

```
In [31]: import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
import seaborn as sns
```

Load The DataSet

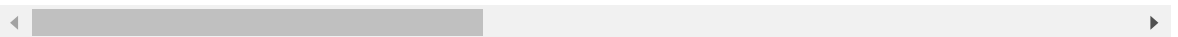
```
In [32]: ipl = pd.read_csv('matches.csv')
```

```
In [33]: ipl
```

Out[33]:

	id	season	city	date	team1	team2	toss_winner	toss_decis
0	1	2017	Hyderabad	2017-04-05	Sunrisers Hyderabad	Royal Challengers Bangalore	Royal Challengers Bangalore	
1	2	2017	Pune	2017-04-06	Mumbai Indians	Rising Pune Supergiant	Rising Pune Supergiant	
2	3	2017	Rajkot	2017-04-07	Gujarat Lions	Kolkata Knight Riders	Kolkata Knight Riders	
3	4	2017	Indore	2017-04-08	Rising Pune Supergiant	Kings XI Punjab	Kings XI Punjab	
4	5	2017	Bangalore	2017-04-08	Royal Challengers Bangalore	Delhi Daredevils	Royal Challengers Bangalore	
...
751	11347	2019	Mumbai	05/05/19	Kolkata Knight Riders	Mumbai Indians	Mumbai Indians	
752	11412	2019	Chennai	07/05/19	Chennai Super Kings	Mumbai Indians	Chennai Super Kings	
753	11413	2019	Visakhapatnam	08/05/19	Sunrisers Hyderabad	Delhi Capitals	Delhi Capitals	
754	11414	2019	Visakhapatnam	10/05/19	Delhi Capitals	Chennai Super Kings	Chennai Super Kings	
755	11415	2019	Hyderabad	12/05/19	Mumbai Indians	Chennai Super Kings	Mumbai Indians	

756 rows × 18 columns



Analysis

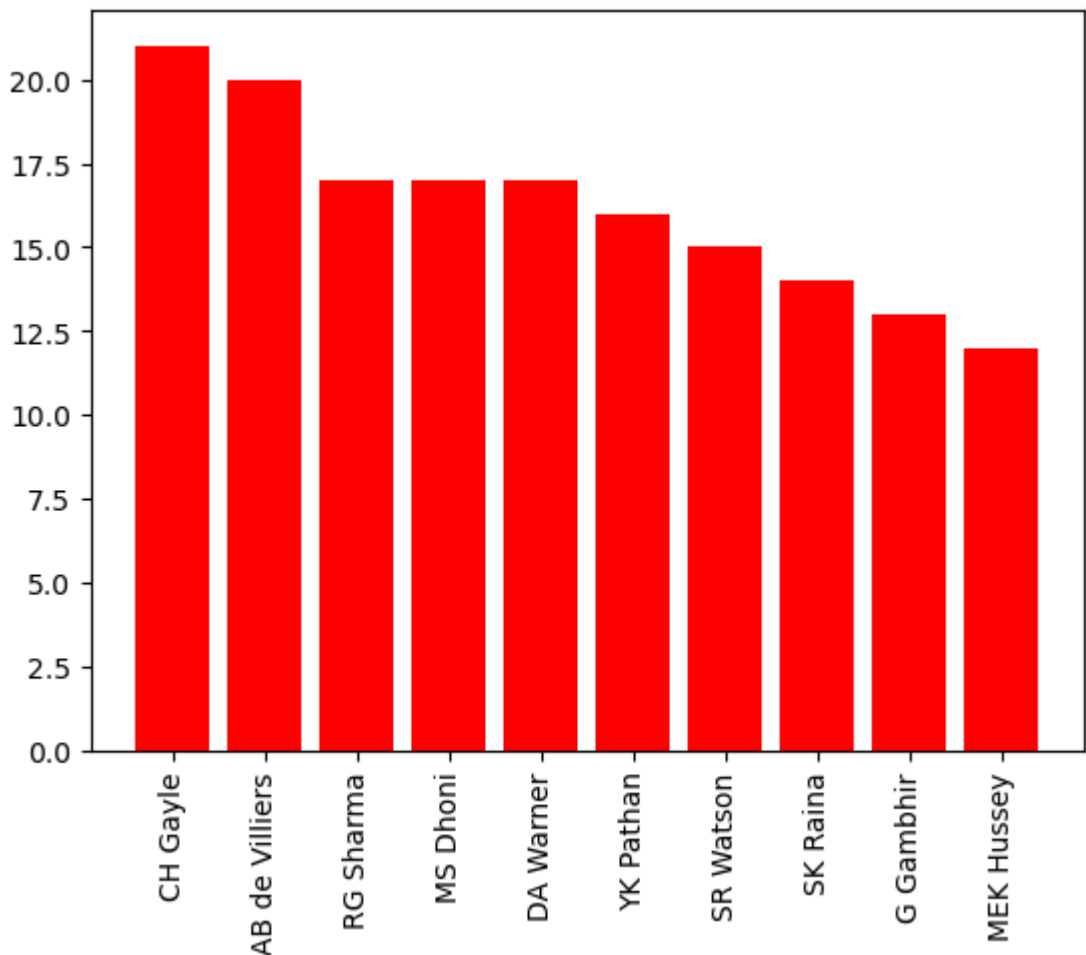
```
In [34]: ipl.shape
```

```
Out[34]: (756, 18)
```

```
In [35]: pomc = ipl['player_of_match'].value_counts()[0:10]
```

```
In [36]: pom = list(ipl['player_of_match'].value_counts()[0:10].keys())
```

```
In [37]: plt.bar(pom,pomc,color='r')  
plt.xticks(rotation=90)  
plt.show()
```



```
In [38]: ipl['result'].value_counts()
```

```
Out[38]: result  
normal      743  
tie          9  
no result    4  
Name: count, dtype: int64
```

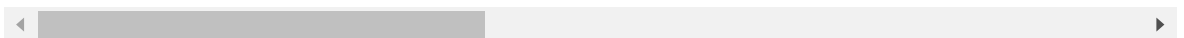
```
In [39]: bat_f_w = ipl[ipl['win_by_runs']!=0]
```

In [40]: bat_f_w

Out[40]:

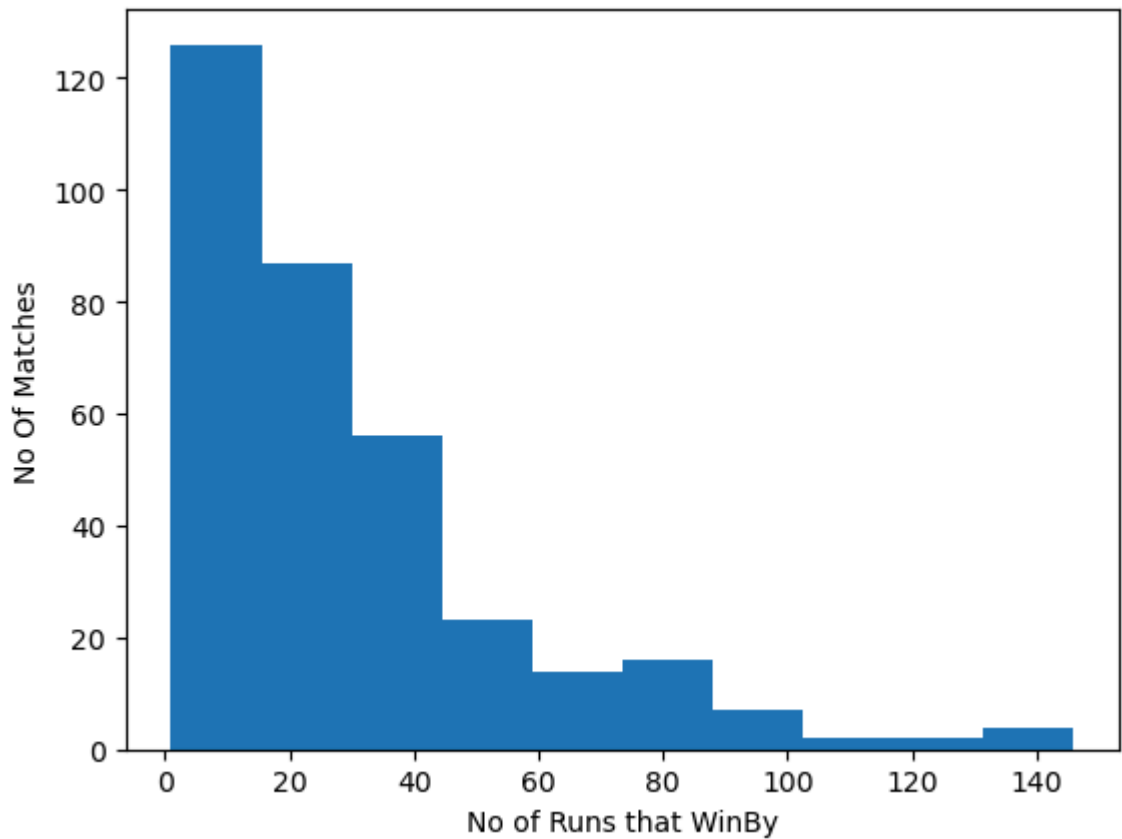
	id	season	city	date	team1	team2	toss_winner	toss_decision
0	1	2017	Hyderabad	2017-04-05	Sunrisers Hyderabad	Royal Challengers Bangalore	Royal Challengers Bangalore	field
4	5	2017	Bangalore	2017-04-08	Royal Challengers Bangalore	Delhi Daredevils	Royal Challengers Bangalore	bat
8	9	2017	Pune	2017-04-11	Delhi Daredevils	Rising Pune Supergiant	Rising Pune Supergiant	field
13	14	2017	Kolkata	2017-04-15	Kolkata Knight Riders	Sunrisers Hyderabad	Sunrisers Hyderabad	field
14	15	2017	Delhi	2017-04-15	Delhi Daredevils	Kings XI Punjab	Delhi Daredevils	bat
...
741	11337	2019	Delhi	28/04/19	Delhi Capitals	Royal Challengers Bangalore	Delhi Capitals	bat
742	11338	2019	Kolkata	28/04/19	Kolkata Knight Riders	Mumbai Indians	Mumbai Indians	field
743	11339	2019	Hyderabad	29/04/19	Sunrisers Hyderabad	Kings XI Punjab	Kings XI Punjab	field
745	11341	2019	Chennai	01/05/19	Chennai Super Kings	Delhi Capitals	Delhi Capitals	field
755	11415	2019	Hyderabad	12/05/19	Mumbai Indians	Chennai Super Kings	Mumbai Indians	bat

337 rows × 18 columns



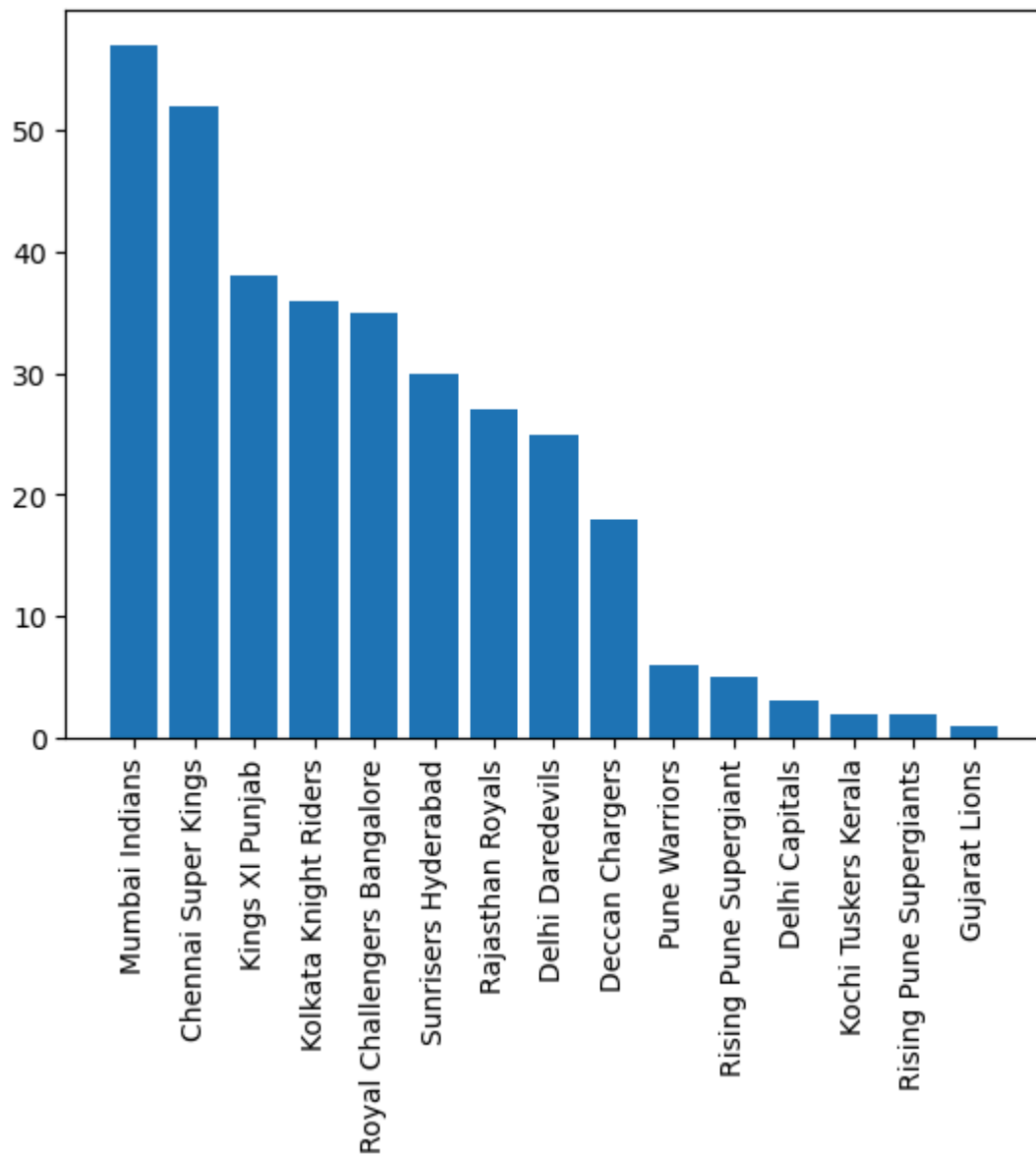
```
In [41]: plt.hist(bat_f_w['win_by_runs'])  
plt.xlabel('No of Runs that WinBy')  
plt.ylabel('No Of Matches')
```

```
Out[41]: Text(0, 0.5, 'No Of Matches')
```



```
In [58]: win = bat_f_w['winner'].value_counts()
```

```
In [59]: plt.bar(list(win.keys()),win)
plt.xticks(rotation=90)
plt.show()
```



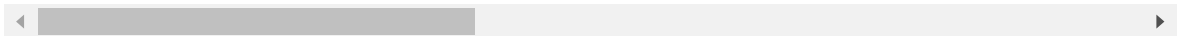
```
In [60]: bat_s_w = ipl[ipl['win_by_wickets']!=0]
```

In [61]: bat_s_w

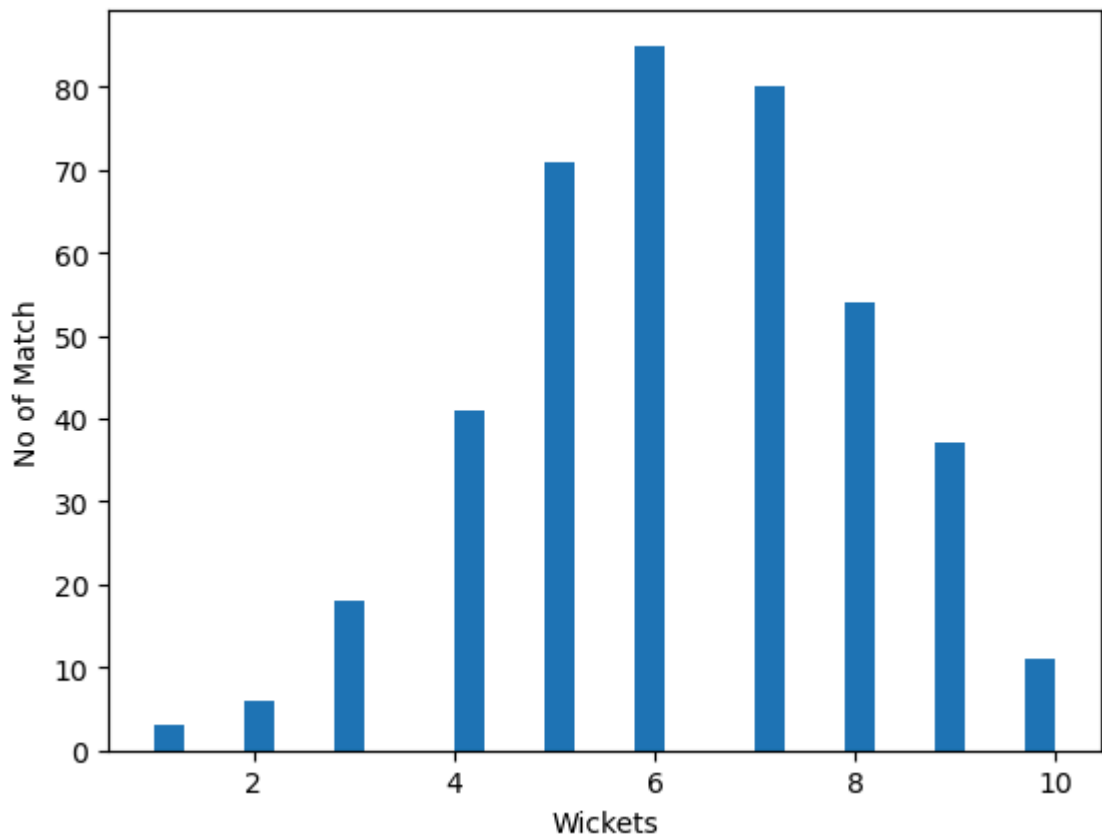
Out[61]:

	id	season	city	date	team1	team2	toss_winner	toss_decisi
1	2	2017	Pune	2017-04-06	Mumbai Indians	Rising Pune Supergiant	Rising Pune Supergiant	fi
2	3	2017	Rajkot	2017-04-07	Gujarat Lions	Kolkata Knight Riders	Kolkata Knight Riders	fi
3	4	2017	Indore	2017-04-08	Rising Pune Supergiant	Kings XI Punjab	Kings XI Punjab	fi
5	6	2017	Hyderabad	2017-04-09	Gujarat Lions	Sunrisers Hyderabad	Sunrisers Hyderabad	fi
6	7	2017	Mumbai	2017-04-09	Kolkata Knight Riders	Mumbai Indians	Mumbai Indians	fi
...
750	11346	2019	Mohali	05/05/19	Chennai Super Kings	Kings XI Punjab	Kings XI Punjab	fi
751	11347	2019	Mumbai	05/05/19	Kolkata Knight Riders	Mumbai Indians	Mumbai Indians	fi
752	11412	2019	Chennai	07/05/19	Chennai Super Kings	Mumbai Indians	Chennai Super Kings	b
753	11413	2019	Visakhapatnam	08/05/19	Sunrisers Hyderabad	Delhi Capitals	Delhi Capitals	fi
754	11414	2019	Visakhapatnam	10/05/19	Delhi Capitals	Chennai Super Kings	Chennai Super Kings	fi

406 rows × 18 columns

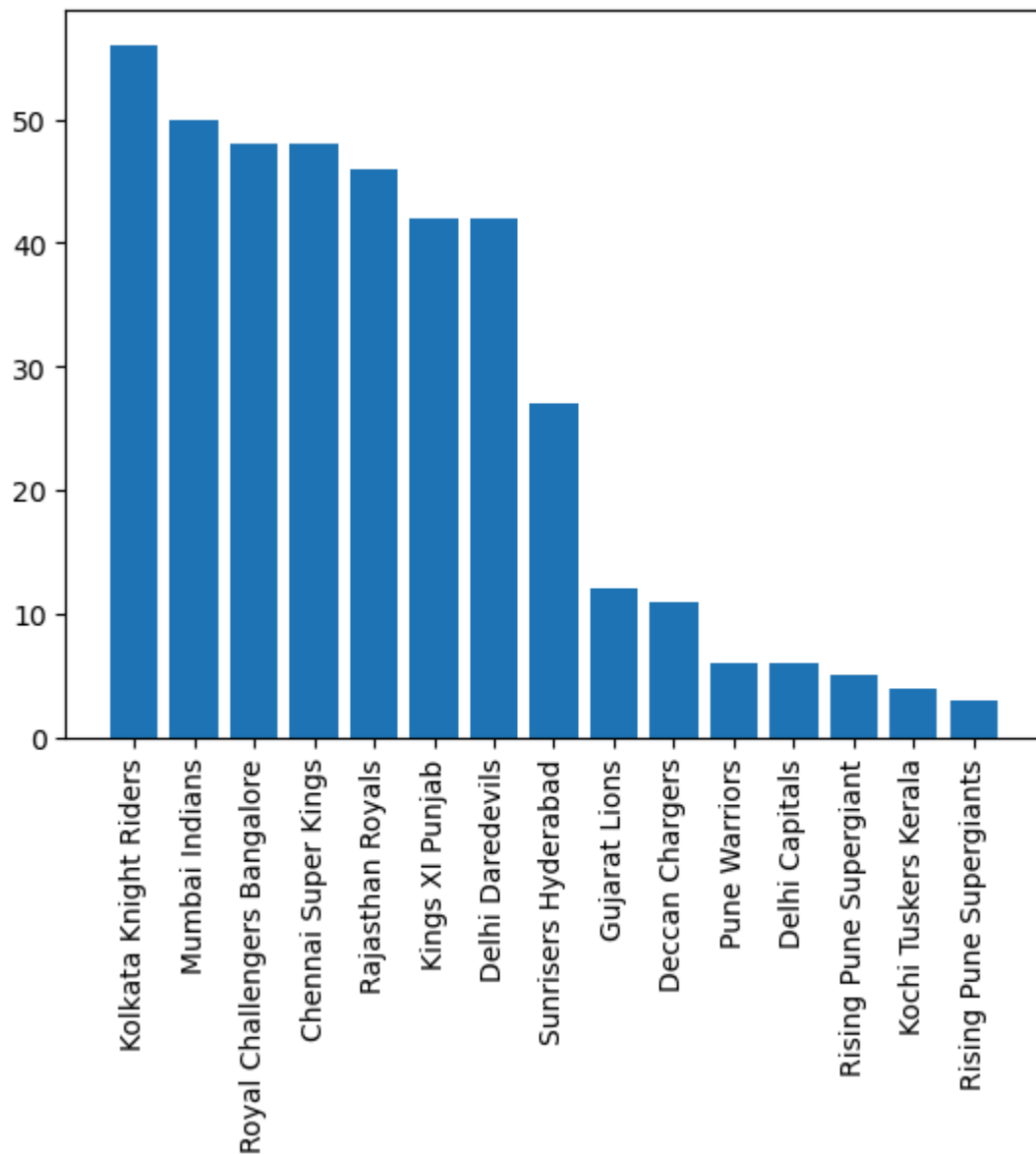


```
In [62]: plt.hist(bat_s_w['win_by_wickets'],bins=30)
plt.xlabel('Wickets')
plt.ylabel('No of Match')
plt.show()
```



```
In [63]: win = bat_s_w['winner'].value_counts()
```

```
In [64]: plt.bar(list(win.keys()),win)
plt.xticks(rotation=90)
plt.show()
```



```
In [66]: ipl['season'].value_counts()
```

```
Out[66]: season
2013      76
2012      74
2011      73
2010      60
2014      60
2016      60
2018      60
2019      60
2017      59
2015      59
2008      58
2009      57
Name: count, dtype: int64
```



```
In [67]: ipl['city'].value_counts()
```

```
Out[67]: city
Mumbai          101
Kolkata          77
Delhi           74
Bangalore        66
Hyderabad        64
Chennai          57
Jaipur           47
Chandigarh       46
Pune             38
Durban           15
Bengaluru        14
Visakhapatnam    13
Centurion        12
Ahmedabad        12
Rajkot           10
Mohali           10
Indore           9
Dharamsala       9
Johannesburg     8
Cuttack          7
Ranchi           7
Port Elizabeth   7
Cape Town        7
Abu Dhabi        7
Sharjah          6
Raipur           6
Kochi            5
Kanpur           4
Nagpur           3
Kimberley        3
East London      3
Bloemfontein     2
Name: count, dtype: int64
```

```
In [68]: np.sum(ipl['toss_winner']==ipl['winner'])
```

```
Out[68]: 393
```

```
In [75]: np.sum(ipl['result']=='normal')
```

```
Out[75]: 743
```

```
In [76]: 393/743
```

```
Out[76]: 0.5289367429340511
```

52.8% Win the match that team win the toss

By Lahiru Sadakelum

