```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

```
df = pd.read_csv('Matches.csv')
```

```
df.head()
```

	id	city	date	player_of_match	venue	neutral_venue	team1	team2	toss_
0	335982	Bangalore	2008-04-18	BB McCullum	M Chinnaswamy Stadium	0	Royal Challengers Bangalore	Kolkata Knight Riders	Chal Ba
1	335983	Chandigarh	2008-04-19	MEK Hussey	Punjab Cricket Association Stadium, Mohali	0	Kings XI Punjab	Chennai Super Kings	C Supe
2	335984	Delhi	2008-04-19	MF Maharoof	Feroz Shah Kotla	0	Delhi Daredevils	Rajasthan Royals	Ra
3	335985	Mumbai	2008-04-20	MV Boucher	Wankhede Stadium	0	Mumbai Indians	Royal Challengers Bangalore	N
4	335986	Kolkata	2008-04-20	DJ Hussey	Eden Gardens	0	Kolkata Knight Riders	Deccan Chargers	CI

```
df.head(-5)
```

	id	city	date	player_of_match	venue	neutral_venue	team1	team2	to
0	335982	Bangalore	2008-04-18	BB McCullum	M Chinnaswamy Stadium	0	Royal Challengers Bangalore	Kolkata Knight Riders	C
1	335983	Chandigarh	2008-04-19	MEK Hussey	Punjab Cricket Association Stadium, Mohali	0	Kings XI Punjab	Chennai Super Kings	S
2	335984	Delhi	2008-04-19	MF Maharoof	Feroz Shah Kotla	0	Delhi Daredevils	Rajasthan Royals	
3	335985	Mumbai	2008-04-20	MV Boucher	Wankhede Stadium	0	Mumbai Indians	Royal Challengers Bangalore	
4	335986	Kolkata	2008-04-20	DJ Hussey	Eden Gardens	0	Kolkata Knight Riders	Deccan Chargers	
...	...	...	...	...	...	...	...	...	
806	1216542	Dubai	2020-10-08	JM Bairstow	Dubai International Cricket Stadium	0	Sunrisers Hyderabad	Kings XI Punjab	
807	1216543	Dubai	2020-10-14	A Nortje	Dubai International Cricket Stadium	0	Delhi Capitals	Rajasthan Royals	
808	1216544	Dubai	2020-10-25	RD Gaikwad	Dubai International Cricket Stadium	0	Royal Challengers Bangalore	Chennai Super Kings	C
809	1216545	Abu Dhabi	2020-09-26	Shubman Gill	Sheikh Zayed Stadium	0	Sunrisers Hyderabad	Kolkata Knight Riders	
810	1216546	Dubai	2020-10-20	S Dhawan	Dubai International Cricket Stadium	0	Delhi Capitals	Kings XI Punjab	

811 rows × 17 columns

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 816 entries, 0 to 815
Data columns (total 17 columns):
 #   Column          Non-Null Count  Dtype
---  ------          --------------  -----
 0   id              816 non-null    int64
 1   city            803 non-null    object
 2   date            816 non-null    object
 3   player_of_match 812 non-null    object
 4   venue           816 non-null    object
 5   neutral_venue   816 non-null    int64
 6   team1           816 non-null    object
 7   team2           816 non-null    object
 8   toss_winner     816 non-null    object
 9   toss_decision   816 non-null    object
 10  winner          812 non-null    object
 11  result          812 non-null    object
 12  result_margin   799 non-null    float64
 13  eliminator      812 non-null    object
 14  method          19 non-null     object
 15  umpire1         816 non-null    object
 16  umpire2         816 non-null    object
dtypes: float64(1), int64(2), object(14)
memory usage: 108.5+ KB
```

```
df.drop(['method'] , axis = 1, inplace = True)
```

```
df
```

	id	city	date	player_of_match	venue	neutral_venue	team1	team2	to
0	335982	Bangalore	2008-04-18	BB McCullum	M Chinnaswamy Stadium	0	Royal Challengers Bangalore	Kolkata Knight Riders	(
1	335983	Chandigarh	2008-04-19	MEK Hussey	Punjab Cricket Association Stadium, Mohali	0	Kings XI Punjab	Chennai Super Kings	S
2	335984	Delhi	2008-04-19	MF Maharoof	Feroz Shah Kotla	0	Delhi Daredevils	Rajasthan Royals	
3	335985	Mumbai	2008-04-20	MV Boucher	Wankhede Stadium	0	Mumbai Indians	Royal Challengers Bangalore	
4	335986	Kolkata	2008-04-20	DJ Hussey	Eden Gardens	0	Kolkata Knight Riders	Deccan Chargers	
...	...	...	...	...	...	...	...	...	
811	1216547	Dubai	2020-09-28	AB de Villiers	Dubai International Cricket Stadium	0	Royal Challengers Bangalore	Mumbai Indians	
812	1237177	Dubai	2020-11-05	JJ Bumrah	Dubai International Cricket Stadium	0	Mumbai Indians	Delhi Capitals	
813	1237178	Abu Dhabi	2020-11-06	KS Williamson	Sheikh Zayed Stadium	0	Royal Challengers Bangalore	Sunrisers Hyderabad	
814	1237180	Abu Dhabi	2020-11-08	MP Stoinis	Sheikh Zayed Stadium	0	Delhi Capitals	Sunrisers Hyderabad	
815	1237181	Dubai	2020-11-10	TA Boult	Dubai International Cricket Stadium	0	Delhi Capitals	Mumbai Indians	

816 rows × 16 columns

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 816 entries, 0 to 815
Data columns (total 16 columns):
 #   Column          Non-Null Count  Dtype
```

```
---  ------          --------------  -----
 0   id              816 non-null    int64
 1   city            803 non-null    object
 2   date            816 non-null    object
 3   player_of_match 812 non-null    object
 4   venue           816 non-null    object
 5   neutral_venue   816 non-null    int64
 6   team1           816 non-null    object
 7   team2           816 non-null    object
 8   toss_winner     816 non-null    object
 9   toss_decision   816 non-null    object
 10  winner          812 non-null    object
 11  result          812 non-null    object
 12  result_margin   799 non-null    float64
 13  eliminator      812 non-null    object
 14  umpire1         816 non-null    object
 15  umpire2         816 non-null    object
dtypes: float64(1), int64(2), object(13)
memory usage: 102.1+ KB
```

Most wins in IPL

```
MostWins = pd.DataFrame({"winner" : df['winner']})
```

```
MostWins.head()
```

	winner
0	Kolkata Knight Riders
1	Chennai Super Kings
2	Delhi Daredevils
3	Royal Challengers Bangalore
4	Kolkata Knight Riders

```
count_wins = MostWins.value_counts()
```

```
count_wins
```

```
    winner
    Mumbai Indians                120
    Chennai Super Kings           106
    Kolkata Knight Riders          99
    Royal Challengers Bangalore    91
    Kings XI Punjab                88
    Rajasthan Royals               81
    Delhi Daredevils               67
    Sunrisers Hyderabad            66
    Deccan Chargers                29
    Delhi Capitals                 19
    Gujarat Lions                  13
    Pune Warriors                  12
    Rising Pune Supergiant         10
    Kochi Tuskers Kerala            6
    Rising Pune Supergiants         5
    dtype: int64
```
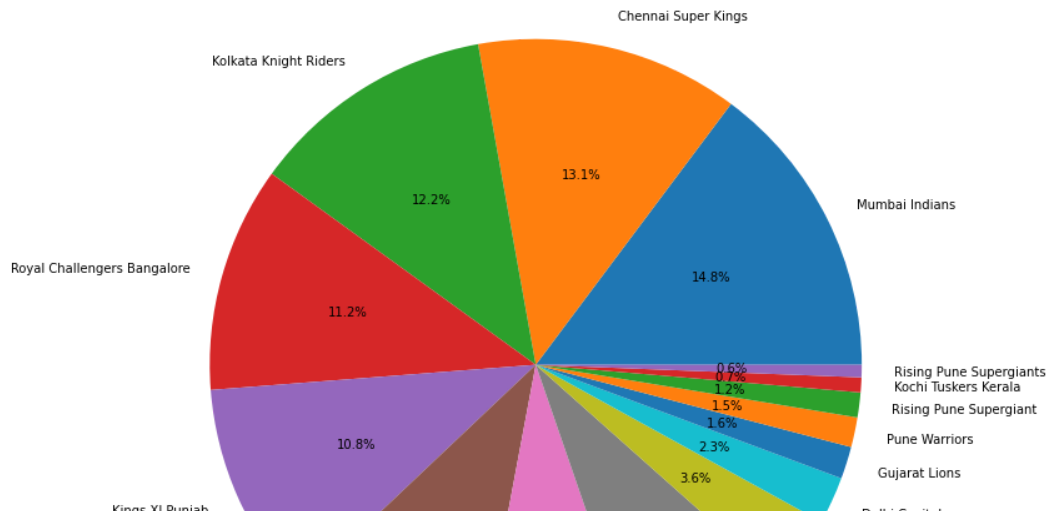
```
labels=[X[0] for X in count_wins.keys()]
bar,ax = plt.subplots(figsize=(18,12))
ax = plt.pie(x = count_wins,autopct = "%.1f%%" , labels=labels)
plt.title("Most wins in IPL",fontsize=15)
plt.show()
```
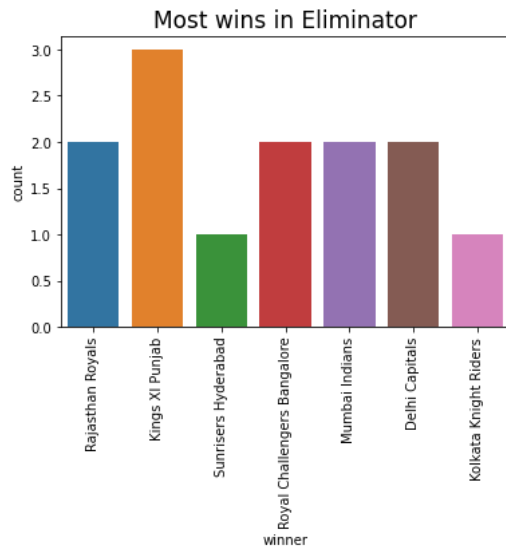
Most wins in IPL


```
sns.countplot(df['winner'][df['eliminator']=='Y'], data=df)
plt.title("Most wins in Eliminator" ,fontsize = 17)
plt.xticks(rotation=90)
plt.show()
```

```
/usr/local/lib/python3.7/dist-packages/seaborn/_decorators.py:43: FutureWarning: Pass the following var
  FutureWarning
```


Win/Lose according to toss decision

```
teams=df['toss_winner'].unique()
decision_making=pd.DataFrame([],columns=['Toss Winner','Decision','Times'])
for id,element in enumerate(teams):
    temp_bat=df[(df['toss_winner']==element) & (df['toss_decision']=='bat')]
    temp_field=df[(df['toss_winner']==element) & (df['toss_decision']=='field')]
    decision_making=decision_making.append({'Toss Winner':element,'Decision':'bat','Times':temp_bat['toss_winner'].count()},ignore_index
    decision_making=decision_making.append({'Toss Winner':element,'Decision':'field','Times':temp_field['toss_winner'].count()},ignore_i
```

```
teams
```

```
array(['Royal Challengers Bangalore', 'Chennai Super Kings',
       'Rajasthan Royals', 'Mumbai Indians', 'Deccan Chargers',
       'Kings XI Punjab', 'Kolkata Knight Riders', 'Delhi Daredevils',
       'Kochi Tuskers Kerala', 'Pune Warriors', 'Sunrisers Hyderabad',
       'Gujarat Lions', 'Rising Pune Supergiants',
       'Rising Pune Supergiant', 'Delhi Capitals'], dtype=object)
```

```
decision_making
```

	Toss Winner	Decision	Times
0	Royal Challengers Bangalore	bat	24
1	Royal Challengers Bangalore	field	63
2	Chennai Super Kings	bat	51
3	Chennai Super Kings	field	46
4	Rajasthan Royals	bat	34
5	Rajasthan Royals	field	53
6	Mumbai Indians	bat	48
7	Mumbai Indians	field	58
8	Deccan Chargers	bat	24
9	Deccan Chargers	field	19
10	Kings XI Punjab	bat	27
11	Kings XI Punjab	field	58
12	Kolkata Knight Riders	bat	34
13	Kolkata Knight Riders	field	64
14	Delhi Daredevils	bat	29
15	Delhi Daredevils	field	51
16	Kochi Tuskers Kerala	bat	3
17	Kochi Tuskers Kerala	field	5
18	Pune Warriors	bat	11
19	Pune Warriors	field	9
20	Sunrisers Hyderabad	bat	24
21	Sunrisers Hyderabad	field	33
22	Gujarat Lions	bat	1
23	Gujarat Lions	field	14
24	Rising Pune Supergiants	bat	3
25	Rising Pune Supergiants	field	4
26	Rising Pune Supergiant	bat	0
27	Rising Pune Supergiant	field	6
28	Delhi Capitals	bat	7

```
sns.catplot(x='Toss Winner' , y='Times' , hue="Decision", data=decision_making, kind='bar' ,height=5, aspect=2)
plt.xticks(rotation=90)
plt.title("Toss Decision of team")
plt.xlabel("IPL Teams")
plt.ylabel("Toss Decision")
plt.show()
```
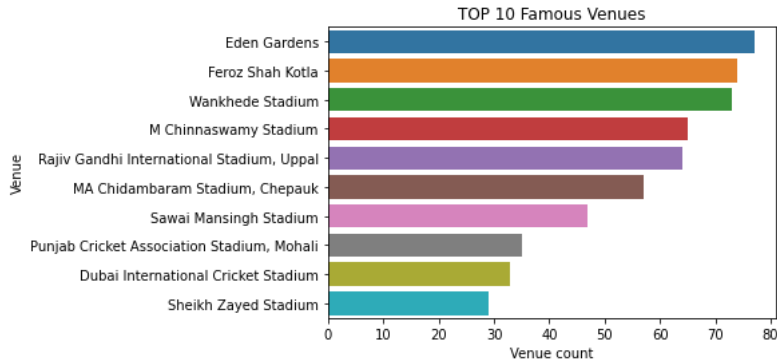
Toss Decision of team
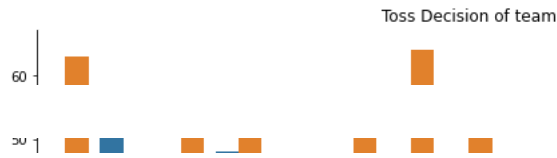

TOP 10 Famous Venues


```
sns.barplot(x=df['venue'].value_counts().head(10).values,y=df['venue'].value_counts().head(10).index,data=df)
plt.title("TOP 10 Famous Venues")
plt.xlabel("Venue count")
plt.ylabel("Venue")
plt.show()
```
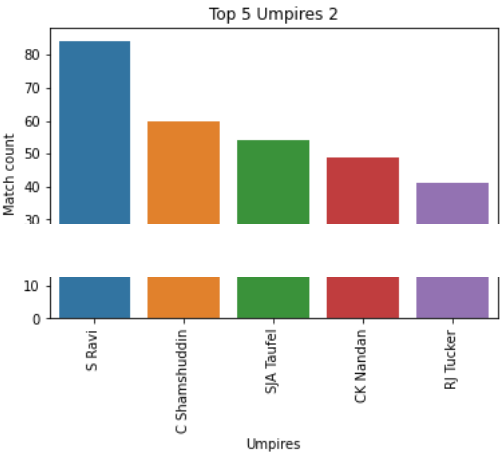

Top 5 Umpires

```
sns.barplot(x=df['umpire1'].value_counts().head(5).index,y=df['umpire1'].value_counts().head(5).values ,data=df)
plt.xticks(rotation=90)
plt.xlabel("Umpires")
plt.ylabel("Match count")
plt.title("Top 5 Umpires")
plt.show()
```
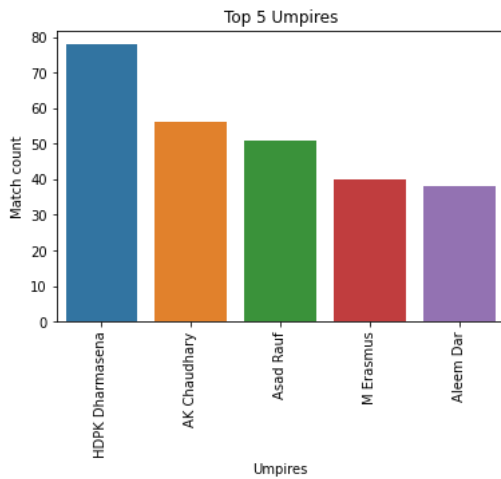


```
sns.barplot(x=df['umpire2'].value_counts().head(5).index,y=df['umpire2'].value_counts().head(5).values ,data=df)
plt.xticks(rotation=90)
plt.xlabel("Umpires")
plt.ylabel("Match count")
plt.title("Top 5 Umpires 2")
plt.show()
```

Top 5 Umpires 2