>
<tr>
<td>licenses</td>
<td>License documents that applies to this content, typically indicated by URL.</td>
</tr>
<tr>
<td>maintainers</td>
<td>The people or organizations who maintain this CreativeWork.</td>
</tr>
<tr>
<td>meta</td>
<td>Metadata associated with this item.</td>
</tr>
<tr>
<td>name</td>
<td>The name of the item.</td>
</tr>
<tr>
<td>parts</td>
<td>Elements of the collection which can be a variety of different elements, such</td>
</tr>
<tr>
<td></td>
<td>as Articles, Datatables, Tables and more.</td>
</tr>
<tr>
<td>publisher</td>
<td>A publisher of the CreativeWork.</td>
</tr>
<tr>
<td>references</td>
<td>References to other creative works, such as another publication, web page,</td>
</tr>
<tr>
<td></td>
<td>scholarly article, etc.</td>
</tr>
<tr>
<td>text</td>
<td>The textual content of this creative work.</td>
</tr>
<tr>
<td>title</td>
<td>The title of the creative work.</td>
</tr>
<tr>
<td>url</td>
<td>The URL of the item.</td>
</tr>
<tr>
<td>version</td>
<td>The version of the creative work.</td>
</tr>
</tbody>
</table>

**Value**

A list of class Datatable

**See Also**

CreativeWork
**DatatableColumn**

A column of data within a Datatable.

**Description**

A column of data within a Datatable.

**Usage**

```python
DatatableColumn(
    name,
    values,
    alternateNames,
    description,
    id,
    identifiers,
    images,
    meta,
    url,
    validator
)
```

**Arguments**

- `name` The name of the item. **Required.**
- `values` The data values of the column. **Required.**
- `alternateNames` Alternate names (aliases) for the item.
- `description` A description of the item.
- `id` The identifier for this item.
- `identifiers` Any kind of identifier for any kind of Thing.
- `images` Images of the item.
- `meta` Metadata associated with this item.
- `url` The URL of the item.
- `validator` The validator to use to validate data in the column.

**Value**

A list of class DatatableColumn

**See Also**

- [Thing](#)
**Date**

A date encoded as a ISO 8601 string.

**Description**

A date encoded as a ISO 8601 string.

**Usage**

Date(value, id, meta)

**Arguments**

- **value**: The date as an ISO 8601 string. **Required**.
- **id**: The identifier for this item.
- **meta**: Metadata associated with this item.

**Value**

A list of class Date

**See Also**

Entity

---

**DefinedTerm**

A word, name, acronym, phrase, etc. with a formal definition.

**Description**

A word, name, acronym, phrase, etc. with a formal definition.

**Usage**

DefinedTerm(
    name,
    alternateNames,
    description,
    id,
    identifiers,
    images,
    meta,
    termCode,
    url
)
Delete

Arguments

- name: The name of the item. **Required.**
- alternateNames: Alternate names (aliases) for the item.
- description: A description of the item.
- id: The identifier for this item.
- identifiers: Any kind of identifier for any kind of Thing.
- images: Images of the item.
- meta: Metadata associated with this item.
- termCode: A code that identifies this DefinedTerm within a DefinedTermSet.
- url: The URL of the item.

Value

A list of class DefinedTerm

See Also

- Thing

---

**Delete**

*Content that is marked for deletion*

Description

Content that is marked for deletion

Usage

Delete(content, id, meta)

Arguments

- content: The content that is marked. **Required.**
- id: The identifier for this item.
- meta: Metadata associated with this item.

Value

A list of class Delete

See Also

- Mark
Emphasis

Emphasised content.

Description

Emphasised content.

Usage

Emphasis(content, id, meta)

Arguments

- content: The content that is marked. **Required.**
- id: The identifier for this item.
- meta: Metadata associated with this item.

Value

A list of class Emphasis

See Also

Mark

Entity

The most simple compound (ie. non-atomic like number, string etc) type.

Description

The most simple compound (ie. non-atomic like number, string etc) type.

Usage

Entity(id, meta)

Arguments

- id: The identifier for this item.
- meta: Metadata associated with this item.

Value

A list of class Entity
**EntityTypes**

*All type schemas that are derived from Entity*

---

**Description**

All type schemas that are derived from Entity

**Usage**

EntityTypes

**Format**

An object of class Union of length 1.

**Value**

A list of class Union describing valid subtypes of this type

---

**Enum**

*An enumeration*

---

**Description**

An enumeration

**Usage**

Enum(...)

**Arguments**

...  The values in the enumeration

**Value**

A list of class Enum describing the valid values in an enumeration

**Examples**

Enum("apple", "pear", "orange")
EnumValidator  

**A schema specifying that a node must be one of several values.**

**Description**

A schema specifying that a node must be one of several values.

**Usage**

EnumValidator(id, meta, values)

**Arguments**

- **id**  
  The identifier for this item.

- **meta**  
  Metadata associated with this item.

- **values**  
  A node is valid if it is equal to any of these values.

**Value**

A list of class EnumValidator

**See Also**

Entity

---

**Figure**

**Encapsulates one or more images, videos, tables, etc, and provides captions and labels for them.**

**Description**

Encapsulates one or more images, videos, tables, etc, and provides captions and labels for them.

**Usage**

Figure(
  about,
  alternateNames,
  authors,
  caption,
  comments,
  content,
  dateAccepted,
  dateCreated,
  dateModified,
Arguments about The subject matter of the content.
alternateNames Alternate names (aliases) for the item.
authors The authors of this creative work.
caption A caption for the figure.
comments Comments about this creative work.
content The structured content of this creative work c.f. property text.
dateAccepted Date/time of acceptance.
dateCreated Date/time of creation.
dateModified Date/time of most recent modification.
datePublished Date of first publication.
dateReceived Date/time that work was received.
description A description of the item.
editors People who edited the CreativeWork.
fundedBy Grants that funded the CreativeWork; reverse of fundedItems.
funders People or organizations that funded the CreativeWork.
genre Genre of the creative work, broadcast channel or group.
id
identifiers
images
isPartOf
keywords
label
licenses
maintainers
meta
name
parts
publisher
references
text
title
url
version

Value

A list of class Figure

See Also

CreativeWork

Function

A function with a name, which might take Parameters and return a value of a certain type.

Description

A function with a name, which might take Parameters and return a value of a certain type.

Usage

Function(id, meta, name, parameters, returns)
Grant

Arguments

- id: The identifier for this item.
- meta: Metadata associated with this item.
- name: The name of the function.
- parameters: The parameters of the function.
- returns: The return type of the function.

Value

A list of class Function

See Also

Entity

Description

A grant, typically financial or otherwise quantifiable, of resources.

Usage

Grant(
    alternateNames,  
    description,  
    fundedItems,  
    id,  
    identifiers,  
    images,  
    meta,  
    name,  
    sponsors,  
    url
)

Arguments

- alternateNames: Alternate names (aliases) for the item.
- description: A description of the item.
- fundedItems: Indicates an item funded or sponsored through a Grant.
- id: The identifier for this item.
- identifiers: Any kind of identifier for any kind of Thing.
GrantTypes

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>images</td>
<td>Images of the item.</td>
</tr>
<tr>
<td>meta</td>
<td>Metadata associated with this item.</td>
</tr>
<tr>
<td>name</td>
<td>The name of the item.</td>
</tr>
<tr>
<td>sponsors</td>
<td>A person or organization that supports a thing through a pledge, promise, or financial contribution.</td>
</tr>
<tr>
<td>url</td>
<td>The URL of the item.</td>
</tr>
</tbody>
</table>

Value

A list of class Grant

See Also

Thing

GrantTypes

All type schemas that are derived from Grant

Description

All type schemas that are derived from Grant

Usage

GrantTypes

Format

An object of class Union of length 1.

Value

A list of class Union describing valid subtypes of this type
Description

Heading

Usage

Heading(content, depth, id, meta)

Arguments

- content: Content of the heading. Required.
- depth: The depth of the heading.
- id: The identifier for this item.
- meta: Metadata associated with this item.

Value

A list of class Heading

See Also

Entity

ImageObject

An image file.

Description

An image file.

Usage

ImageObject(
    contentUrl,
    about,
    alternateNames,
    authors,
    bitrate,
    caption,
    comments,
    content,
    contentSize,
 Arguments

  contentUrl   URL for the actual bytes of the media object, for example the image file or video file. **Required.**
  about        The subject matter of the content.
  alternateNames Alternate names (aliases) for the item.
  authors      The authors of this creative work.
  bitrate      Bitrate in megabits per second (Mbit/s, Mb/s, Mbps).
  caption      The caption for this image.
  comments     Comments about this creative work.
  content      The structured content of this creative work c.f. property text.
  contentSize  File size in megabits (Mbit, Mb).
  dateAccepted Date/time of acceptance.
  dateCreated  Date/time of creation.
  dateModified Date/time of most recent modification.
**ImageObject**

- datePublished
  - Date of first publication.
- dateReceived
  - Date/time that work was received.
- description
  - A description of the item.
- editors
  - People who edited the CreativeWork.
- embedUrl
  - URL that can be used to embed the media on a web page via a specific media player.
- format
  - Media type (MIME type) as per http://www.iana.org/assignments/media-types/media-types.xhtml.
- fundedBy
  - Grants that funded the CreativeWork; reverse of fundedItems.
- funders
  - People or organizations that funded the CreativeWork.
- genre
  - Genre of the creative work, broadcast channel or group.
- id
  - The identifier for this item.
- identifiers
  - Any kind of identifier for any kind of Thing.
- images
  - Images of the item.
- isPartOf
  - An item or other CreativeWork that this CreativeWork is a part of.
- keywords
  - Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.
- licenses
  - License documents that applies to this content, typically indicated by URL.
- maintainers
  - The people or organizations who maintain this CreativeWork.
- meta
  - Metadata associated with this item.
- name
  - The name of the item.
- parts
  - Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.
- publisher
  - A publisher of the CreativeWork.
- references
  - References to other creative works, such as another publication, web page, scholarly article, etc.
- text
  - The textual content of this creative work.
- thumbnail
  - Thumbnail image of this image.
- title
  - The title of the creative work.
- url
  - The URL of the item.
- version
  - The version of the creative work.

**Value**

A list of class ImageObject

**See Also**

MediaObject
Include

A directive to include content from an external source (e.g. file, URL) or content.

Usage

Include(source, content, format, id, meta)

Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>source</td>
<td>The source of the content, a URL or file path, or the content itself. <strong>Required.</strong></td>
</tr>
<tr>
<td>content</td>
<td>The content to be included.</td>
</tr>
<tr>
<td>format</td>
<td>Media type, typically expressed using a MIME format, of the source content.</td>
</tr>
<tr>
<td>id</td>
<td>The identifier for this item.</td>
</tr>
<tr>
<td>meta</td>
<td>Metadata associated with this item.</td>
</tr>
</tbody>
</table>

Value

A list of class Include

See Also

Entity

InlineContent

Union type for valid inline content.

Description

Union type for valid inline content.

Usage

InlineContent

Format

An object of class Union of length 1.

Value

A list of class Union describing valid subtypes of this type
**IntegerValidator**

A validator specifying the constraints on an integer node.

**Description**

A validator specifying the constraints on an integer node.

**Usage**

```python
IntegerValidator(
    exclusiveMaximum,
    exclusiveMinimum,
    id,
    maximum,
    meta,
    minimum,
    multipleOf
)
```

**Arguments**

- `exclusiveMaximum` - The exclusive upper limit for a numeric node.
- `exclusiveMinimum` - The exclusive lower limit for a numeric node.
- `id` - The identifier for this item.
- `maximum` - The inclusive upper limit for a numeric node.
- `meta` - Metadata associated with this item.
- `minimum` - The inclusive lower limit for a numeric node.
- `multipleOf` - A number that a numeric node must be a multiple of.

**Value**

A list of class IntegerValidator

**See Also**

`NumberValidator`
is_class

*Is a value of a particular class*

**Description**

Is a value of a particular class

**Usage**

\[is\_class(value, clas)\]

**Arguments**

- **value**: The value to check
- **clas**: The class the check against

**Value**

TRUE if the value has the class as its last class, FALSE otherwise

---

is_type

*Does a value conform to the type?*

**Description**

Does a value conform to the type?

**Usage**

\[is\_type(value, type)\]

**Arguments**

- **value**: The value to check
- **type**: The type to check against

**Value**

TRUE if the value conforms to the type, FALSE otherwise
last_class

Get the last class for an object. The last class is usually the "highest" in the inheritance tree.

Description

Get the last class for an object. The last class is usually the "highest" in the inheritance tree.

Usage

last_class(obj)

Arguments

obj
The object to get the last class for.

Value

The class that is last in the list of classes for the object.

Link

A hyperlink to other pages, sections within the same document, resources, or any URL.

Description

A hyperlink to other pages, sections within the same document, resources, or any URL.

Usage

Link(content, target, exportFrom, id, importTo, meta, relation, title)

Arguments

ccontent
The textual content of the link. Required.
target
The target of the link. Required.
exportFrom
A compilation directive giving the name of the variable to export to the link target.
id
The identifier for this item.
importTo
A compilation directive giving the name of the variable to import the link target as.
meta
Metadata associated with this item.
relation
The relation between the target and the current thing.
title
A title for the link.
List

Value

A list of class Link

See Also

Entity

Description

A list of items.

Usage

List(items, id, meta, order)

Arguments

items The items in the list Required.
id The identifier for this item.
meta Metadata associated with this item.
order Type of ordering.

Value

A list of class List

See Also

Entity
ListItem  

A single item in a list.

Description
A single item in a list.

Usage

ListItem(
    alternateNames,  
    content,       
    description,  
    id,            
    identifiers, 
    images,       
    isChecked,    
    item,         
    meta,         
    name,         
    position,     
    url
)

Arguments

alternateNames  Alternate names (aliases) for the item.
content          The content of the list item.
description      A description of the item.
id               The identifier for this item.
identifiers      Any kind of identifier for any kind of Thing.
images           Images of the item.
isChecked        A flag to indicate if this list item is checked.
item             The item represented by this list item.
meta             Metadata associated with this item.
name             The name of the item.
position         The position of the item in a series or sequence of items.
url               The URL of the item.

Value
A list of class ListItem

See Also

Thing
Mark

A base class for nodes that mark some other inline content in some way (e.g. as being emphasised, or quoted).

Description

A base class for nodes that mark some other inline content in some way (e.g. as being emphasised, or quoted).

Usage

Mark(content, id, meta)

Arguments

- **content**: The content that is marked. **Required**.
- **id**: The identifier for this item.
- **meta**: Metadata associated with this item.

Value

A list of class Mark

See Also

Entity

MarkTypes

All type schemas that are derived from Mark

Description

All type schemas that are derived from Mark

Usage

MarkTypes

Format

An object of class **Union** of length 1.

Value

A list of class **Union** describing valid subtypes of this type
Math

A mathematical variable or equation.

**Description**

A mathematical variable or equation.

**Usage**

Math(text, errors, id, mathLanguage, meta)

**Arguments**

- **text**: The text of the equation in the language. **Required**.
- **errors**: Errors that occurred when parsing the math equation.
- **id**: The identifier for this item.
- **mathLanguage**: The language used for the equation e.g tex, mathml, asciimath.
- **meta**: Metadata associated with this item.

**Value**

A list of class Math

**See Also**

*Entity*

MathBlock

A block of math, e.g an equation, to be treated as block content.

**Description**

A block of math, e.g an equation, to be treated as block content.

**Usage**

MathBlock(text, errors, id, mathLanguage, meta)

**Arguments**

- **text**: The text of the equation in the language. **Required**.
- **errors**: Errors that occurred when parsing the math equation.
- **id**: The identifier for this item.
- **mathLanguage**: The language used for the equation e.g tex, mathml, asciimath.
- **meta**: Metadata associated with this item.
MathFragment

Value

A list of class MathBlock

See Also

Math

MathFragment A fragment of math, e.g a variable name, to be treated as inline content.

Description

A fragment of math, e.g a variable name, to be treated as inline content.

Usage

MathFragment(text, errors, id, mathLanguage, meta)

Arguments

text The text of the equation in the language. Required.
errors Errors that occurred when parsing the math equation.
id The identifier for this item.
mathLanguage The language used for the equation e.g tex, mathml, asciimath.
meta Metadata associated with this item.

Value

A list of class MathFragment

See Also

Math
MathTypes | All type schemas that are derived from Math

**Description**

All type schemas that are derived from Math

**Usage**

MathTypes

**Format**

An object of class Union of length 1.

**Value**

A list of class Union describing valid subtypes of this type

---

MediaObject | A media object, such as an image, video, or audio object embedded in a web page or a downloadable dataset.

**Description**

A media object, such as an image, video, or audio object embedded in a web page or a downloadable dataset.

**Usage**

MediaObject(
  contentUrl,
  about,
  alternateNames,
  authors,
  bitrate,
  comments,
  content,
  contentSize,
  dateAccepted,
  dateCreated,
  dateModified,
  datePublished,
  dateReceived,
  description,
  editors,
embedUrl, format, fundedBy, funders, genre, id, identifiers, images, isPartOf, keywords, licenses, maintainers, meta, name, parts, publisher, references, text, title, url, version

Arguments

contentUrl URL for the actual bytes of the media object, for example the image file or video file. Required.
about The subject matter of the content.
alternateNames Alternate names (aliases) for the item.
authors The authors of this creative work.
bitrate Bitrate in megabits per second (Mbit/s, Mb/s, Mbps).
comments Comments about this creative work.
content The structured content of this creative work c.f. property text.
contentSize File size in megabits (Mbit, Mb).
dateAccepted Date/time of acceptance.
dateCreated Date/time of creation.
dateModified Date/time of most recent modification.
datePublished Date of first publication.
dateReceived Date/time that work was received.
description A description of the item.
editors People who edited the CreativeWork.
embedUrl URL that can be used to embed the media on a web page via a specific media player.
**MediaObject**

format  Media type (MIME type) as per http://www.iana.org/assignments/media-types/media-types.xhtml.

fundedBy  Grants that funded the CreativeWork; reverse of fundedItems.

funders  People or organizations that funded the CreativeWork.

genre  Genre of the creative work, broadcast channel or group.

id  The identifier for this item.

identifiers  Any kind of identifier for any kind of Thing.

images  Images of the item.

isPartOf  An item or other CreativeWork that this CreativeWork is a part of.

keywords  Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.

licenses  License documents that applies to this content, typically indicated by URL.

maintainers  The people or organizations who maintain this CreativeWork.

meta  Metadata associated with this item.

name  The name of the item.

parts  Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.

publisher  A publisher of the CreativeWork.

references  References to other creative works, such as another publication, web page, scholarly article, etc.

text  The textual content of this creative work.

title  The title of the creative work.

url  The URL of the item.

version  The version of the creative work.

**Value**

A list of class MediaObject

**See Also**

CreativeWork
MediaObjectTypes  

All type schemas that are derived from MediaObject

Description

All type schemas that are derived from MediaObject

Usage

MediaObjectTypes

Format

An object of class Union of length 1.

Value

A list of class Union describing valid subtypes of this type

MonetaryGrant

A monetary grant.

Description

A monetary grant.

Usage

MonetaryGrant(  
    alternateNames,  
    amounts,  
    description,  
    fundedItems,  
    funders,  
    id,  
    identifiers,  
    images,  
    meta,  
    name,  
    sponsors,  
    url  
)
Arguments

- **alternateNames**: Alternate names (aliases) for the item.
- **amounts**: The amount of money.
- **description**: A description of the item.
- **fundedItems**: Indicates an item funded or sponsored through a Grant.
- **funders**: A person or organization that supports (sponsors) something through some kind of financial contribution.
- **id**: The identifier for this item.
- **identifiers**: Any kind of identifier for any kind of Thing.
- **images**: Images of the item.
- **meta**: Metadata associated with this item.
- **name**: The name of the item.
- **sponsors**: A person or organization that supports a thing through a pledge, promise, or financial contribution.
- **url**: The URL of the item.

Value

A list of class **MonetaryGrant**

See Also

- **Grant**

---

**Node**

*Union type for all valid nodes.*

**Description**

Union type for all valid nodes.

**Usage**

*Node*

**Format**

An object of class **Union** of length 1.

**Value**

A list of class **Union** describing valid subtypes of this type
**NontextualAnnotation**  
*Inline text that has a non-textual annotation.*

**Description**  
Inline text that has a non-textual annotation.

**Usage**

```python
NontextualAnnotation(content, id, meta)
```

**Arguments**

- **content**  
The content that is marked. **Required**.
- **id**  
The identifier for this item.
- **meta**  
Metadata associated with this item.

**Value**

A list of class `NontextualAnnotation`

**See Also**

`Mark`

---

**NumberValidator**  
*A validator specifying the constraints on a numeric node.*

**Description**

A validator specifying the constraints on a numeric node.

**Usage**

```python
NumberValidator(
    exclusiveMaximum,
    exclusiveMinimum,
    id,
    maximum,
    meta,
    minimum,
    multipleOf
)
```
NumberValidatorTypes

Arguments

- **exclusiveMaximum**
  - The exclusive upper limit for a numeric node.
- **exclusiveMinimum**
  - The exclusive lower limit for a numeric node.
- **id**
  - The identifier for this item.
- **maximum**
  - The inclusive upper limit for a numeric node.
- **meta**
  - Metadata associated with this item.
- **minimum**
  - The inclusive lower limit for a numeric node.
- **multipleOf**
  - A number that a numeric node must be a multiple of.

Value

A list of class NumberValidator

See Also

- **Entity**

---

NumberValidatorTypes  All type schemas that are derived from NumberValidator

Description

All type schemas that are derived from NumberValidator

Usage

NumberValidatorTypes

Format

An object of class Union of length 1.

Value

A list of class Union describing valid subtypes of this type
Organization

An organization such as a school, NGO, corporation, club, etc.

Description

An organization such as a school, NGO, corporation, club, etc.

Usage

Organization(
  address,
  alternateNames,
  brands,
  contactPoints,
  departments,
  description,
  funders,
  id,
  identifiers,
  images,
  legalName,
  logo,
  members,
  meta,
  name,
  parentOrganization,
  url
)

Arguments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>address</td>
<td>Postal address for the organization.</td>
</tr>
<tr>
<td>alternateNames</td>
<td>Alternate names (aliases) for the item.</td>
</tr>
<tr>
<td>brands</td>
<td>Brands that the organization is connected with.</td>
</tr>
<tr>
<td>contactPoints</td>
<td>Correspondence/Contact points for the organization.</td>
</tr>
<tr>
<td>departments</td>
<td>Departments within the organization. For example, Department of Computer Science, Research &amp; Development etc.</td>
</tr>
<tr>
<td>description</td>
<td>A description of the item.</td>
</tr>
<tr>
<td>funders</td>
<td>Organization(s) or person(s) funding the organization.</td>
</tr>
<tr>
<td>id</td>
<td>The identifier for this item.</td>
</tr>
<tr>
<td>identifiers</td>
<td>Any kind of identifier for any kind of Thing.</td>
</tr>
<tr>
<td>images</td>
<td>Images of the item.</td>
</tr>
<tr>
<td>legalName</td>
<td>Legal name for the Organization. Should only include letters and spaces.</td>
</tr>
<tr>
<td>logo</td>
<td>The logo of the organization.</td>
</tr>
</tbody>
</table>
members Person(s) or organization(s) who are members of this organization.
meta Metadata associated with this item.
name The name of the item.
parentOrganization Entity that the Organization is a part of. For example, parentOrganization to a department is a university.
url The URL of the item.

Value
A list of class Organization

See Also
Thing

Description
Paragraph

Usage
Paragraph(content, id, meta)

Arguments
content The contents of the paragraph. Required.
id The identifier for this item.
meta Metadata associated with this item.

Value
A list of class Paragraph

See Also
Entity
Parameter

A parameter that can be set and used in evaluated code.

Description

A parameter that can be set and used in evaluated code.

Usage

Parameter(
    name,
    default,
    id,
    isExtensible,
    isReadonly,
    isRequired,
    isVariadic,
    meta,
    validator,
    value
)

Arguments

name The name of the variable. Required.
default The default value of the parameter.
id The identifier for this item.
isExtensible Indicates that this parameter is variadic and can accept multiple named arguments.
isReadonly Whether or not a property is mutable. Default is false.
isRequired Is this parameter required, if not it should have a default or default is assumed to be null.
isVariadic Indicates that this parameter is variadic and can accept multiple arguments.
meta Metadata associated with this item.
validator The validator that the value is validated against.
value The value of the variable.

Value

A list of class Parameter

See Also

Variable
Periodical

Description

A periodical publication.

Usage

Periodical(
    about,
    alternateNames, authors,
    comments,
    content,
    dateAccepted, dateCreated,
    dateEnd, dateModified,
    datePublished, dateReceived,
    dateStart, description,
    editors, fundedBy,
    funders, genre,
    id, identifiers,
    images, isPartOf,
    issns, keywords,
    licenses, maintainers,
    meta, name,
    parts, publisher,
    references, text,
    title, url,
    version
)
Arguments

- about: The subject matter of the content.
- alternateNames: Alternate names (aliases) for the item.
- authors: The authors of this creative work.
- comments: Comments about this creative work.
- content: The structured content of this creative work c.f. property text.
- dateAccepted: Date/time of acceptance.
- dateCreated: Date/time of creation.
- dateEnd: The date this Periodical ceased publication.
- dateModified: Date/time of most recent modification.
- datePublished: Date of first publication.
- dateReceived: Date/time that work was received.
- dateStart: The date this Periodical was first published.
- description: A description of the item.
- editors: People who edited the CreativeWork.
- fundedBy: Grants that funded the CreativeWork; reverse of fundedItems.
- funders: People or organizations that funded the CreativeWork.
- genre: Genre of the creative work, broadcast channel or group.
- id: The identifier for this item.
- identifiers: Any kind of identifier for any kind of Thing.
- images: Images of the item.
- isPartOf: An item or other CreativeWork that this CreativeWork is a part of.
- issns: The International Standard Serial Number(s) (ISSN) that identifies this serial publication.
- keywords: Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.
- licenses: License documents that applies to this content, typically indicated by URL.
- maintainers: The people or organizations who maintain this CreativeWork.
- meta: Metadata associated with this item.
- name: The name of the item.
- parts: Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.
- publisher: A publisher of the CreativeWork.
- references: References to other creative works, such as another publication, web page, scholarly article, etc.
- text: The textual content of this creative work.
- title: The title of the creative work.
- url: The URL of the item.
- version: The version of the creative work.
Person

Value

A list of class Periodical

See Also

CreativeWork

Person

A person (alive, dead, undead, or fictional).

Description

A person (alive, dead, undead, or fictional).

Usage

Person(
    address,
    affiliations,
    alternateNames,
    description,
    emails,
    familyNames,
    funders,
    givenNames,
    honorificPrefix,
    honorificSuffix,
    id,
    identifiers,
    images,
    jobTitle,
    memberOf,
    meta,
    name,
    telephoneNumbers,
    url
)

Arguments

address Postal address for the person.
affiliations Organizations that the person is affiliated with.
alternateNames Alternate names (aliases) for the item.
description A description of the item.
emails Email addresses for the person.
familyNames  Family name. In the U.S., the last name of a person.
funders  A person or organization that supports (sponsors) something through some kind of financial contribution.
givenNames  Given name. In the U.S., the first name of a person.
honorificPrefix  An honorific prefix preceding a person’s name such as Dr/Mrs/Mr.
honorificSuffix  An honorific suffix after a person’s name such as MD/PhD/MSCSW.
id  The identifier for this item.
identifiers  Any kind of identifier for any kind of Thing.
images  Images of the item.
jobTitle  The job title of the person (for example, Financial Manager).
memberOf  An organization (or program membership) to which this person belongs.
meta  Metadata associated with this item.
name  The name of the item.
telephoneNumbers  Telephone numbers for the person.
url  The URL of the item.

Value

A list of class Person

See Also

Thing

Examples

Person(
    honorificPrefix = "Dr",
    givenNames = list("Jane", "J"),
    familyNames = list("Jamieson")
)

PostalAddress  A physical mailing address.

Description

A physical mailing address.
PostalAddress

Usage

PostalAddress(
    addressCountry,
    addressLocality,
    addressRegion,
    alternateNames,
    availableLanguages,
    description,
    emails,
    id,
    identifiers,
    images,
    meta,
    name,
    postOfficeBoxNumber,
    postalCode,
    streetAddress,
    telephoneNumbers,
    url
)

Arguments

addressCountry  The country.
addressLocality  The locality in which the street address is, and which is in the region.
addressRegion   The region in which the locality is, and which is in the country.
alternateNames  Alternate names (aliases) for the item.
availableLanguages  Languages (human not programming) in which it is possible to communicate with the organization/department etc.
description      A description of the item.
emails           Email address for correspondence.
id               The identifier for this item.
identifiers      Any kind of identifier for any kind of Thing.
images           Images of the item.
meta             Metadata associated with this item.
name             The name of the item.
postOfficeBoxNumber  The post office box number.
postalCode       The postal code.
streetAddress    The street address.
telephoneNumbers Telephone numbers for the contact point.
url              The URL of the item.
**Product**  

A list of class PostalAddress

**See Also**  

ContactPoint

---

**Product**  

*Any offered product or service. For example, a pair of shoes; a haircut; or an episode of a TV show streamed online.*

---

**Description**  

Any offered product or service. For example, a pair of shoes; a haircut; or an episode of a TV show streamed online.

**Usage**  

Product(
  alternateNames,
  brands,
  description,
  id,
  identifiers,
  images,
  logo,
  meta,
  name,
  productID,
  url
)

**Arguments**

- **alternateNames**  
  Alternate names (aliases) for the item.
- **brands**  
  Brands that the product is labelled with.
- **description**  
  A description of the item.
- **id**  
  The identifier for this item.
- **identifiers**  
  Any kind of identifier for any kind of Thing.
- **images**  
  Images of the item.
- **logo**  
  The logo of the product.
- **meta**  
  Metadata associated with this item.
- **name**  
  The name of the item.
- **productID**  
  Product identification code.
- **url**  
  The URL of the item.
PropertyValue

Value
   A list of class Product

See Also
   Thing

| PropertyValue | A property-value pair.

Description
   A property-value pair.

Usage
   PropertyValue(
       value,
       alternateNames,
       description,
       id,
       identifiers,
       images,
       meta,
       name,
       propertyID,
       url
   )

Arguments
   value        The value of the property. Required.
   alternateNames  Alternate names (aliases) for the item.
   description     A description of the item.
   id             The identifier for this item.
   identifiers     Any kind of identifier for any kind of Thing.
   images          Images of the item.
   meta            Metadata associated with this item.
   name            The name of the item.
   propertyID      A commonly used identifier for the characteristic represented by the property.
   url             The URL of the item.

Value
   A list of class PropertyValue
PublicationIssue

See Also

Thing

PublicationIssue

A part of a successively published publication such as a periodical or publication volume, often numbered.

Description

A part of a successively published publication such as a periodical or publication volume, often numbered.

Usage

PublicationIssue(
  about,
  alternateNames,
  authors,
  comments,
  content,
  dateAccepted,
  dateCreated,
  dateModified,
  datePublished,
  dateReceived,
  description,
  editors,
  fundedBy,
  funders,
  genre,
  id,
  identifiers,
  images,
  isPartOf,
  issueNumber,
  keywords,
  licenses,
  maintainers,
  meta,
  name,
  pageEnd,
  pageStart,
  pagination,
  parts,
  publisher,
  references,
Arguments

about The subject matter of the content.
alternateNames Alternate names (aliases) for the item.
authors The authors of this creative work.
comments Comments about this creative work.
content The structured content of this creative work c.f. property text.
dateAccepted Date/time of acceptance.
dateCreated Date/time of creation.
dateModified Date/time of most recent modification.
datePublished Date of first publication.
dateReceived Date/time that work was received.
description A description of the item.
editors People who edited the CreativeWork.
fundedBy Grants that funded the CreativeWork; reverse of fundedItems.
funders People or organizations that funded the CreativeWork.
genre Genre of the creative work, broadcast channel or group.
id The identifier for this item.
identifiers Any kind of identifier for any kind of Thing.
images Images of the item.
isPartOf An item or other CreativeWork that this CreativeWork is a part of.
issueNumber Identifies the issue of publication; for example, "iii" or "2".
keywords Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.
licenses License documents that applies to this content, typically indicated by URL.
maintainers The people or organizations who maintain this CreativeWork.
meta Metadata associated with this item.
name The name of the item.
pageEnd The page on which the issue ends; for example "138" or "xvi".
pageStart The page on which the issue starts; for example "135" or "xiii".
pagination Any description of pages that is not separated into pageStart and pageEnd; for example, "1-6, 9, 55".
parts Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.
**Value**

A list of class PublicationIssue

**See Also**

CreativeWork

---

**Description**

A part of a successively published publication such as a periodical or multi-volume work.

**Usage**

PublicationVolume{
  about, alternateNames, authors, comments, content, dateAccepted, dateCreated, dateModified, datePublished, dateReceived, description, editors, fundedBy, funders, genre, id, identifiers, images, isPartOf,
Arguments

about The subject matter of the content.
alternateNames Alternate names (aliases) for the item.
authors The authors of this creative work.
comments Comments about this creative work.
content The structured content of this creative work c.f. property text.
dateAccepted Date/time of acceptance.
dateCreated Date/time of creation.
dateModified Date/time of most recent modification.
datePublished Date of first publication.
dateReceived Date/time that work was received.
description A description of the item.
editors People who edited the CreativeWork.
fundedBy Grants that funded the CreativeWork; reverse of fundedItems.
funders People or organizations that funded the CreativeWork.
genre Genre of the creative work, broadcast channel or group.
id The identifier for this item.
identifiers Any kind of identifier for any kind of Thing.
images Images of the item.
isPartOf An item or other CreativeWork that this CreativeWork is a part of.
keywords Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.
licenses License documents that applies to this content, typically indicated by URL.
maintainers | The people or organizations who maintain this CreativeWork.
meta | Metadata associated with this item.
name | The name of the item.
paginacion | The page on which the volume ends; for example "138" or "xvi".
paginacionStart | The page on which the volume starts; for example "135" or "xiii".
pagination | Any description of pages that is not separated into pageStart and pageEnd; for example, "1-6, 9, 55".
parts | Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.
publisher | A publisher of the CreativeWork.
references | References to other creative works, such as another publication, web page, scholarly article, etc.
text | The textual content of this creative work.
title | The title of the creative work.
url | The URL of the item.
version | The version of the creative work.
volumeNumber | Identifies the volume of publication or multi-part work; for example, "iii" or "2".

Value
A list of class PublicationVolume

See Also
CreativeWork

---

**Quote**

Inline, quoted content.

---

**Description**

Inline, quoted content.

**Usage**

Quote(content, cite, id, meta)

**Arguments**

content | The content that is marked. **Required**.
cite | The source of the quote.
id | The identifier for this item.
meta | Metadata associated with this item.
**QuoteBlock**

**Value**

A list of class Quote

**See Also**

Mark

---

**Description**

A section quoted from somewhere else.

**Usage**

`QuoteBlock(content, cite, id, meta)`

**Arguments**

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>content</td>
<td>The content of the quote. <strong>Required.</strong></td>
</tr>
<tr>
<td>cite</td>
<td>The source of the quote.</td>
</tr>
<tr>
<td>id</td>
<td>The identifier for this item.</td>
</tr>
<tr>
<td>meta</td>
<td>Metadata associated with this item.</td>
</tr>
</tbody>
</table>

**Value**

A list of class QuoteBlock

**See Also**

Entity
A review of an item, e.g. of an Article, or SoftwareSourceCode.

Description

A review of an item, e.g. of an Article, or SoftwareSourceCode.

Usage

```java
Review(
    about,
    alternateNames, 
    authors, 
    comments, 
    content,  
    dateAccepted, 
    dateCreated, 
    dateModified, 
    datePublished, 
    dateReceived, 
    description, 
    editors, 
    fundedBy, 
    funders, 
    genre, 
    id, 
    identifiers, 
    images, 
    isPartOf, 
    itemReviewed, 
    keywords, 
    licenses, 
    maintainers, 
    meta, 
    name, 
    parts, 
    publisher, 
    references, 
    reviewAspect, 
    text, 
    title, 
    url, 
    version
)
```

Arguments

- `about` The subject matter of the content.
alternateNames  Alternate names (aliases) for the item.
authors  The authors of this creative work.
comments  Comments about this creative work.
content  The structured content of this creative work c.f. property text.
dateAccepted  Date/time of acceptance.
dateCreated  Date/time of creation.
dateModified  Date/time of most recent modification.
datePublished  Date of first publication.
dateReceived  Date/time that work was received.
description  A description of the item.
editors  People who edited the CreativeWork.
fundedBy  Grants that funded the CreativeWork; reverse of fundedItems.
funders  People or organizations that funded the CreativeWork.
genre  Genre of the creative work, broadcast channel or group.
id  The identifier for this item.
identifiers  Any kind of identifier for any kind of Thing.
images  Images of the item.
isPartOf  An item or other CreativeWork that this CreativeWork is a part of.
itemReviewed  The item that is being reviewed.
keywords  Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.
licenses  License documents that applies to this content, typically indicated by URL.
maintainers  The people or organizations who maintain this CreativeWork.
meta  Metadata associated with this item.
name  The name of the item.
parts  Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.
publisher  A publisher of the CreativeWork.
references  References to other creative works, such as another publication, web page, scholarly article, etc.
reviewAspect  The part or facet of the item that is being reviewed.
text  The textual content of this creative work.
title  The title of the creative work.
url  The URL of the item.
version  The version of the creative work.

Value

A list of class Review

See Also

CreativeWork
SoftwareApplication  A software application.

Description

A software application.

Usage

SoftwareApplication(
    about,
    alternateNames,
    authors,
    comments,
    content,
    dateAccepted,
    dateCreated,
    dateModified,
    datePublished,
    dateReceived,
    description,
    editors,
    fundedBy,
    funders,
    genre,
    id,
    identifiers,
    images,
    isPartOf,
    keywords,
    licenses,
    maintainers,
    meta,
    name,
    parts,
    publisher,
    references,
    softwareRequirements,
    softwareVersion,
    text,
    title,
    url,
    version
)

Arguments

about  The subject matter of the content.
<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>alternateNames</td>
<td>Alternate names (aliases) for the item.</td>
</tr>
<tr>
<td>authors</td>
<td>The authors of this creative work.</td>
</tr>
<tr>
<td>comments</td>
<td>Comments about this creative work.</td>
</tr>
<tr>
<td>content</td>
<td>The structured content of this creative work c.f. property text.</td>
</tr>
<tr>
<td>dateAccepted</td>
<td>Date/time of acceptance.</td>
</tr>
<tr>
<td>dateCreated</td>
<td>Date/time of creation.</td>
</tr>
<tr>
<td>dateModified</td>
<td>Date/time of most recent modification.</td>
</tr>
<tr>
<td>datePublished</td>
<td>Date of first publication.</td>
</tr>
<tr>
<td>dateReceived</td>
<td>Date/time that work was received.</td>
</tr>
<tr>
<td>description</td>
<td>A description of the item.</td>
</tr>
<tr>
<td>editors</td>
<td>People who edited the CreativeWork.</td>
</tr>
<tr>
<td>fundedBy</td>
<td>Grants that funded the CreativeWork; reverse of fundedItems.</td>
</tr>
<tr>
<td>funders</td>
<td>People or organizations that funded the CreativeWork.</td>
</tr>
<tr>
<td>genre</td>
<td>Genre of the creative work, broadcast channel or group.</td>
</tr>
<tr>
<td>id</td>
<td>The identifier for this item.</td>
</tr>
<tr>
<td>identifiers</td>
<td>Any kind of identifier for any kind of Thing.</td>
</tr>
<tr>
<td>images</td>
<td>Images of the item.</td>
</tr>
<tr>
<td>isPartOf</td>
<td>An item or other CreativeWork that this CreativeWork is a part of.</td>
</tr>
<tr>
<td>keywords</td>
<td>Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.</td>
</tr>
<tr>
<td>licenses</td>
<td>License documents that applies to this content, typically indicated by URL.</td>
</tr>
<tr>
<td>maintainers</td>
<td>The people or organizations who maintain this CreativeWork.</td>
</tr>
<tr>
<td>meta</td>
<td>Metadata associated with this item.</td>
</tr>
<tr>
<td>name</td>
<td>The name of the item.</td>
</tr>
<tr>
<td>parts</td>
<td>Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.</td>
</tr>
<tr>
<td>publisher</td>
<td>A publisher of the CreativeWork.</td>
</tr>
<tr>
<td>references</td>
<td>References to other creative works, such as another publication, web page, scholarly article, etc.</td>
</tr>
<tr>
<td>softwareRequirements</td>
<td>Requirements for application, including shared libraries that are not included in the application distribution.</td>
</tr>
<tr>
<td>softwareVersion</td>
<td>Version of the software.</td>
</tr>
<tr>
<td>text</td>
<td>The textual content of this creative work.</td>
</tr>
<tr>
<td>title</td>
<td>The title of the creative work.</td>
</tr>
<tr>
<td>url</td>
<td>The URL of the item.</td>
</tr>
<tr>
<td>version</td>
<td>The version of the creative work.</td>
</tr>
</tbody>
</table>
SoftwareEnvironment

Value

A list of class SoftwareApplication

See Also

CreativeWork

SoftwareEnvironment  A computational environment.

Description

A computational environment.

Usage

SoftwareEnvironment(
    name,
    adds,
    alternateNames,
    description,
    extends,
    id,
    identifiers,
    images,
    meta,
    removes,
    url
)

Arguments

name  The name of the item. Required.
adds  The packages that this environment adds to the base environments listed under extends (if any).
alternateNames  Alternate names (aliases) for the item.
description  A description of the item.
extends  Other environments that this environment extends by adding or removing packages.
id  The identifier for this item.
identifiers  Any kind of identifier for any kind of Thing.
images  Images of the item.
meta  Metadata associated with this item.
removes  The packages that this environment removes from the base environments listed under extends (if any).
url  The URL of the item.
SoftwareSession

Value

A list of class SoftwareEnvironment

See Also

Thing

SoftwareSession | Definition of a compute session, including its software and compute resource requirements and status.

Description

Definition of a compute session, including its software and compute resource requirements and status.

Usage

SoftwareSession(
    alternateNames,
    clientLimit,
    clientsRequest,
    cpuLimit,
    cpuRequest,
    dateEnd,
    dateStart,
    description,
    durationLimit,
    durationRequest,
    environment,
    id,
    identifiers,
    images,
    memoryLimit,
    memoryRequest,
    meta,
    name,
    networkTransferLimit,
    networkTransferRequest,
    status,
    timeoutLimit,
    timeoutRequest,
    url,
    volumeMounts
)
Arguments

alternateNames  Alternate names (aliases) for the item.
clientsLimit   The maximum number of concurrent clients the session is limited to.
clientsRequest The maximum number of concurrent clients requested for the session.
cpuLimit       The amount of CPU the session is limited to.
cpuRequest     The amount of CPU requested for the session.
dateEnd        The date-time that the session ended.
dateStart      The date-time that the session began.
description    A description of the item.
durationLimit  The maximum duration (seconds) the session is limited to.
durationRequest The maximum duration (seconds) requested for the session.
environment    The software environment to execute this session in.
id             The identifier for this item.
identifiers    Any kind of identifier for any kind of Thing.
images         Images of the item.
memoryLimit    The amount of memory that the session is limited to.
memoryRequest  The amount of memory requested for the session.
meta           Metadata associated with this item.
name           The name of the item.
networkTransferLimit The amount of network data transfer (GiB) that the session is limited to.
networkTransferRequest The amount of network data transfer (GiB) requested for the session.
status         The status of the session (starting, stopped, etc).
timeoutLimit   The inactivity timeout (seconds) the session is limited to.
timeoutRequest The inactivity timeout (seconds) requested for the session.
url            The URL of the item.
volumeMounts   Volumes to mount in the session.

Value

A list of class SoftwareSession

See Also

Thing
SoftwareSourceCode

Computer programming source code. Example: Full (compile ready) solutions, code snippet samples, scripts, templates.

Description

Computer programming source code. Example: Full (compile ready) solutions, code snippet samples, scripts, templates.

Usage

SoftwareSourceCode(
    about,
    alternateNames,
    authors,
    codeRepository,
    codeSampleType,
    comments,
    content,
    dateAccepted,
    dateCreated,
    dateModified,
    datePublished,
    dateReceived,
    description,
    editors,
    fundedBy,
    funders,
    genre,
    id,
    identifiers,
    images,
    isPartOf,
    keywords,
    licenses,
    maintainers,
    meta,
    name,
    parts,
    programmingLanguage,
    publisher,
    references,
    runtimePlatform,
    softwareRequirements,
    targetProducts,
    text,
    title,
Arguments

about The subject matter of the content.
alternateNames Alternate names (aliases) for the item.
authors The authors of this creative work.
codeRepository Link to the repository where the un-compiled, human readable code and related code is located.

codeSampleType What type of code sample: full (compile ready) solution, code snippet, inline code, scripts, template.
comments Comments about this creative work.
content The structured content of this creative work c.f. property text.
dateAccepted Date/time of acceptance.
dateCreated Date/time of creation.
dateModified Date/time of most recent modification.
datePublished Date of first publication.
dateReceived Date/time that work was received.
description A description of the item.
editors People who edited the CreativeWork.
fundedBy Grants that funded the CreativeWork; reverse of fundedItems.
funders People or organizations that funded the CreativeWork.
genre Genre of the creative work, broadcast channel or group.
id The identifier for this item.
identifiers Any kind of identifier for any kind of Thing.
images Images of the item.
isPartOf An item or other CreativeWork that this CreativeWork is a part of.
keywords Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.
licenses License documents that applies to this content, typically indicated by URL.
maintainers The people or organizations who maintain this CreativeWork.
meta Metadata associated with this item.
name The name of the item.
parts Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.

programmingLanguage The computer programming language.
StringValidator  A schema specifying constraints on a string node.

**Description**

A schema specifying constraints on a string node.

**Usage**

```python
StringValidator(id, maxLength, meta, minLength, pattern)
```

**Arguments**

- **id**: The identifier for this item.
- **maxLength**: The maximum length for a string node.
- **meta**: Metadata associated with this item.
- **minLength**: The minimum length for a string node.
- **pattern**: A regular expression that a string node must match.

**Value**

A list of class StringValidator

**See Also**

Entity
### Strong

*Strongly emphasised content.*

**Description**

Strongly emphasised content.

**Usage**

Strong(content, id, meta)

**Arguments**

- **content**: The content that is marked. **Required**.
- **id**: The identifier for this item.
- **meta**: Metadata associated with this item.

**Value**

A list of class Strong

**See Also**

Mark

---

### Subscript

*Subscripted content.*

**Description**

Subscripted content.

**Usage**

Subscript(content, id, meta)

**Arguments**

- **content**: The content that is marked. **Required**.
- **id**: The identifier for this item.
- **meta**: Metadata associated with this item.

**Value**

A list of class Subscript
**Superscript**

**See Also**

- Mark

---

<table>
<thead>
<tr>
<th>Superscript</th>
<th>Superscripted content.</th>
</tr>
</thead>
</table>

**Description**

Superscripted content.

**Usage**

Superscript(content, id, meta)

**Arguments**

- **content**
  - The content that is marked. **Required.**
- **id**
  - The identifier for this item.
- **meta**
  - Metadata associated with this item.

**Value**

A list of class Superscript

**See Also**

- Mark

---

<table>
<thead>
<tr>
<th>Table</th>
<th>A table.</th>
</tr>
</thead>
</table>

**Description**

A table.
Usage

Table(
    rows,
    about,
    alternateNames,
    authors,
    caption,
    comments,
    content,
    dateAccepted,
    dateCreated,
    dateModified,
    datePublished,
    dateReceived,
    description,
    editors,
    fundedBy,
    funders,
    genre,
    id,
    identifiers,
    images,
    isPartOf,
    keywords,
    label,
    licenses,
    maintainers,
    meta,
    name,
    parts,
    publisher,
    references,
    text,
    title,
    url,
    version
)

Arguments

rows Rows of cells in the table. **Required.**
about The subject matter of the content.
alternateNames Alternate names (aliases) for the item.
authors The authors of this creative work.
caption A caption for the table.
comments Comments about this creative work.
content The structured content of this creative work c.f. property text.
<table>
<thead>
<tr>
<th><strong>Value</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A list of class Table</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>See Also</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CreativeWork</td>
</tr>
</tbody>
</table>
TableCell

A cell within a Table.

Description

A cell within a Table.

Usage

TableCell(content, cellType, colspan, id, meta, name, rowspan)

Arguments

- content: Contents of the table cell. **Required**.
- cellType: Indicates whether the cell is a header or data.
- colspan: How many columns the cell extends.
- id: The identifier for this item.
- meta: Metadata associated with this item.
- name: The name of the cell.
- rowspan: How many columns the cell extends.

Value

A list of class TableCell

See Also

[Entity]

TableRow

A row within a Table.

Description

A row within a Table.

Usage

TableRow(cells, id, meta, rowType)

Arguments

- cells: An array of cells in the row. **Required**.
- id: The identifier for this item.
- meta: Metadata associated with this item.
- rowType: If present, indicates that all cells in this row should be treated as header cells.
**ThematicBreak**

**Value**

A list of class TableRow

**See Also**

Entity

---

| ThematicBreak | A thematic break, such as a scene change in a story, a transition to another topic, or a new document. |

**Description**

A thematic break, such as a scene change in a story, a transition to another topic, or a new document.

**Usage**

ThematicBreak(id, meta)

**Arguments**

- **id**
  The identifier for this item.
- **meta**
  Metadata associated with this item.

**Value**

A list of class ThematicBreak

**See Also**

Entity

---

| Thing | The most generic type of item. |

**Description**

The most generic type of item.

**Usage**

Thing(alternateNames, description, id, identifiers, images, meta, name, url)
Arguments

- alternateNames: Alternate names (aliases) for the item.
- description: A description of the item.
- id: The identifier for this item.
- identifiers: Any kind of identifier for any kind of Thing.
- images: Images of the item.
- meta: Metadata associated with this item.
- name: The name of the item.
- url: The URL of the item.

Value

A list of class Thing

See Also

Entity

---

**ThingTypes**

*All type schemas that are derived from Thing*

Description

All type schemas that are derived from Thing

Usage

ThingTypes

Format

An object of class Union of length 1.

Value

A list of class Union describing valid subtypes of this type
TupleValidator

A validator specifying constraints on an array of heterogeneous items.

Description

A validator specifying constraints on an array of heterogeneous items.

Usage

TupleValidator(id, items, meta)

Arguments

id      The identifier for this item.
items   An array of validators specifying the constraints on each successive item in the array.
meta    Metadata associated with this item.

Value

A list of class TupleValidator

See Also

Entity

Union

Union type

Description

Union type

Usage

Union(...)

Arguments

...      The types in the union

Value

A list of class Union describing the valid sub types of a union type

Examples

Union(character, Person)
Variable

ValidatorTypes

*Union type for all validator types.*

**Description**

Union type for all validator types.

**Usage**

ValidatorTypes

**Format**

An object of class `Union` of length 1.

**Value**

A list of class `Union` describing valid subtypes of this type

Variable

*A variable representing a name / value pair.*

**Description**

A variable representing a name / value pair.

**Usage**

Variable(name, id, isReadonly, meta, validator, value)

**Arguments**

- **name**  
  The name of the variable. **Required.**
- **id**  
  The identifier for this item.
- **isReadonly**  
  Whether or not a property is mutable. Default is false.
- **meta**  
  Metadata associated with this item.
- **validator**  
  The validator that the value is validated against.
- **value**  
  The value of the variable.

**Value**

A list of class `Variable`

**See Also**

Entity
**VariableTypes**

*All type schemas that are derived from Variable*

---

**Description**

All type schemas that are derived from Variable

**Usage**

VariableTypes

**Format**

An object of class Union of length 1.

**Value**

A list of class Union describing valid subtypes of this type

---

**VideoObject**

*A video file.*

---

**Description**

A video file.

**Usage**

VideoObject(
    contentUrl,
    about,
    alternateNames,
    authors,
    bitrate,
    caption,
    comments,
    content,
    contentSize,
    dateAccepted,
    dateCreated,
    dateModified,
    datePublished,
    dateReceived,
    description,
    editors,
    embedUrl,
format, fundedBy, funders, genre, id, identifiers, images, isPartOf, keywords, licenses, maintainers, meta, name, parts, publisher, references, text, thumbnail, title, transcript, url, version

Arguments

contentUrl URL for the actual bytes of the media object, for example the image file or video file. **Required.**

about The subject matter of the content.

alternateNames Alternate names (aliases) for the item.

authors The authors of this creative work.

bitrate Bitrate in megabits per second (Mbit/s, Mb/s, Mbps).

caption The caption for this video recording.

comments Comments about this creative work.

content The structured content of this creative work c.f. property text.

contentSize File size in megabits (Mbit, Mb).

dateAccepted Date/time of acceptance.

dateCreated Date/time of creation.

dateModified Date/time of most recent modification.

datePublished Date of first publication.

dateReceived Date/time that work was received.

description A description of the item.

editors People who edited the CreativeWork.
 embedUrl URL that can be used to embed the media on a web page via a specific media player.
 format Media type (MIME type) as per http://www.iana.org/assignments/media-types/media-types.xhtml.
 fundedBy Grants that funded the CreativeWork; reverse of fundedItems.
 funders People or organizations that funded the CreativeWork.
 genre Genre of the creative work, broadcast channel or group.
 id The identifier for this item.
 identifiers Any kind of identifier for any kind of Thing.
 images Images of the item.
 isPartOf An item or other CreativeWork that this CreativeWork is a part of.
 keywords Keywords or tags used to describe this content. Multiple entries in a keywords list are typically delimited by commas.
 licenses License documents that applies to this content, typically indicated by URL.
 maintainers The people or organizations who maintain this CreativeWork.
 meta Metadata associated with this item.
 name The name of the item.
 parts Elements of the collection which can be a variety of different elements, such as Articles, Datatables, Tables and more.
 publisher A publisher of the CreativeWork.
 references References to other creative works, such as another publication, web page, scholarly article, etc.
 text The textual content of this creative work.
 thumbnail Thumbnail image of this video recording.
 title The title of the creative work.
 transcript The transcript of this video recording.
 url The URL of the item.
 version The version of the creative work.

 Value

 A list of class VideoObject

 See Also

 MediaObject
VolumeMount

Describes a volume mount from a host to container.

**Description**

Describes a volume mount from a host to container.

**Usage**

```java
VolumeMount(
    mountDestination,
    alternateNames,
    description,
    id,
    identifiers,
    images,
    meta,
    mountOptions,
    mountSource,
    mountType,
    name,
    url
)
```

**Arguments**

- `mountDestination` The mount location inside the container. **Required.**
- `alternateNames` Alternate names (aliases) for the item.
- `description` A description of the item.
- `id` The identifier for this item.
- `identifiers` Any kind of identifier for any kind of Thing.
- `images` Images of the item.
- `meta` Metadata associated with this item.
- `mountOptions` A list of options to use when applying the mount.
- `mountSource` The mount source directory on the host.
- `mountType` The type of mount.
- `name` The name of the item.
- `url` The URL of the item.

**Value**

A list of class VolumeMount
See Also

Thing
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