

```
In [1]: import pandas as pd
from matplotlib import pyplot as plt
import seaborn as sns
```

```
In [2]: ipl=pd.read_csv('C:\\Users\\admin_a\\Downloads\\matches.csv')
```

```
In [3]: ipl.head()
```

```
Out[3]:
```

	id	season	city	date	team1	team2	toss_winner	toss_decision	result	dl_applied	winner	win_by_runs	win_by_w
0	1	2017	Hyderabad	2017-04-05	Sunrisers Hyderabad	Royal Challengers Bangalore	Royal Challengers Bangalore	field	normal	0	Sunrisers Hyderabad	35	
1	2	2017	Pune	2017-04-06	Mumbai Indians	Rising Pune Supergiant	Rising Pune Supergiant	field	normal	0	Rising Pune Supergiant	0	
2	3	2017	Rajkot	2017-04-07	Gujarat Lions	Kolkata Knight Riders	Kolkata Knight Riders	field	normal	0	Kolkata Knight Riders	0	
3	4	2017	Indore	2017-04-08	Rising Pune Supergiant	Kings XI Punjab	Kings XI Punjab	field	normal	0	Kings XI Punjab	0	
4	5	2017	Bangalore	2017-04-08	Royal Challengers Bangalore	Delhi Daredevils	Royal Challengers Bangalore	bat	normal	0	Royal Challengers Bangalore	15	

```
In [4]: ipl.shape
```

```
Out[4]: (756, 18)
```

```
In [5]: ipl['player_of_match'].value_counts()
```

```
Out[5]:
```

CH Gayle	21
AB de Villiers	20
RG Sharma	17
MS Dhoni	17
DA Warner	17
..	..
PD Collingwood	1
NV Ojha	1
AC Voges	1
J Theron	1
S Hetmyer	1

Name: player_of_match, Length: 226, dtype: int64

```
In [6]: ipl['player_of_match'].value_counts()[0:10]
```

```
Out[6]:
```

CH Gayle	21
AB de Villiers	20
RG Sharma	17
MS Dhoni	17
DA Warner	17
YK Pathan	16
SR Watson	15
SK Raina	14
G Gambhir	13
MEK Hussey	12

Name: player_of_match, dtype: int64

```
In [7]: ipl['player_of_match'].value_counts()[0:5]
```

```
Out[7]:
```

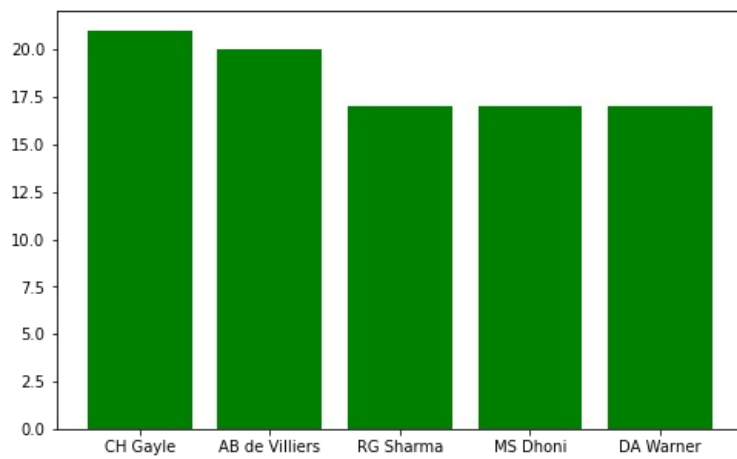
CH Gayle	21
AB de Villiers	20
RG Sharma	17
MS Dhoni	17
DA Warner	17

Name: player_of_match, dtype: int64

```
In [8]: list(ipl['player_of_match'].value_counts()[0:5].keys())
```

```
Out[8]: ['CH Gayle', 'AB de Villiers', 'RG Sharma', 'MS Dhoni', 'DA Warner']
```

```
In [9]: plt.figure(figsize=(8,5))
plt.bar(list(ipl['player_of_match'].value_counts()[0:5].keys()),list(ipl['player_of_match'].value_counts()[0:5])
plt.show()
```



```
In [10]: ipl['result'].value_counts()
```

```
Out[10]: normal      743
tie           9
no result     4
Name: result, dtype: int64
```

```
In [11]: ipl['toss_winner'].value_counts()
```

```
Out[11]: Mumbai Indians      98
Kolkata Knight Riders      92
Chennai Super Kings       89
Royal Challengers Bangalore 81
Kings XI Punjab           81
Delhi Daredevils          80
Rajasthan Royals          80
Sunrisers Hyderabad       46
Deccan Chargers          43
Pune Warriors             20
Gujarat Lions             15
Delhi Capitals            10
Kochi Tuskers Kerala       8
Rising Pune Supergiants    7
Rising Pune Supergiant     6
Name: toss_winner, dtype: int64
```

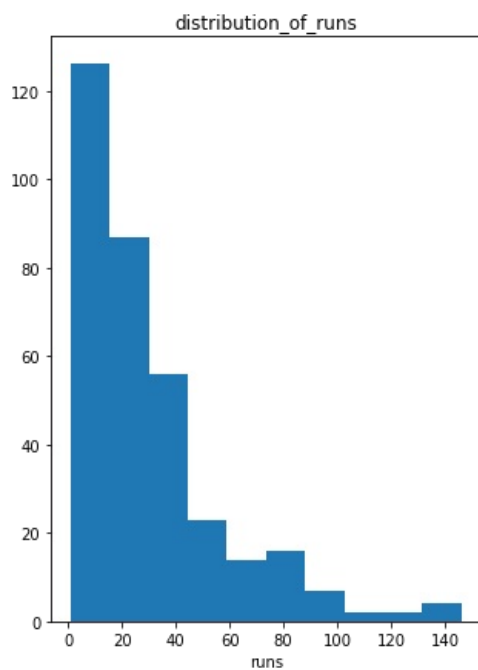
```
In [12]: batting_first=ipl[ipl['win_by_runs']!=0]
```

```
In [13]: batting_first.head()
```

```
Out[13]:
```

	id	season	city	date	team1	team2	toss_winner	toss_decision	result	dl_applied	winner	win_by_runs	win_by_
0	1	2017	Hyderabad	2017-04-05	Sunrisers Hyderabad	Royal Challengers Bangalore	Royal Challengers Bangalore	field	normal	0	Sunrisers Hyderabad	35	
4	5	2017	Bangalore	2017-04-08	Royal Challengers Bangalore	Delhi Daredevils	Royal Challengers Bangalore	bat	normal	0	Royal Challengers Bangalore	15	
8	9	2017	Pune	2017-04-11	Delhi Daredevils	Rising Pune Supergiant	Rising Pune Supergiant	field	normal	0	Delhi Daredevils	97	
13	14	2017	Kolkata	2017-04-15	Kolkata Knight Riders	Sunrisers Hyderabad	Sunrisers Hyderabad	field	normal	0	Kolkata Knight Riders	17	
14	15	2017	Delhi	2017-04-15	Delhi Daredevils	Kings XI Punjab	Delhi Daredevils	bat	normal	0	Delhi Daredevils	51	

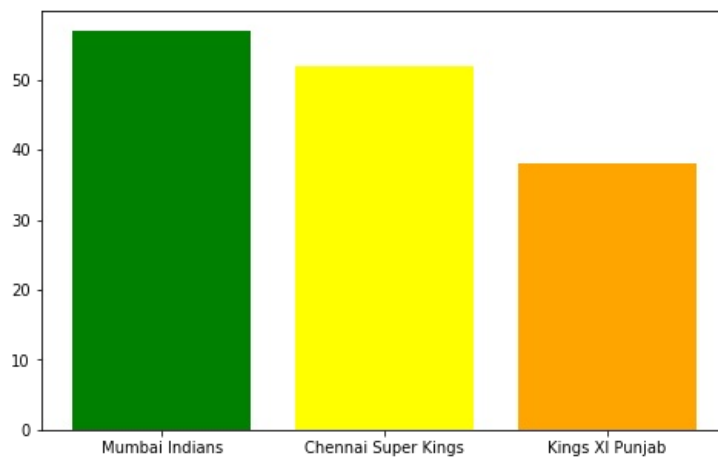
```
In [19]: plt.figure(figsize=(5,7))
plt.hist(batting_first['win_by_runs'])
plt.title("distribution_of_runs")
plt.xlabel("runs")
plt.show()
```



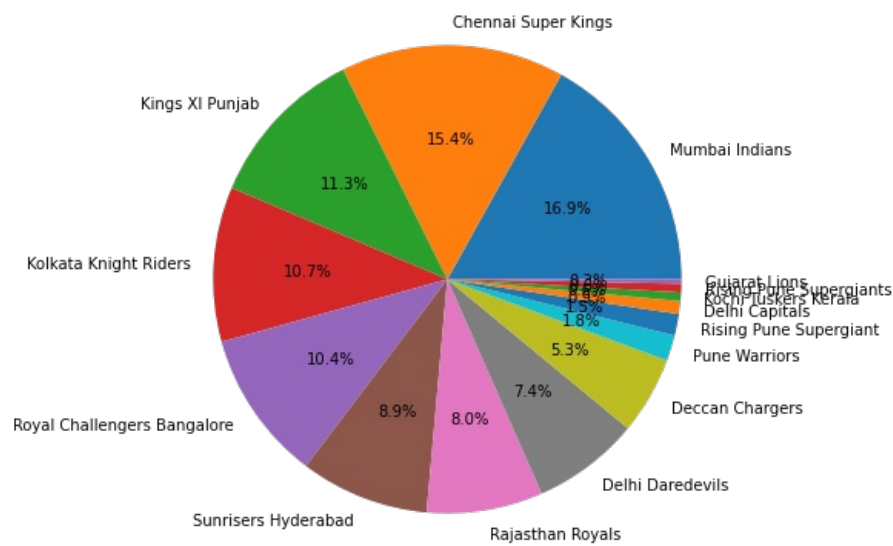
```
In [20]: batting_first['winner'].value_counts()
```

```
Out[20]: Mumbai Indians           57
Chennai Super Kings           52
Kings XI Punjab               38
Kolkata Knight Riders         36
Royal Challengers Bangalore   35
Sunrisers Hyderabad          30
Rajasthan Royals              27
Delhi Daredevils              25
Deccan Chargers              18
Pune Warriors                  6
Rising Pune Supergiant        5
Delhi Capitals                 3
Kochi Tuskers Kerala          2
Rising Pune Supergiants       2
Gujarat Lions                 1
Name: winner, dtype: int64
```

```
In [25]: plt.figure(figsize=(8,5))
plt.bar(list(batting_first['winner'].value_counts()[0:3].keys()),list(batting_first['winner'].value_counts()[0:3].values()))
plt.show()
```



```
In [31]: plt.figure(figsize=(7,7))
plt.pie(list(batting_first['winner'].value_counts()),labels=list(batting_first['winner'].value_counts().keys()))
plt.show()
```

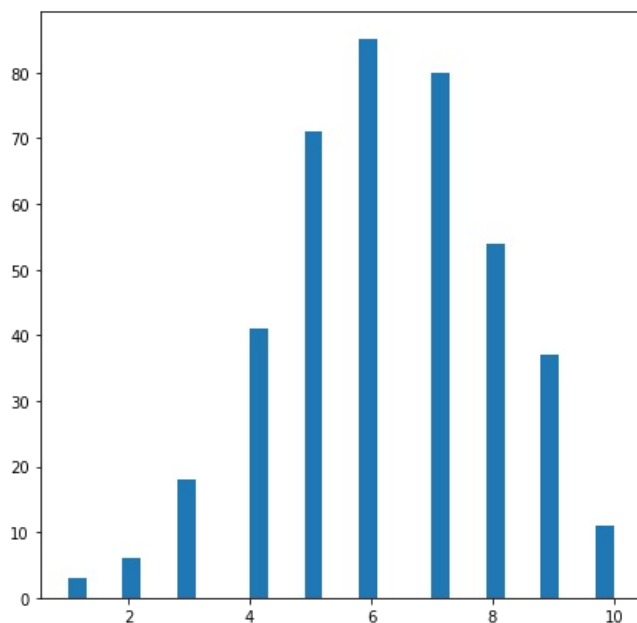


```
In [33]: batting_second=ipl[ipl['win_by_wickets']!=0]
```

```
In [34]: batting_second.head()
```

Out[34]:	id	season	city	date	team1	team2	toss_winner	toss_decision	result	dl_applied	winner	win_by_runs	win_by_wick
	1	2	2017	Pune	2017-04-06	Mumbai Indians	Rising Pune Supergiant	Rising Pune Supergiant	field	normal	0	Rising Pune Supergiant	0
	2	3	2017	Rajkot	2017-04-07	Gujarat Lions	Kolkata Knight Riders	Kolkata Knight Riders	field	normal	0	Kolkata Knight Riders	0
	3	4	2017	Indore	2017-04-08	Rising Pune Supergiant	Kings XI Punjab	Kings XI Punjab	field	normal	0	Kings XI Punjab	0
	5	6	2017	Hyderabad	2017-04-09	Gujarat Lions	Sunrisers Hyderabad	Sunrisers Hyderabad	field	normal	0	Sunrisers Hyderabad	0
	6	7	2017	Mumbai	2017-04-09	Kolkata Knight Riders	Mumbai Indians	Mumbai Indians	field	normal	0	Mumbai Indians	0

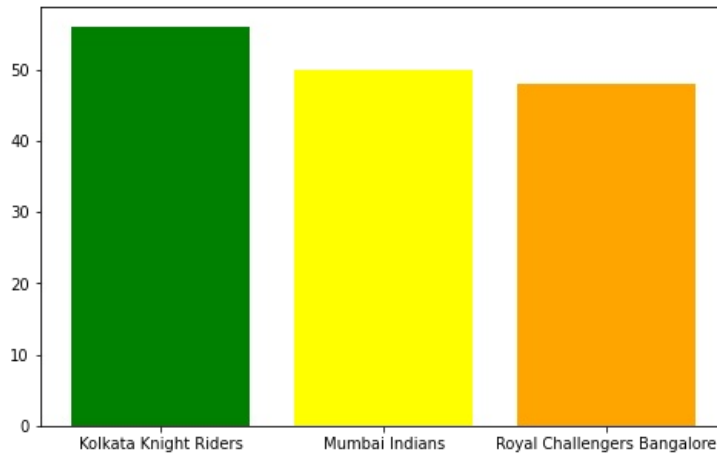
```
In [36]: plt.figure(figsize=(7,7))
plt.hist(batting_second['win_by_wickets'],bins=30)
plt.show()
```



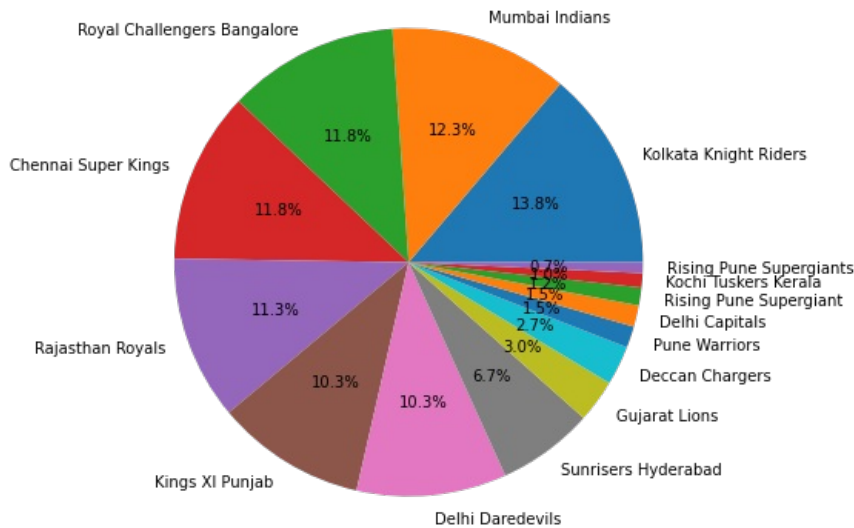
```
In [37]: batting_second['winner'].value_counts()
```

```
Out[37]: Kolkata Knight Riders      56
Mumbai Indians                    50
Royal Challengers Bangalore       48
Chennai Super Kings               48
Rajasthan Royals                  46
Kings XI Punjab                   42
Delhi Daredevils                  42
Sunrisers Hyderabad              27
Gujarat Lions                     12
Deccan Chargers                  11
Pune Warriors                     6
Delhi Capitals                     6
Rising Pune Supergiant            5
Kochi Tuskers Kerala              4
Rising Pune Supergiants           3
Name: winner, dtype: int64
```

```
In [41]: plt.figure(figsize=(8,5))
plt.bar(list(batting_second['winner'].value_counts()[0:3].keys()),list(batting_second['winner'].value_counts()[0:3].values()))
plt.show()
```



```
In [42]: plt.figure(figsize=(7,7))
plt.pie(list(batting_second['winner'].value_counts()),labels=list(batting_second['winner'].value_counts().keys()))
plt.show()
```



```
In [43]: ipl['season'].value_counts()
```

```
Out[43]: 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: season, dtype: int64
```

```
In [45]: ipl['city'].value_counts()
```

```
Out[45]: 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: city, dtype: int64
```

```
In [46]: import numpy as np
          np.sum(ipl['toss_winner']==ipl['winner'])
```

```
Out[46]: 393
```

```
In [ ]:
```

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