collection-json Documentation

Release

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Release 0.1.1. *(Changelog)*

collection-json is a Python (2 and 3) library for working with Collection+JSON documents.
1.1 License

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1.2 Installation

1.2.1 From PyPI

$ pip install collection-json

1.2.2 From source

collection-json is being hosted on Github.

You can clone the master repo:

$ git clone https://github.com/ricardokirkner/collection-json.python.git
Or download one of the following:

- tarball
- zipfile

Once you have the source, you can install it locally by running

```bash
$ python setup.py install
```

### 1.2.3 Get the bleeding edge version

To get the latest development version of collection-json, run

```bash
$ pip install -U git+https://github.com/ricardokirkner/collection-json.python.git@dev
```

**Python**

collection-json is compatible with Python 2.7, 3.3 and 3.4.

### 1.3 Example usage

Parse a json document into a Collection object

```python
>>> from collection_json import Collection
>>> data = '{"collection": {"version": "1.0", "href": "..."}}'
>>> collection = Collection.from_json(data)
>>> collection
<Collection: version='1.0' href='...'>
```

Serialize a Collection object into a dictionary

```python
>>> from collection_json import Collection
>>> data = '{"collection": {"version": "1.0", "href": "..."}}'
>>> collection = Collection.from_json(data)
>>> expected = {'collection': {'version': '1.0', 'href': '...'}}
>>> collection.to_dict() == expected
True
```

Serialize a Collection object into a json string

```python
>>> import json
>>> from collection_json import Collection
>>> data = '{"collection": {"version": "1.0", "href": "..."}}'
>>> collection = Collection.from_json(data)
>>> expected = json.dumps(collection.to_dict())
>>> str(collection) == expected
True
```

Inspect collection properties

```python
>>> from collection_json import Collection
>>> data = '{"collection": {"version": "1.0", "href": "..."}}'
>>> collection = Collection.from_json(data)
>>> collection.version
'1.0'
```
**1.3. Example usage**
Serializing a template from json

```python
>>> from collection_json import Template
>>> data = '{"template": {"data": [ {"name": "first_name", "value": "John"}, {"name": "last_name", "value": "Doe"} ]}}
>>> template = Template.from_json(data)
>>> template.first_name.value
'John'
>>> template.last_name.value
'Doe'
```

## 1.4 API Reference

Classes for representing a Collection+JSON document.

```python
class collection_json.Array(item_class, collection_name, items)
   Bases: collection_json.ComparableObject, list

Object representing a Collection+JSON array.

   find(name=None, rel=None)
       Return a list of items in the array matching name and/or rel.
       If both name and rel parameters are provided, returned items must match both properties.

   get(name=None, rel=None)
       Return the first item in the array matching name and/or rel.
       If both name and rel parameters are provided, the returned item must match both properties.
       If no item is found, raises ValueError.

   to_dict()
       Return a dictionary representing an Array object.

class collection_json.ArrayProperty(cls, name)
   Bases: object

A descriptor that converts from any enumerable to a typed Array.

class collection_json.Collection(href, links=None, items=None, queries=None, template=None, error=None, version='1.0')
   Bases: collection_json.ComparableObject

Object representing a Collection+JSON document.

   error
       A descriptor for assigning only a specific type of instance.
       Additionally supports assigning a dictionary convertible to the type.

   static from_json(data)
       Return a Collection instance.
       This method parses a json string into a Collection object.
       Raises ValueError when no valid document is provided.
```
items
A descriptor that converts from any enumerable to a typed Array.

links
A descriptor that converts from any enumerable to a typed Array.

queries
A descriptor that converts from any enumerable to a typed Array.

template
A descriptor for assigning only a specific type of instance.
Additionally supports assigning a dictionary convertible to the type.

to_dict()
Return a dictionary representing a Collection object.

class collection_json.ComparableObject
Bases: object
Abstract base class for objects implementing equality comparison.
This class provides default __eq__ and __ne__ implementations.

class collection_json.Data(name, value=None, prompt=None)
Bases: collection_json.ComparableObject
Object representing a Collection+JSON data object.

to_dict()
Return a dictionary representing a Data object.

class collection_json.Error(code=None, message=None, title=None)
Bases: collection_json.ComparableObject
Object representing a Collection+JSON error object.

to_dict()
Return a dictionary representing the Error instance.

class collection_json.Item(href=None, data=None, links=None)
Bases: collection_json.ComparableObject
Object representing a Collection+JSON item object.

data
A descriptor that converts from any enumerable to a typed Array.

links
A descriptor that converts from any enumerable to a typed Array.

properties
Return a list of names that can be looked up on the item.

to_dict()
Return a dictionary representing an Item object.

class collection_json.Link(href, rel, name=None, render=None, prompt=None)
Bases: collection_json.ComparableObject
Object representing a Collection+JSON link object.

to_dict()
Return a dictionary representing a Link object.
class collection_json.Query (href, rel, name=None, prompt=None, data=None)
    Bases: collection_json.ComparableObject
    Object representing a Collection+JSON query object.

    data
    A descriptor that converts from any enumerable to a typed Array.

    to_dict ()
    Return a dictionary representing a Query object.

class collection_json.Template (data=None)
    Bases: collection_json.ComparableObject
    Object representing a Collection+JSON template object.

    data
    A descriptor that converts from any enumerable to a typed Array.

    static from_json (data)
    Return a template instance.
    Convenience method for parsing 'write' responses, which should only contain a template object.
    This method parses a json string into a Template object.
    Raises ValueError when no valid document is provided.

    properties
    Return a list of names that can be looked up on the template.

    to_dict ()
    Return a dictionary representing a Template object.

class collection_json.TypedProperty (cls, name)
    Bases: object
    A descriptor for assigning only a specific type of instance.
    Additionally supports assigning a dictionary convertible to the type.
2.1 Changelog

2.1.1 0.1.1 (2015-03-03): Usability

• cast value to the right type when setting arrays (items, links, queries, data) and typed values (error, template)
• added support for Template to load from json
• support serializing Collection directly as string
• added helper for returning the first match in an array

2.1.2 0.1.0 (2014-02-24): Basics

• added basic classes for representing Collection+JSON documents
• allow querying array items by rel and name attributes
• attribute lookup on array searches items by name
• ensure href is a required parameter for collection
• expose data item names as `properties` attribute in Item and Template
• access data items via attribute lookup on item name

2.1.3 0.0.1dev (2014-02-21)

• Initial release.

2.2 Authors

collection-json is written and maintained by Ricardo Kirkner and various contributors.

2.2.1 Development Lead

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2.2.2 Contributors

- Chris Marinos (@ChrisMarinos)
- Daniel DeSousa (@dandesousa)
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