

Introduction

In the given dataset containing data of the cricket players of seasons 2010 to 2019.

Players games, points, salaries are given.

```
import numpy as np

#Seasons
Seasons =
["2010", "2011", "2012", "2013", "2014", "2015", "2016", "2017", "2018", "2019"]
Sdict =
{"2010":0, "2011":1, "2012":2, "2013":3, "2014":4, "2015":5, "2016":6, "2017":7, "2018":8, "2019":9}

#Players
Players =
["Sachin", "Rahul", "Smith", "Sami", "Pollard", "Morris", "Samson", "Dhoni", "Kohli", "Sky"]
Pdict =
{"Sachin":0, "Rahul":1, "Smith":2, "Sami":3, "Pollard":4, "Morris":5, "Samson":6, "Dhoni":7, "Kohli":8, "Sky":9}

#Salaries
Sachin_Salary =
[15946875, 17718750, 19490625, 21262500, 23034375, 24806250, 25244493, 27849149, 30453805, 23500000]
Rahul_Salary =
[12000000, 12744189, 13488377, 14232567, 14976754, 16324500, 18038573, 19752645, 21466718, 23180790]
Smith_Salary =
[4621800, 5828090, 13041250, 14410581, 15779912, 14500000, 16022500, 17545000, 19067500, 20644400]
Sami_Salary =
[3713640, 4694041, 13041250, 14410581, 15779912, 17149243, 18518574, 19450000, 22407474, 22458000]
Pollard_Salary =
[4493160, 4806720, 6061274, 13758000, 15202590, 16647180, 18091770, 19536360, 20513178, 21436271]
Morris_Salary =
[3348000, 4235220, 12455000, 14410581, 15779912, 14500000, 16022500, 17545000, 19067500, 20644400]
Samson_Salary =
[3144240, 3380160, 3615960, 4574189, 13520500, 14940153, 16359805, 17779458, 1
```

```

8668431,20068563]
Dhoni_Salary =
[0,0,4171200,4484040,4796880,6053663,15506632,16669630,17832627,189956
24]
Kohli_Salary =
[0,0,0,4822800,5184480,5546160,6993708,16402500,17632688,18862875]
Sky_Salary =
[3031920,3841443,13041250,14410581,15779912,14200000,15691000,17182000
,18673000,15000000]
#Matrix
Salary = np.array([Sachin_Salary, Rahul_Salary, Smith_Salary,
Sami_Salary, Pollard_Salary, Morris_Salary, Samson_Salary,
Dhoni_Salary, Kohli_Salary, Sky_Salary])

#Games
Sachin_G = [80,77,82,82,73,82,58,78,6,35]
Rahul_G = [82,57,82,79,76,72,60,72,79,80]
Smith_G = [79,78,75,81,76,79,62,76,77,69]
Sami_G = [80,65,77,66,69,77,55,67,77,40]
Pollard_G = [82,82,82,79,82,78,54,76,71,41]
Morris_G = [70,69,67,77,70,77,57,74,79,44]
Samson_G = [78,64,80,78,45,80,60,70,62,82]
Dhoni_G = [35,35,80,74,82,78,66,81,81,27]
Kohli_G = [40,40,40,81,78,81,39,0,10,51]
Sky_G = [75,51,51,79,77,76,49,69,54,62]
#Matrix
Games = np.array([Sachin_G, Rahul_G, Smith_G, Sami_G, Pollard_G,
Morris_G, Samson_G, Dhoni_G, Kohli_G, Sky_G])

#Points
Sachin_PTS = [2832,2430,2323,2201,1970,2078,1616,2133,83,782]
Rahul_PTS = [1653,1426,1779,1688,1619,1312,1129,1170,1245,1154]
Smith_PTS = [2478,2132,2250,2304,2258,2111,1683,2036,2089,1743]
Sami_PTS = [2122,1881,1978,1504,1943,1970,1245,1920,2112,966]
Pollard_PTS = [1292,1443,1695,1624,1503,1784,1113,1296,1297,646]
Morris_PTS = [1572,1561,1496,1746,1678,1438,1025,1232,1281,928]
Samson_PTS = [1258,1104,1684,1781,841,1268,1189,1186,1185,1564]
Dhoni_PTS = [903,903,1624,1871,2472,2161,1850,2280,2593,686]
Kohli_PTS = [597,597,597,1361,1619,2026,852,0,159,904]
Sky_PTS = [2040,1397,1254,2386,2045,1941,1082,1463,1028,1331]
#Matrix
Points = np.array([Sachin_PTS, Rahul_PTS, Smith_PTS, Sami_PTS,
Pollard_PTS, Morris_PTS, Samson_PTS, Dhoni_PTS, Kohli_PTS, Sky_PTS])

Games[0][0]

```

```

players=list()
season=list()
games=list()
points=list()
salary=list()
for i in range(len(Players)):
    for j in range(len(Seasons)):
        players.append(Players[i])
        season.append(Seasons[j])
        games.append(Games[i][j])
        points.append(Points[i][j])
        salary.append(Salary[i][j])
        j+=1
    i+=1

import pandas as pd

data=pd.DataFrame({'Player':players, 'Season':season, 'Games':games, 'Points':points, 'Salary':salary})
data

```

	Player	Season	Games	Points	Salary
0	Sachin	2010	80	2832	15946875
1	Sachin	2011	77	2430	17718750
2	Sachin	2012	82	2323	19490625
3	Sachin	2013	82	2201	21262500
4	Sachin	2014	73	1970	23034375
..
95	Sky	2015	76	1941	14200000
96	Sky	2016	49	1082	15691000
97	Sky	2017	69	1463	17182000
98	Sky	2018	54	1028	18673000
99	Sky	2019	62	1331	15000000

[100 rows x 5 columns]

```
data.to_csv('D:\Temp\Cricket.csv',index=False)
```

```

import matplotlib.pyplot as plt
import warnings
warnings.filterwarnings('ignore')
%matplotlib inline

```

Pdict

```

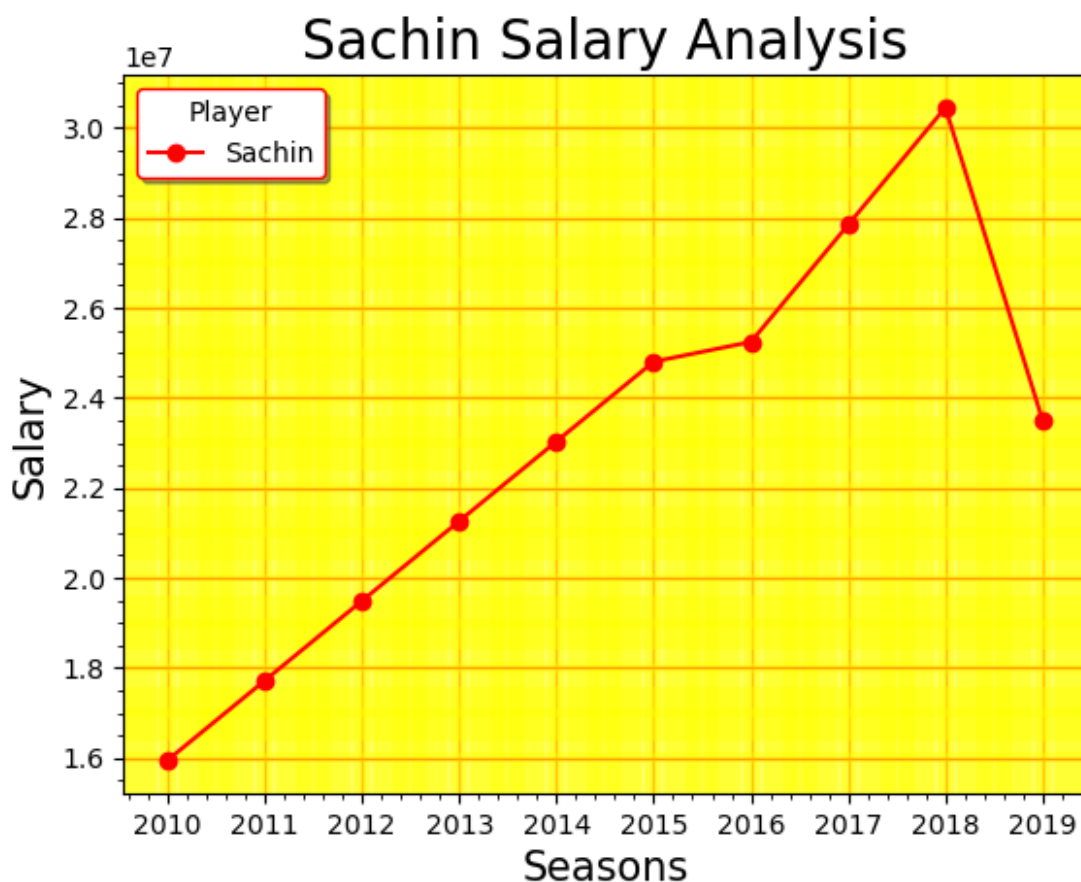
{'Sachin': 0,
 'Rahul': 1,
 'Smith': 2,
 'Sami': 3,
 'Pollard': 4,
 'Morris': 5,

```

```
'Samson': 6,  
'Dhoni': 7,  
'Kohli': 8,  
'Sky': 9}
```

```
#Salary of a particular player
```

```
i=0  
plt.plot(Salary[i], '-ro', label=Players[i])  
plt.title(Players[i]+' Salary Analysis', size=20)  
plt.xlabel('Seasons', size=15)  
plt.ylabel('Salary', size=15)  
plt.xticks(ticks=range(len(Seasons)), labels=Seasons)  
plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,  
title='Player')  
plt.minorticks_on()  
plt.grid(color='red', which='major', linewidth=1)  
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)  
plt.show()
```



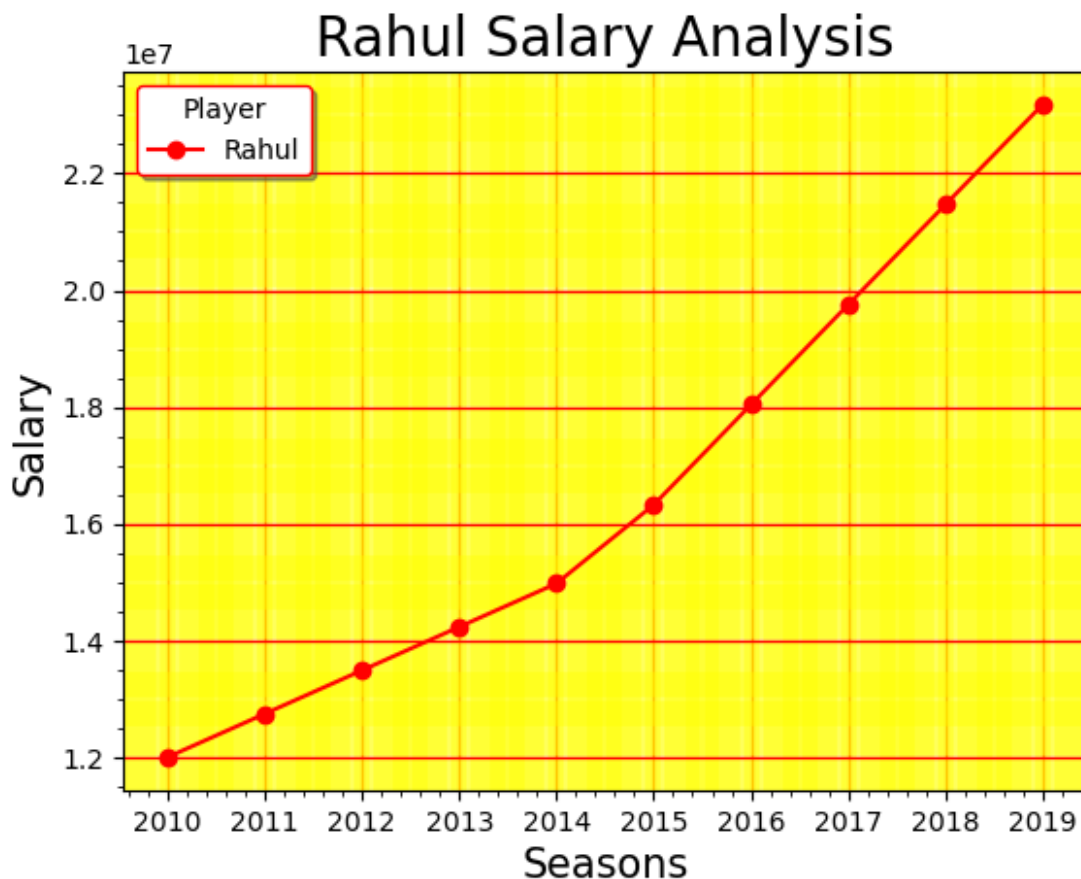
```
#Salary of a particular player
```

```
i=1  
plt.plot(Salary[i], '-ro', label=Players[i])
```

```

plt.title(Players[i]+' Salary Analysis',size=20)
plt.xlabel('Seasons',size=15)
plt.ylabel('Salary',size=15)
plt.xticks(ticks=range(len(Seasons)),labels=Seasons)
plt.legend(facecolor='white',framealpha=1,edgecolor='red',shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red',which='major',linewidth=1)
plt.grid(linewidth=20,which='minor',color='yellow',alpha=0.4)
plt.show()

```

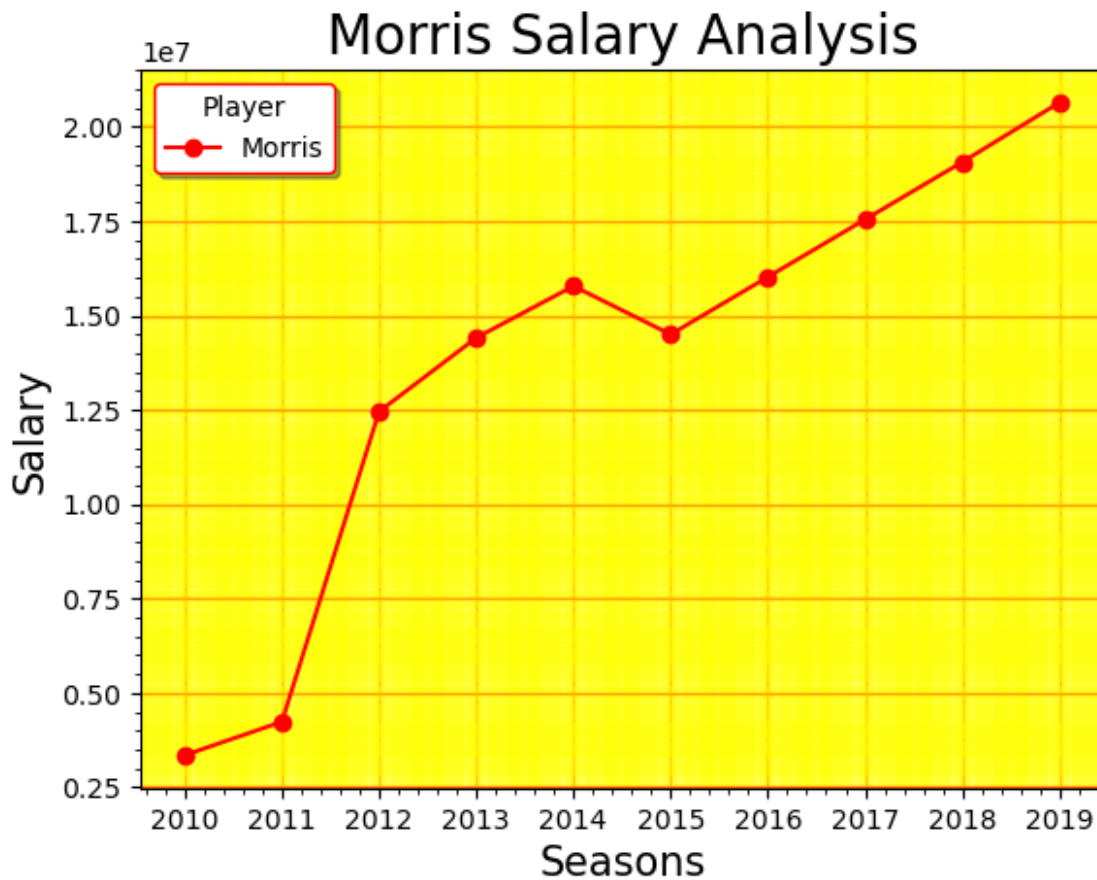


```

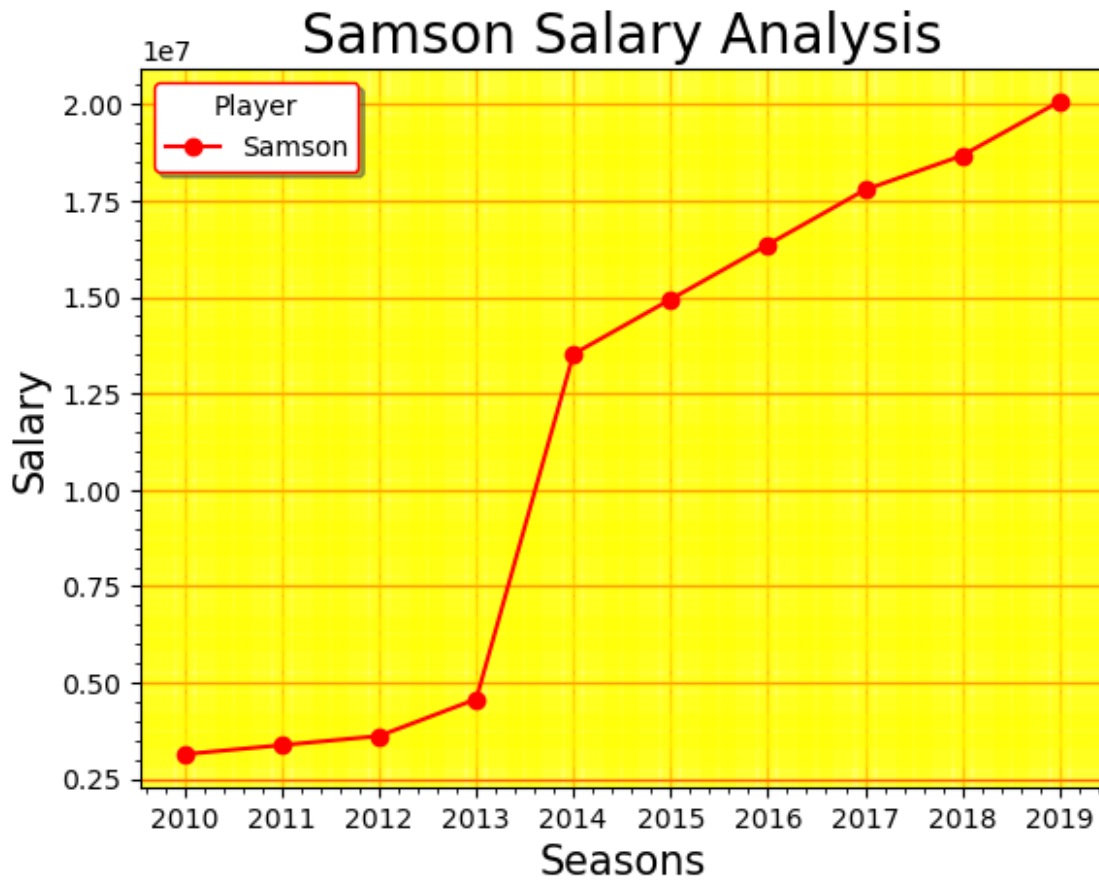
#Salary of a particular player
i=5
plt.plot(Salary[i], '-ro',label=Players[i])
plt.title(Players[i]+' Salary Analysis',size=20)
plt.xlabel('Seasons',size=15)
plt.ylabel('Salary',size=15)
plt.xticks(ticks=range(len(Seasons)),labels=Seasons)
plt.legend(facecolor='white',framealpha=1,edgecolor='red',shadow=True,
title='Player')
plt.minorticks_on()

```

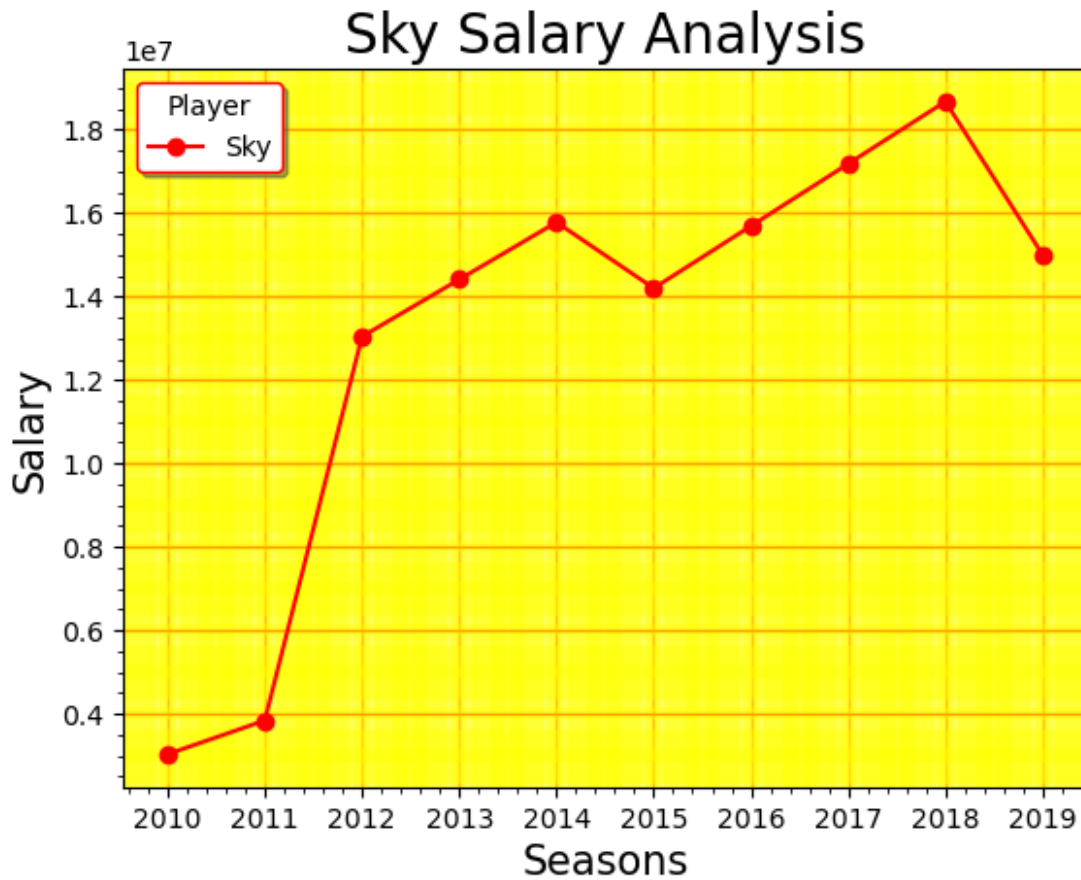
```
plt.grid(color='red',which='major',linewidth=1)
plt.grid(linewidth=20,which='minor',color='yellow',alpha=0.4)
plt.show()
```



```
#Salary of a particular player
i=6
plt.plot(Salary[i], '-ro', label=Players[i])
plt.title(Players[i]+' Salary Analysis',size=20)
plt.xlabel('Seasons',size=15)
plt.ylabel('Salary',size=15)
plt.xticks(ticks=range(len(Seasons)),labels=Seasons)
plt.legend(facecolor='white',framealpha=1,edgecolor='red',shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red',which='major',linewidth=1)
plt.grid(linewidth=20,which='minor',color='yellow',alpha=0.4)
plt.show()
```

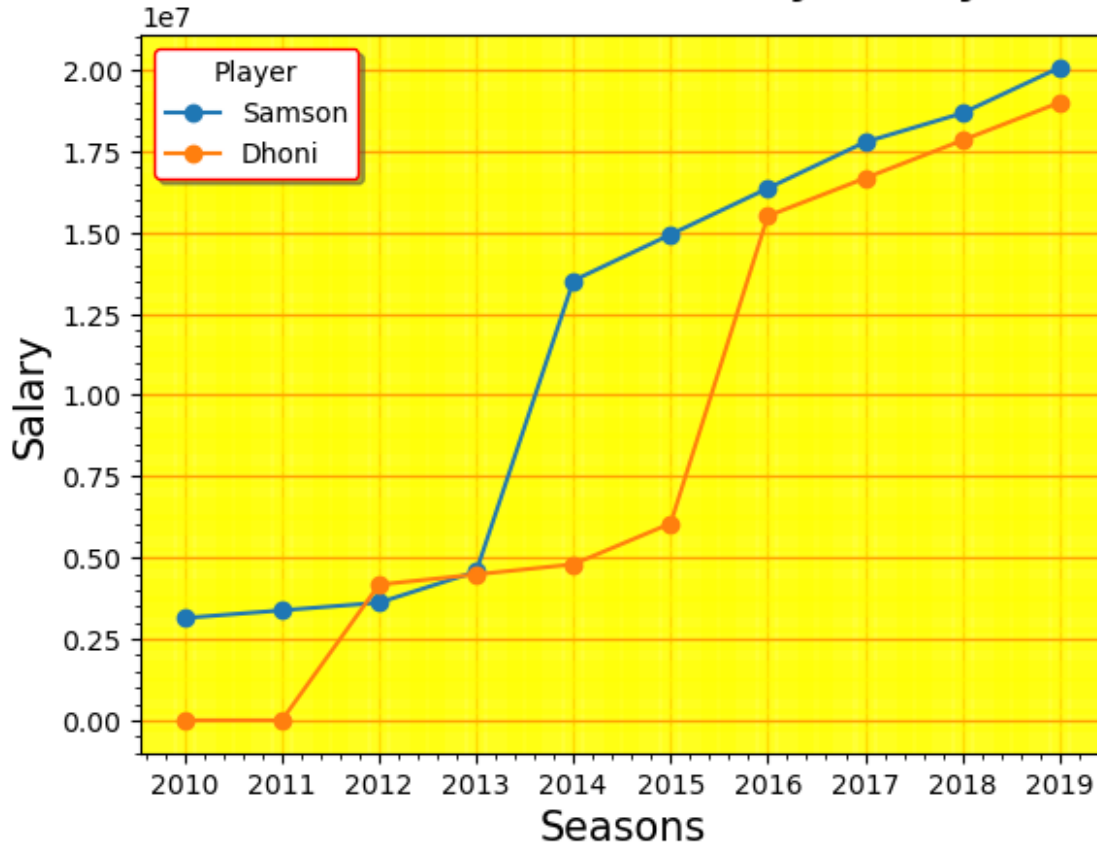


```
#Salary of a particular player
i=9
plt.plot(Salary[i], '-ro', label=Players[i])
plt.title(Players[i]+' Salary Analysis', size=20)
plt.xlabel('Seasons', size=15)
plt.ylabel('Salary', size=15)
plt.xticks(ticks=range(len(Seasons)), labels=Seasons)
plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red', which='major', linewidth=1)
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)
plt.show()
```

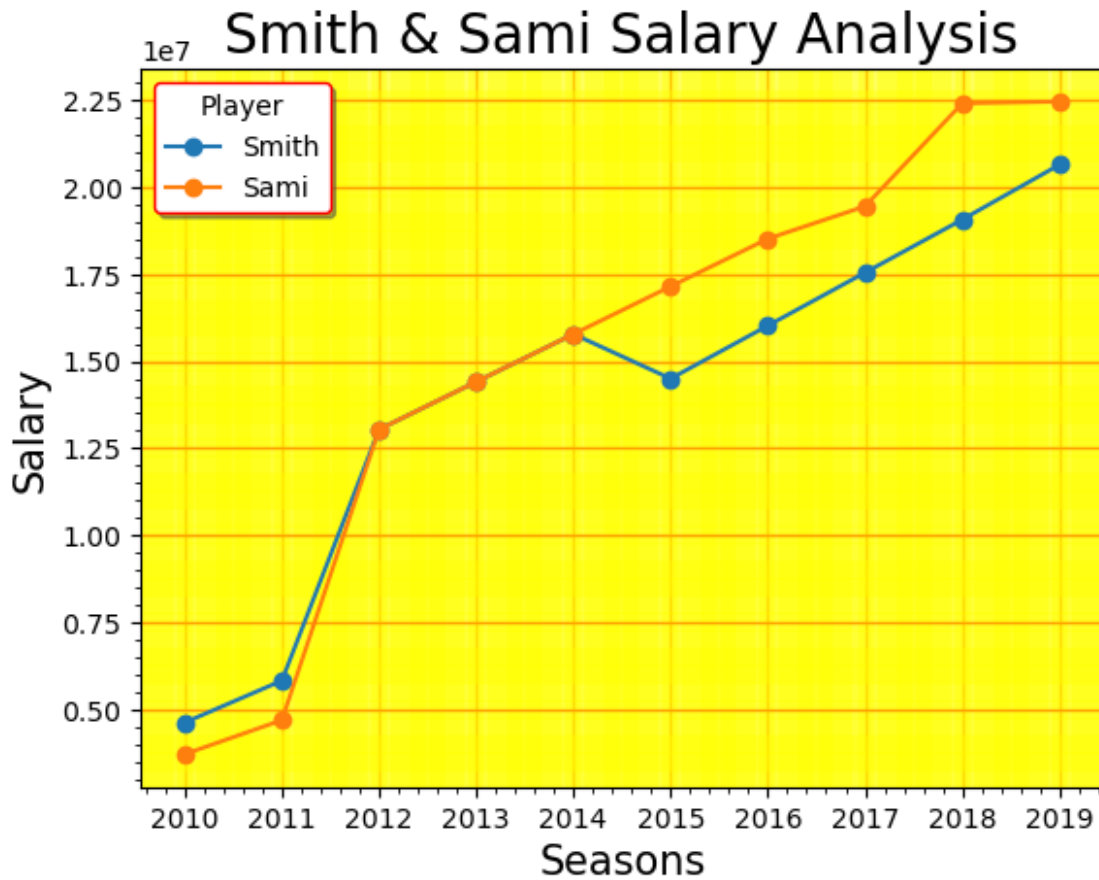


```
#Salary of two players
i=6
plt.plot(Salary[i], '-o', label=Players[i])
plt.plot(Salary[i+1], '-o', label=Players[i+1])
plt.title(Players[i]+' & '+Players[i+1]+' Salary Analysis', size=20)
plt.xlabel('Seasons', size=15)
plt.ylabel('Salary', size=15)
plt.xticks(ticks=range(len(Seasons)), labels=Seasons)
plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red', which='major', linewidth=1)
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)
plt.show()
```

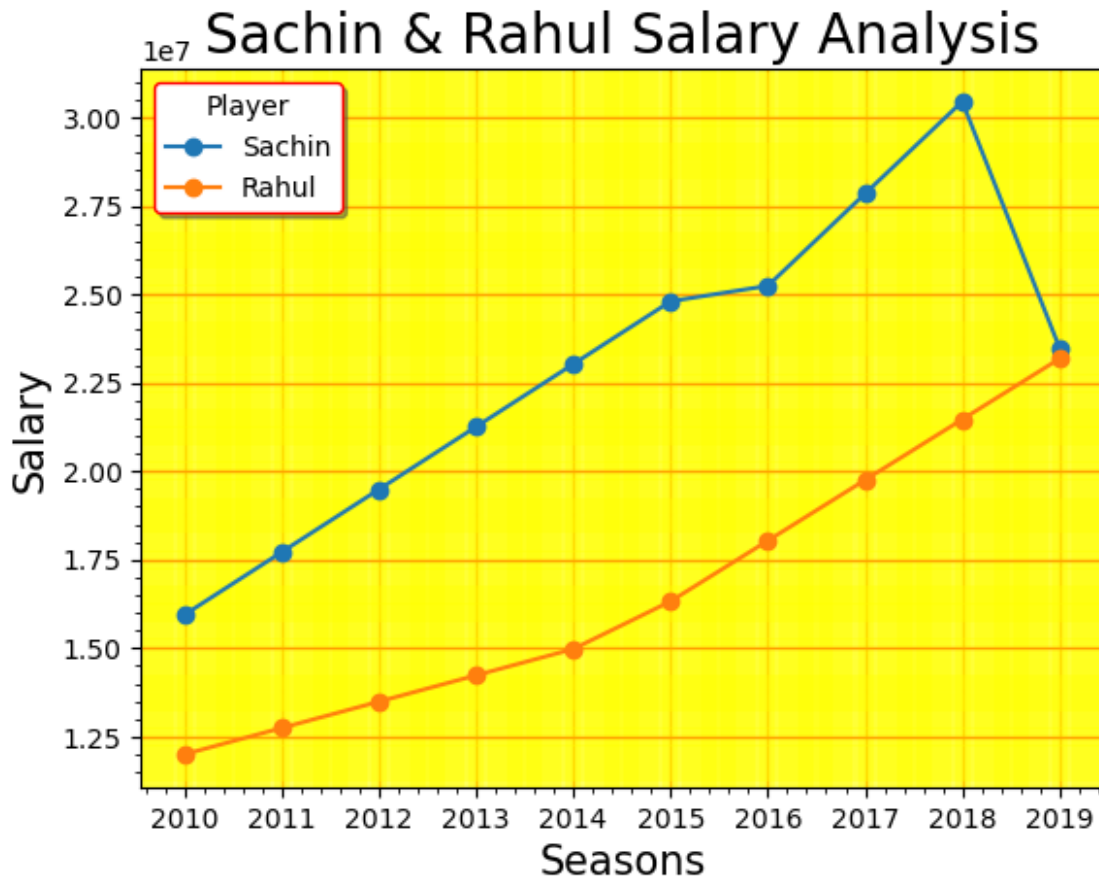

Samson & Dhoni Salary Analysis



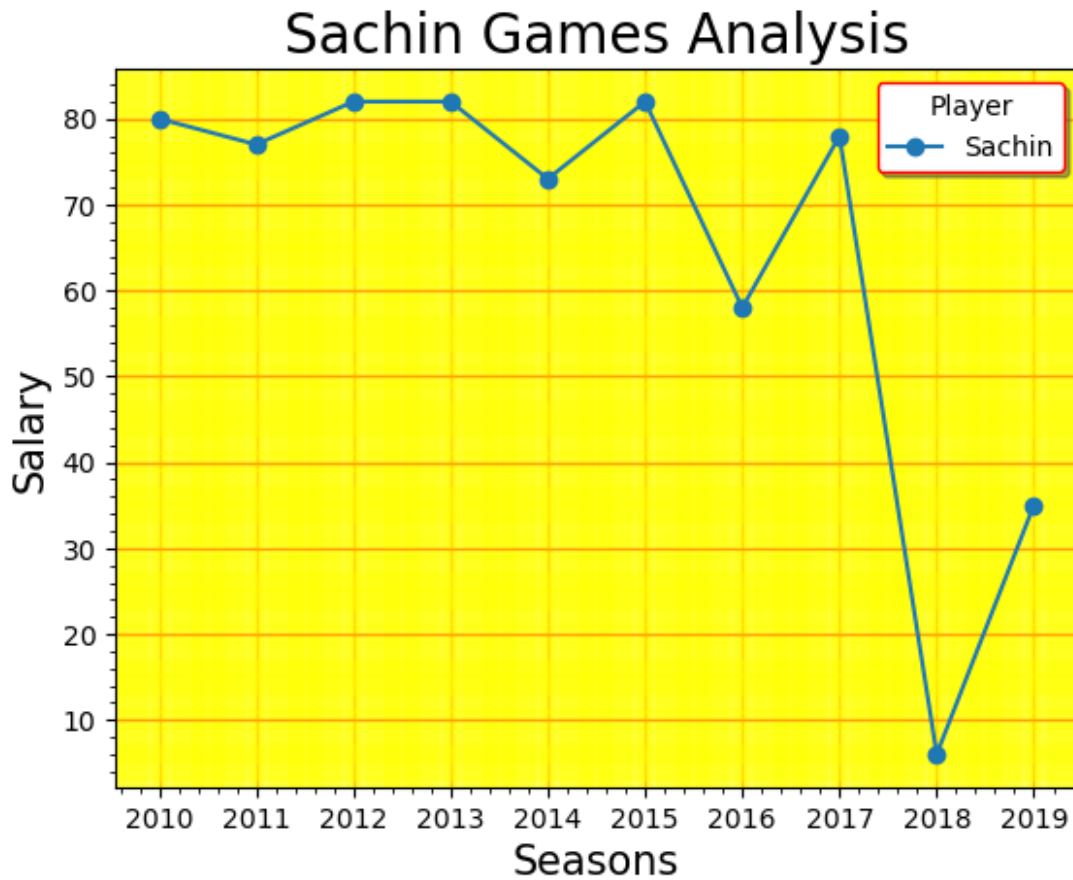
```
#Salary of two players
i=2
plt.plot(Salary[i], '-o', label=Players[i])
plt.plot(Salary[i+1], '-o', label=Players[i+1])
plt.title(Players[i]+' & '+Players[i+1]+' Salary Analysis', size=20)
plt.xlabel('Seasons', size=15)
plt.ylabel('Salary', size=15)
plt.xticks(ticks=range(len(Seasons)), labels=Seasons)
plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red', which='major', linewidth=1)
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)
plt.show()
```



```
#Salary of two players
i=0
plt.plot(Salary[i], '-o', label=Players[i])
plt.plot(Salary[i+1], '-o', label=Players[i+1])
plt.title(Players[i]+' & '+Players[i+1]+' Salary Analysis', size=20)
plt.xlabel('Seasons', size=15)
plt.ylabel('Salary', size=15)
plt.xticks(ticks=range(len(Seasons)), labels=Seasons)
plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red', which='major', linewidth=1)
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)
plt.show()
```



```
#Games of two players
i=0
plt.plot(Games[i], '-o', label=Players[i])
plt.title(Players[i]+' Games Analysis', size=20)
plt.xlabel('Seasons', size=15)
plt.ylabel('Salary', size=15)
plt.xticks(ticks=range(len(Seasons)), labels=Seasons)
plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red', which='major', linewidth=1)
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)
plt.show()
```



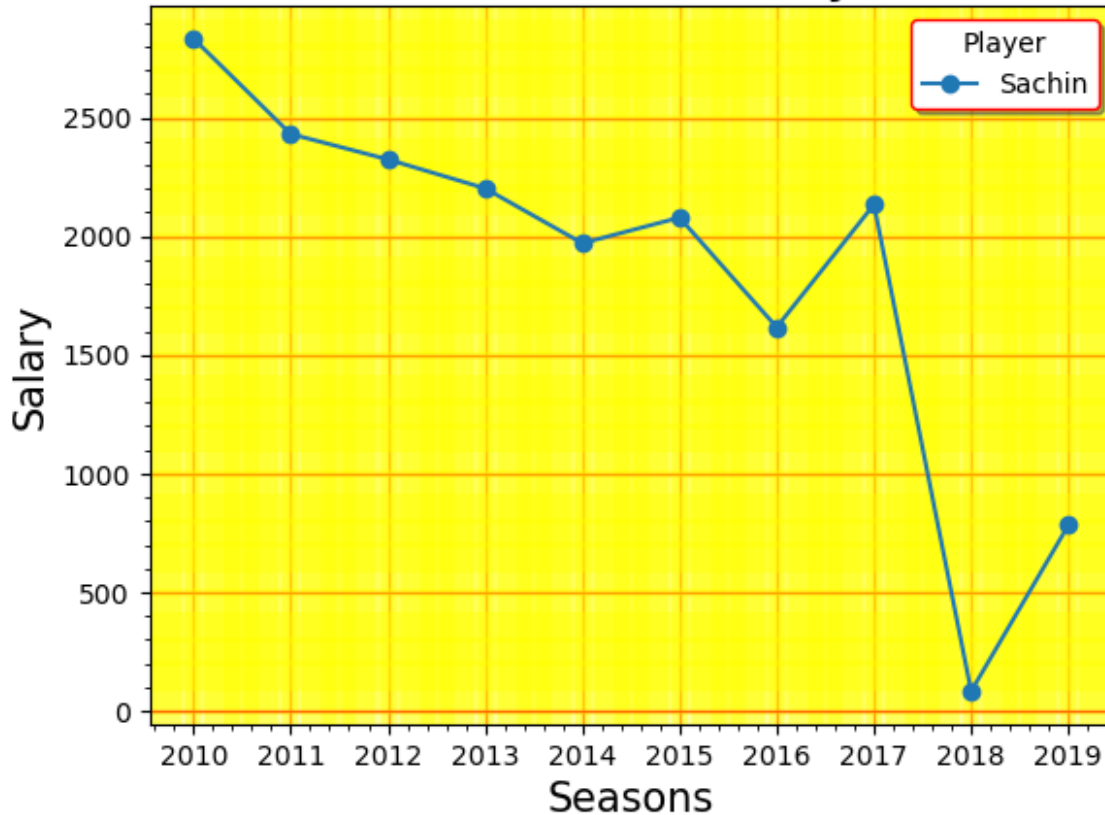
```
#Games of two players
i=5
plt.plot(Games[i], '-o', label=Players[i])
plt.title(Players[i]+' Games Analysis', size=20)
plt.xlabel('Seasons', size=15)
plt.ylabel('Salary', size=15)
plt.xticks(ticks=range(len(Seasons)), labels=Seasons)
plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red', which='major', linewidth=1)
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)
plt.show()
```

Morris Games Analysis



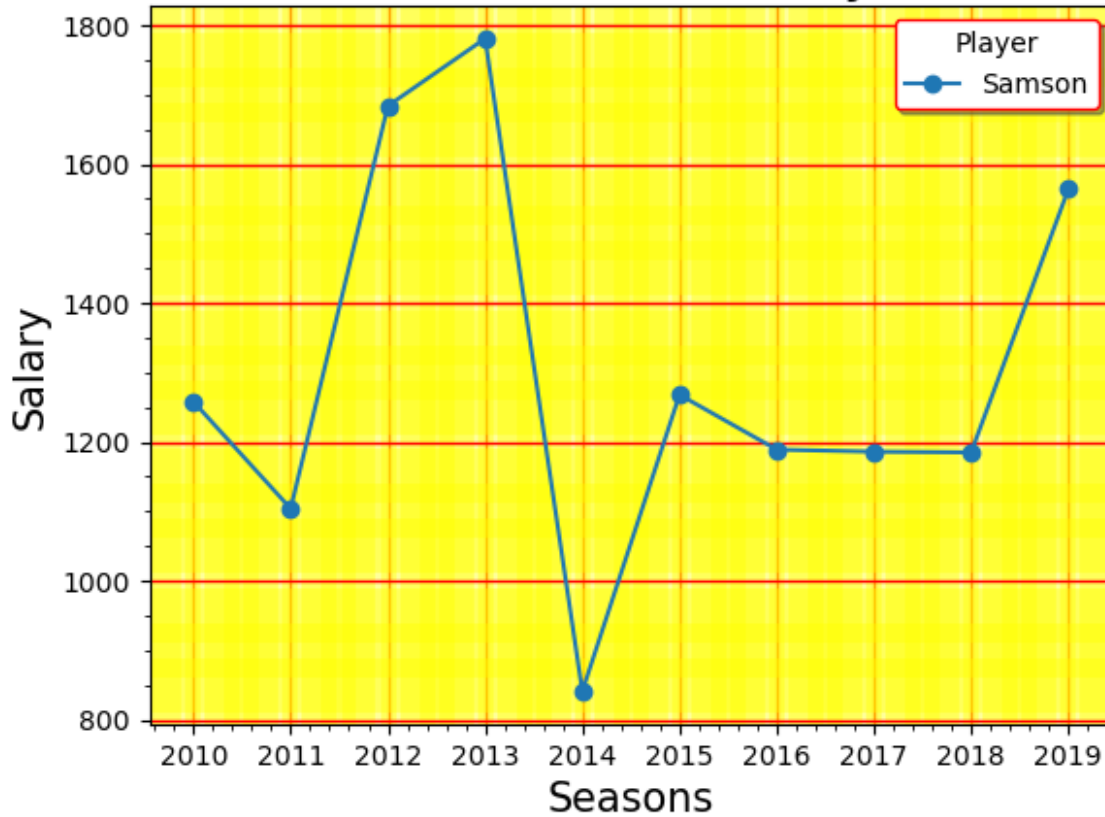
```
#Points of two players
i=0
plt.plot(Points[i], '-o', label=Players[i])
plt.title(Players[i]+' Points Analysis', size=20)
plt.xlabel('Seasons', size=15)
plt.ylabel('Salary', size=15)
plt.xticks(ticks=range(len(Seasons)), labels=Seasons)
plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red', which='major', linewidth=1)
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)
plt.show()
```

Sachin Points Analysis



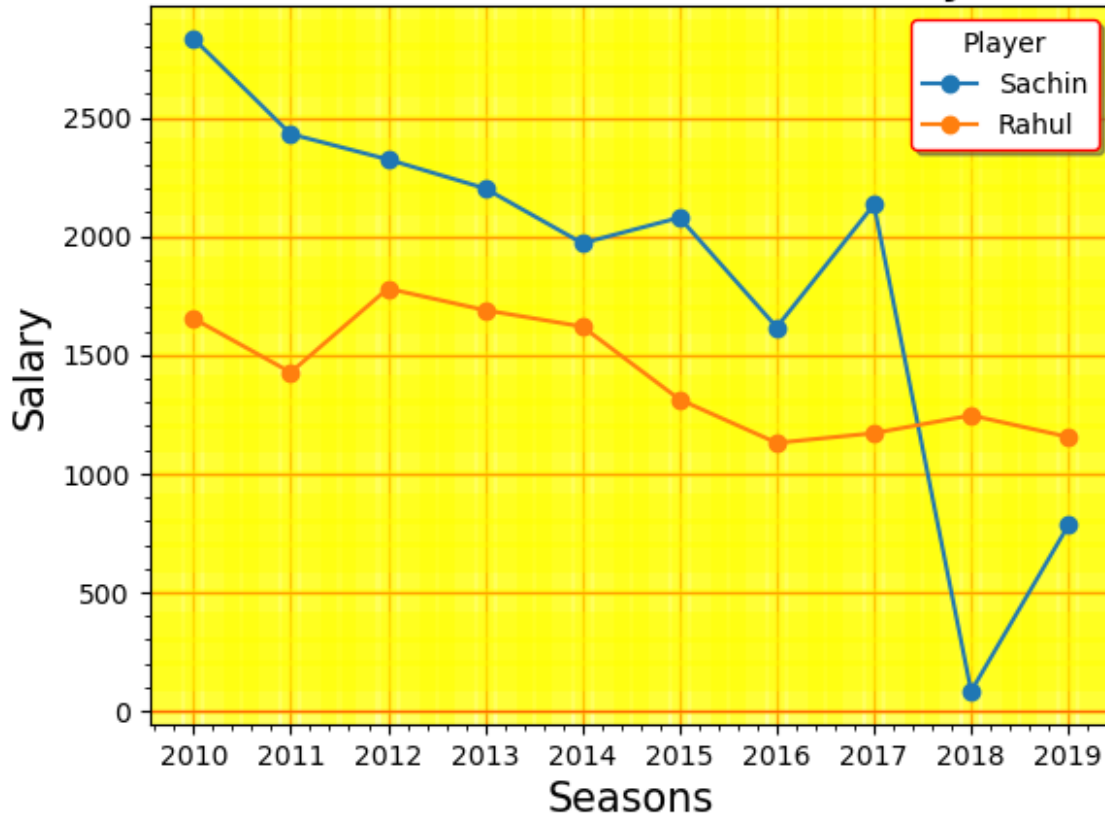
```
#Points of two players
i=6
plt.plot(Points[i], '-o', label=Players[i])
plt.title(Players[i]+' Points Analysis', size=20)
plt.xlabel('Seasons', size=15)
plt.ylabel('Salary', size=15)
plt.xticks(ticks=range(len(Seasons)), labels=Seasons)
plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red', which='major', linewidth=1)
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)
plt.show()
```

Samson Points Analysis

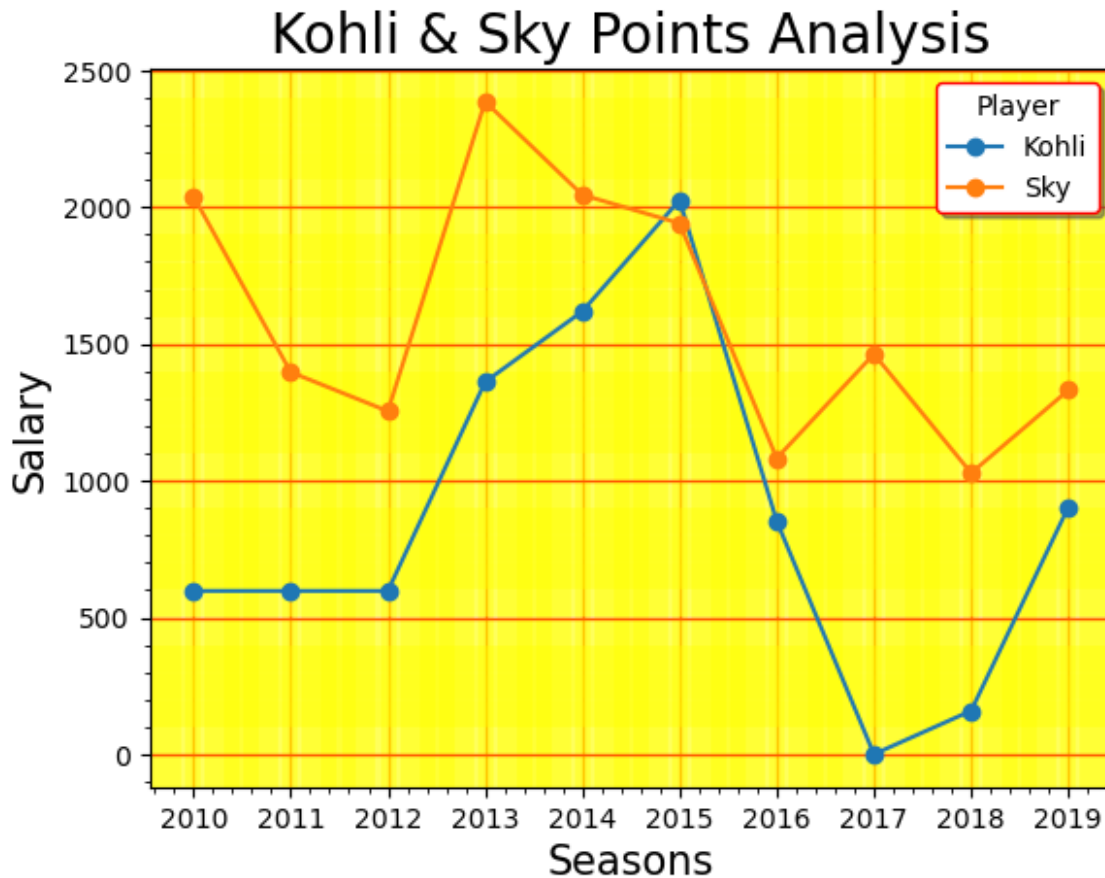


```
#Points of two players
i=0
plt.plot(Points[i], '-o', label=Players[i])
plt.plot(Points[i+1], '-o', label=Players[i+1])
plt.title(Players[i]+' & '+Players[i+1]+' Points Analysis', size=20)
plt.xlabel('Seasons', size=15)
plt.ylabel('Salary', size=15)
plt.xticks(ticks=range(len(Seasons)), labels=Seasons)
plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red', which='major', linewidth=1)
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)
plt.show()
```

Sachin & Rahul Points Analysis



```
#Points of two players
i=8
plt.plot(Points[i], '-o', label=Players[i])
plt.plot(Points[i+1], '-o', label=Players[i+1])
plt.title(Players[i]+' & '+Players[i+1]+' Points Analysis', size=20)
plt.xlabel('Seasons', size=15)
plt.ylabel('Salary', size=15)
plt.xticks(ticks=range(len(Seasons)), labels=Seasons)
plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,
title='Player')
plt.minorticks_on()
plt.grid(color='red', which='major', linewidth=1)
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)
plt.show()
```

```
def plot_Sal(ls):
    for i in ls:
        plt.plot(Salary[i], '-o', label=Players[i])
    plt.title('Salary Analysis', size=20)
    plt.xlabel('Seasons', size=15)
    plt.ylabel('Salary', size=15)
    plt.xticks(ticks=range(len(Seasons)), labels=Seasons)

plt.legend(facecolor='white', framealpha=1, edgecolor='red', shadow=True,
title='Player', loc=(1.1, 0.5), ncol=2)
plt.minorticks_on()
plt.grid(color='red', which='major', linewidth=1)
plt.grid(linewidth=20, which='minor', color='yellow', alpha=0.4)
plt.show()

def plot_Pnt(ls):
    for i in ls:
        plt.plot(Points[i], '-o', label=Players[i])
    plt.title('Points Analysis', size=20)
    plt.xlabel('Seasons', size=15)
    plt.ylabel('Points', size=15)
    plt.xticks(ticks=range(len(Seasons)), labels=Seasons)
```

```

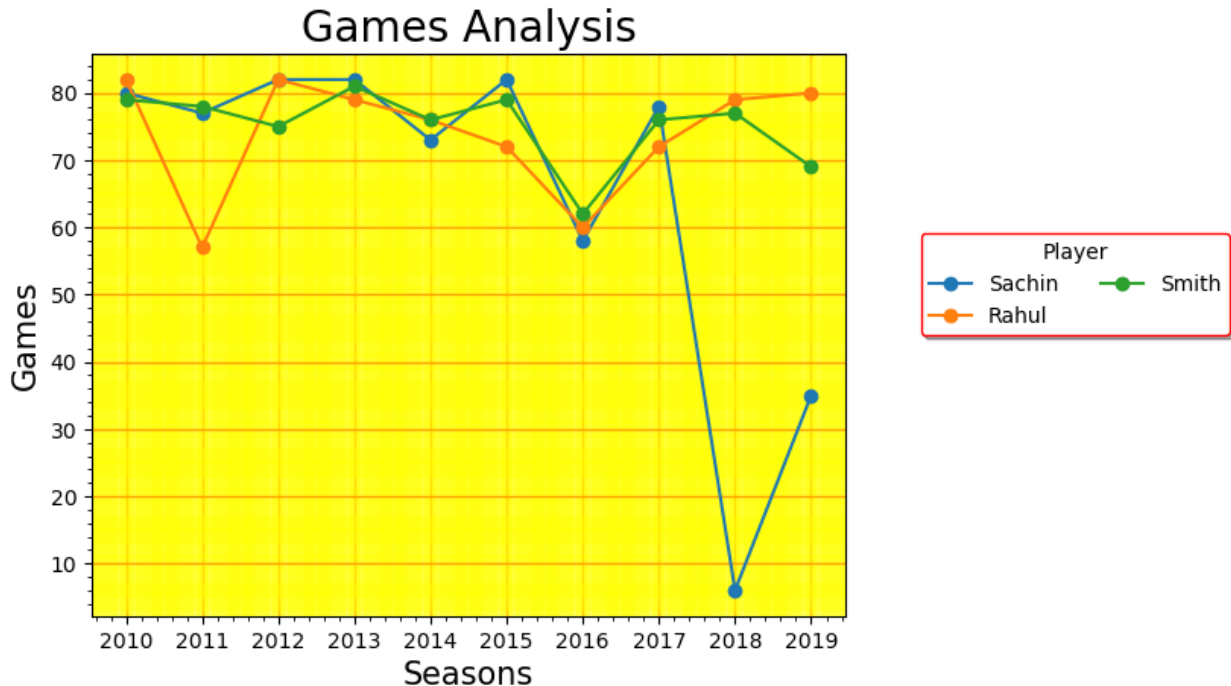
plt.legend(facecolor='white',framealpha=1,edgecolor='red',shadow=True,
title='Player',loc=(1.1,0.5),ncol=2)
plt.minorticks_on()
plt.grid(color='red',which='major',linewidth=1)
plt.grid(linewidth=20,which='minor',color='yellow',alpha=0.4)
plt.show()

def plot_Gms(ls):
    for i in ls:
        plt.plot(Games[i],'-o',label=Players[i])
    plt.title('Games Analysis',size=20)
    plt.xlabel('Seasons',size=15)
    plt.ylabel('Games',size=15)
    plt.xticks(ticks=range(len(Seasons)),labels=Seasons)

plt.legend(facecolor='white',framealpha=1,edgecolor='red',shadow=True,
title='Player',loc=(1.1,0.5),ncol=2)
plt.minorticks_on()
plt.grid(color='red',which='major',linewidth=1)
plt.grid(linewidth=20,which='minor',color='yellow',alpha=0.4)
plt.show()

plot_Gms(range(3))

```



```

plot_Pnt(range(3))

```

Points Analysis

