

CityDS-Final

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STI2

Abstract. *This document is a Domain Specification for the Request for Domain Specifications (RDS) on City from May 09, 2022.*

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1. Introduction

The requested domain specification is about selecting certain properties from the City type and specifying their cardinalities. One small extension to the domain of a property is also requested.

In the remainder of the document we provide our suggestions in relation to the requests made in the RDS. We then conclude with a summary and some general remarks.

2. Suggestions

This section presents our suggestions according to the requests made for the City Domain Specification. Each subsection contains a suggestion and starts with a quote from the RDS followed by our answer including how the request is recommended to be implemented.

2.1 Request for a property additionalProperty

<i>PROPERTY</i>	<i>CARDINALITY</i>	<i>RANGE TYPES</i>
<i>additionalProperty</i>	<i>0 +</i>	<i>PropertyValue</i>

An optional property for the City type is requested to be able to specify additional properties for cities. Note that additionalProperty allows a very generic mechanism to define property values. The canonical values for certain key-value pairs can be defined by ODTA.

Representation with schema.org

Property	Domain	Range
schema:additionalProperty	schema:City	schema:PropertyValue

2.2 Request for a property address

<i>PROPERTY</i>	<i>CARDINALITY</i>	<i>RANGE TYPES</i>
<i>address</i>	<i>0 - 1</i>	<i>PostalAddress Text</i>

A property for specifying the address of cities is requested. Although schema.org allows the usage of the address property on cities, conceptually it could be a bizarre modeling approach to specify addresses for cities. We kindly ask for an example where such a modeling makes sense.

Representation with schema.org

Property	Domain	Range
schema:address	schema:City	schema:PostalAddress

2.3 Request for a property alternateName

PROPERTY	CARDINALITY	RANGE TYPES
<i>alternateName</i>	0 +	<i>Text</i>

A property for specifying the alternative names for cities is requested. The proposed alternateName property can be used for this purpose.

Representation with schema.org

Property	Domain	Range
schema:alternateName	schema:City	schema:Text

2.4 Request for a property containsPlace

PROPERTY	CARDINALITY	RANGE TYPES
<i>containsPlace</i>	0 +	<i>Place</i>

A property for specifying the places a city contains is requested. The proposed containsPlace property can be used for this purpose.

Representation with schema.org

Property	Domain	Range
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schema:containsPlace	schema:City	schema:Place
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2.5 Request for a property description

<i>PROPERTY</i>	<i>CARDINALITY</i>	<i>RANGE TYPES</i>
<i>description</i> <i>de:Beschreibung</i>	<i>0 +</i>	<i>Text</i> <i>Localized Text</i>

A property for specifying descriptions of a city is requested. The proposed description property of schema.org can be used for this purpose. Note that the description values can be in multiple languages which means the usage of RDF language-tagged strings¹ is advised when generating data according to this DS.

Representation with schema.org

Property	Domain	Range
schema:description	schema:City	schema:Text

2.6 Request for a property event

<i>PROPERTY</i>	<i>CARDINALITY</i>	<i>RANGE TYPES</i>
<i>event</i>	<i>0 +</i>	<i>Event</i>

A property for specifying the events taking place in a city is requested. The proposed event property of schema.org can be used for this purpose. Note that there is already an EventDS request made by ODTA and this EventDS may be used for the range of this property. This point must be discussed within ODTA.

Representation with schema.org

Property	Domain	Range
schema:event	schema:City	schema:Event

¹ <https://www.w3.org/TR/rdf11-concepts/#section-Graph-Literal>

2.7 Request for a property geo

<i>PROPERTY</i>	<i>CARDINALITY</i>	<i>RANGE TYPES</i>
<i>geo</i>	<i>0 - 1</i>	GeoCoordinates GeoShape

A property for specifying the geo coordinates of a city is requested. The proposed geo property of schema.org can be used for this purpose. The RDS specifies that a city can have a maximum one pair of geo coordinates.

Representation with schema.org

Property	Domain	Range
schema:geo	schema:City	schema:GeoCoordinates

2.8 Request for a property hasMap

<i>PROPERTY</i>	<i>CARDINALITY</i>	<i>RANGE TYPES</i>
<i>hasMap</i>	<i>0 +</i>	<i>URL</i>

A property for specifying the URL for a map of a city is requested. The proposed hasMap property of schema.org can be used for this purpose.

Representation with schema.org

Property	Domain	Range
schema:hasMap	schema:City	schema:URL

2.9 Request for a property identifier

<i>PROPERTY</i>	<i>CARDINALITY</i>	<i>RANGE TYPES</i>
<i>identifier</i>	<i>0 +</i>	<i>Text</i> <i>PropertyValue</i> <i>URL</i>

A property for specifying a custom identifier for a city instance is requested. The proposed identifier property of schema.org can be used for this purpose.

Representation with schema.org

Property	Domain	Range
schema:identifier	schema:City	schema:Text OR schema:PropertyValue OR schema:URL

2.10 Request for a property image

<i>PROPERTY</i>	<i>CARDINALITY</i>	<i>RANGE TYPES</i>
<i>image</i>	<i>0 +</i>	<i>URL</i> <i>ImageObject</i>

A property for specifying images of a city is requested. The proposed image property of schema.org can be used for this purpose.

Representation with schema.org

Property	Domain	Range
schema:image	schema:City	schema:ImageObject OR schema:URL

2.11 Request for a property mainEntityOfPage and subjectOf

<i>PROPERTY</i>	<i>CARDINALITY</i>	<i>RANGE TYPES</i>
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<i>mainEntityOfPage</i>	0 +	URL
<i>subjectOf</i>	0 +	CreativeWork

A property for connecting city instances to various creative work is requested. In the RDS, there are two properties that can be used for this purpose, namely *mainEntityOfPage* and *subjectOf*. In order to avoid redundancy, we recommend to use the *mainEntityOfPage* property with *CreativeWork* or *URL* types in its range and eliminate the *subjectOf* property.

Representation with schema.org

Property	Domain	Range
schema:mainEntityOfPage	schema:City	schema:CreativeWork OR schema:URL

2.12 Request for a property name

PROPERTY	CARDINALITY	RANGE TYPES
<i>name</i>	1 +	<i>Text</i> <i>Localized Text</i>

A property for specifying names of a city is requested. The proposed name property of schema.org can be used for this purpose. Note that the name values can be in multiple languages which means the usage of RDF language-tagged strings² is advised when generating data according to this DS. A city must have at least one name.

Representation with schema.org

Property	Domain	Range
schema:name	schema:City	schema:Text

2.13 Request for a property sameAs

PROPERTY	CARDINALITY	RANGE TYPES
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² <https://www.w3.org/TR/rdf11-concepts/#section-Graph-Literal>

<i>sameAs</i>	<i>0 +</i>	<i>URL</i>
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A property for specifying the duplicate instances of a city instance is requested. The proposed sameAs property of schema.org can be used for this purpose.

Representation with schema.org

Property	Domain	Range
schema:sameAs	schema:City	schema:URL

2.14 Request for a property sdLicense

PROPERTY	CARDINALITY	RANGE TYPES
<i>sdLicense</i>	<i>0 +</i>	<i>URL</i> <i>CreativeWork</i>

A property for specifying the license of an instance is requested. This request is not relevant only for the city instances but for all instances. The property provides a straightforward way to attach licenses at instance level. Schema.org defines an sdLicense property only on CreativeWork type, but the RDS wants to extend the domain of this property to Thing. We take on this proposal. See the LodgingBusinessDS for potential values of this property from the CreativeCommons licenses.

Extension to schema.org

Property	Domain	Range
schema:sdLicense	schema:City	schema:URL OR schema:CreativeWork

2.15 Request for a property slogan

PROPERTY	CARDINALITY	RANGE TYPES
<i>slogan</i>	<i>0 +</i>	<i>Text</i>

A property for specifying the slogan of a city is requested. The proposed slogan property of schema.org can be used for this purpose.

Representation with schema.org

Property	Domain	Range
schema:slogan	schema:City	schema:Text

2.16 Request for a property tourBookingPage

PROPERTY	CARDINALITY	RANGE TYPES
<i>tourBookingPage</i>	0 +	URL

A property for specifying the page where tours in a city can be booked is requested. The proposed `tourBookingPage` property of schema.org can be used for this purpose.

Representation with schema.org

Property	Domain	Range
schema:tourBookingPage	schema:City	schema:URL

2.17 Request for a property url

PROPERTY	CARDINALITY	RANGE TYPES
<i>url</i>	0 +	URL

A property for specifying the url of a page that represents a city is requested. The `url` property of schema.org can be used for this purpose. Note that a URI for a specific instance should be defined by the means of RDF (e.g., `@id` property of JSON-LD).

Representation with schema.org

Property	Domain	Range
schema:url	schema:City	schema:URL

3. Conclusion

The DS was accepted as shown in the Request for Comments on 14.08.2024