```
from ipl_batting_stats import player_stats
import matplotlib.pyplot as plt
```

Main task is to generate list of highest achievers with respect to seasons

```
player_stats['V Kohli']['seasons'][2016]['stats']['SR']
```

```
152.75
```

```
def last_n_seasons_attr(n, attr, top=10, final = 2022):
    seasons = range(final-n, final)
    pl_attr = {}
    for name in player_stats:
        attr_val = 0
        for season in seasons:
            if season not in player_stats[name]['seasons']:
                continue
            attr_val += player_stats[name]['seasons'][season]['stats']
[attr]
        if attr in ('SR', 'Avg'):
            attr_val = round(attr_val/len(seasons), 2)
        pl_attr[name] = attr_val

    return sorted(list(pl_attr.keys()), key = lambda t:pl_attr[t],
reverse=True)[:top],pl_attr
```

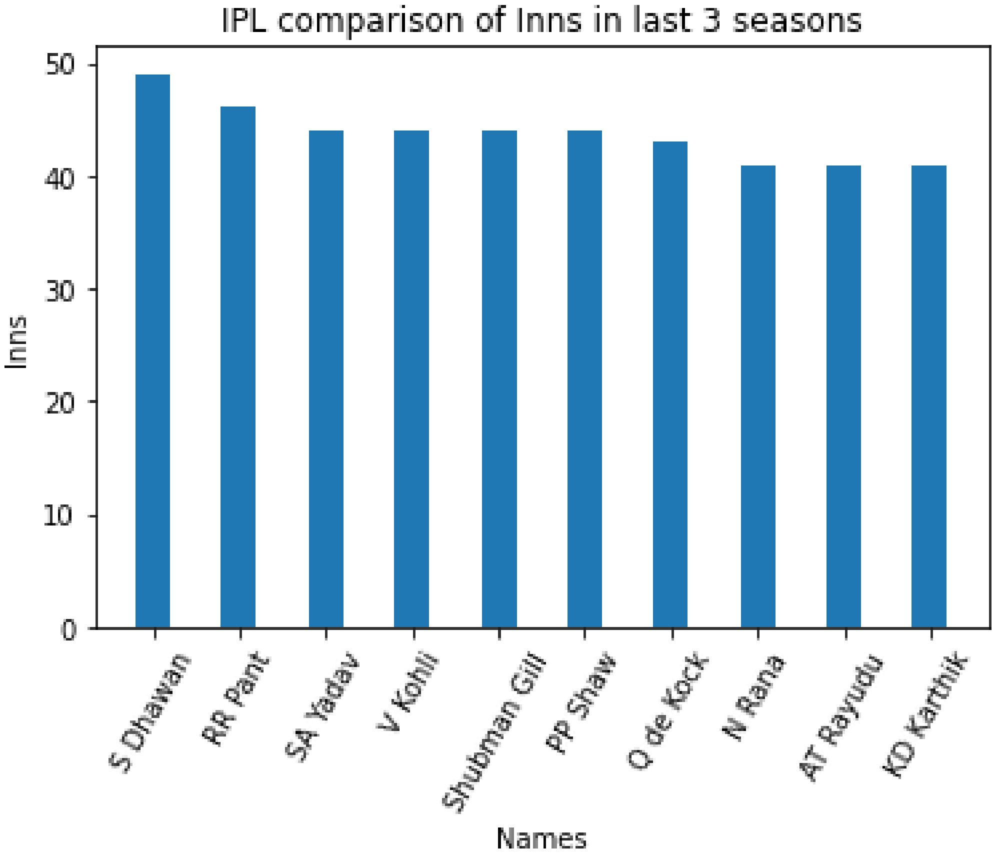
```
last_n_seasons_attr(3, 'Runs')[0]
```

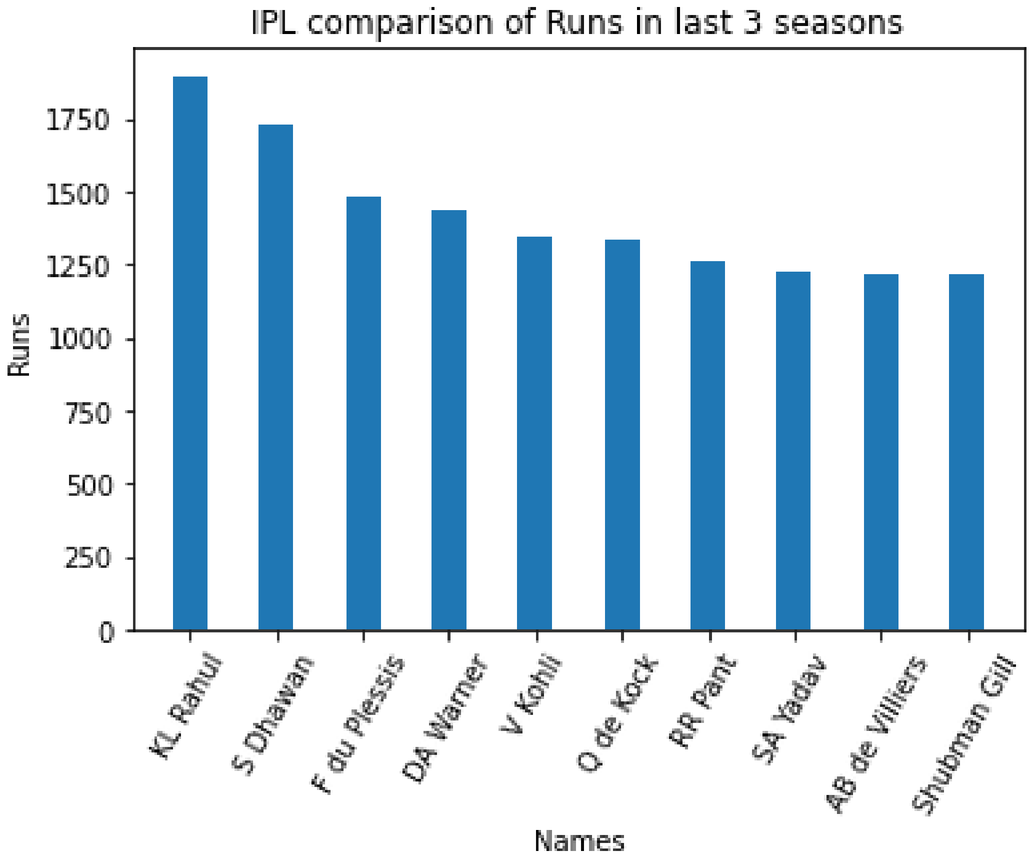
```
['KL Rahul',
 'S Dhawan',
 'F du Plessis',
 'DA Warner',
 'V Kohli',
 'Q de Kock',
 'RR Pant',
 'SA Yadav',
 'AB de Villiers',
 'Shubman Gill']
```

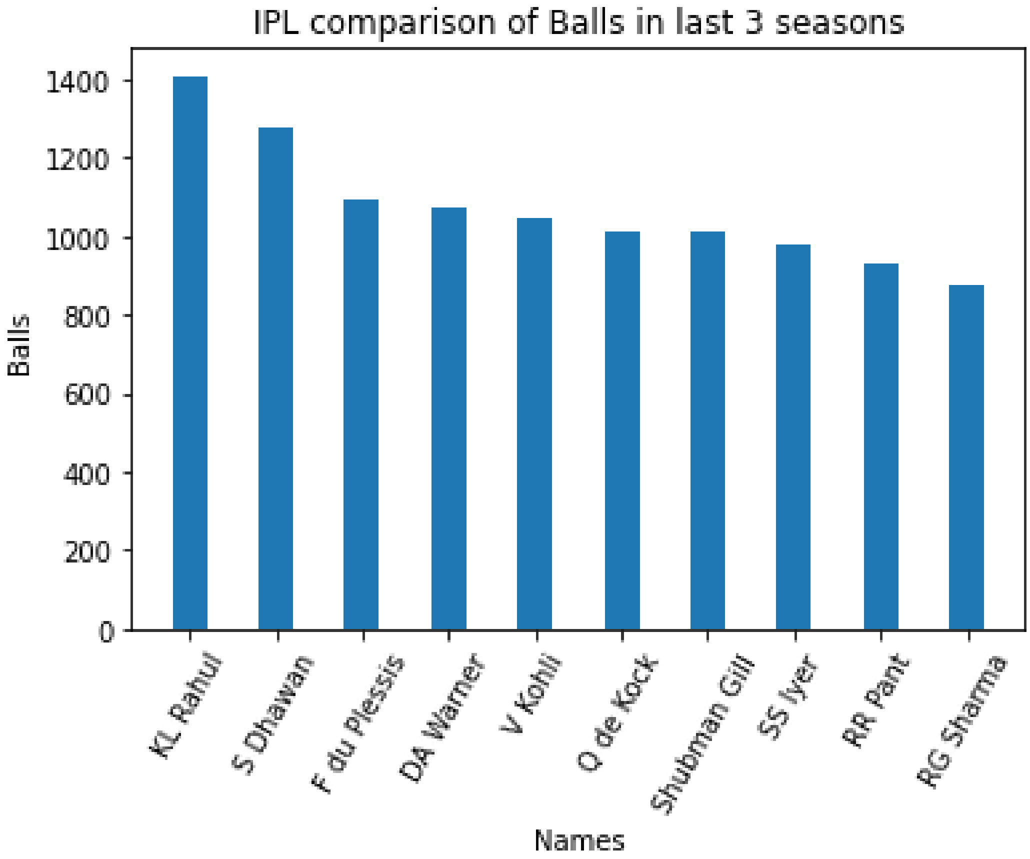
```
# get every stat for the last 3 seasons
for stat in  player_stats['V Kohli']['seasons'][2021]['stats']:
    print(stat,last_n_seasons_attr(3, stat)[0])
```

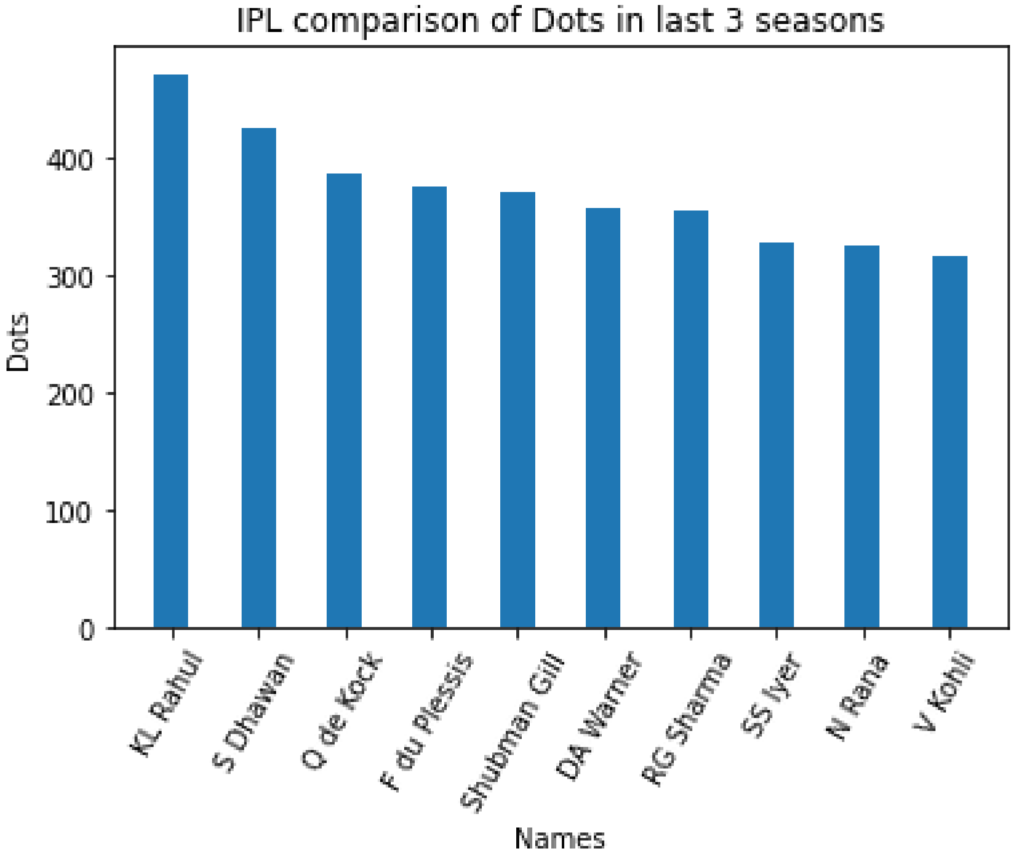
```
Inns ['S Dhawan', 'RR Pant', 'SA Yadav', 'V Kohli', 'Shubman Gill',
'PP Shaw', 'Q de Kock', 'N Rana', 'AT Rayudu', 'KD Karthik']
Runs ['KL Rahul', 'S Dhawan', 'F du Plessis', 'DA Warner', 'V Kohli',
'Q de Kock', 'RR Pant', 'SA Yadav', 'AB de Villiers', 'Shubman Gill']
Balls ['KL Rahul', 'S Dhawan', 'F du Plessis', 'DA Warner', 'V Kohli',
'Q de Kock', 'Shubman Gill', 'SS Iyer', 'RR Pant', 'RG Sharma']
Dots ['KL Rahul', 'S Dhawan', 'Q de Kock', 'F du Plessis', 'Shubman
Gill', 'DA Warner', 'RG Sharma', 'SS Iyer', 'N Rana', 'V Kohli']
Out ['S Dhawan', 'PP Shaw', 'RG Sharma', 'SA Yadav', 'V Kohli', 'Q de
Kock', 'Shubman Gill', 'N Rana', 'RR Pant', 'F du Plessis']
4s ['S Dhawan', 'KL Rahul', 'SA Yadav', 'F du Plessis', 'PP Shaw', 'DA
Warner', 'Q de Kock', 'Shubman Gill', 'MA Agarwal', 'V Kohli']
6s ['KL Rahul', 'AD Russell', 'CH Gayle', 'AB de Villiers', 'KA
Pollard', 'HH Pandya', 'SV Samson', 'Q de Kock', 'F du Plessis', 'N
Rana']
SR ['AD Russell', 'MK Lomror', 'DJ Bravo', 'SM Curran', 'KA Pollard',
'HH Pandya', 'AB de Villiers', 'JC Buttler', 'SV Samson', 'MA
Agarwal']
Avg ['KL Rahul', 'RA Jadeja', 'DA Warner', 'DJ Hooda', 'JM Bairstow',
'MS Dhoni', 'F du Plessis', 'AB de Villiers', 'MK Pandey', 'S Dhawan']
30s ['S Dhawan', 'RG Sharma', 'RR Pant', 'SS Iyer', 'F du Plessis', 'V
Kohli', 'AT Rayudu', 'SV Samson', 'SA Yadav', 'Shubman Gill']
50s ['KL Rahul', 'DA Warner', 'F du Plessis', 'S Dhawan', 'AB de
Villiers', 'Q de Kock', 'MK Pandey', 'Shubman Gill', 'N Rana', 'MA
Agarwal']
100s ['S Dhawan', 'SV Samson', 'KL Rahul', 'DA Warner', 'JC Buttler',
'AM Rahane', 'MA Agarwal', 'BA Stokes', 'V Kohli', 'JM Bairstow']
```

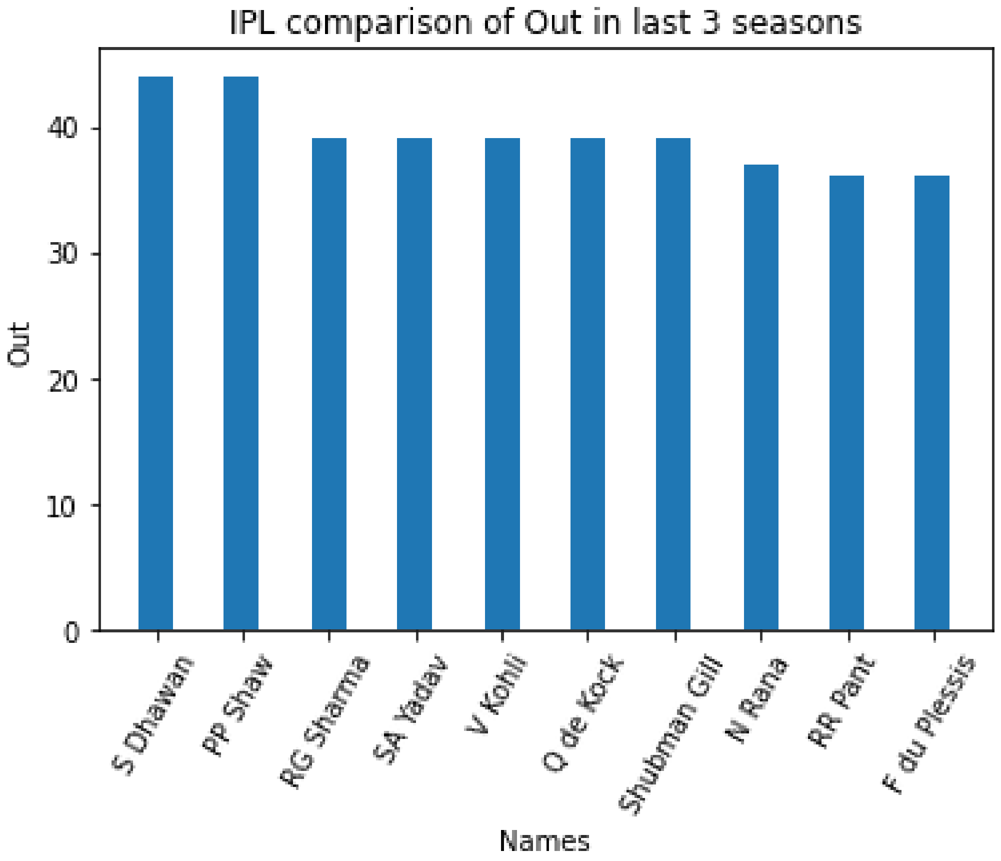
```python
for stat in  player_stats['V Kohli']['seasons'][2021]['stats']:
    # top_num = 20
    # gt_attr = 'Runs'
    # gt_val = 1000
    n = 3
    names, pl_attr = last_n_seasons_attr(n, stat)
    values = [pl_attr[name] for name in names]

    plt.bar(range(len(names)), values, tick_label=names, width=0.4)
    plt.xticks(rotation=60)
    plt.xlabel('Names')
    plt.ylabel(stat)
    plt.title(
        f'IPL comparison of {stat} in last {n} seasons')
    # plt.figure(figsize=(10, 5))
    plt.show()
```

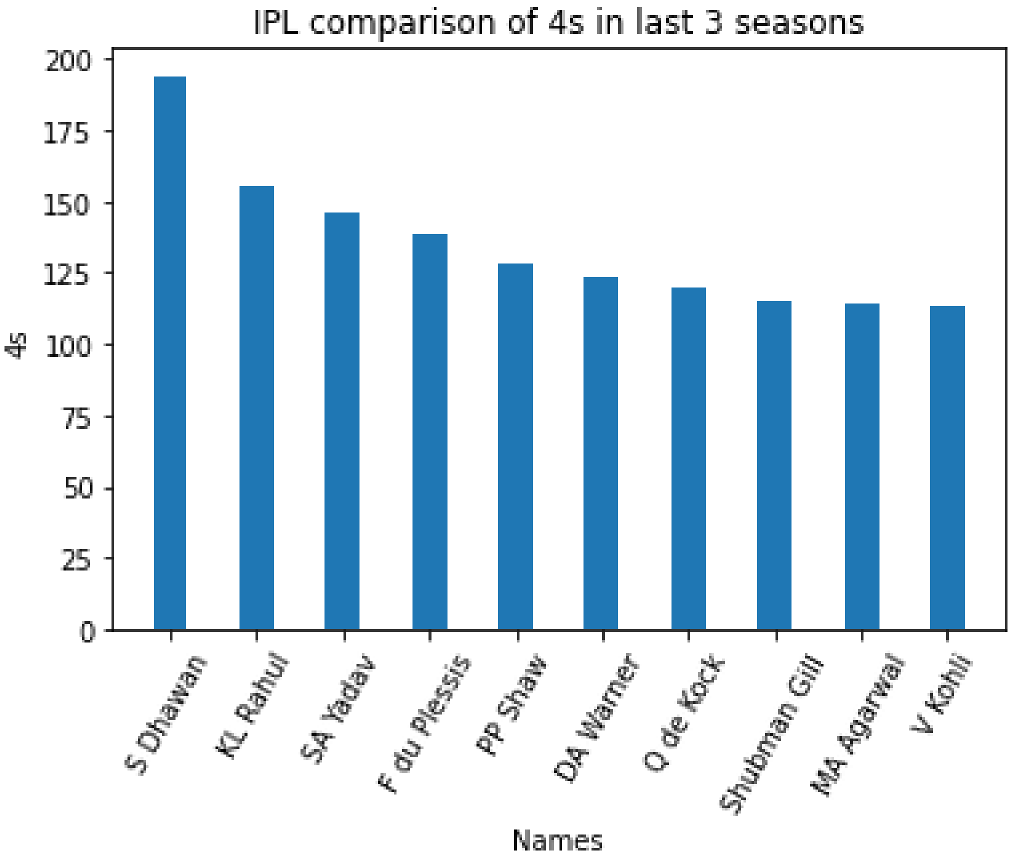

IPL comparison of Inns in last 3 seasons
Inns
0
10
20
30
40
50
S Dhawan
RR Pant
SA Yadav
V Kohli
Shubman Gill
PP Shaw
Q de Kock
N Rana
AT Rayudu
KD Karthik
Names

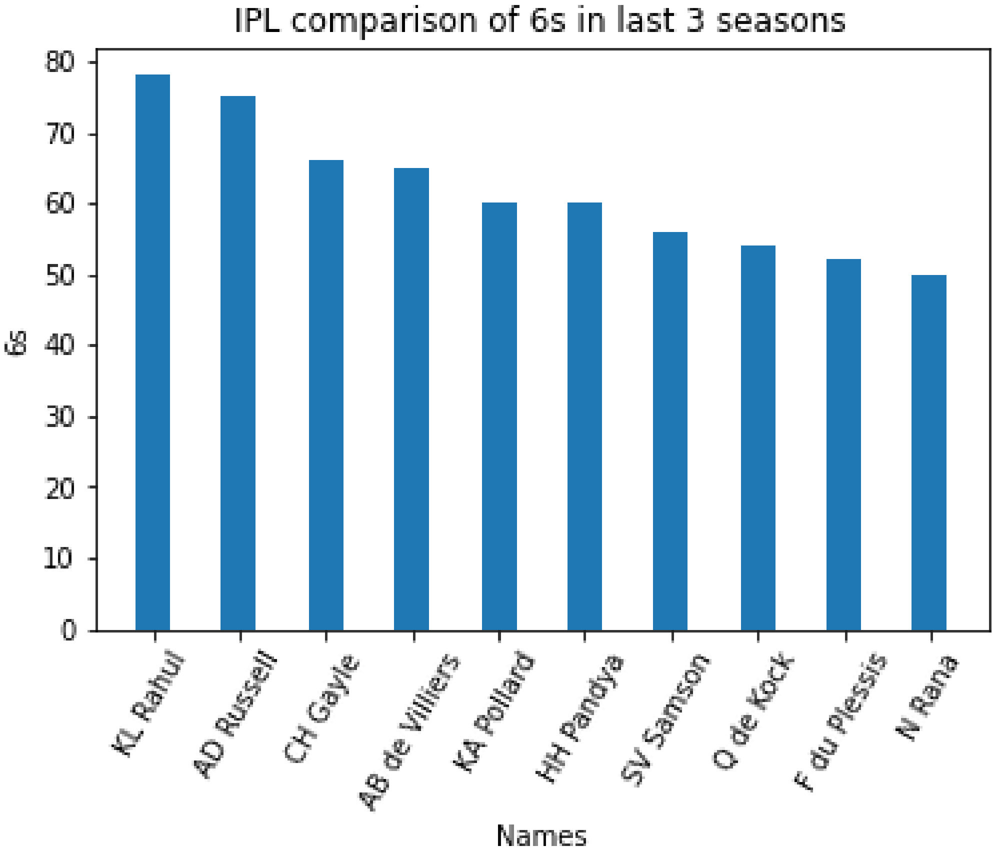

IPL comparison of Runs in last 3 seasons
Runs
1750
1500
1250
1000
750
500
250
0
KL Rahul
S Dhawan
F du Plessis
DA Warner
V Kohli
Q de Kock
RR Pant
SA Yadav
AB de Villiers
Shubman Gill
Names

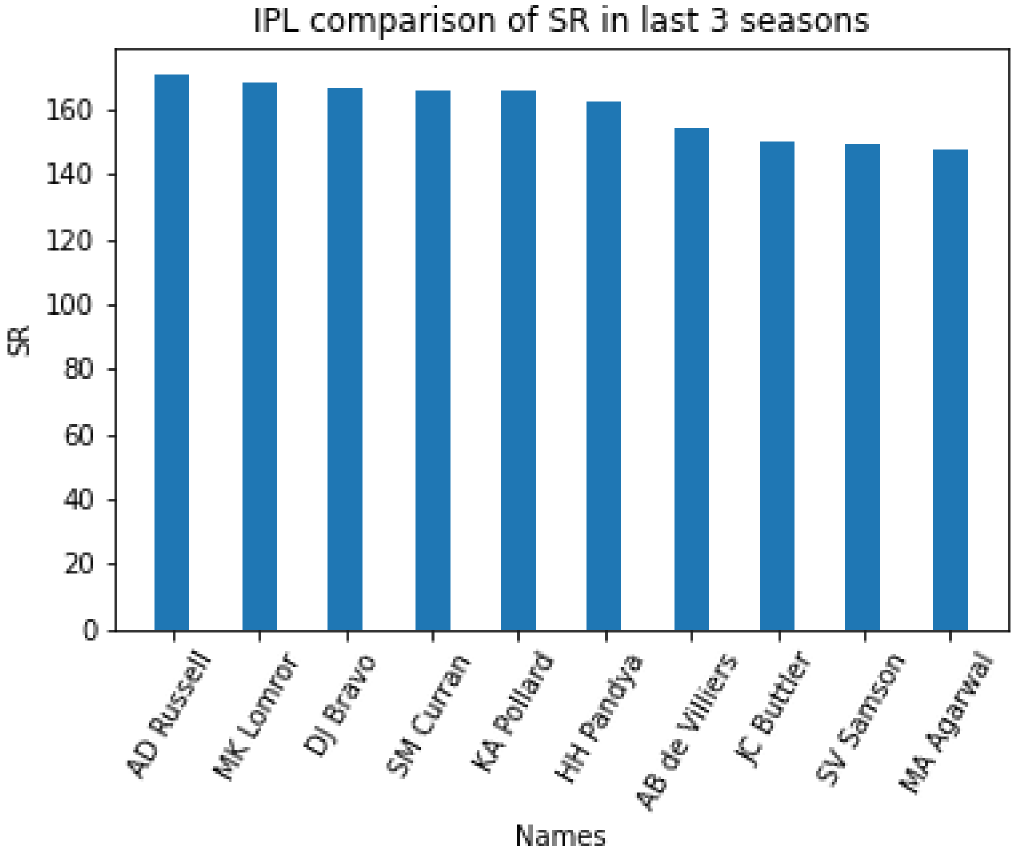

IPL comparison of Balls in last 3 seasons
Balls
1400
1200
1000
800
600
400
200
0
KL Rahul
S Dhawan
F du Plessis
DA Warner
V Kohli
Q de Kock
Shubman Gill
SS Iyer
RR Pant
RG Sharma
Names

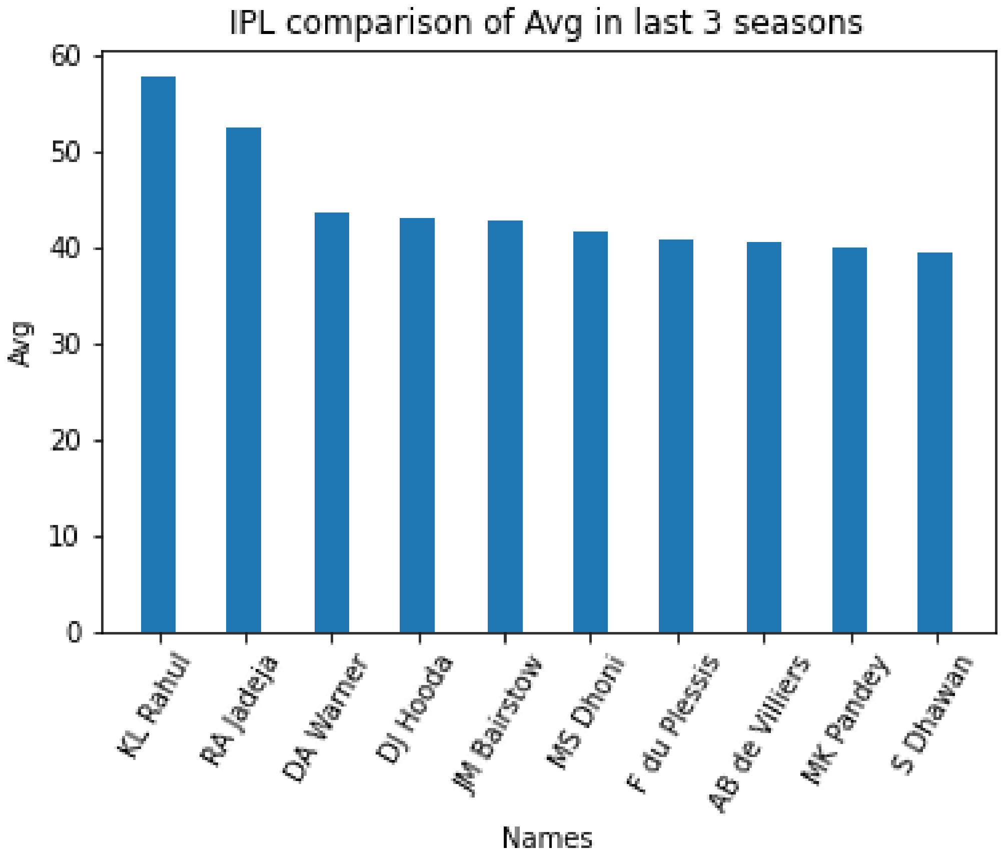

IPL comparison of Dots in last 3 seasons
Dots
0
100
200
300
400
KL Rahul
S Dhawan
Q de Kock
F du Plessis
Shubman Gill
DA Warner
RG Sharma
SS Iyer
N Rana
V Kohli
Names

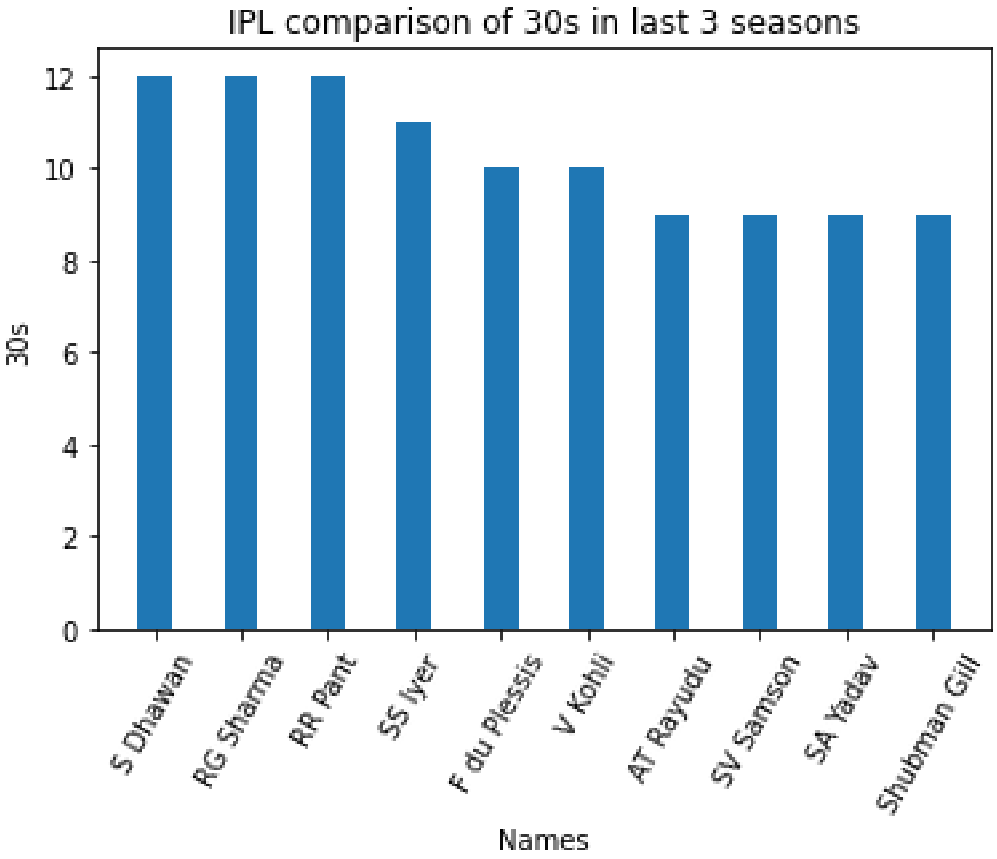

IPL comparison of Out in last 3 seasons
Out
0
10
20
30
40
S Dhawan
PP Shaw
RG Sharma
SA Yadav
V Kohli
Q de Kock
Shubman Gill
N Rana
RR Pant
F du Plessis
Names

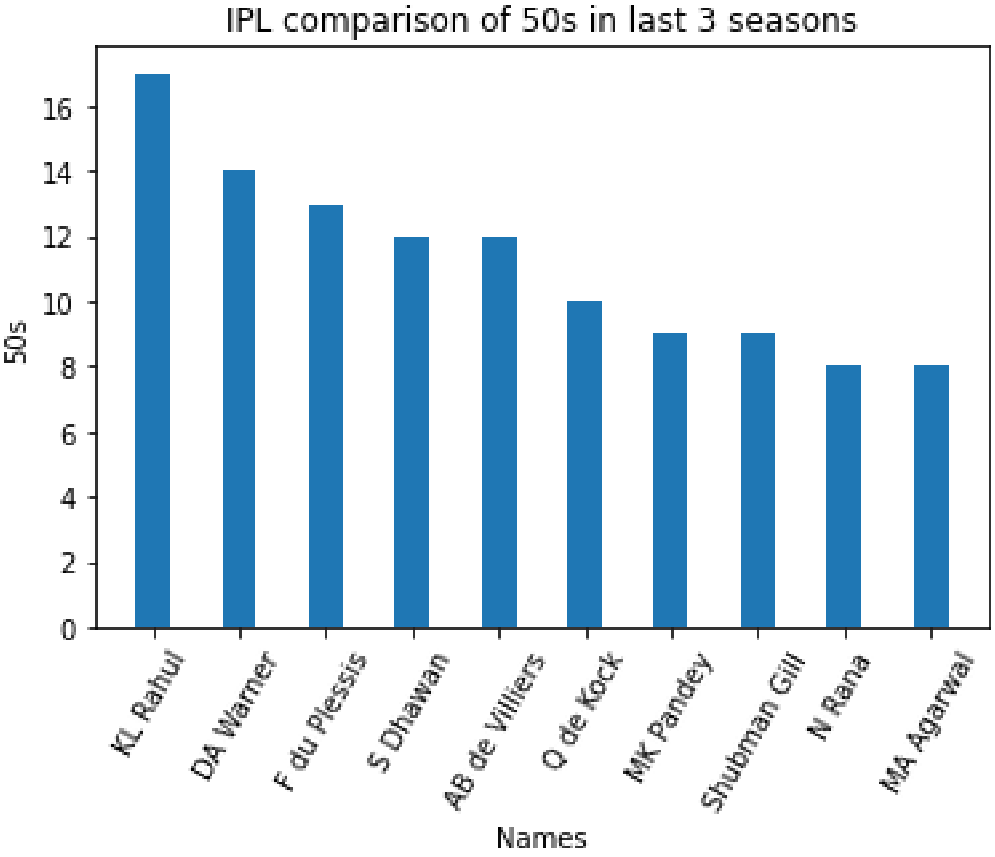

IPL comparison of 4s in last 3 seasons
4s
200
175
150
125
100
75
50
25
0
S Dhawan
KL Rahul
SA Yadav
F du plessis
PP Shaw
DA Warner
Q de Kock
Shubman Gill
MA Agarwal
V Kohli
Names

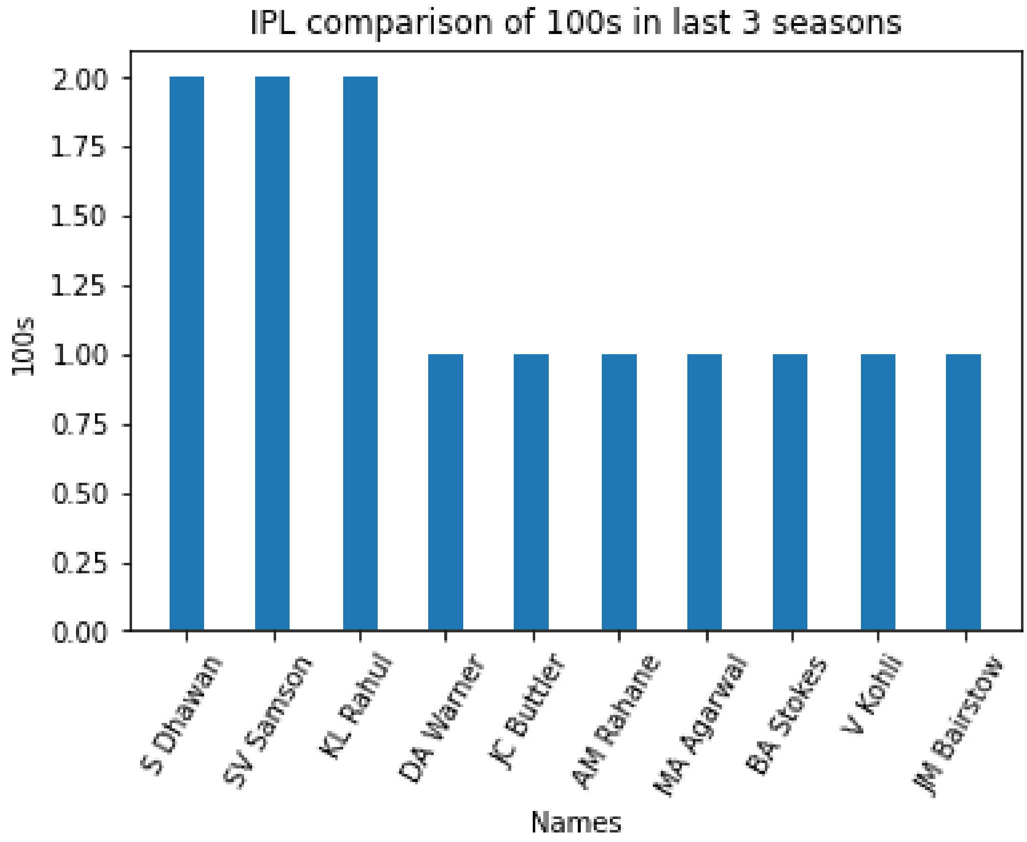

IPL comparison of 6s in last 3 seasons
6s
0
10
20
30
40
50
60
70
80
KL Rahul
AD Russell
CH Gayle
AB de Villiers
KA Pollard
HH Pandya
SV Samson
Q de Kock
F du Plessis
N Rana
Names


IPL comparison of SR in last 3 seasons
SR
0
20
40
60
80
100
120
140
160
Names
AD Russell
MK Lomror
DJ Bravo
SM Curran
KA Pollard
HH Pandya
AB de Villiers
JC Buttler
SV Samson
MA Agarwal

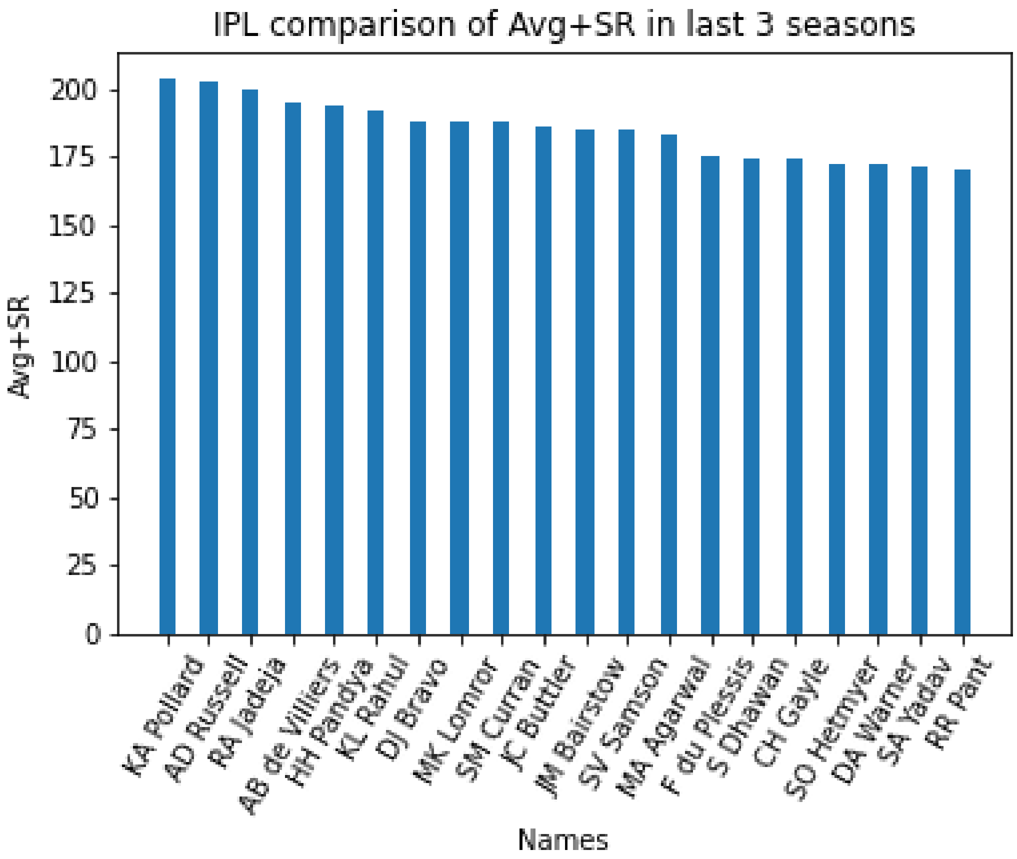

IPL comparison of Avg in last 3 seasons
Avg
0
10
20
30
40
50
60
KL Rahul
RA Jadeja
DA Warner
DJ Hooda
JM Bairstow
MS Dhoni
F du Plessis
AB de Villiers
MK Pandey
S Dhawan
Names


IPL comparison of 30s in last 3 seasons
30s
0
2
4
6
8
10
12
S Dhawan
RG Sharma
RR Pant
SS Iyer
F du Plessis
V Kohli
AT Rayudu
SV Samson
SA Yadav
Shubman Gill
Names


IPL comparison of 50s in last 3 seasons
50s
0
2
4
6
8
10
12
14
16
KL Rahul
DA Warner
F du Plessis
S Dhawan
AB de Villiers
Q de Kock
MK Pandey
Shubman Gill
N Rana
MA Agarwal
Names



```
# get avg+sr
pl_avg_sr = {}
n = 3
sr = last_n_seasons_attr(n, 'SR')[1]
avg = last_n_seasons_attr(n, 'Avg')[1]
for name in sr:
    if name in avg:
        pl_avg_sr[name] = sr[name]+avg[name]

names = sorted(list(pl_avg_sr.keys()), key = lambda t: pl_avg_sr[t],
reverse=True)[:20]
vals = [pl_avg_sr[name] for name in names]
plt.bar(range(len(names)), vals, tick_label=names, width=0.4)
plt.xticks(rotation=60)
plt.xlabel('Names')
plt.ylabel('Avg+SR')
plt.title(
    f'IPL comparison of Avg+SR in last {n} seasons')
# plt.figure(figsize=(10, 5))
plt.show()
```


IPL comparison of Avg+SR in last 3 seasons
Avg+SR
0
25
50
75
100
125
150
175
200
KA Pollard
AD Russell
RA Jadeja
AB de Villiers
HH Pandya
KL Rahul
DJ Bravo
MK Lomror
SM Curran
JC Buttler
JM Bairstow
SV Samson
MA Agarwal
F du Plessis
S Dhawan
CH Gayle
SO Hetmyer
DA Warner
SA Yadav
RR Pant
Names