Conta O \* Array Shape & sie-shape: -3) Shape of an Array ? The Shope of an array is the no of elements in each dimensions. import numpy as up are no array ([1,2,3,4] (5,6,7,8]) print (arrishape) This is ad array. 4 element present in each dimensions. 019-9 2, 4. \* Reshapping arrange: > means changing the shape of an asviay.

The shape of an array is the no- of elements in each dimensions. By neshaping we can add or remove dimension or change no of elements in each dimension. Re Shape From 1-D to 2-D > Example: > Convert the following 1-Darray with 12 elements into a 2-D array The outermost dimensions will have 4 arrays, each with selements. import numpy as no arr= np-array ([1,2,3,4,5,6,7,8,9) 10,11,12]

Date Poge newart - arr. Meshape (4,3) print (newarr) \* Can we Reshape Into any Shape? Yes, as long as the elements steguisted for restaging are equal in both stapes We can reshape an 8 element 1D array into 4 elements in 2 nows 2 Danray but, we cannot reshape it into a 3 elements 3 nows 2Dannay arthat would require 3x3 = gelements. \* flattening the arrays:means converting a multidimensional array of We can use sieshape (-1) to do this



Import humpy asip arr= np-array [[[1,2,3], [4,5,6]] new arr = arr. reshape (-1) print (neworr) -> array (1,2,3,4,50) \* Example -> We can respons on a clement on an (3) import humpy as no ( a= np. array ([1,2,3,4;5]) transla. Shape 45 OIP > (5,) b= np array [[[1,2,3]]], [5, 6, 7,8]] 6. Shape OIP (2,4)

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3	C= np-amay (C1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12]
	hewarr - C-reshape (4,3)
	newarr
	array ([[1,2,2],
	T4,5,6],
	[7,8,9],
	[10,11,12]
	) ((2,2)
	more and the
	C. Shape istrantia worth 2230
	OIP > (12,)
The state of	listen in some soft his private on social
	new-arr-Shupe
	01P-> (4,3)
and the second	3 hr 2 tomala maraha 2200 mis 12
9	new-arr 2 = C- reshape (2, 3, 2) -> 3D.
	new-arrz
CASI	new-arrz
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