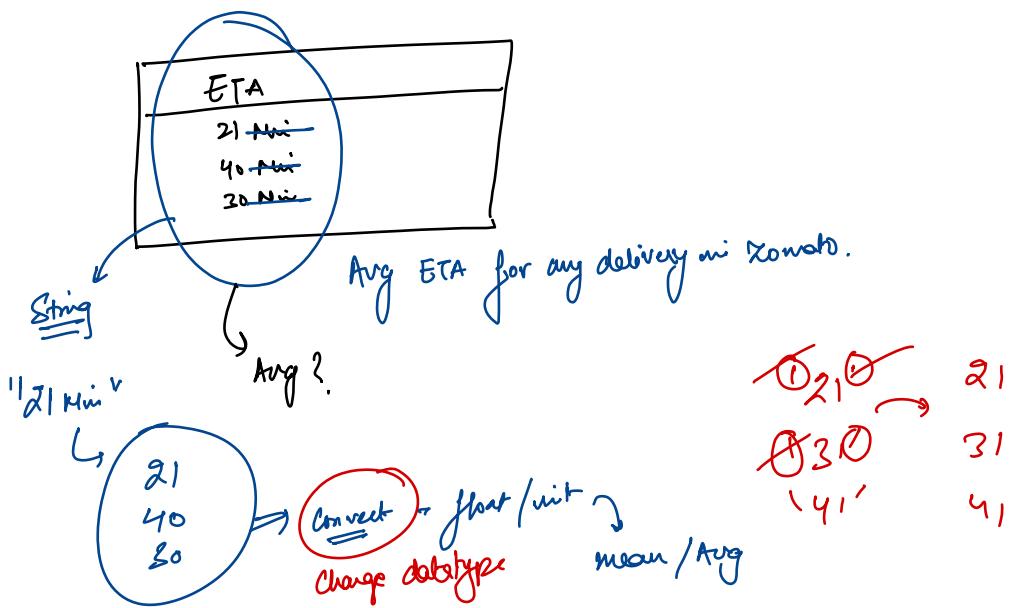


Agenda → In-built functionalities of numpy through
a simple case study.



Astype → type conversion.

Numpy Basics

Xonato → customer-ids

Automatically create numbers.

`np.arange (start, end+1, step-size)`

1 10 \downarrow
By default = 1

$(10, 2) \rightarrow$ elements \rightarrow 

`np.reshape` $(5, 4)$ $(2, 10)$
 $(20, 1)$
 $(1, 20)$
 $(4, 5)$

$(1024, 4)$
reshape ?] numpy can calculate on
its own

Why Reshaping?

Bonus:

Neural networks

Mat 1

$\checkmark m \times n$

Mat 2

$n \times k$

$\underline{\underline{m \times k}}$

Reshaping

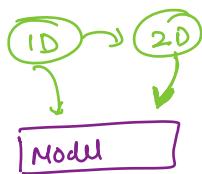
Original 2D $\rightarrow (10, 2) \Rightarrow 20$ elements

$(3 \times 3) \rightarrow X = 9$ elements

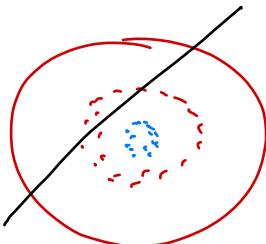
$(5, 2) \rightarrow X \rightarrow 10$

$(5, 4) \rightarrow \checkmark 20$ elements

Real world perspective



$(300, \frac{1}{2})$ $\stackrel{\text{Log}}{\rightarrow} 20$
Rows



Kernel

2D \rightarrow Reshape (3D)

$[1, \underbrace{2, 3, 4}]$
asc

String $["y", "u", "g", "l"]$

$["C", "E", "A", "B"]$

Sorting $["A", "B", "C", "E"]$

S → :

U

R →

A → 65

A → 6S

J →

1
2
3
④