ML-7

Tensors

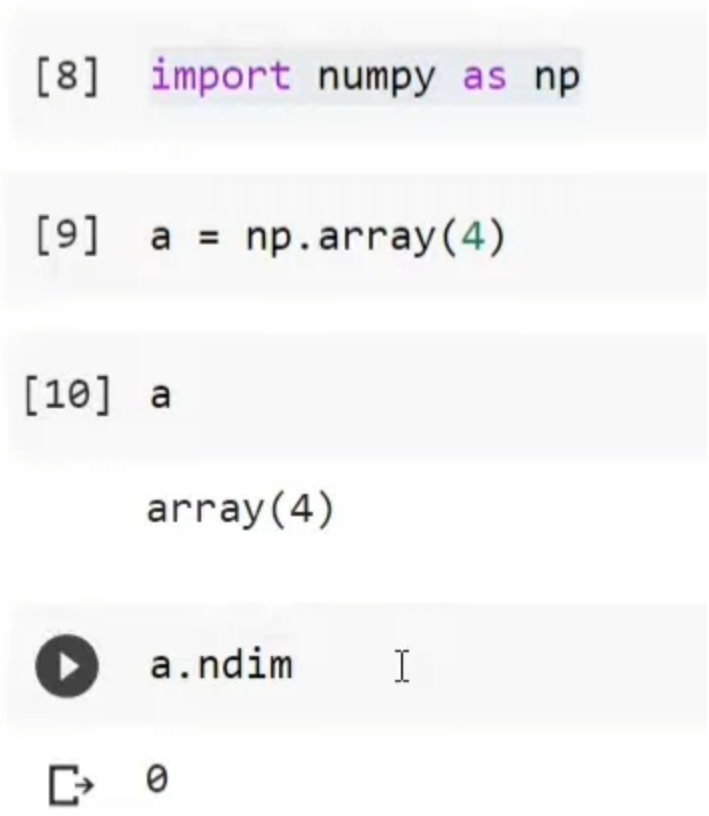
it is a data structure . it is basically a container for numbers.

vectors or matrix are tensors.

0D tensor/ Scalar

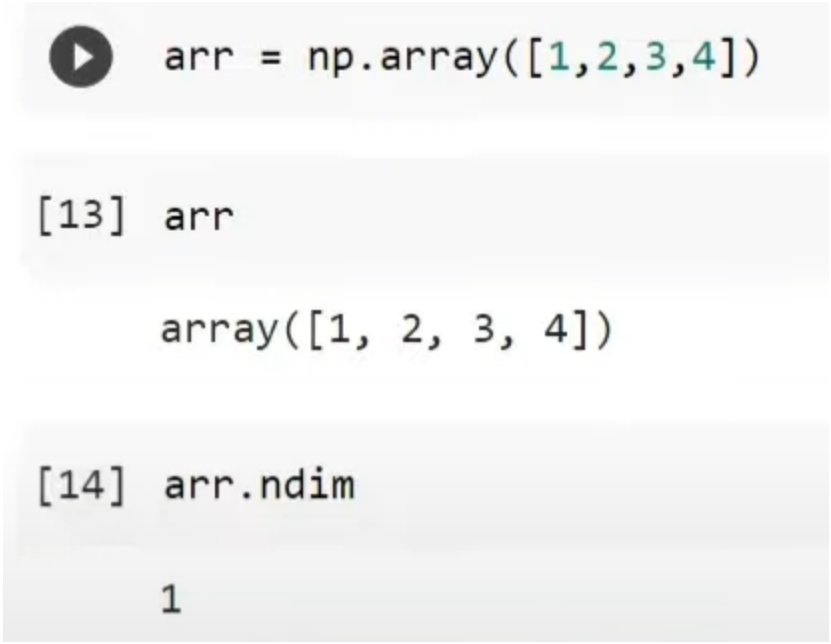
whenever we are storing a single number . These are basically called scalers or we can call them 0D tensor.

`0D tensor means that it has 0 dimension`.



1D tensor / vector

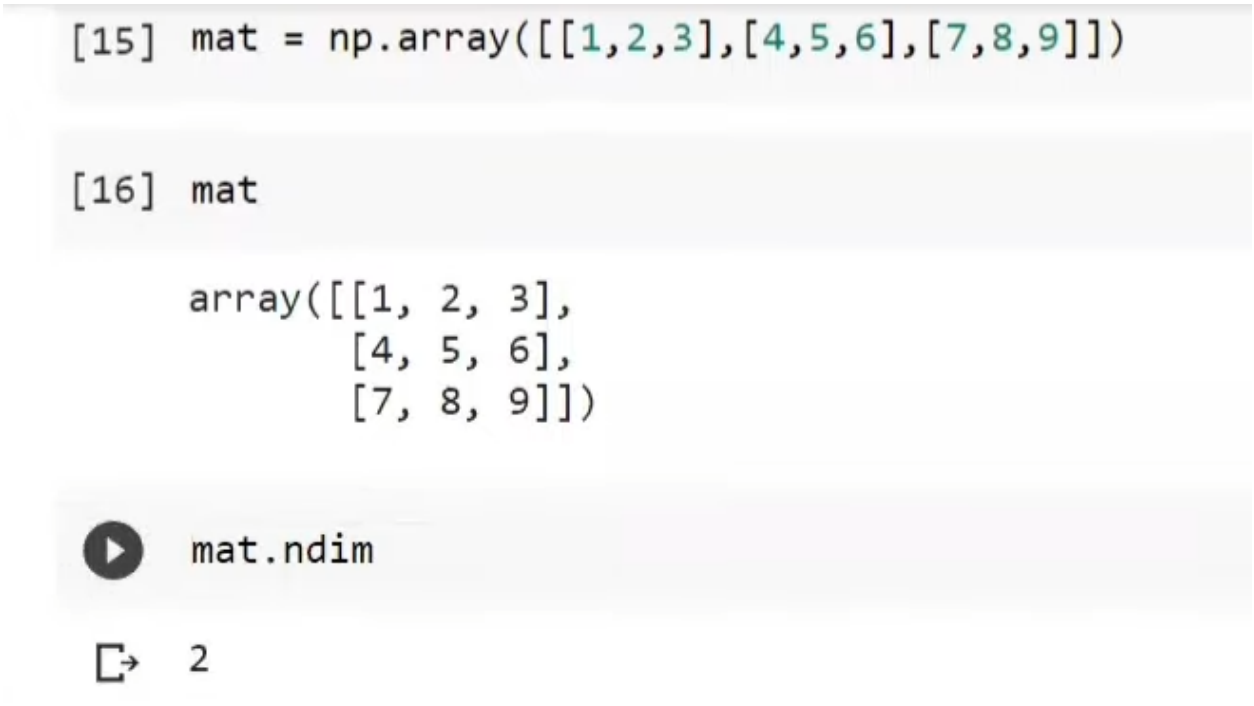
if the dimension is one . we can say it as 1 dimensional tensors.



1D tensor→ vector

vector→ 4 dimensions

2D tensor



Rank , Axis and shape

Rank is the no. of dimensions which is equal to the no. of axis .

`Rank=Axis=no. of dim`

shape gives the number of rows and columns in the tensor.

`size of tensor=no. of rows * no. of columns`