ipl-2022-analysis

April 23, 2024

1 IPL 2022 Analysis

[21]:
```
import pandas as pd
import numpy as np
import plotly.express as px
import plotly.graph_objects as go
```

[22]:
```
data = pd.read_csv("IPL 2022.csv")
```

[23]:
```
data
```

[23]:

	match_id	date	venue	\
0	1	March 26,2022	Wankhede Stadium, Mumbai	
1	2	March 27,2022	Brabourne Stadium, Mumbai	
2	3	March 27,2022	Dr DY Patil Sports Academy, Mumbai	
3	4	March 28,2022	Wankhede Stadium, Mumbai	
4	5	March 29,2022	Maharashtra Cricket Association Stadium,Pune	
..	…	…	…	
69	70	May 22,2022	Wankhede Stadium, Mumbai	
70	71	May 24,2022	Eden Gardens, Kolkata	
71	72	May 25,2022	Eden Gardens, Kolkata	
72	73	May 27,2022	Narendra Modi Stadium, Ahmedabad	
73	74	May 29,2022	Narendra Modi Stadium, Ahmedabad	

	team1	team2	stage	toss_winner	toss_decision	first_ings_score	\
0	Chennai	Kolkata	Group	Kolkata	Field	131	
1	Delhi	Mumbai	Group	Delhi	Field	177	
2	Banglore	Punjab	Group	Punjab	Field	205	
3	Gujarat	Lucknow	Group	Gujarat	Field	158	
4	Hyderabad	Rajasthan	Group	Hyderabad	Field	210	
..	…	…	…	…	…	…	
69	Hyderabad	Punjab	Group	Hyderabad	Bat	157	
70	Gujarat	Rajasthan	Playoff	Gujarat	Field	188	
71	Banglore	Lucknow	Playoff	Lucknow	Field	207	
72	Banglore	Rajasthan	Playoff	Rajasthan	Field	157	
73	Gujarat	Rajasthan	Final	Rajasthan	Bat	130	

```
    first_ings_wkts  second_ings_score  second_ings_wkts match_winner  \
0                 5                133                 4      Kolkata
1                 5                179                 6        Delhi
2                 2                208                 5       Punjab
3                 6                161                 5      Gujarat
4                 6                149                 7    Rajasthan
..              ...                ...               ...          ...
69                8                160                 5       Punjab
70                6                191                 3      Gujarat
71                4                193                 6     Banglore
72                8                161                 3    Rajasthan
73                9                133                 3      Gujarat

     won_by  margin player_of_the_match        top_scorer  highscore  \
0   Wickets       6         Umesh Yadav          MS Dhoni         50
1   Wickets       4       Kuldeep Yadav      Ishan Kishan         81
2   Wickets       5         Odean Smith    Faf du Plessis         88
3   Wickets       5      Mohammed Shami      Deepak Hooda         55
4      Runs      61        Sanju Samson     Aiden Markram         57
..      ...     ...                 ...               ...        ...
69  Wickets       5       Harpreet Brar  Liam Livingstone         49
70  Wickets       7        David Miller       Jos Buttler         89
71     Runs      14       Rajat Patidar     Rajat Patidar        112
72  Wickets       7         Jos Buttler       Jos Buttler        106
73  Wickets       7       Hardik Pandya      Shubman Gill         45

        best_bowling best_bowling_figure
0       Dwayne Bravo               3--20
1     Kuldeep Yadav               3--18
2     Mohammed Siraj               2--59
3     Mohammed Shami               3--25
4   Yuzvendra Chahal               3--22
..               ...                 ...
69     Harpreet Brar               3--26
70     Hardik Pandya               1--14
71    Josh Hazlewood               3--43
72   Prasidh Krishna               3--22
73     Hardik Pandya               3--17

[74 rows x 20 columns]
```

1.1 Data cleaning

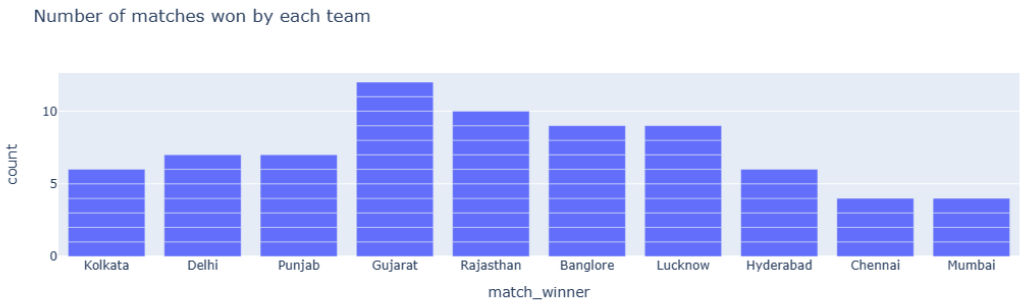
[24]:
```
print(data.isnull().sum())
```

```
match_id              0
date                  0
```

```
venue                  0
team1                  0
team2                  0
stage                  0
toss_winner            0
toss_decision          0
first_ings_score       0
first_ings_wkts        0
second_ings_score      0
second_ings_wkts       0
match_winner           0
won_by                 0
margin                 0
player_of_the_match    0
top_scorer             0
highscore              0
best_bowling           0
best_bowling_figure    0
dtype: int64
```

1.2 Number of matches won by each team

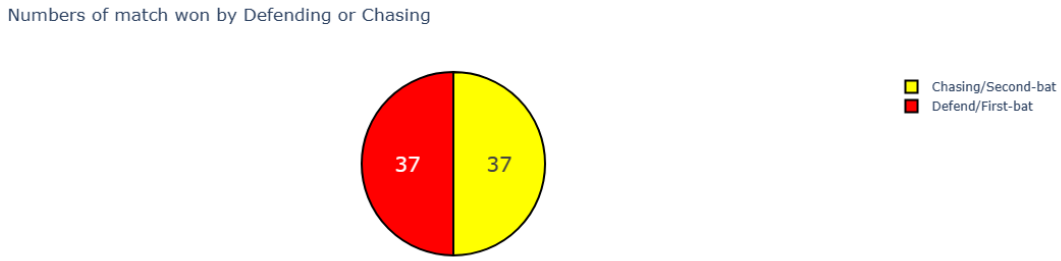
[25]:
```
figure = px.bar(data, x= data["match_winner"], title = " Number of matches won␣
↪by each team ")
figure.show()
```



1.3 Numbers of match won by Defending or Chasing

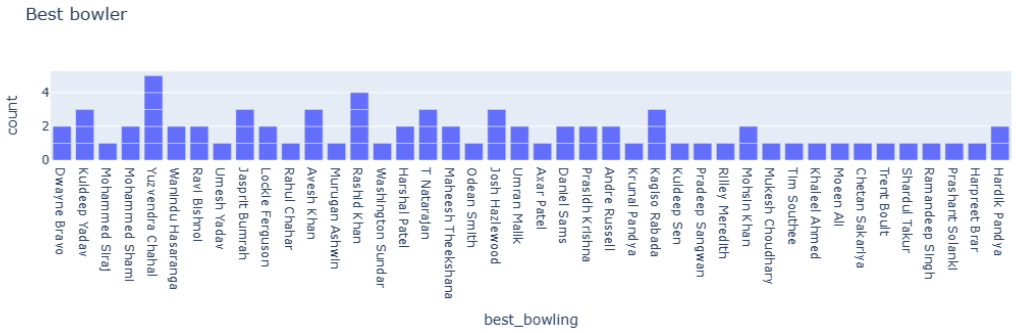
[26]:
```
data['won_by']= data['won_by'].map({'Wickets':'Chasing/Second-bat', 'Runs':
↪'Defend/First-bat' })
won_by = data['won_by'].value_counts()
label = won_by.index
counts= won_by.values
```

```
colors = ['yellow','red']
fig = go.Figure(data = [go.Pie(labels = label, values = counts)])
fig.update_layout(title_text = "Numbers of match won by Defending or Chasing")
fig.update_traces(hoverinfo = 'label + percent', textinfo = 'value',␣
 ↪textfont_size = 20,
                  marker = dict(colors=colors,line = dict (color='black', width␣
 ↪= 2)))
fig.show()
```



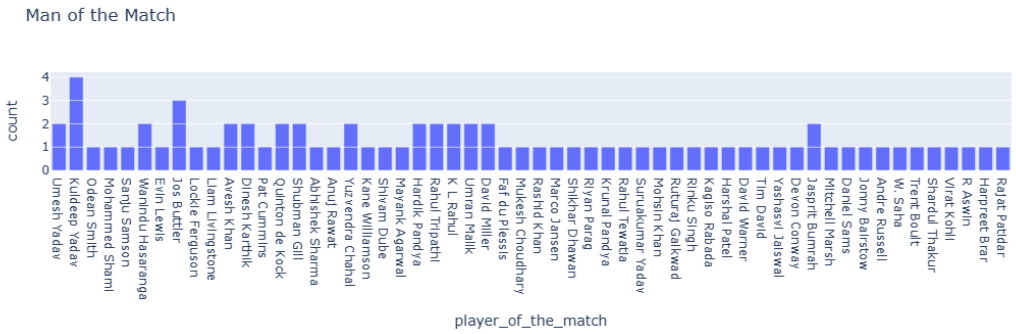
1.4 Best bowler

[27]:
```
figure = px.bar(data, x = data["best_bowling"], title = "Best bowler")
figure.show()
```



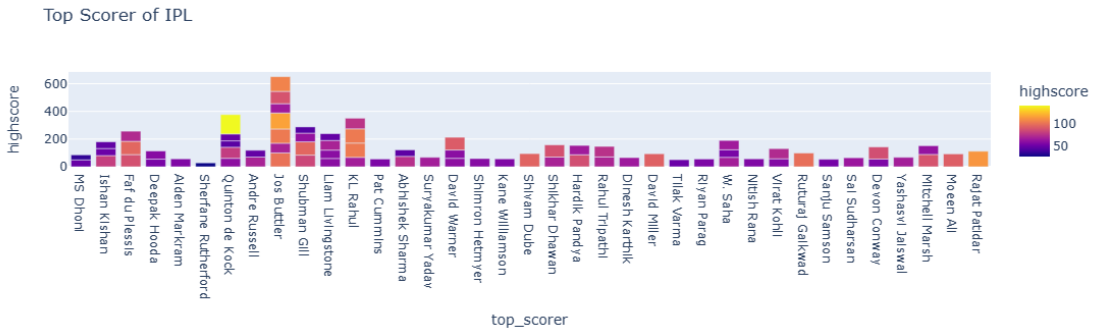
1.5 Man of the Match

[28]:
```
figure = px.bar(data, x = data["player_of_the_match"], title = "Man of the␣
 ↪Match")
figure.show()
```



1.6 Top Scorer

[31]:
```
figure = px.bar(data, x = data["top_scorer"], y = data["highscore"],color=␣
↪data["highscore"],title = "Top Scorer of IPL")
figure.show()
```



2 END

[ ]:
```

```