

Introduction:

After looking into the dataset, I came up with the idea based on the sheet 'Match information' and 'Match Events'. (In the Jupyter Notebook you can see how I cleaned up the data to create a new data frame that included the information for further usage) There are 51 matches in EURO 2020 and each match has its own 'MatchID', using the 'MatchID' we can extract the 'Events' information from the sheet 'Match Events' to see what strategy the winning team used (Especially the champion team: Italy)

The reason why I didn't choose the sheet 'Match Stats' is because there are 193 different stats, compared to 'Match Events' (38). I think using 'Match Event' is better for our result presentation. (For more information: Jupyter Notebook cell [125])

My ideas are: (These are just the ideas I thought about today, feel free to add more inspirations and comments! I need to explore more about the data and look for more examples!)

- **Objective 1: Match Outcomes**

Letting users select from '...TeamName' or 'RoundName' or 'DateandTimeCET' to see the gaming results. Figure 1

- **Objective 2: Analysis Strategies**

From analyzing the 'Event' (maybe create a bar chart or any other graph for better visualization) to summarize the winning or losing team's strategies. (For example `df['MatchID'] == 2024491` Figure 4 is the final game and from Figure 2 we can calculate how different Events impact the gaming results. (I need to ask TA about the 'Value' and 'rank' in the columns...)

And allowing the users to select their desired team (e.g. WorldCup Dashboard) to see the overall analysis. (Maybe we need to rethink our new dataset in order to reach our goal, let me know your ideas!)

MATCH		
11 Jul 2021		
	EURO 2020 1 – 1 ITALY	

Figure 1: Example for gaming results

	HomeTeamName	AwayTeamName	DateandTimeCET	MatchID	RoundName	ScoreHome	ScoreAway	Event	Time
0	Turkey	Italy	2021-06-11T21:00:00	2024447	final tournament	0	3	StartFirstHalf	2021-06-11T19:00:26.877
1	Turkey	Italy	2021-06-11T21:00:00	2024447	final tournament	0	3	GoalAttemptOffTarget	2021-06-11T19:02:35.427
2	Turkey	Italy	2021-06-11T21:00:00	2024447	final tournament	0	3	Foul	2021-06-11T19:11:43.757
3	Turkey	Italy	2021-06-11T21:00:00	2024447	final tournament	0	3	FreeKick	2021-06-11T19:11:58.677
4	Turkey	Italy	2021-06-11T21:00:00	2024447	final tournament	0	3	Foul	2021-06-11T19:12:25.197
...
6131	Italy	England	2021-07-11T21:00:00	2024491	final	1	1	PenaltySaved	2021-07-11T21:52:17.4
6132	Italy	England	2021-07-11T21:00:00	2024491	final	1	1	GoalAttemptSaved	2021-07-11T21:52:18.4
6133	Italy	England	2021-07-11T21:00:00	2024491	final	1	1	PenaltySaved	2021-07-11T21:53:31.727
6134	Italy	England	2021-07-11T21:00:00	2024491	final	1	1	GoalAttemptSaved	2021-07-11T21:53:32.727
6135	Italy	England	2021-07-11T21:00:00	2024491	final	1	1	EndPenaltyPhase	2021-07-11T21:53:59.937

6136 rows x 9 columns

Figure 2: New Data Frame

	MatchID	HomeTeamName	AwayTeamName	Event	Time
0	2024442	Austria	North Macedonia	StartFirstHalf	2021-06-13T16:00:20.217
1	2024442	Austria	North Macedonia	Foul	2021-06-13T16:03:45.897
2	2024442	Austria	North Macedonia	FreeKick	2021-06-13T16:03:56.853
3	2024442	Austria	North Macedonia	Foul	2021-06-13T16:04:44.217
4	2024442	Austria	North Macedonia	FreeKick	2021-06-13T16:04:54.533
...
6131	2024448	Wales	Switzerland	Offside	2021-06-12T14:51:27.037
6132	2024448	Wales	Switzerland	Substitution	2021-06-12T14:52:17.27
6133	2024448	Wales	Switzerland	FreeKick	2021-06-12T14:52:45.17
6134	2024448	Wales	Switzerland	Corner	2021-06-12T14:53:47.597
6135	2024448	Wales	Switzerland	EndSecondHalf	2021-06-12T14:55:26.753

6136 rows x 5 columns

Figure 3: Match Events

	HomeTeamName	AwayTeamName	DateandTimeCET	MatchID	RoundName	ScoreHome	ScoreAway
0	Turkey	Italy	2021-06-11T21:00:00	2024447	final tournament	0	3
1	Wales	Switzerland	2021-06-12T15:00:00	2024448	final tournament	1	1
2	Denmark	Finland	2021-06-12T18:00:00	2024449	final tournament	0	1
3	Belgium	Russia	2021-06-12T21:00:00	2024450	final tournament	3	0
4	England	Croatia	2021-06-13T15:00:00	2024451	final tournament	1	0
5	Austria	North Macedonia	2021-06-13T18:00:00	2024442	final tournament	3	1
6	Netherlands	Ukraine	2021-06-13T21:00:00	2024441	final tournament	3	2
7	Scotland	Czech Republic	2021-06-14T15:00:00	2024452	final tournament	0	2
8	Poland	Slovakia	2021-06-14T18:00:00	2024454	final tournament	1	2
9	Spain	Sweden	2021-06-14T21:00:00	2024453	final tournament	0	0
10	Hungary	Portugal	2021-06-15T18:00:00	2024455	final tournament	0	3
11	France	Germany	2021-06-15T21:00:00	2024456	final tournament	1	0
12	Finland	Russia	2021-06-16T15:00:00	2024460	final tournament	0	1
13	Turkey	Wales	2021-06-16T18:00:00	2024457	final tournament	0	2
14	Italy	Switzerland	2021-06-16T21:00:00	2024458	final tournament	3	0
15	Ukraine	North Macedonia	2021-06-17T15:00:00	2024444	final tournament	2	1
16	Denmark	Belgium	2021-06-17T18:00:00	2024459	final tournament	1	2
17	Netherlands	Austria	2021-06-17T21:00:00	2024443	final tournament	2	0
18	Sweden	Slovakia	2021-06-18T15:00:00	2024464	final tournament	1	0
19	Croatia	Czech Republic	2021-06-18T18:00:00	2024462	final tournament	1	1
20	England	Scotland	2021-06-18T21:00:00	2024461	final tournament	0	0
21	Hungary	France	2021-06-19T15:00:00	2024465	final tournament	1	1
22	Portugal	Germany	2021-06-19T18:00:00	2024466	final tournament	2	4
23	Spain	Poland	2021-06-19T21:00:00	2024463	final tournament	1	1
24	Italy	Wales	2021-06-20T18:00:00	2024468	final tournament	1	0
25	Switzerland	Turkey	2021-06-20T18:00:00	2024467	final tournament	3	1
26	North Macedonia	Netherlands	2021-06-21T18:00:00	2024445	final tournament	0	3
27	Ukraine	Austria	2021-06-21T18:00:00	2024446	final tournament	0	1
28	Finland	Belgium	2021-06-21T21:00:00	2024470	final tournament	0	2
29	Russia	Denmark	2021-06-21T21:00:00	2024469	final tournament	1	4
30	Croatia	Scotland	2021-06-22T21:00:00	2024472	final tournament	3	1
31	Czech Republic	England	2021-06-22T21:00:00	2024471	final tournament	0	1
32	Slovakia	Spain	2021-06-23T18:00:00	2024473	final tournament	0	5
33	Sweden	Poland	2021-06-23T18:00:00	2024474	final tournament	3	2
34	Germany	Hungary	2021-06-23T21:00:00	2024475	final tournament	2	2
35	Portugal	France	2021-06-23T21:00:00	2024476	final tournament	2	2
36	Wales	Denmark	2021-06-26T18:00:00	2024478	eighth finals	0	4
37	Italy	Austria	2021-06-26T21:00:00	2024477	eighth finals	2	1
38	Netherlands	Czech Republic	2021-06-27T18:00:00	2024480	eighth finals	0	2
39	Belgium	Portugal	2021-06-27T21:00:00	2024479	eighth finals	1	0
40	Croatia	Spain	2021-06-28T18:00:00	2024482	eighth finals	3	5
41	France	Switzerland	2021-06-28T21:00:00	2024481	eighth finals	3	3
42	England	Germany	2021-06-29T18:00:00	2024484	eighth finals	2	0
43	Sweden	Ukraine	2021-06-29T21:00:00	2024483	eighth finals	1	2
44	Switzerland	Spain	2021-07-02T18:00:00	2024485	quarter finals	1	1
45	Belgium	Italy	2021-07-02T21:00:00	2024486	quarter finals	1	2
46	Czech Republic	Denmark	2021-07-03T18:00:00	2024488	quarter finals	1	2
47	Ukraine	England	2021-07-03T21:00:00	2024487	quarter finals	0	4
48	Italy	Spain	2021-07-06T21:00:00	2024489	semi finals	1	1
49	England	Denmark	2021-07-07T21:00:00	2024490	semi finals	2	1
50	Italy	England	2021-07-11T21:00:00	2024491	final	1	1

Figure 4: Match Information