

# **Permutations Project Challenge**

Using a Notebook, create this output which suggests the permutations of the third group stage match of a competition. This will support competition management and tournaments make data driven decisions on who is more likely to go through the next phase in a W-D-L perspective. The objective is to create an output like the below for Groups C and D to visualize permutations.

Qualified Eliminated		М	D2	М	D3				MD3 F	Permut	ations			
		Α	В	Α	В	(A=Win A; X=Draw; B=Win B)								
Tie & Quali	fied (Draw)	USA	GER	AUS	USA	Α	Α	Α	X	X	X	В	В	В
Tie & in Contention (Draw) Team Pts		AUS	ZAM	ZAM	GER	Α	X	В	Α	X	В	Α	X	В
		GF	GA	GD	TCS									
USA	6	7	1	6	-2	6	6	6	7	7	7	9	9	9
ZAM	0	5	9	-4	-6	3	1	0	3	1	0	3	1	0
GER	3	4	4	0	-2	3	4	6	3	4	6	3	4	6
AUS	3	6	8	-2	-2	6	6	6	4	4	4	3	3	3
Fixtures & Results						1	1 1 1 1 1 1 1 1				1			
			C 40	C D (141)			4	4	3	4	4	2	4	4
25.07.2024	USA - ZAM	3-0	Gro	Group B (W)		3	3	1	3	2	2	2	2	2
25.07.2024	GER - AUS	3-0					1	1	2	2	3	2	3	3
28.07.2024	USA - GER	4-1				USA	USA	USA	USA	USA	USA	USA	USA	USA
28.07.2024	AUS - ZAM	6-5	Final R	anking	2	AUS	AUS	GER	AUS	GER	GER	ZAM	GER	GER
31.07.2024	AUS - USA		(Points	& H-t-H)	3	ZAM	GER	AUS	ZAM	AUS	AUS	GER	AUS	AUS
31.07.2024	ZAM - GER					GER	ZAM	ZAM	GER	ZAM	ZAM	AUS	ZAM	ZAM

#### Sources:

- File name: match\_info.csv
  - o Contains information on the fixtures and results of the competition
- standings.csv
  - Contains standings information after during Match Day 3 (MD3) after Group A and B
     have played. Group C and D are left to play

### Structure:

## Match Info

competition id	match id	match date	match name	result	fifa ranking	cat code	team cat	venue

# Standings

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