
pyopendata Documentation

Release 0.0.3.dev

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October 26, 2014

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Contents:

What's New

1.1 0.0.2

- Support WorldBank API by *DataStore('worldbank')*.
- *DataResource* now has *get* method to search a resource in the package.
- *DataResource* now caches data once read from data source.
- *EuroStatStore* and *EuroStatResource* renamed to *EurostatStore* and *EurostatResource*.

1.2 0.0.1

Initial Release

Overview

`pyopendata` is a Python utility to offer an unified API to read world various data sources, and output `pandas.DataFrame`.

This is an unstable release and API is forced to be changed.

Installation

Use `pip`.

```
pip install pyopendata
```

Basic Usage

This section explains how to retrieve data from website which uses CKAN API. You can create `DataStore` instance to access CKAN website by passing CKAN URL to `DataStore` class.

In this example, we're going to retrieve the 'California Unemployment Statistics' data from `data.gov`. The target URL is:

- <https://catalog.data.gov/dataset/california-unemployment-statistics/resource/ffd05307-4528-4d15-a370-c16222119227>

We can read above URL as:

- CKAN API URL: <https://catalog.data.gov/>
- Package ID: `california-unemployment-statistics`
- Resource ID: `ffd05307-4528-4d15-a370-c16222119227`

```
In [1]: import pyopendata as pyod
```

```
In [2]: store = pyod.DataStore('http://catalog.data.gov/')
```

```
In [3]: store
```

```
Out [3]: CKANStore (http://catalog.data.gov)
```

`DataStore.search` performs search by keyword. Results will be the list of packages. You can select a target package by slicing.

```
In [4]: packages = store.search('Unemployment Statistics')
```

```
In [5]: packages
```

```
Out [5]:
```

```
[annual-survey-of-school-system-finances (1 resource),
 current-population-survey (1 resource),
 federal-aid-to-states (1 resource),
 dataferrett (1 resource),
 unemployment-rate (3 resources),
 local-area-unemployment-statistics (2 resources),
 mass-layoff-statistics (1 resource),
 consolidated-federal-funds-report (1 resource),
 annual-survey-of-state-government-finances (1 resource),
 foreign-labor-statistics (1 resource)]
```

```
In [6]: packages[0]
```

```
Out [6]: annual-survey-of-school-system-finances (1 resource)
```

Otherwise, specify the package name to be retrieved.

```
In [7]: package = store.get('california-unemployment-statistics')
```

```
In [8]: package
```

```
Out[8]: california-unemployment-statistics (4 resources)
```

A package has resources (files) which contains actual data. You use *get* method to retrieve the resource.

```
In [9]: resource = package.get('ffd05307-4528-4d15-a370-c16222119227')
```

```
In [10]: resource
```

```
Out[10]:
```

```
Resource ID: ffd05307-4528-4d15-a370-c16222119227
```

```
Resource Name: Comma Separated Values File
```

```
Resource URL: https://data.lacity.org/api/views/5zrb-xqhf/rows.csv?accessType=DOWNLOAD
```

```
Format: CSV, Size: None
```

Once you get the resource, use *read* method to read data as pandas DataFrame.

Important: The target file must be the correct format which can be parsed by pandas IO functions.

```
In [11]: df = resource.read()
```

```
[=====]
```

```
In [12]: df.head()
```

```
Out[12]:
```

	Year	Period	Area	Unemployment Rate	Labor Force	\
0	2013	Jan	California	10.4%	18556500	
1	2013	Jan	Los Angeles County	10.9%	4891500	
2	2013	Jan	Los Angeles City	12%	1915600	
3	2013	Feb	California	9.699999999999999%	18648300	
4	2013	Feb	Los Angeles County	10.3%	4924000	

	Employment	Unemployment	Adjusted	Preliminary
0	16631900	1924600	Not Adj	Not Prelim
1	4357800	533800	Not Adj	Not Prelim
2	1684800	230800	Not Adj	Not Prelim
3	16835900	1812400	Not Adj	Not Prelim
4	4418000	506000	Not Adj	Not Prelim

Or you can get raw data by specifying *raw=True*.

```
In [13]: raw = resource.read(raw=True)
```

```
In [14]: raw[:100]
```

```
Out[14]: 'Year,Period,Area,Unemployment Rate,Labor Force,Employment,Unemployment,Adjusted,Preliminary'
```

Access to CKAN Datasource

DataStore supports an access to CKAN API. Websites which has CKAN API are listed in the following URL.

<http://ckan.org/instances/>

5.1 Initialize CKAN Datasource

To create DataStore for CKAN access, pass URL offers API. For example, [data.gov](http://catalog.data.gov/api) offers API via:

<http://catalog.data.gov/api>

In this case, any of following 4 URL formats can be used for DataStore initialization.

- <http://catalog.data.gov/api>
- <http://catalog.data.gov/api/>
- <http://catalog.data.gov>
- <http://catalog.data.gov/>

```
In [1]: import pyopendata as pyod
```

```
In [2]: pyod.DataStore('http://catalog.data.gov/api')
```

```
Out[2]: CKANStore (http://catalog.data.gov)
```

```
In [3]: pyod.DataStore('http://catalog.data.gov/api/')
```

```
Out[3]: CKANStore (http://catalog.data.gov)
```

```
In [4]: pyod.DataStore('http://catalog.data.gov')
```

```
Out[4]: CKANStore (http://catalog.data.gov)
```

```
In [5]: pyod.DataStore('http://catalog.data.gov/')
```

```
Out[5]: CKANStore (http://catalog.data.gov)
```

Important: *DataStore* validates the input URL using CKAN *site_read* function. If this function is closed on the target website, initialization should fail. In this case, instantiate `pyod.CKANStore` directly.

For example, data.go.jp doesn't allow to use *site_read*.

```
# should fail
```

```
In [6]: pyod.DataStore('http://www.data.go.jp/data')
```

```
-----
ValueError
```

```
Traceback (most recent call last)
```

```
<ipython-input-6-523a640bdcc0> in <module> ()
----> 1 pyod.DataStore('http://www.data.go.jp/data')

/home/docs/checkouts/readthedocs.org/user_builds/pyopendata/envs/latest/local/lib/python2.7/site-pack
172         if store.is_valid():
173             return store
--> 174         raise ValueError('Unable to initialize DataStore with {0}'.format(kind_or_url))
175
176     def __init__(self, kid_or_url=None, proxies=None):

ValueError: Unable to initialize DataStore with http://www.data.go.jp/data

# should be OK
In [7]: pyod.CKANStore('http://www.data.go.jp/data')
Out [7]: CKANStore (http://www.data.go.jp/data)
```

5.2 Read Data

Once you create `DataStore`, you can access to data as described in *Basic Usage*.

Access to Eurostat Datasource

Create DataStore for Eurostat by passing eurostat at initialization.

```
In [1]: import pyopendata as pyod
```

```
In [2]: store = pyod.DataStore('eurostat')
```

```
In [3]: store
```

```
Out [3]: EurostatStore (http://www.ec.europa.eu/eurostat/SDMX/diss-web/rest)
```

Get Employed doctorate holders in non managerial and non professional occupations by fields of science data. The result will be a DataFrame which has DatetimeIndex as index and MultiIndex of attributes or countries as column. The target URL is:

- http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=cdh_e_fos&lang=en

We can read above URL as:

- Resource ID: cdh_e_fos

```
In [4]: resource = store.get('cdh_e_fos')
```

```
In [5]: resource
```

```
Out [5]: EurostatResource (http://www.ec.europa.eu/eurostat/SDMX/diss-web/rest/data/cdh_e_fos/?)
```

```
In [6]: df = resource.read();
```

```
In [7]: df
```

```
Out [7]:
```

UNIT	Percentage			
Y_GRAD	Total			
FOS07	Natural sciences			
GEO	Austria	Belgium	Bulgaria	Cyprus
FREQ	Annual	Annual	Annual	Annual
TIME_PERIOD				
2006-01-01	NaN	NaN	0	100
2009-01-01	NaN	NaN	NaN	NaN

UNIT	
Y_GRAD	
FOS07	
GEO	Germany (until 1990 former territory of the FRG)
FREQ	Annual
TIME_PERIOD	
2006-01-01	36.65

```

2009-01-01                                     NaN

UNIT                                           ...
Y_GRAD                                         ...
FOS07                                          ...
GEO                                             ...
FREQ                                           ...
TIME_PERIOD                                   ...
2006-01-01                                     NaN
2009-01-01                                     NaN

UNIT
Y_GRAD
FOS07
GEO      Sweden  Slovenia  Turkey  United States
FREQ      Annual   Annual   Annual   Annual
TIME_PERIOD
2006-01-01    NaN     NaN     NaN     NaN
2009-01-01    NaN     NaN     NaN     NaN

```

[2 rows x 336 columns]

You can access to specific data by slicing column.

```
In [8]: usa = df['Percentage']['Total']['Natural sciences']['United States']
```

```
In [9]: usa
```

```
Out [9]:
```

```

FREQ      Annual
TIME_PERIOD
2006-01-01    46.31
2009-01-01    39.65

```

Access to OECD Datasource

Create DataStore for OECD by passing `oecd` at initialization.

```
In [1]: import pyopendata as pyod
```

```
In [2]: store = pyod.DataStore('oecd')
```

```
In [3]: store
```

```
Out [3]: OECDStore (http://stats.oecd.org/SDMX-JSON/data)
```

Get **Trade Union Density** data. The result will be a DataFrame which has `DatetimeIndex` as index and countries as column. The target URL is:

- http://stats.oecd.org/Index.aspx?DataSetCode=UN_DEN

We can read above URL as:

- Resource ID: UN_DEN

```
In [4]: resource = store.get('UN_DEN')
```

```
In [5]: resource
```

```
Out [5]: OECDResource (http://stats.oecd.org/SDMX-JSON/data/UN_DEN/SVN+FRA+EST+SVK+BEL+ESP+LUX+ISR+SWI)
```

```
In [6]: df = resource.read();
```

```
In [7]: df
```

```
Out [7]:
```

Country	Australia	Austria	Belgium	Canada	Switzerland	\
Time						
1960-01-01	50.172928	67.883195	39.289583	29.162502	31.016277	
1961-01-01	49.471810	67.332974	38.320964	28.517935	30.221666	
1962-01-01	49.521062	66.657029	36.851721	27.068670	29.564944	
1963-01-01	49.163413	67.059648	37.687135	26.763945	28.907253	
1964-01-01	48.192964	66.624361	37.280876	26.438817	28.487138	
...	
2009-01-01	19.312195	28.650257	51.509849	27.260124	17.337015	
2010-01-01	18.444057	28.371679	50.594410	27.408303	17.120516	
2011-01-01	18.514077	27.769651	50.374782	27.111712	16.653467	
2012-01-01	18.197189	NaN	NaN	27.462644	16.211944	
2013-01-01	17.040712	NaN	NaN	27.182000	NaN	
Country	...	Slovak Republic	Slovenia	Sweden	Turkey	\
Time	...					
1960-01-01	...		NaN	NaN	72.081019	NaN

```

1961-01-01    ...                NaN          NaN  72.396761      NaN
1962-01-01    ...                NaN          NaN  72.932867      NaN
1963-01-01    ...                NaN          NaN  66.066797      NaN
1964-01-01    ...                NaN          NaN  66.725265      NaN
...          ...                ...          ...    ...          ...
2009-01-01    ...                17.040898      NaN  68.414634  5.860599
2010-01-01    ...                16.948282  26.272989  68.219845  5.853252
2011-01-01    ...                16.955248  24.399640  67.496803  5.394394
2012-01-01    ...                NaN          NaN  67.505935  4.541725
2013-01-01    ...                NaN          NaN  67.732503      NaN

```

```

Country      United States
Time
1960-01-01   30.897484
1961-01-01   29.518912
1962-01-01   29.342769
1963-01-01   28.513375
1964-01-01   28.306461
...          ...
2009-01-01   11.794019
2010-01-01   11.383460
2011-01-01   11.329488
2012-01-01   11.078848
2013-01-01   10.807891

```

[54 rows x 35 columns]

You can access to specific data by slicing column.

```
In [8]: usa = df['United States']
```

```
In [9]: usa
```

```
Out [9]:
```

```

Time
1960-01-01   30.897484
1961-01-01   29.518912
1962-01-01   29.342769
...
2011-01-01   11.329488
2012-01-01   11.078848
2013-01-01   10.807891
Name: United States, Length: 54

```

Access to WorldBank Datasource

Create DataStore for WorldBank by passing worldbank at initialization.

```
In [1]: import pyopendata as pyod
```

```
In [2]: store = pyod.DataStore('worldbank')
```

```
In [3]: store
```

```
Out [3]: WorldBankStore (http://api.worldbank.org)
```

Get GDP per capita (current US\$) data. The result will be a DataFrame which has DatetimeIndex as index, and indicator and countries as column. The target URL is:

- <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>

We can read above URL as:

- Resource ID: NY.GDP.PCAP.CD

```
In [4]: resource = store.get('NY.GDP.PCAP.CD')
```

```
In [5]: resource
```

```
Out [5]: WorldBankResource (http://api.worldbank.org/countries/all/indicators/NY.GDP.PCAP.CD?format=json)
```

```
In [6]: df = resource.read();
```

```
In [7]: df.columns
```

```
Out [7]:
```

```
MultiIndex(levels=[[u'GDP per capita (current US$)'], [u'Afghanistan', u'Albania', u'Algeria', u'Amer  
              labels=[[0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,  
              names=[u'indicator', u'country'])
```

You can access to specific data by slicing column.

```
In [8]: jp = df['GDP per capita (current US$)']['Japan']
```

```
In [9]: jp
```

```
Out [9]:
```

```
date
```

```
1960-01-01    478.995340
```

```
1961-01-01    563.586760
```

```
1962-01-01    633.640315
```

```
...
```

```
2011-01-01    46203.698037
```

```
2012-01-01    46548.269637
```

2013-01-01 38492.088895
Name: Japan, Length: 54

`io` module has some methods to parse specific types of XML/JSON.

- `read_jstat`
- `read_sdmx`
- `read_jsdmx`

9.1 read_jstat

Read JSON-stat file.

```
In [1]: import pyopendata as pyod
```

```
In [2]: pyod.io.read_jstat('http://json-stat.org/samples/us-gsp.json')
```

Out[2]:

```
concept          Gross State Product \
year state
2013 Alabama      174400
      Alaska       45600
      Arizona      261300
      Arkansas     105800
      California   2080600
...
      Virginia     427700
      Washington   351100
      West Virginia 66600
      Wisconsin    251400
      Wyoming      38200

concept          Gross State Product as percentage of national GDP \
year state
2013 Alabama      1.20
      Alaska       0.31
      Arizona      1.80
      Arkansas     0.73
      California   13.34
...
      Virginia     2.95
      Washington   2.42
      West Virginia 0.46
      Wisconsin    1.73
```

```

Wyoming
0.26

concept          Gross State Product per capita  Population
year state
2013 Alabama      36333          4.8
      Alaska      65143          0.7
      Arizona     40828          6.4
      Arkansas    36483          2.9
      California  51914          37.3
...
      Virginia   53463          8.0
      Washington  52403          6.7
      West Virginia 35053          1.9
      Wisconsin  44105          5.7
      Wyoming    63667          0.6

[51 rows x 4 columns]

```

9.2 read_sdmx

Read [SDMX-XML](#) file. The format is used in Eurostat.

9.3 read_jsdmx

Read [SDMX-JSON](#) file. The format is used in OECD.

API:

pyopendata package

10.1 Subpackages

10.1.1 pyopendata.io package

Subpackages

pyopendata.io.tests package

Submodules

pyopendata.io.tests.test_jsdmx module

```
class pyopendata.io.tests.test_jsdmx.TestSDMX (methodName='runTest')  
    Bases: pandas.util.testing.TestCase  
  
    setUp()  
  
    test_land_use()  
  
    test_tourism()
```

pyopendata.io.tests.test_jstat module

```
class pyopendata.io.tests.test_jstat.TestJStat (methodName='runTest')  
    Bases: pandas.util.testing.TestCase  
  
    setUp()  
  
    test_hierarchy()  
  
    test_oecd_canada()  
  
    test_omit_values()  
  
    test_order()  
  
    test_us_gsp()  
  
    test_us_labor()  
  
    test_us_unr()
```

pyopendata.io.tests.test_sdmx module

class `pyopendata.io.tests.test_sdmx.TestSDMX` (*methodName='runTest'*)
Bases: `pandas.util.testing.TestCase`

setUp ()

test_tourism ()

Module contents

Submodules

pyopendata.io.jsdmx module

`pyopendata.io.jsdmx.read_jsdmx` (*path_or_buf*)
Convert a SDMX-JSON string to pandas object

filepath_or_buffer [a valid SDMX-JSON string or file-like] <http://sdmx.org/wp-content/uploads/2014/07/sdmx-json-data-message.pdf>

results : Series, DataFrame, or dictionary of Series or DataFrame.

pyopendata.io.jstat module

`pyopendata.io.jstat.read_jstat` (*path_or_buf*, *typ=u'frame'*, *squeeze=True*)
Convert a JSON-Stat string to pandas object

filepath_or_buffer [a valid JSON-Stat string or file-like] <http://json-stat.org/>

typ [{'frame', 'series'}] Type of object to recover (series or frame), default 'frame'

squeeze [bool, default True] If True, return DataFrame or Series when the input has only one dataset. When the input has multiple dataset, returns dictionary of results. If False, always return a dictionary.

results : Series, DataFrame, or dictionary of Series or DataFrame.

pyopendata.io.sdmx module

class `pyopendata.io.sdmx.SDMXCode`
Bases: `tuple`

`SDMXCode`(codes, ts)

codes
Alias for field number 0

ts
Alias for field number 1

`pyopendata.io.sdmx.read_sdmx` (*path_or_buf*, *dtype=u'float64'*, *dsd=None*)
Convert a SDMX-XML string to pandas object

filepath_or_buffer [a valid SDMX-XML string or file-like] https://webgate.ec.europa.eu/fpfis/mwikis/sdmx/index.php/Main_Page

dtype [str] dtype to coerce values

dsd [dict] parsed DSD dict corresponding to the SDMX-XML data

results : Series, DataFrame, or dictionary of Series or DataFrame.

pyopendata.io.util module

Module contents

10.1.2 pyopendata.tests package

Submodules

pyopendata.tests.test_base module

```
class pyopendata.tests.test_base.TestDataStore (methodName='runTest')
    Bases: pandas.util.testing.TestCase

    test_initialize()
```

pyopendata.tests.test_ckan module

```
class pyopendata.tests.test_ckan.CKANTestBase (methodName='runTest')
    Bases: pandas.util.testing.TestCase

    setUp()

    test_formats()

    test_groups()

    test_isvalid()

    test_packages()

    test_resource()

    test_search()

class pyopendata.tests.test_ckan.TestCKANTestSite (methodName='runTest')
    Bases: pyopendata.tests.test_ckan.CKANTestBase

    test_formats()

    test_tags()

    test_urlformat()

class pyopendata.tests.test_ckan.TestDATAGOJP (methodName='runTest')
    Bases: pyopendata.tests.test_ckan.CKANTestBase

    test_formats()

    test_isvalid()

    test_mining_manufacture()

    test_tags()

class pyopendata.tests.test_ckan.TestDATAGOV (methodName='runTest')
    Bases: pyopendata.tests.test_ckan.CKANTestBase

    test_formats()

    test_groups()

    test_raw_data()

    test_tags()
```

pyopendata.tests.test_eurostat module

```
class pyopendata.tests.test_eurostat.TestEurostatTestSite (methodName='runTest')
    Bases: pandas.util.testing.TestCase

    setUp()

    test_datasets()

    test_get_cdh_e_fos()

    test_get_sts_cobp_a()

    test_isvalid()
```

pyopendata.tests.test_oecd module

```
class pyopendata.tests.test_oecd.TestOECDTestSite (methodName='runTest')
    Bases: pandas.util.testing.TestCase

    setUp()

    test_get_tourism()

    test_get_un_den()

    test_isvalid()
```

pyopendata.tests.test_worldbank module

```
class pyopendata.tests.test_worldbank.TestWorldBankTestSite (methodName='runTest')
    Bases: pandas.util.testing.TestCase

    setUp()

    test_get_co2_emit()

    test_get_gdp_per_capita()

    test_isvalid()
```

Module contents

10.1.3 pyopendata.util package

Submodules

pyopendata.util.network module

```
class pyopendata.util.network.ProgressBar (total=None, length=20)
    Display Progress Bar

    total [int] Total size to be processed

    length: Number of progress bar characters

    update (current)
```

Module contents

10.2 Submodules

10.3 pyopendata.base module

class `pyopendata.base.DataResource` (*format=None, id=None, name=None, url=None, proxies=None, size=None, **kwargs*)

Bases: `pandas.core.base.StringMixin`

Represents a data contained in the URL

read (*raw=False, **kwargs*)

Read data from resource

raw [bool, default False] If False, return `pandas.DataFrame`. If True, return raw data

kwargs: Keywords passed to `pandas.read_xxx` function

data : `pandas.DataFrame` or `requests.raw.data`

- Depending on the target format, parsing to `pandas.DataFrame` may fail. Use `raw=True` to get raw data in such cases.

class `pyopendata.base.DataStore` (*kid_or_url=None, proxies=None*)

Bases: `pyopendata.base.DataResource`

datasets

get (*name*)

Get resource by `resource_id`.

resource_id [str] id to specify resource

result : `DataResource`

is_valid ()

Check whether the site has valid API.

is_valid : bool

search (*serch_string*)

Search resources by `search_string`.

search string [str] keyword to search

result : list of `DataResource`

10.4 pyopendata.ckan module

class `pyopendata.ckan.CKANPackage` (*_store=None, resources=None, name=None, **kwargs*)

Bases: `pyopendata.base.DataResource`

get (*resource_id*)

Get resource by `resource_id`.

resource_id [str] id to specify resource

result : `CKANResource`

get_resource (*resource_id*)
Get resource by resource_id.

resource_id [str] id to specify resource

result : CKANResource

read (*raw=False, **kwargs*)

Read data from its resource if the number of resource is 1. Otherwise, raise ValueError.

raw [bool, default False] If False, return pandas.DataFrame. If True, return raw data

kwargs: Keywords passed to pandas.read_xxx function

data : pandas.DataFrame or requests.raw.data

resources

class pyopendata.ckan.**CKANResource** (*_store=None, resources=None, **kwargs*)
Bases: `pyopendata.base.DataResource`

read (*raw=False, **kwargs*)

Read data from resource

raw [bool, default False] If False, return pandas.DataFrame. If True, return raw data

kwargs: Keywords passed to pandas.read_xxx function

data : pandas.DataFrame or requests.raw.data

- Depending on the target format, parsing to pandas.DataFrame may fail. Use raw=True to get raw data in such cases.

class pyopendata.ckan.**CKANStore** (*kid_or_url=None, proxies=None*)
Bases: `pyopendata.base.DataStore`

Storage class to read data via CKAN API

url [string] URL for CKAN API

datasets

get (*object_id*)

Get instance related to object_id. First try to get_resource, then get_package.

object_id [str] id to specify resource or package

result : CKANResource or CKANPackage

get_package (*package_id*)

Get package related to package_id.

package_id [str] id to specify package

result : CKANPackage

get_packages_from_group (*group_id*)

get_resource (*resource_id*)

Get resource by resource_id.

resource_id [str] id to specify resource

result : CKANResource

get_resources_from_tag (*tag*)

groups

is_valid()
 Check whether the site has valid API.
 is_valid : bool

packages

search (*search_string*)
 Search resources by search_string.
search_storing [str] keyword to search
 result : list of CKANResource

search_package (*search_string*)

search_resource (*search_string*)

tags

10.5 pyopendata.eurostat module

class pyopendata.eurostat.**EurostatResource** (**kwargs)
 Bases: pyopendata.base.DataResource

dsd

class pyopendata.eurostat.**EurostatStore** (kid_or_url=None, proxies=None)
 Bases: pyopendata.base.DataStore

Storage class to read Eurostat data

datasets

get (*data_id*)
 Get resource by resource_id.
resource_id [str] id to specify resource
 result : EurostatResource

10.6 pyopendata.oecd module

class pyopendata.oecd.**OECDResource** (format=None, id=None, name=None, url=None, proxies=None, size=None, **kwargs)
 Bases: pyopendata.base.DataResource

class pyopendata.oecd.**OECDStore** (kid_or_url=None, proxies=None)
 Bases: pyopendata.base.DataStore

Storage class to read OECD data

get (*resource_id*)
 Get resource by resource_id.
resource_id [str] id to specify resource
 result : OECDResource

10.7 pyopendata.undata module

```
class pyopendata.undata.UNdataResource (**kwargs)
    Bases: pyopendata.base.DataResource

class pyopendata.undata.UNdataStore (kid_or_url=None, proxies=None)
    Bases: pyopendata.base.DataStore

    Storage class to read UNdata data

    datasets

    get (data_id)

    is_valid ()
        Check whether the site has valid API.

        is_valid : bool
```

10.8 pyopendata.version module

10.9 pyopendata.worldbank module

```
class pyopendata.worldbank.WorldBankResource (format=None, id=None, name=None,
                                                url=None, proxies=None, size=None,
                                                **kwargs)

    Bases: pyopendata.base.DataResource

    entries_per_page = 500

class pyopendata.worldbank.WorldBankStore (kid_or_url=None, proxies=None)
    Bases: pyopendata.base.DataStore

    Storage class to read World Bank data

    get (resource_id)
        Get resource by resource_id.

        resource_id [str] id to specify resource

        result : WorldBankResource
```

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