article will take you through the task of T20 World Cup 2022 analysis using Python. The dataset I am using for the T20 World Cup 2022 analysis is collected manually. You can download the dataset from here. In [2]: **import** pandas **as** pd import plotly.express as px import plotly.graph_objects as go import plotly.io as pio pio.templates.default = "plotly_white" data = pd.read_csv(r"C:\Users\shali\Downloads\t20-world-cup-22.csv") print(data.head()) venue team1 team2 stage toss winner \ 0 SCG New Zealand Australia Super 12 Australia 1 Optus Stadium Afghanistan England Super 12 England 2 Ireland Sri lanka Super 12 Ireland Blundstone Arena MCG Pakistan India Super 12 3 India 4 Blundstone Arena Bangladesh Netherlands Super 12 Netherlands toss decision first innings score first innings wickets \ Field 200.0 1 Field 112.0 10.0 2 128.0 8.0 Bat 3 Field 159.0 8.0 Field 144.0 8.0 second innings score second innings wickets winner won by \ 10.0 New Zealand 0 111.0 Runs 1 England Wickets 113.0 5.0 2 133.0 1.0 Sri lanka Wickets 3 160.0 6.0 India Wickets 4 135.0 10.0 Bangladesh Runs player of the match top scorer highest score best bowler \ Tim Southee Devon Conway 92.0 Devon Conway Ibrahim Zadran 32.0 1 Sam Curran Sam Curran 68.0 Maheesh Theekshana 2 Kusal Mendis Kusal Mendis 82.0 3 Virat Kohli Virat Kohli Hardik Pandya Taskin Ahmed Colin Ackermann 62.0 Taskin Ahmed 4 best bowling figure 1 5-10 2 2-19 3 3-30 4-25 Now let's look at the number of matches won by each team in the world cup: figure = px.bar(data,x=data["winner"], title="Number of Matches Won by teams in t20 World Cup 2022") figure.show() Number of Matches Won by teams in t20 World Cup 2022 count New Zealand England South Africa Zimbabwe Sri lanka India Bangladesh Australia Ireland Pakistan Netherlands winner As England won the t20 world cup 2022, England won five matches. And Both Pakistan and India won 4 matches. Now let's have a look at the number of matches won by batting first or second in the t20 world cup 2022: won_by = data["won by"].value_counts() label = won_by.index counts = won_by.values colors = ['gold', 'lightgreen'] fig = go.Figure(data=[go.Pie(labels=label, values=counts)]) fig.update_layout(title_text='Number of Matches Won By Runs Or Wickets') fig.update_traces(hoverinfo='label+percent', textinfo='value', textfont_size=30, marker=dict(colors=colors, line=dict(color='black', width=3))) fig.show() Number of Matches Won By Runs Or Wickets Runs Wickets 13 So in the t20 world cup 2022, 16 matches were won by batting first, and 13 matches were won by chasing. Now, let's have a look at the toss decisions by teams in the world cup: In [6]: toss = data["toss decision"].value_counts() label = toss.index counts = toss.values colors = ['skyblue', 'yellow'] fig = go.Figure(data=[go.Pie(labels=label, values=counts)]) fig.update_layout(title_text='Toss Decisions in t20 World Cup 2022') fig.update_traces(hoverinfo='label+percent', textinfo='value', textfont_size=30, marker=dict(colors=colors, line=dict(color='black', width=3))) fig.show() 0 Toss Decisions in t20 World Cup 2022 Field 17 So in 17 matches, the teams decided to bat first, and in 13 matches, the teams chose to field first. Now let's have a look at the top scorers in the t20 world cup 2022: figure = px.bar(data,x=data["top scorer"], y = data["highest score"], color = data["highest score"], title="Top Scorers in t20 World Cup 2022") figure.show() Top Scorers in t20 World Cup 2022 highest score 200 100 90 150 highest score 80 70 100 60 50 50 40 Colin Ackermann Najmul Hossain Devon Conway Ibrahim Zadran Quinton de Kock Marcus Stoinis Andrew Balbirnie Rilee Rossouw Shan Masood Glenn Phillips Mohammad Rizwan Suryakumar Yaday Max O'Dong Shadab Khan Kane Williamson Pathum Nissanka Kusal Mendis Lorcan Tucker de Silva Glenn Maxwell Jos Buttler Virat Kohli top scorer So, Virat Kohli scored the highest in 3 matches. Undoubtedly, he was the best batsman in the t20 world cup 2022. Now let's have a look at the number of player of the match awards in the world cup: figure = px.bar(data,x = data["player of the match"],title="Player of the Match Awards in t20 World Cup 2022") figure.show() Player of the Match Awards in t20 World Cup 2022 3 2.5 count 1.5 1 0.5 Devon Conway Kusal Mendis Taskin Ahmed Marcus Stoinis Andrew Balbirnie Rilee Rossouw Suryakumar Yadav Sikandar Raza Glenn Phillips Shadah Khan Aaron Finch Wanindu Hasaranga Max O'Dong Kane Williamson Colin Ackermann Mohammad Rizwan Sam Curran Glenn Maxwell Adil Rashid Shaheen Africi Virat Kohli Lungi Ngiaj player of the match Virat Kohli, Sam Curran, Taskin Ahmed, Suryakumar Yadav, and Shadab Khan got the player of the match in 2 matches. No player got the player of the match award in more than two matches. Now let's have a look at the bowlers with the best bowling figures at the end of the matches: figure = px.bar(data,x=data["best bowler"], title="Best Bowlers in t20 World Cup 2022") figure.show() Best Bowlers in t20 World Cup 2022 2.5 0.5 Maheesh Theekshana Hardik Pandya Glenn Maxwell Liam Livingstone Bhuvneshwar Kumar Mohammad Wasim Shadab Khan Wanindu Hasaranga Paul van Meekeren Lockie Ferguson Naveen-ul-Haq Brandon Glover Ravichandran Ashwin Anrich Nortje Barry McCarthy Hasan Mahmud Sam Curran Taskin Ahmed Mark Wood Shaheen Africi Tim Southee Lungi Ngidi Trent Boult best bowler Sam Curran was the only best bowler in 3 matches. Undoubtedly, he deserved to be the player of the tournament. Now let's compare the runs scored in the first innings and second innings in every stadium of the t20 world cup 2022: In [10]: fig = go.Figure() fig.add_trace(go.Bar(x=data["venue"], y=data["first innings score"], name='First Innings Runs', marker_color='blue' fig.add_trace(go.Bar(x=data["venue"], y=data["second innings score"], name='Second Innings Runs', marker_color='red' fig.update_layout(barmode='group', xaxis_tickangle=-45, title="Best Stadiums to Bat First or Chase") fig.show() Best Stadiums to Bat First or Chase First Innings Runs 1200 Second Innings Runs 1000 800 600 400 200 0 So SCG was the only stadium in the world cup that was best for batting first. Other stadiums didn't make much difference while batting first or chasing. Now let's compare the number of wickets lost in the first innings and second innings in every stadium of the t20 world cup 2022: In [11]: fig = go.Figure() fig.add_trace(go.Bar(x=data["venue"], y=data["first innings wickets"], name='First Innings Wickets', marker_color='blue' fig.add_trace(go.Bar(x=data["venue"], y=data["second innings wickets"], name='Second Innings Wickets', marker_color='red' fig.update_layout(barmode='group', xaxis_tickangle=-45, title="Best Statiums to Bowl First or Defend") fig.show() Best Statiums to Bowl First or Defend 60 First Innings Wickets Second Innings Wickets 50 40 30 20 10 SCG was the best stadium to bowl while defending the target. While the Optus Stadium was the best stadium to bowl first. Summary So some highlights of the t20 world cup 2022 we found from our analysis are: 1. England won the most number of matches 2. Virat Kohli scored highest in the most number of matches 3. Sam Curran was the best bowler in the most number of matches 4. More teams won by batting first 5. More teams decided to bat first 6. SCG was the best stadium to bat first 7. SCG was the best stadium to defend the target in the World Cup 8. The Optus Stadium was the best stadium to bowl first In []:

T20 World Cup 2022 Analysis using Python

Every sports event generates a lot of data which we can use to analyze the performance of players, teams, and many highlights of the game. As the ICC Men's T20 world cup has just finished, it has generated a lot of data we can use to summarize the event. So, if you want to learn how to analyze a sports event like the t20 world cup, this article is for you. This