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In [1]: import pandas as pd
In [2]: import numpy as np
In [3]: import seaborn as sns
In [4]: from matplotlib import pyplot as plt
In [5]: ipl=pd.read_csv("C:\Users\Pranav\Desktop\IPL Datasheet\Matches.csv")
In [6]: ipl.head()
Out[6]:
   id season  city  date  team1  team2  toss_winner  toss_decision  result  dt_applied  winner  win_by_runs  win_by_wickets  player_of_match  venue  umpire1  umpire2  umpire3
0    1    2008  Bangalore  18-04-2008  Kolkata Knight Riders  Royal Challengers Bangalore  Royal Challengers Bangalore  field  normal  0  Kolkata Knight Riders  140  0  BB McCullum  M Chinnaswamy Stadium  Asad Rauf  RE Koertzen  NaN
1    2    2008  Chandigarh  19-04-2008  Chennai Super Kings  Kings XI Punjab  Chennai Super Kings  bat  normal  0  Chennai Super Kings  33  0  MEK Hussey  Punjab Cricket Association Stadium, Mohali  MR Benson  SL Shastri  NaN
2    3    2008  Delhi  19-04-2008  Rajasthan Royals  Delhi Daredevils  Rajasthan Royals  bat  normal  0  Delhi Daredevils  0  9  MF Maharoof  Feroz Shah Kotla  Aleem Dar  GA Pratapkumar  NaN
3    4    2008  Mumbai  20-04-2008  Mumbai Indians  Royal Challengers Bangalore  Mumbai Indians  bat  normal  0  Chennai Super Kings  0  5  MV Boucher  Wankhede Stadium  SJ Davis  DJ Harper  NaN
4    5    2008  Kolkata  20-04-2008  Deccan Chargers  Kolkata Knight Riders  Deccan Chargers  bat  normal  0  Kolkata Knight Riders  0  5  DJ Hussey  Eden Gardens  BF Bowden  K Hartharan  NaN
In [7]: ipl.tail()
Out[7]:
   id season  city  date  team1  team2  toss_winner  toss_decision  result  dt_applied  winner  win_by_runs  win_by_wickets  player_of_match  venue  umpire1  umpire2  umpire3
572 573    2016  Raipur  22-05-2016  Delhi Daredevils  Royal Challengers Bangalore  Royal Challengers Bangalore  field  normal  0  Royal Challengers Bangalore  0  6  V Kohli  Shaheed Veer Narayan Singh International Stadium  A Nand Kishore  BNJ Oxenford  NaN
573 574    2016  Bangalore  24-05-2016  Gujarat Lions  Royal Challengers Bangalore  Royal Challengers Bangalore  field  normal  0  Chennai Super Kings  0  4  AB de Villiers  Chinnaswamy Stadium  AK Chaudhary  HDPK Dharmasena  NaN
574 575    2016  Delhi  25-05-2016  Sunrisers Hyderabad  Kolkata Knight Riders  Kolkata Knight Riders  field  normal  0  Sunrisers Hyderabad  22  0  MC Henriques  Feroz Shah Kotla  M Erasmus  C Shamsuddin  NaN
575 576    2016  Delhi  27-05-2016  Gujarat Lions  Sunrisers Hyderabad  Sunrisers Hyderabad  field  normal  0  Sunrisers Hyderabad  0  4  DA Warner  Feroz Shah Kotla  M Erasmus  CK Nandan  NaN
576 577    2016  Bangalore  29-05-2016  Sunrisers Hyderabad  Royal Challengers Bangalore  Sunrisers Hyderabad  bat  normal  0  Sunrisers Hyderabad  8  0  BCJ Cutting  Chinnaswamy Stadium  M Dharmasena  HDPK Dharmasena  BNJ Oxenford  NaN
In [8]: ipl['player_of_match'].value_counts()[0:5]
Out[8]:
CH Gayle      17
YK Pathan     16
AB de Villiers 15
DA Warner     14
RG Sharma     13
Name: player_of_match, dtype: int64
In [9]: list(ipl['player_of_match'].value_counts()[0:5].keys())
Out[9]: ['CH Gayle', 'YK Pathan', 'AB de Villiers', 'DA Warner', 'RG Sharma']
In [10]: 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]),color='lightblue')
plt.plot()
Out[10]:
[ ]
In [11]: ipl['toss_winner'].value_counts()
Out[11]:
Mumbai Indians      74
Kolkata Knight Riders 69
Chennai Super Kings  66
Kings XI Punjab     64
Delhi Daredevils    64
Rajasthan Royals    63
Royal Challengers Bangalore 61
Deccan Chargers     43
Sunrisers Hyderabad 30
Pune Warriors       20
Kochi Tuskers Kerala 8
Gujarat Lions       8
Rising Pune Supergiants 7
Name: toss_winner, dtype: int64
In [12]: ipl['result'].value_counts()
Out[12]:
normal      568
tie         6
no result   3
Name: result, dtype: int64
In [13]: ipl['venue'].value_counts()
Out[13]:
M Chinnaswamy Stadium      58
Eden Gardens              54
Feroz Shah Kotla          53
Wankhede Stadium          49
AB de Villiers Stadium, Chepauk 48
Rajiv Gandhi International Stadium, Uppal 41
Punjab Cricket Association Stadium, Mohali 35
Sawai Mansingh Stadium     33
DY Patil Sports Academy    17
Subrata Roy Sahara Stadium 17
Kingsmead                 15
SuperSport Park            12
Sardar Patel Stadium, Motera 12
Dr. Y.S. Rajasekhara Reddy ACA-VDCA Cricket Stadium 11
Brabourne Stadium         11
Himachal Pradesh Cricket Association Stadium  8
New Wanderers Stadium     8
Maharashtra Cricket Association Stadium  8
Newlands                  7
Barabati Stadium          7
Punjab Cricket Association IS Bindra Stadium, Mohali 7
St George's Park          7
Dubai International Cricket Stadium  7
JSCA International Stadium Complex  7
Sheikh Zayed Stadium      7
Sharjah Cricket Stadium   6
Shaheed Veer Narayan Singh International Stadium 6
Saurashtra Cricket Association Stadium  5
Wohre Stadium             5
De Beers Diamond Oval     3
Vidarbha Cricket Association Stadium, Jantha 3
Buffalo Park              3
QUT Insurance Oval        2
Holkar Cricket Stadium    2
Green Park                2
Name: venue, dtype: int64
In [14]: ipl['winner'].value_counts()
Out[14]:
Mumbai Indians      80
Chennai Super Kings 79
Royal Challengers Bangalore 70
Kolkata Knight Riders 68
Rajasthan Royals    63
Kings XI Punjab     63
Delhi Daredevils    56
Sunrisers Hyderabad 34
Deccan Chargers     29
Pune Warriors       12
Gujarat Lions       9
Kochi Tuskers Kerala 6
Rising Pune Supergiants 5
Name: winner, dtype: int64
In [15]: ipl['city'].value_counts()
Out[15]:
Mumbai      77
Bangalore  58
Kolkata     54
Delhi       53
Chennai     48
Chandigarh  42
Hyderabad   41
Jaipur      33
Pune        25
Durban      15
Centurion   12
Ahmedabad   12
Visakhapatnam 11
Dharamasala  9
Johannesburg 8
Cuttack      7
Port Elizabeth 7
Cape Town    7
Ranchi       7
Abu Dhabi    7
Sharjah      6
Raipur       6
Kochi        5
Rajkot       5
Kimberley    3
Nagpur       3
East London  3
Bloemfontein 2
Indore       2
Kampur       2
Name: city, dtype: int64
In [29]: batting_first=ipl[ipl['win_by_runs']!=0]
In [30]: batting_first.head()
Out[30]:
   id season  city  date  team1  team2  toss_winner  toss_decision  result  dt_applied  winner  win_by_runs  win_by_wickets  player_of_match  venue  umpire1  umpire2  umpire3
0    1    2008  Bangalore  18-04-2008  Kolkata Knight Riders  Royal Challengers Bangalore  Royal Challengers Bangalore  field  normal  0  Kolkata Knight Riders  140  0  BB McCullum  M Chinnaswamy Stadium  Asad Rauf  RE Koertzen  NaN
1    2    2008  Chandigarh  19-04-2008  Chennai Super Kings  Chennai Super Kings  bat  normal  0  Chennai Super Kings  33  0  MEK Hussey  Punjab Cricket Association Stadium, Mohali  MR Benson  SL Shastri  NaN
7    8    2008  Chennai  23-04-2008  Chennai Super Kings  Mumbai Indians  Mumbai Indians  field  normal  0  Chennai Super Kings  6  0  ML Hayden  Chidambaram Stadium, Chennai  MA Aamdar  DJ Harper  GA Pratapkumar  NaN
9    10    2008  Chandigarh  25-04-2008  Kings XI Punjab  Mumbai Indians  Mumbai Indians  field  normal  0  Kings XI Punjab  66  0  KC Sangakkara  Punjab Cricket Association Stadium, Mohali  Aleem Dar  AM Saheba  NaN
14   15    2008  Bangalore  28-04-2008  Chennai Super Kings  Royal Challengers Bangalore  Chennai Super Kings  bat  normal  0  Chennai Super Kings  13  0  MS Dhoni  M Chinnaswamy Stadium  BR Doctrove  RB Tiffin  NaN
In [35]: plt.figure(figsize=(8,5))
plt.hist(batting_first['win_by_runs'],color="red")
plt.title("Distribution of Runs")
plt.xlabel("Runs")
plt.show()
In [36]:
Distribution of Runs
In [37]: batting_first['winner'].value_counts()
Out[37]:
Chennai Super Kings      46
Mumbai Indians           43
Kolkata Knight Riders    29
Kings XI Punjab          28
Royal Challengers Bangalore 27
Rajasthan Royals         23
Delhi Daredevils         18
Deccan Chargers          18
Sunrisers Hyderabad     18
Pune Warriors            6
Kochi Tuskers Kerala     2
Rising Pune Supergiants  2
Gujarat Lions            1
Name: winner, dtype: int64
In [52]: plt.figure(figsize=(5,3))
plt.bar(list(batting_first['winner'].value_counts()[0:3].keys()),list(batting_first['winner'].value_counts()[0:3]),color=['yellow','blue','purple'])
plt.show()
In [71]: plt.figure(figsize=(12,12))
plt.pie(list(batting_first['winner'].value_counts()),labels=list(batting_first['winner'].value_counts().keys()))
plt.show()
In [53]: batting_second=ipl[ipl['win_by_wickets']!=0]
In [54]: batting_second.head()
Out[54]:
   id season  city  date  team1  team2  toss_winner  toss_decision  result  dt_applied  winner  win_by_runs  win_by_wickets  player_of_match  venue  umpire1  umpire2  umpire3
2    3    2008  Delhi  19-04-2008  Rajasthan Royals  Delhi Daredevils  Rajasthan Royals  bat  normal  0  Delhi Daredevils  0  9  MF Maharoof  Feroz Shah Kotla  Aleem Dar  GA Pratapkumar  NaN
3    4    2008  Mumbai  20-04-2008  Mumbai Indians  Royal Challengers Bangalore  Mumbai Indians  bat  normal  0  Royal Challengers Bangalore  0  5  MV Boucher  Wankhede Stadium  SJ Davis  DJ Harper  NaN
4    5    2008  Kolkata  20-04-2008  Deccan Chargers  Kolkata Knight Riders  Deccan Chargers  bat  normal  0  Kolkata Knight Riders  0  5  DJ Hussey  Eden Gardens  BF Bowden  K Hartharan  NaN
5    6    2008  Jaipur  21-04-2008  Kings XI Punjab  Rajasthan Royals  Kings XI Punjab  bat  normal  0  Rajasthan Royals  0  6  SR Watson  Sawai Mansingh Stadium  Aleem Dar  RB Tiffin  NaN
6    7    2008  Hyderabad  22-04-2008  Deccan Chargers  Delhi Daredevils  Deccan Chargers  bat  normal  0  Delhi Daredevils  0  9  V Sehwag  Rajiv Gandhi International Stadium, Uppal  IL Howell  AM Saheba  NaN
In [63]: plt.figure(figsize=(8,5))
plt.hist(batting_second['win_by_wickets'],color="pink",bins=30)
plt.title("Distribution of wicket")
plt.xlabel("wicket")
plt.show()
In [73]: batting_second['winner'].value_counts()
Out[73]:
Royal Challengers Bangalore      42
Kolkata Knight Riders           39
Delhi Daredevils                38
Rajasthan Royals                38
Mumbai Indians                  37
Chennai Super Kings             33
Kings XI Punjab                 33
Sunrisers Hyderabad            15
Deccan Chargers                 11
Gujarat Lions                   8
Pune Warriors                   6
Kochi Tuskers Kerala            4
Rising Pune Supergiants         3
Name: winner, dtype: int64
In [79]: plt.figure(figsize=(9,3))
plt.bar(list(batting_second['winner'].value_counts()[0:3].keys()),list(batting_second['winner'].value_counts()[0:3]),color=['red','purple','brown'])
plt.show()
In [80]: plt.figure(figsize=(12,12))
plt.pie(list(batting_second['winner'].value_counts()),labels=list(batting_second['winner'].value_counts().keys()))
plt.show()
In [81]: ipl['season'].value_counts()
Out[81]:
2013      70
2012      74
2011      73
2010      60
2014      60
2016      60
2015      59
2008      58
2009      57
Name: season, dtype: int64
In [82]: ipl['city'].value_counts()
Out[82]:
Mumbai      77
Bangalore  58
Kolkata     54
Delhi       53
Chennai     48
Chandigarh  42
Hyderabad   41
Jaipur      33
Pune        25
Durban      15
Centurion   12
Ahmedabad   12
Visakhapatnam 11
Dharamasala  9
Johannesburg 8
Cuttack      7
Port Elizabeth 7
Cape Town    7
Ranchi       7
Abu Dhabi    7
Sharjah      6
Raipur       6
Kochi        5
Rajkot       5
Kimberley    3
Nagpur       3
East London  3
Bloemfontein 2
Indore       2
Kampur       2
Name: city, dtype: int64
In [ ]:
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