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numpy.split

`numpy.` **`split`** (*ary*, *indices_or_sections*, *axis=0*) [source] (http://github.com/numpy/numpy/blob/v1.13.0/numpy/lib/shape_base.py#L468-L543)

Split an array into multiple sub-arrays.

Parameters:

ary *: ndarray*

Array to be divided into sub-arrays.

indices_or_sections *: int or 1-D array*

If *indices_or_sections* is an integer, N, the array will be divided into N equal arrays along *axis*. If such a split is not possible, an error is raised.

If *indices_or_sections* is a 1-D array of sorted integers, the entries indicate where along *axis* the array is split. For example, `[2, 3]` would, for `axis=0`, result in

- ary[:2]
- ary[2:3]
- ary[3:]

If an index exceeds the dimension of the array along *axis*, an empty sub-array is returned correspondingly.

axis *: int, optional*

The axis along which to split, default is 0.

Returns:

sub-arrays *: list of ndarrays*

A list of sub-arrays.

Raises:

ValueError

If *indices_or_sections* is given as an integer, but a split does not result in equal division.

See also:

`array_split` (numpy.array_split.html#numpy.array_split) Split an array into multiple sub-arrays of equal or near-equal size. Does not raise an exception if an equal division cannot be made.

`hsplit` (numpy.hsplit.html#numpy.hsplit) Split array into multiple sub-arrays horizontally (column-wise).

Previous topic

numpy.block (numpy.block.html)

Next topic

numpy.array_split (numpy.array_split.ht

`vsplit` (numpy.vsplit.html#numpy.vsplit)	Split array into multiple sub-arrays vertically (row wise).
`dsplit` (numpy.dsplit.html#numpy.dsplit)	Split array into multiple sub-arrays along the 3rd axis (depth).
`concatenate` (numpy.concatenate.html#numpy.concatenate)	Join a sequence of arrays along an existing axis.
`stack` (numpy.stack.html#numpy.stack)	Join a sequence of arrays along a new axis.
`hstack` (numpy.hstack.html#numpy.hstack)	Stack arrays in sequence horizontally (column wise).
`vstack` (numpy.vstack.html#numpy.vstack)	Stack arrays in sequence vertically (row wise).
`dstack` (numpy.dstack.html#numpy.dstack)	Stack arrays in sequence depth wise (along third dimension).

Examples

```
>>> x = np.arange(9.0)
>>> np.split(x, 3)
[array([ 0.,  1.,  2.]), array([ 3.,  4.,  5.]), array([ 6.,  7.,  8.])]


>>> x = np.arange(8.0)
>>> np.split(x, [3, 5, 6, 10])
[array([ 0.,  1.,  2.]),
 array([ 3.,  4.]),
 array([ 5.]),
 array([ 6.,  7.]),
 array([], dtype=float64)]
```