Broadcasting

23 May 2025 19:47

M_1 M_2

↓↓ multiply

$\propto$

$M_{2\times3}$ $M_{2\times3}$ →

$\propto$

→ Linear Algebra

A_1 A_2

↓ add $\begin{bmatrix}1\\2\\3\end{bmatrix}$

$[2, 3, 4]$

2D

↓↓

numpy

$\begin{bmatrix}2&3&4\\2&5&6\\2&1&1\end{bmatrix}$

multip/addition

→ Broadcasting

2D compatible

↓↓

Broadcasting

2×1 2×2

2×2 1×2 ✓

1) equal

2) 1

3×3 $\propto$ 3×1

$\times1$

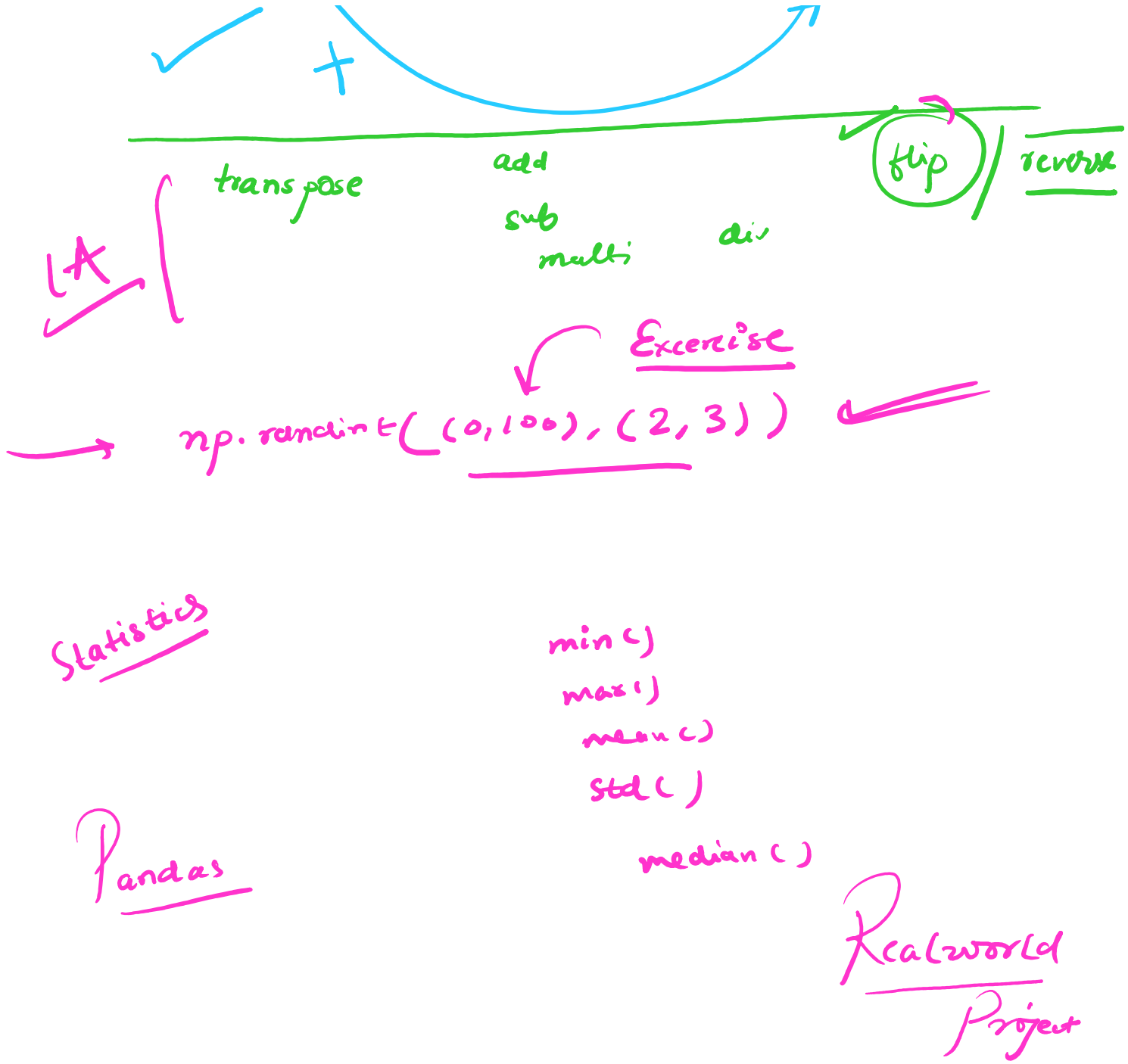
$\begin{bmatrix}2&3&1\\4&2&9\\6&2&1\end{bmatrix}$ $\begin{bmatrix}0&0&0\\0&0&0\\0&0&0\end{bmatrix}$ → ✓

DATA LOSS

$\begin{bmatrix}6\\.2\\3\end{bmatrix}$

$\begin{bmatrix}6&6&6\\2&2&2\\3&3&3\end{bmatrix}$

+


+
flip
reverse
transpose
add
sub
multi
div
LA
Excercise
np.randint((0,100),(2,3))
Statistics
min()
max()
mean()
std()
median()
Pandas
Realworld
Project