nlist Documentation

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Anton Barkovsky

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Contents

nlist is a lightweight multidimensional list in Python.

nlist supports Python 3.4+.

CHAPTER 1

Example code

```
from nlist import NList

l = NList([[1, 2], [3, 4]])
l[1, 0] = '42'
print(l.index('42')) #=> (1, 0)
```

CHAPTER 2

Installation

```
pip install nlist
```

Or just grab `nlist.py`.

CHAPTER 3

License

MIT (see LICENSE.txt)

CHAPTER 4

Contents

4.1 API reference

This module provides class `NList`, a multidimensional list.

Indexes and shapes used with NList must be tuples. Example:

```
l = nlist.NList(shape=(2, 3))
l[1, 2] = 42
```

NList's shape can be an empty tuple meaning a zero-dimensional list that has one element with index ().

NList converts to False only if its `size` is 0, meaning that at least one of its dimensions is 0. Note that the `size` of a zero-dimensional NList is 1.

An NList equals another NList if their shapes and all their elements are equal.

NList is an iterable of all its elements.

Whenever an ordering of indexes is implied, standard tuple comparison semantics are used.

class `nlist.`**`NList`**(*other=None*, *shape=None*, *default=None*)

Initialize NList either from another multidimensional structure or by shape and default value.

Parameters

- **other** – Either an another NList or a nested sequence to copy data from. For instance, if other is [[1, 2, 3], [4, 5, 6]], a 2x3 NList will be created with this data.
- **shape** (*tuple*) – A tuple of dimension sizes. E.g. (2, 3) for 2x3 NList.
- **default** – A value to fill the NList with when *shape* is passed.

other and *shape*/*default* arguments are mutually exclusive

`copy`()

Returns a shallow copy of the NList.

Return type NList

`count`(*value*)

Returns the number of occurrences of *value* in the NList.

Return type int

`enumerate`()

Return an iterable of all pairs (index, value) in the NList.

index(*value*, *start=None*, *stop=None*)
Returns index of the first occurrence of *value* in the NList.

Parameters

- **value** – A value to search for.
- **start** (*tuple*) – An index to start the search from.
- **stop** (*tuple*) – An index before which to stop search.

Raises ValueError If the value is not found.

Return type tuple

start and *stop* must be valid indexes for the NList, or *None*.

keys(*start=None*, *stop=None*)
Returns an iterable of all indexes valid for the NList.

Parameters

- **start** (*tuple*) – An index to start iteration from.
- **stop** (*tuple*) – An index before which to stop iteration.

start and *stop* must be valid indexes for the NList, or *None*.

rank
Number of the NList's dimensions. Read-only.

shape
A tuple with the NList's dimensions. Read-only.

size
Number of elements in the NList. Read-only.

CHAPTER 5

Indices and tables

- *genindex*
- *modindex*
- *search*

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