
pyLoDStorage

Sep 20, 2023

Contents:

1	sampledata package	1
1.1	Module contents	1
2	setup module	3
3	tests package	5
3.1	Submodules	5
3.2	tests.basetest module	5
3.3	tests.testEntityManager module	6
3.4	tests.testJson module	6
3.5	tests.testPandas module	7
3.6	tests.testSPARQL module	7
3.7	tests.testSqlite3 module	7
3.8	tests.testTrulyTabular module	8
3.9	tests.test_Plot module	8
3.10	tests.test_Tabulate module	8
3.11	tests.test_csv module	8
3.12	tests.test_lod module	9
3.13	tests.test_queries module	10
3.14	Module contents	10
4	Indices and tables	11
	Python Module Index	13
	Index	15

CHAPTER 1

sampledata package

1.1 Module contents

CHAPTER 2

setup module

3.1 Submodules

3.2 tests.basetest module

Created on 2021-08-19

@author: wf

```
class tests.basetest.Basetest (methodName='runTest')
```

```
    Bases: unittest.case.TestCase
```

```
    base test case
```

```
    Create an instance of the class that will use the named test method when executed. Raises a ValueError if the instance does not have a method with the specified name.
```

```
    static inPublicCI ()
```

```
        are we running in a public Continuous Integration Environment?
```

```
    static isUser (name: str)
```

```
        Checks if the system has the given name
```

```
    setUp (debug=False, profile=True)
```

```
        setUp test environment
```

```
    tearDown ()
```

```
        Hook method for deconstructing the test fixture after testing it.
```

```
class tests.basetest.Profiler (msg, profile=True)
```

```
    Bases: object
```

```
    simple profiler
```

```
    construct me with the given msg and profile active flag
```

```
        Parameters
```

- **msg** (*str*) – the message to show if profiling is active
- **profile** (*bool*) – True if messages should be shown

time (*extraMsg*=")
time the action and print if profile is active

3.3 tests.testEntityManager module

3.4 tests.testJson module

Created on 2020-09-12

@author: wf

```
class tests.testJson.ServerConfig
    Bases: lodstorage.jsonable.JSONable

class tests.testJson.TestJsonAble (methodName='runTest')
    Bases: tests.basetest.Basetest

    test JSON serialization with JsonAble mixin

    Create an instance of the class that will use the named test method when executed. Raises a ValueError if the
    instance does not have a method with the specified name.

    check (manager, manager1, listName, debugLimit)
        check that the list of the two managers are the same

    dumpListOfDicts (listOfDicts, limit)

    setUp ()
        setUp test environment

    testIssue22 ()
        https://github.com/WolfgangFahl/pyLoDStorage/issues/22 Regression: storeToJsonFile and restoreFromJ-
        sonFile missing in JSONable

    testIssue27_Lookup ()
        add Lookup map option

    testIssue30_SampleLimited ()
        tests if the json export is correctly limited to the fields that are used in the samples

    testJsonAble ()
        test JSONable

    testPluralName ()

    testRestoreFromJsonStr ()
        Tests restoring a JsonAbleList form a json string

    testRoyals ()
        test Royals example

    testSingleQuoteToDoubleQuoteStackoverflow ()
        see
        

- https://stackoverflow.com/a/63862387/1497139
- https://stackoverflow.com/a/50257217/1497139

```

testSingleToDoubleQuote()

testStoreAndRestore()

test storing and restoring from a JSON file <https://github.com/WolfgangFahl/pyLoDStorage/issues/21>

3.5 tests.testPandas module

3.6 tests.testSPARQL module

3.7 tests.testSqlite3 module

Created on 2020-08-24

@author: wf

class tests.testSqlite3.**TestSQLDB** (*methodName='runTest'*)

Bases: *tests.basetest.Basetest*

Test the SQLDB database wrapper

Create an instance of the class that will use the named test method when executed. Raises a ValueError if the instance does not have a method with the specified name.

checkListOfRecords (*listOfRecords*, *entityName*, *primaryKey=None*, *executeMany=True*,
fixNone=False, *fixDates=False*, *debug=False*, *doClose=True*)

check the handling of the given list of Records

Parameters

- **listOfRecords** (*list*) – a list of dicts that contain the data to be stored
- **entityName** (*string*) – the name of the entity type to be used as a table name
- **primaryKey** (*string*) – the name of the key / column to be used as a primary key
- **executeMany** (*boolean*) – True if executeMany mode of sqlite3 should be used
- **fixNone** (*boolean*) – fix dict entries that are undefined to have a “None” entry
- **debug** (*boolean*) – True if debug information e.g. CREATE TABLE and INSERT INTO commands should be shown
- **doClose** (*boolean*) – True if the connection should be closed

static **getSampleTableDB** (*withDrop=False*, *debug=False*, *failIfTooFew=False*, *sample-Size=1000*)

testBackup()

test creating a backup of the SQL database

testBindingError()

test list of Records with incomplete record leading to “You did not supply a value for binding 2” see <https://bugs.python.org/issue41638>

testCopy()

test copying databases into another database

testEntityInfo()

test creating entityInfo from the sample record

```
testIssue110 ()
    https://github.com/WolfgangFahl/pyLoDStorage/issues/110

testIssue13_setNoneValue ()
    https://github.com/WolfgangFahl/pyLoDStorage/issues/13 set None value for undefined LoD entries

testIssue14_execute ()
    https://github.com/WolfgangFahl/pyLoDStorage/issues/14
    offer execute wrapper directly via sqlDB

testIssue15 ()
    https://github.com/WolfgangFahl/pyLoDStorage/issues/15
    auto create view ddl in mergeschema

testIssue16 ()
    https://github.com/WolfgangFahl/pyLoDStorage/issues/16 allow to only warn if samplerecordcount is
    higher than number of available records

testIssue18 ()
    https://github.com/WolfgangFahl/pyLoDStorage/issues/18

testIssue41 ()
    https://github.com/WolfgangFahl/pyLoDStorage/issues/41 improve error message when create table com-
    mand fails

testIssue87AllowUsingQueryWithGenerator ()
    test the query gen approach

testListOfCities ()
    test sqlite3 with some 120000 city records

testQueryParams ()
    test Query Params

testSqlite3 ()
    test sqlite3 with a few records from the royal family

testSqlite3Speed ()
    test sqlite3 speed with some 100000 artificial sample records consisting of two columns with a running
    index

testUniqueConstraint ()
    test for https://github.com/WolfgangFahl/pyLoDStorage/issues/4 sqlite3.IntegrityError: UNIQUE con-
    straint failed: ... show debug info
```

3.8 tests.testTrulyTabular module

3.9 tests.test_Plot module

3.10 tests.test_Tabulate module

3.11 tests.test_csv module

```
class tests.test_csv.TestCSV (methodName='runTest')
    Bases: tests.basetest.Basetest
```

Tests functionalities for the conversion between csv and list of dicts (LoD)

Create an instance of the class that will use the named test method when executed. Raises a `ValueError` if the instance does not have a method with the specified name.

```
setUp ()
    setUp test environment

tearDown () → None
    Hook method for deconstructing the test fixture after testing it.

testCsvFromJSONable ()
    tests generation of csv from list of JSONable object

testCsvFromJSONableExcludeFields ()
    tests generation of csv from list of JSONable object with excluding specific fields (negative list)

testCsvFromJSONableIncludeFields ()
    tests generation of csv from list of JSONable object with including only specified fields (positive list)

testRoyals ()
    test conversion of royals

test_from_csv ()
    tests if the csv is correctly parsed to an LoD

test_from_csv_without_header ()
    tests if csv string without embedded headers is parsed correctly

test_restore_from_csvfile ()
    tests if the lod is correctly restored from csv file

test_round_trip ()
    tests the csv round trip: dict -> csv -> dict Note: the initial dict has missing values it is expected that the final dict has the missing keys with None as value

test_store_to_csvfile ()
    tests if LoD is correctly stored as csv file

test_to_csv ()
    tests if LoD is correctly converted to csv str

test_to_csv_delimiter_in_value ()
    tests if delimiter in dict value will not result in incorrect values

test_to_csv_incomplete_dicts ()
    tests if the LoD is correctly converted to csv even if some dicts are incomplete Note: incomplete dicts can lead to changes of the column orders of the csv string
```

3.12 tests.test_lod module

Created on 2021-06-11

@author: wf

```
class tests.test_lod.TestLOD (methodName='runTest')
```

Bases: `tests.basetest.Basetest`

test list of dicts base functionality

Create an instance of the class that will use the named test method when executed. Raises a `ValueError` if the instance does not have a method with the specified name.

checkHandleListTypeResult (*lod*, *expectedLen*, *expected*)

check the result of the handleListType function

Parameters

- **lod** (*list*) – the list of dicts to check
- **expectedLen** (*int*) – the expected Length
- **expected** (*str*) – the expected entry for the München,Munich Q1524 record with a list

testGetFields ()

tests field extraction from list of JSONAble objects and LoD

testGetLookupIssue31And32 ()

test for <https://github.com/WolfgangFahl/pyLoDStorage/issues/31> test for <https://github.com/WolfgangFahl/pyLoDStorage/issues/32>

testListHandlingIssue33 ()

test for handling list

testListIntersect ()

test a list intersection

3.13 tests.test_queries module

3.14 Module contents

CHAPTER 4

Indices and tables

- `genindex`
- `modindex`
- `search`

S

`sampledata`, [1](#)

t

`tests`, [10](#)

`tests.basetest`, [5](#)

`tests.test_csv`, [8](#)

`tests.test_lod`, [9](#)

`tests.testJson`, [6](#)

`tests.testSqlite3`, [7](#)

B

Basetest (class in tests.basetest), 5

C

check() (tests.testJson.TestJsonAble method), 6

checkHandleListTypeResult()
(tests.test_lod.TestLOD method), 9

checkListOfRecords()
(tests.testSqlite3.TestSQLDB method), 7

D

dumpListOfDicts() (tests.testJson.TestJsonAble
method), 6

G

getSampleTableDB() (tests.testSqlite3.TestSQLDB
static method), 7

I

inPublicCI() (tests.basetest.Basetest static method),
5

isUser() (tests.basetest.Basetest static method), 5

P

Profiler (class in tests.basetest), 5

S

sampladata (module), 1

ServerConfig (class in tests.testJson), 6

setUp() (tests.basetest.Basetest method), 5

setUp() (tests.test_csv.TestCSV method), 9

setUp() (tests.testJson.TestJsonAble method), 6

T

tearDown() (tests.basetest.Basetest method), 5

tearDown() (tests.test_csv.TestCSV method), 9

test_from_csv() (tests.test_csv.TestCSV method), 9

test_from_csv_without_header()
(tests.test_csv.TestCSV method), 9

test_restore_from_csvfile()

(tests.test_csv.TestCSV method), 9

test_round_trip() (tests.test_csv.TestCSV
method), 9

test_store_to_csvfile()
(tests.test_csv.TestCSV method), 9

test_to_csv() (tests.test_csv.TestCSV method), 9

test_to_csv_delimiter_in_value()
(tests.test_csv.TestCSV method), 9

test_to_csv_incomplete_dicts()
(tests.test_csv.TestCSV method), 9

testBackup() (tests.testSqlite3.TestSQLDB method),
7

testBindingError() (tests.testSqlite3.TestSQLDB
method), 7

testCopy() (tests.testSqlite3.TestSQLDB method), 7

TestCSV (class in tests.test_csv), 8

testCsvFromJSONAble() (tests.test_csv.TestCSV
method), 9

testCsvFromJSONAbleExcludeFields()
(tests.test_csv.TestCSV method), 9

testCsvFromJSONAbleIncludeFields()
(tests.test_csv.TestCSV method), 9

testEntityInfo() (tests.testSqlite3.TestSQLDB
method), 7

testGetFields() (tests.test_lod.TestLOD method),
10

testGetLookupIssue31And32()
(tests.test_lod.TestLOD method), 10

testIssue110() (tests.testSqlite3.TestSQLDB
method), 7

testIssue13_setNoneValue()
(tests.testSqlite3.TestSQLDB method), 8

testIssue14_execute()
(tests.testSqlite3.TestSQLDB method), 8

testIssue15() (tests.testSqlite3.TestSQLDB
method), 8

testIssue16() (tests.testSqlite3.TestSQLDB
method), 8

testIssue18() (tests.testSqlite3.TestSQLDB

method), 8
testIssue22 () (*tests.testJson.TestJsonAble method*),
6
testIssue27_Lookup ()
(*tests.testJson.TestJsonAble method*), 6
testIssue30_SampleLimited ()
(*tests.testJson.TestJsonAble method*), 6
testIssue41 () (*tests.testSqlite3.TestSQLDB
method*), 8
testIssue87AllowUsingQueryWithGenerator ()
(*tests.testSqlite3.TestSQLDB method*), 8
TestJsonAble (*class in tests.testJson*), 6
testJsonAble () (*tests.testJson.TestJsonAble
method*), 6
testListHandlingIssue33 ()
(*tests.test_lod.TestLOD method*), 10
testListIntersect () (*tests.test_lod.TestLOD
method*), 10
testListOfCities () (*tests.testSqlite3.TestSQLDB
method*), 8
TestLOD (*class in tests.test_lod*), 9
testPluralName () (*tests.testJson.TestJsonAble
method*), 6
testQueryParams () (*tests.testSqlite3.TestSQLDB
method*), 8
testRestoreFromJsonStr ()
(*tests.testJson.TestJsonAble method*), 6
testRoyals () (*tests.test_csv.TestCSV method*), 9
testRoyals () (*tests.testJson.TestJsonAble method*), 6
tests (*module*), 10
tests.basetest (*module*), 5
tests.test_csv (*module*), 8
tests.test_lod (*module*), 9
tests.testJson (*module*), 6
tests.testSqlite3 (*module*), 7
testSingleQuoteToDoubleQuoteStackoverflow ()
(*tests.testJson.TestJsonAble method*), 6
testSingleToDoubleQuote ()
(*tests.testJson.TestJsonAble method*), 6
TestSQLDB (*class in tests.testSqlite3*), 7
testSqlite3 () (*tests.testSqlite3.TestSQLDB
method*), 8
testSqlite3Speed ()
(*tests.testSqlite3.TestSQLDB method*), 8
testStoreAndRestore ()
(*tests.testJson.TestJsonAble method*), 7
testUniqueConstraint ()
(*tests.testSqlite3.TestSQLDB method*), 8
time () (*tests.basetest.Profiler method*), 6