

In [1]: `import numpy as np`

In [2]: `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}
```

`#Players`

```
Players = ["Sachin", "Rahul", "Smith", "Sami", "Pollard", "Morris", "Samson", "Dhoni", "Pdict = {"Sachin":0, "Rahul":1, "Smith":2, "Sami":3, "Pollard":4, "Morris":5, "Samson":6}
```

`#Salaries`

```
Sachin_Salary = [15946875, 17718750, 19490625, 21262500, 23034375, 24806250, 25244493, Rahul_Salary = [12000000, 12744189, 13488377, 14232567, 14976754, 16324500, 18038573, 1 Smith_Salary = [4621800, 5828090, 13041250, 14410581, 15779912, 14500000, 16022500, 175 Sami_Salary = [3713640, 4694041, 13041250, 14410581, 15779912, 17149243, 18518574, 1945 Pollard_Salary = [4493160, 4806720, 6061274, 13758000, 15202590, 16647180, 18091770, 19 Morris_Salary = [3348000, 4235220, 12455000, 14410581, 15779912, 14500000, 16022500, 177 Samson_Salary = [3144240, 3380160, 3615960, 4574189, 13520500, 14940153, 16359805, 1777 Dhoni_Salary = [0, 0, 4171200, 4484040, 4796880, 6053663, 15506632, 16669630, 17832627, 1 Kohli_Salary = [0, 0, 0, 4822800, 5184480, 5546160, 6993708, 16402500, 17632688, 18862875 Sky_Salary = [3031920, 3841443, 13041250, 14410581, 15779912, 14200000, 15691000, 17182 #Matrix Salary = np.array([Sachin_Salary, Rahul_Salary, Smith_Salary, Sami_Salary, Polla
```

`#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, Samso
```

`#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, Morri
```

In [3]: `Salary`

```
Out[3]: array([[15946875, 17718750, 19490625, 21262500, 23034375, 24806250,
   25244493, 27849149, 30453805, 23500000],
   [12000000, 12744189, 13488377, 14232567, 14976754, 16324500,
   18038573, 19752645, 21466718, 23180790],
   [ 4621800,  5828090, 13041250, 14410581, 15779912, 14500000,
   16022500, 17545000, 19067500, 20644400],
   [ 3713640,  4694041, 13041250, 14410581, 15779912, 17149243,
   18518574, 19450000, 22407474, 22458000],
   [ 4493160,  4806720, 6061274, 13758000, 15202590, 16647180,
   18091770, 19536360, 20513178, 21436271],
   [ 3348000,  4235220, 12455000, 14410581, 15779912, 14500000,
   16022500, 17545000, 19067500, 20644400],
   [ 3144240,  3380160, 3615960, 4574189, 13520500, 14940153,
   16359805, 17779458, 18668431, 20068563],
   [      0,         0, 4171200, 4484040, 4796880, 6053663,
   15506632, 16669630, 17832627, 18995624],
   [      0,         0,         0, 4822800, 5184480, 5546160,
   6993708, 16402500, 17632688, 18862875],
   [ 3031920,  3841443, 13041250, 14410581, 15779912, 14200000,
   15691000, 17182000, 18673000, 15000000]])
```

In [4]: Games

```
Out[4]: array([[80, 77, 82, 82, 73, 82, 58, 78, 6, 35],
   [82, 57, 82, 79, 76, 72, 60, 72, 79, 80],
   [79, 78, 75, 81, 76, 79, 62, 76, 77, 69],
   [80, 65, 77, 66, 69, 77, 55, 67, 77, 40],
   [82, 82, 82, 79, 82, 78, 54, 76, 71, 41],
   [70, 69, 67, 77, 70, 77, 57, 74, 79, 44],
   [78, 64, 80, 78, 45, 80, 60, 70, 62, 82],
   [35, 35, 80, 74, 82, 78, 66, 81, 81, 27],
   [40, 40, 40, 81, 78, 81, 39, 0, 10, 51],
   [75, 51, 51, 79, 77, 76, 49, 69, 54, 62]]))
```

In [5]: Points

```
Out[5]: array([[2832, 2430, 2323, 2201, 1970, 2078, 1616, 2133, 83, 782],
   [1653, 1426, 1779, 1688, 1619, 1312, 1129, 1170, 1245, 1154],
   [2478, 2132, 2250, 2304, 2258, 2111, 1683, 2036, 2089, 1743],
   [2122, 1881, 1978, 1504, 1943, 1970, 1245, 1920, 2112, 966],
   [1292, 1443, 1695, 1624, 1503, 1784, 1113, 1296, 1297, 646],
   [1572, 1561, 1496, 1746, 1678, 1438, 1025, 1232, 1281, 928],
   [1258, 1104, 1684, 1781, 841, 1268, 1189, 1186, 1185, 1564],
   [ 903,  903, 1624, 1871, 2472, 2161, 1850, 2280, 2593, 686],
   [ 597,  597,  597, 1361, 1619, 2026, 852, 0, 159, 904],
   [2040, 1397, 1254, 2386, 2045, 1941, 1082, 1463, 1028, 1331]]))
```

In [6]: mydata=np.arange(0,20)  
print(mydata)

```
[ 0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19]
```

In [7]: np.reshape(mydata,(4,5))

```
Out[7]: array([[ 0,  1,  2,  3,  4],
   [ 5,  6,  7,  8,  9],
   [10, 11, 12, 13, 14],
   [15, 16, 17, 18, 19]]))
```

In [8]: mydata

```
Out[8]: array([ 0,  1,  2,  3,  4,  5,  6,  7,  8,  9, 10, 11, 12, 13, 14, 15, 16,
   17, 18, 19])
```

```
In [9]: MATR1=np.reshape(mydata,(5,4),order='c')
MATR1
```

```
Out[9]: array([[ 0,  1,  2,  3],
   [ 4,  5,  6,  7],
   [ 8,  9, 10, 11],
   [12, 13, 14, 15],
   [16, 17, 18, 19]])
```

```
In [10]: MATR1
```

```
Out[10]: array([[ 0,  1,  2,  3],
   [ 4,  5,  6,  7],
   [ 8,  9, 10, 11],
   [12, 13, 14, 15],
   [16, 17, 18, 19]])
```

```
In [11]: MATR1[4,3]
```

```
Out[11]: 19
```

```
In [12]: MATR1[3,3]
```

```
Out[12]: 15
```

```
In [13]: MATR1
```

```
Out[13]: array([[ 0,  1,  2,  3],
   [ 4,  5,  6,  7],
   [ 8,  9, 10, 11],
   [12, 13, 14, 15],
   [16, 17, 18, 19]])
```

```
In [14]: MATR1[-3,-1]
```

```
Out[14]: 11
```

```
In [15]: MATR1
```

```
Out[15]: array([[ 0,  1,  2,  3],
   [ 4,  5,  6,  7],
   [ 8,  9, 10, 11],
   [12, 13, 14, 15],
   [16, 17, 18, 19]])
```

```
In [16]: mydata
```

```
Out[16]: array([ 0,  1,  2,  3,  4,  5,  6,  7,  8,  9, 10, 11, 12, 13, 14, 15, 16,
   17, 18, 19])
```

```
In [18]: MATR2=np.reshape(mydata,(5,4),order='F')
MATR2
```

```
Out[18]: array([[ 0,  5, 10, 15],  
                 [ 1,  6, 11, 16],  
                 [ 2,  7, 12, 17],  
                 [ 3,  8, 13, 18],  
                 [ 4,  9, 14, 19]])
```

```
In [19]: MATR2[4,3]
```

```
Out[19]: 19
```

```
In [20]: MATR2[0,2]
```

```
Out[20]: 10
```

```
In [21]: MATR2[0:2]
```

```
Out[21]: array([[ 0,  5, 10, 15],  
                 [ 1,  6, 11, 16]])
```

```
In [22]: MATR2
```

```
Out[22]: array([[ 0,  5, 10, 15],  
                 [ 1,  6, 11, 16],  
                 [ 2,  7, 12, 17],  
                 [ 3,  8, 13, 18],  
                 [ 4,  9, 14, 19]])
```

```
In [23]: MATR2[1:2]
```

```
Out[23]: array([[ 1,  6, 11, 16]])
```

```
In [24]: MATR2[0:2]
```

```
Out[24]: array([[ 0,  5, 10, 15],  
                 [ 1,  6, 11, 16]])
```

```
In [25]: MATR2=np.reshape(mydata,(5,4))
```

```
In [26]: MATR2
```

```
Out[26]: array([[ 0,  1,  2,  3],  
                 [ 4,  5,  6,  7],  
                 [ 8,  9, 10, 11],  
                 [12, 13, 14, 15],  
                 [16, 17, 18, 19]])
```

```
In [27]: MATR2[2:5,3:5]
```

```
Out[27]: array([[11],  
                 [15],  
                 [19]])
```

```
In [28]: MATR2[1:4,0:3]
```

```
Out[28]: array([[ 4,  5,  6],  
                 [ 8,  9, 10],  
                 [12, 13, 14]])
```

```
In [29]: mydata
```

```
Out[29]: array([ 0,  1,  2,  3,  4,  5,  6,  7,  8,  9, 10, 11, 12, 13, 14, 15, 16,
   17, 18, 19])
```

```
In [30]: MATR3=np.reshape(mydata,(5,4),order='A')
MATR3
```

```
Out[30]: array([[ 0,  1,  2,  3],
   [ 4,  5,  6,  7],
   [ 8,  9, 10, 11],
   [12, 13, 14, 15],
   [16, 17, 18, 19]])
```

```
In [31]: MATR2= np.reshape(mydata,(5,4),order='F')
```

```
In [32]: MATR2
```

```
Out[32]: array([[ 0,  5, 10, 15],
   [ 1,  6, 11, 16],
   [ 2,  7, 12, 17],
   [ 3,  8, 13, 18],
   [ 4,  9, 14, 19]])
```

```
In [33]: MATR3
```

```
Out[33]: array([[ 0,  1,  2,  3],
   [ 4,  5,  6,  7],
   [ 8,  9, 10, 11],
   [12, 13, 14, 15],
   [16, 17, 18, 19]])
```

```
In [34]: MATR1
```

```
Out[34]: array([[ 0,  1,  2,  3],
   [ 4,  5,  6,  7],
   [ 8,  9, 10, 11],
   [12, 13, 14, 15],
   [16, 17, 18, 19]])
```

```
In [35]: a1=['welcome','to','datascience']
a2=['required','hard','work']
a3=[1,2,3]
```

```
In [36]: [a1,a2,a3]
```

```
Out[36]: [['welcome', 'to', 'datascience'], ['required', 'hard', 'work'], [1, 2, 3]]
```

```
In [38]: np.array([a1,a2,a3])
```

```
Out[38]: array([['welcome', 'to', 'datascience'],
   ['required', 'hard', 'work'],
   ['1', '2', '3']], dtype='|<U11')
```

```
In [39]: Games
```

```
Out[39]: array([[80, 77, 82, 82, 73, 82, 58, 78, 6, 35],  
                 [82, 57, 82, 79, 76, 72, 60, 72, 79, 80],  
                 [79, 78, 75, 81, 76, 79, 62, 76, 77, 69],  
                 [80, 65, 77, 66, 69, 77, 55, 67, 77, 40],  
                 [82, 82, 82, 79, 82, 78, 54, 76, 71, 41],  
                 [70, 69, 67, 77, 70, 77, 57, 74, 79, 44],  
                 [78, 64, 80, 78, 45, 80, 60, 70, 62, 82],  
                 [35, 35, 80, 74, 82, 78, 66, 81, 81, 27],  
                 [40, 40, 40, 81, 78, 81, 39, 0, 10, 51],  
                 [75, 51, 51, 79, 77, 76, 49, 69, 54, 62]])
```

```
In [40]: Games[0]
```

```
Out[40]: array([80, 77, 82, 82, 73, 82, 58, 78, 6, 35])
```

```
In [41]: Games[5]
```

```
Out[41]: array([70, 69, 67, 77, 70, 77, 57, 74, 79, 44])
```

```
In [42]: Games[0:5]
```

```
Out[42]: array([[80, 77, 82, 82, 73, 82, 58, 78, 6, 35],  
                 [82, 57, 82, 79, 76, 72, 60, 72, 79, 80],  
                 [79, 78, 75, 81, 76, 79, 62, 76, 77, 69],  
                 [80, 65, 77, 66, 69, 77, 55, 67, 77, 40],  
                 [82, 82, 82, 79, 82, 78, 54, 76, 71, 41]])
```

```
In [43]: Games[0,5]
```

```
Out[43]: 82
```

```
In [44]: Games[0,2]
```

```
Out[44]: 82
```

```
In [45]: Games[0:2]
```

```
Out[45]: array([[80, 77, 82, 82, 73, 82, 58, 78, 6, 35],  
                 [82, 57, 82, 79, 76, 72, 60, 72, 79, 80]])
```

```
In [46]: Games
```

```
Out[46]: array([[80, 77, 82, 82, 73, 82, 58, 78, 6, 35],  
                 [82, 57, 82, 79, 76, 72, 60, 72, 79, 80],  
                 [79, 78, 75, 81, 76, 79, 62, 76, 77, 69],  
                 [80, 65, 77, 66, 69, 77, 55, 67, 77, 40],  
                 [82, 82, 82, 79, 82, 78, 54, 76, 71, 41],  
                 [70, 69, 67, 77, 70, 77, 57, 74, 79, 44],  
                 [78, 64, 80, 78, 45, 80, 60, 70, 62, 82],  
                 [35, 35, 80, 74, 82, 78, 66, 81, 81, 27],  
                 [40, 40, 40, 81, 78, 81, 39, 0, 10, 51],  
                 [75, 51, 51, 79, 77, 76, 49, 69, 54, 62]])
```

```
In [47]: Games[1:2]
```

```
Out[47]: array([[82, 57, 82, 79, 76, 72, 60, 72, 79, 80]])
```

```
In [48]: Games[2]
```

```
Out[48]: array([79, 78, 75, 81, 76, 79, 62, 76, 77, 69])
```

```
In [49]: Games
```

```
Out[49]: array([[80, 77, 82, 82, 73, 82, 58, 78, 6, 35],  
[82, 57, 82, 79, 76, 72, 60, 72, 79, 80],  
[79, 78, 75, 81, 76, 79, 62, 76, 77, 69],  
[80, 65, 77, 66, 69, 77, 55, 67, 77, 40],  
[82, 82, 82, 79, 82, 78, 54, 76, 71, 41],  
[70, 69, 67, 77, 70, 77, 57, 74, 79, 44],  
[78, 64, 80, 78, 45, 80, 60, 70, 62, 82],  
[35, 35, 80, 74, 82, 78, 66, 81, 81, 27],  
[40, 40, 40, 81, 78, 81, 39, 0, 10, 51],  
[75, 51, 51, 79, 77, 76, 49, 69, 54, 62]])
```

```
In [50]: Games[2,8]
```

```
Out[50]: 77
```

```
In [51]: Games
```

```
Out[51]: array([[80, 77, 82, 82, 73, 82, 58, 78, 6, 35],  
[82, 57, 82, 79, 76, 72, 60, 72, 79, 80],  
[79, 78, 75, 81, 76, 79, 62, 76, 77, 69],  
[80, 65, 77, 66, 69, 77, 55, 67, 77, 40],  
[82, 82, 82, 79, 82, 78, 54, 76, 71, 41],  
[70, 69, 67, 77, 70, 77, 57, 74, 79, 44],  
[78, 64, 80, 78, 45, 80, 60, 70, 62, 82],  
[35, 35, 80, 74, 82, 78, 66, 81, 81, 27],  
[40, 40, 40, 81, 78, 81, 39, 0, 10, 51],  
[75, 51, 51, 79, 77, 76, 49, 69, 54, 62]])
```

```
In [52]: Games[-3:-1]
```

```
Out[52]: array([[35, 35, 80, 74, 82, 78, 66, 81, 81, 27],  
[40, 40, 40, 81, 78, 81, 39, 0, 10, 51]])
```

```
In [53]: Games[-3,-1]
```

```
Out[53]: 27
```

```
In [54]: Points
```

```
Out[54]: array([[2832, 2430, 2323, 2201, 1970, 2078, 1616, 2133, 83, 782],  
[1653, 1426, 1779, 1688, 1619, 1312, 1129, 1170, 1245, 1154],  
[2478, 2132, 2250, 2304, 2258, 2111, 1683, 2036, 2089, 1743],  
[2122, 1881, 1978, 1504, 1943, 1970, 1245, 1920, 2112, 966],  
[1292, 1443, 1695, 1624, 1503, 1784, 1113, 1296, 1297, 646],  
[1572, 1561, 1496, 1746, 1678, 1438, 1025, 1232, 1281, 928],  
[1258, 1104, 1684, 1781, 841, 1268, 1189, 1186, 1185, 1564],  
[903, 903, 1624, 1871, 2472, 2161, 1850, 2280, 2593, 686],  
[597, 597, 597, 1361, 1619, 2026, 852, 0, 159, 904],  
[2040, 1397, 1254, 2386, 2045, 1941, 1082, 1463, 1028, 1331]])
```

```
In [55]: Points[0]
```

```
Out[55]: array([2832, 2430, 2323, 2201, 1970, 2078, 1616, 2133, 83, 782])
```

In [56]: Points

```
Out[56]: array([[2832, 2430, 2323, 2201, 1970, 2078, 1616, 2133, 83, 782],
 [1653, 1426, 1779, 1688, 1619, 1312, 1129, 1170, 1245, 1154],
 [2478, 2132, 2250, 2304, 2258, 2111, 1683, 2036, 2089, 1743],
 [2122, 1881, 1978, 1504, 1943, 1970, 1245, 1920, 2112, 966],
 [1292, 1443, 1695, 1624, 1503, 1784, 1113, 1296, 1297, 646],
 [1572, 1561, 1496, 1746, 1678, 1438, 1025, 1232, 1281, 928],
 [1258, 1104, 1684, 1781, 841, 1268, 1189, 1186, 1185, 1564],
 [903, 903, 1624, 1871, 2472, 2161, 1850, 2280, 2593, 686],
 [597, 597, 597, 1361, 1619, 2026, 852, 0, 159, 904],
 [2040, 1397, 1254, 2386, 2045, 1941, 1082, 1463, 1028, 1331]])
```

In [57]: Points[6,1]

```
Out[57]: 1104
```

In [58]: Points[3:6]

```
Out[58]: array([[2122, 1881, 1978, 1504, 1943, 1970, 1245, 1920, 2112, 966],
 [1292, 1443, 1695, 1624, 1503, 1784, 1113, 1296, 1297, 646],
 [1572, 1561, 1496, 1746, 1678, 1438, 1025, 1232, 1281, 928]])
```

In [59]: Points

```
Out[59]: array([[2832, 2430, 2323, 2201, 1970, 2078, 1616, 2133, 83, 782],
 [1653, 1426, 1779, 1688, 1619, 1312, 1129, 1170, 1245, 1154],
 [2478, 2132, 2250, 2304, 2258, 2111, 1683, 2036, 2089, 1743],
 [2122, 1881, 1978, 1504, 1943, 1970, 1245, 1920, 2112, 966],
 [1292, 1443, 1695, 1624, 1503, 1784, 1113, 1296, 1297, 646],
 [1572, 1561, 1496, 1746, 1678, 1438, 1025, 1232, 1281, 928],
 [1258, 1104, 1684, 1781, 841, 1268, 1189, 1186, 1185, 1564],
 [903, 903, 1624, 1871, 2472, 2161, 1850, 2280, 2593, 686],
 [597, 597, 597, 1361, 1619, 2026, 852, 0, 159, 904],
 [2040, 1397, 1254, 2386, 2045, 1941, 1082, 1463, 1028, 1331]])
```

In [60]: Points[-6,-1]

```
Out[60]: 646
```

In [61]: dict1={'key1':'val1','key2':'val2','key3':'val3'}

In [62]: dict1

```
Out[62]: {'key1': 'val1', 'key2': 'val2', 'key3': 'val3'}
```

In [64]: dict1['key2']

```
Out[64]: 'val2'
```

In [65]: dict2={'bang':2,'hyd':'we are hear','pune':True}

In [66]: dict2

```
Out[66]: {'bang': 2, 'hyd': 'we are hear', 'pune': True}
```

In [67]: dict3={'Germany':'I have been here','France':2,'Spain':True}

```
In [68]: dict3
```

```
Out[68]: {'Germany': 'I have been here', 'France': 2, 'Spain': True}
```

```
In [69]: dict3['Germany']
```

```
Out[69]: 'I have been here'
```

```
In [70]: dict3[2]
```

```
-----  
KeyError  
Cell In[70], line 1  
----> 1 dict3[2]
```

```
Traceback (most recent call last)
```

```
KeyError: 2
```

```
In [71]: dict3[True]
```

```
-----  
KeyError  
Cell In[71], line 1  
----> 1 dict3[True]
```

```
Traceback (most recent call last)
```

```
KeyError: True
```

```
In [72]: dict3['Spain']
```

```
Out[72]: True
```

```
In [73]: Games
```

```
Out[73]: array([[80, 77, 82, 82, 73, 82, 58, 78, 6, 35],  
                [82, 57, 82, 79, 76, 72, 60, 72, 79, 80],  
                [79, 78, 75, 81, 76, 79, 62, 76, 77, 69],  
                [80, 65, 77, 66, 69, 77, 55, 67, 77, 40],  
                [82, 82, 82, 79, 82, 78, 54, 76, 71, 41],  
                [70, 69, 67, 77, 70, 77, 57, 74, 79, 44],  
                [78, 64, 80, 78, 45, 80, 60, 70, 62, 82],  
                [35, 35, 80, 74, 82, 78, 66, 81, 81, 27],  
                [40, 40, 40, 81, 78, 81, 39, 0, 10, 51],  
                [75, 51, 51, 79, 77, 76, 49, 69, 54, 62]])
```

```
In [74]: Pdict
```

```
Out[74]: {'Sachin': 0,  
          'Rahul': 1,  
          'Smith': 2,  
          'Sami': 3,  
          'Pollard': 4,  
          'Morris': 5,  
          'Samson': 6,  
          'Dhoni': 7,  
          'Kohli': 8,  
          'Sky': 9}
```

```
In [75]: Pdict['Sachin']
```

```
Out[75]: 0
```

```
In [76]: Sdict
```

```
Out[76]: {'2010': 0,
           '2011': 1,
           '2012': 2,
           '2013': 3,
           '2014': 4,
           '2015': 5,
           '2016': 6,
           '2017': 7,
           '2018': 8,
           '2019': 9}
```

```
In [77]: Sdict[8]
```

```
-----  
KeyError  
Cell In[77], line 1  
----> 1 Sdict[8]
```

```
Traceback (most recent call last)
```

```
KeyError: 8
```

```
In [78]: Sdict['2018']
```

```
Out[78]: 8
```

```
In [79]: Games[0]
```

```
Out[79]: array([80, 77, 82, 82, 73, 82, 58, 78, 6, 35])
```

```
In [80]: Games
```

```
Out[80]: array([[80, 77, 82, 82, 73, 82, 58, 78, 6, 35],
                [82, 57, 82, 79, 76, 72, 60, 72, 79, 80],
                [79, 78, 75, 81, 76, 79, 62, 76, 77, 69],
                [80, 65, 77, 66, 69, 77, 55, 67, 77, 40],
                [82, 82, 82, 79, 82, 78, 54, 76, 71, 41],
                [70, 69, 67, 77, 70, 77, 57, 74, 79, 44],
                [78, 64, 80, 78, 45, 80, 60, 70, 62, 82],
                [35, 35, 80, 74, 82, 78, 66, 81, 81, 27],
                [40, 40, 40, 81, 78, 81, 39, 0, 10, 51],
                [75, 51, 51, 79, 77, 76, 49, 69, 54, 62]])
```

```
In [81]: Pdict['Rahul']
```

```
Out[81]: 1
```

```
In [82]: Games[1]
```

```
Out[82]: array([82, 57, 82, 79, 76, 72, 60, 72, 79, 80])
```

```
In [83]: Games[Pdict['Rahul']]
```

```
Out[83]: array([82, 57, 82, 79, 76, 72, 60, 72, 79, 80])
```

```
In [84]: Points
```

```
Out[84]: array([[2832, 2430, 2323, 2201, 1970, 2078, 1616, 2133, 83, 782],  
 [1653, 1426, 1779, 1688, 1619, 1312, 1129, 1170, 1245, 1154],  
 [2478, 2132, 2250, 2304, 2258, 2111, 1683, 2036, 2089, 1743],  
 [2122, 1881, 1978, 1504, 1943, 1970, 1245, 1920, 2112, 966],  
 [1292, 1443, 1695, 1624, 1503, 1784, 1113, 1296, 1297, 646],  
 [1572, 1561, 1496, 1746, 1678, 1438, 1025, 1232, 1281, 928],  
 [1258, 1104, 1684, 1781, 841, 1268, 1189, 1186, 1185, 1564],  
 [ 903, 903, 1624, 1871, 2472, 2161, 1850, 2280, 2593, 686],  
 [ 597, 597, 597, 1361, 1619, 2026, 852, 0, 159, 904],  
 [2040, 1397, 1254, 2386, 2045, 1941, 1082, 1463, 1028, 1331]])
```

In [85]: Salary

```
Out[85]: array([[15946875, 17718750, 19490625, 21262500, 23034375, 24806250,  
 25244493, 27849149, 30453805, 23500000],  
 [12000000, 12744189, 13488377, 14232567, 14976754, 16324500,  
 18038573, 19752645, 21466718, 23180790],  
 [ 4621800, 5828090, 13041250, 14410581, 15779912, 14500000,  
 16022500, 17545000, 19067500, 20644400],  
 [ 3713640, 4694041, 13041250, 14410581, 15779912, 17149243,  
 18518574, 19450000, 22407474, 22458000],  
 [ 4493160, 4806720, 6061274, 13758000, 15202590, 16647180,  
 18091770, 19536360, 20513178, 21436271],  
 [ 3348000, 4235220, 12455000, 14410581, 15779912, 14500000,  
 16022500, 17545000, 19067500, 20644400],  
 [ 3144240, 3380160, 3615960, 4574189, 13520500, 14940153,  
 16359805, 17779458, 18668431, 20068563],  
 [ 0, 0, 4171200, 4484040, 4796880, 6053663,  
 15506632, 16669630, 17832627, 18995624],  
 [ 0, 0, 0, 4822800, 5184480, 5546160,  
 6993708, 16402500, 17632688, 18862875],  
 [ 3031920, 3841443, 13041250, 14410581, 15779912, 14200000,  
 15691000, 17182000, 18673000, 15000000]])
```

In [86]: Salary[2,4]

```
Out[86]: 15779912
```

In [87]: Salary

```
Out[87]: array([[15946875, 17718750, 19490625, 21262500, 23034375, 24806250,
   25244493, 27849149, 30453805, 23500000],
   [12000000, 12744189, 13488377, 14232567, 14976754, 16324500,
   18038573, 19752645, 21466718, 23180790],
   [ 4621800,  5828090, 13041250, 14410581, 15779912, 14500000,
   16022500, 17545000, 19067500, 20644400],
   [ 3713640,  4694041, 13041250, 14410581, 15779912, 17149243,
   18518574, 19450000, 22407474, 22458000],
   [ 4493160,  4806720,  6061274, 13758000, 15202590, 16647180,
   18091770, 19536360, 20513178, 21436271],
   [ 3348000,  4235220, 12455000, 14410581, 15779912, 14500000,
   16022500, 17545000, 19067500, 20644400],
   [ 3144240,  3380160,  3615960,  4574189, 13520500, 14940153,
   16359805, 17779458, 18668431, 20068563],
   [      0,         0, 4171200, 4484040, 4796880, 6053663,
   15506632, 16669630, 17832627, 18995624],
   [      0,         0,         0, 4822800, 5184480, 5546160,
   6993708, 16402500, 17632688, 18862875],
   [ 3031920,  3841443, 13041250, 14410581, 15779912, 14200000,
   15691000, 17182000, 18673000, 15000000]])
```

In [88]: Games['Rahul\_G']

```
-----
IndexError                                                 Traceback (most recent call last)
Cell In[88], line 1
----> 1 Games['Rahul_G']


```

```
IndexError: only integers, slices (`:`), ellipsis (`...`), numpy.newaxis (`None`) and integer or boolean arrays are valid indices
```

In [89]: Games[Rahul\_G]

```
-----
IndexError                                                 Traceback (most recent call last)
Cell In[89], line 1
----> 1 Games[Rahul_G]


```

```
IndexError: index 82 is out of bounds for axis 0 with size 10
```

In [90]: Games[1]

Out[90]: array([82, 57, 82, 79, 76, 72, 60, 72, 79, 80])

In [91]: Salary[Pdict['Sky']][Sdict['2019']]

Out[91]: 15000000

In [92]: Salary[Pdict['Sky']]

Out[92]: array([ 3031920, 3841443, 13041250, 14410581, 15779912, 14200000,
 15691000, 17182000, 18673000, 15000000])

In [94]: Salary[[Pdict['Sky']]:[Sdict['2019']]]

```

-----  

TypeError                                     Traceback (most recent call last)  

Cell In[94], line 1  

----> 1 Salary[[Pdict['Sky']]:[Sdict['2019']]])  

TypeError: slice indices must be integers or None or have an __index__ method

```

In [97]: `Salary[['Sky']:[ '2019']]`

```

-----  

TypeError                                     Traceback (most recent call last)  

Cell In[97], line 1  

----> 1 Salary[['Sky']:[ '2019']]  

TypeError: slice indices must be integers or None or have an __index__ method

```

In [102...]: `Salary[Pdict['Sky']][Sdict['2019']]`

Out[102...]: 15000000

In [103...]: `Salary`

```

Out[103...]: array([[15946875, 17718750, 19490625, 21262500, 23034375, 24806250,
       25244493, 27849149, 30453805, 23500000],
      [12000000, 12744189, 13488377, 14232567, 14976754, 16324500,
       18038573, 19752645, 21466718, 23180790],
      [ 4621800,  5828090, 13041250, 14410581, 15779912, 14500000,
       16022500, 17545000, 19067500, 20644400],
      [ 3713640,  4694041, 13041250, 14410581, 15779912, 17149243,
       18518574, 19450000, 22407474, 22458000],
      [ 4493160,  4806720,  6061274, 13758000, 15202590, 16647180,
       18091770, 19536360, 20513178, 21436271],
      [ 3348000,  4235220, 12455000, 14410581, 15779912, 14500000,
       16022500, 17545000, 19067500, 20644400],
      [ 3144240,  3380160, 3615960, 4574189, 13520500, 14940153,
       16359805, 17779458, 18668431, 20068563],
      [ 0, 0, 4171200, 4484040, 4796880, 6053663,
       15506632, 16669630, 17832627, 18995624],
      [ 0, 0, 4822800, 5184480, 5546160,
       6993708, 16402500, 17632688, 18862875],
      [ 3031920, 3841443, 13041250, 14410581, 15779912, 14200000,
       15691000, 17182000, 18673000, 15000000]])
```

In [104...]: `Games`

```

Out[104...]: array([[80, 77, 82, 82, 73, 82, 58, 78, 6, 35],
       [82, 57, 82, 79, 76, 72, 60, 72, 79, 80],
       [79, 78, 75, 81, 76, 79, 62, 76, 77, 69],
       [80, 65, 77, 66, 69, 77, 55, 67, 77, 40],
       [82, 82, 82, 79, 82, 78, 54, 76, 71, 41],
       [70, 69, 67, 77, 70, 77, 57, 74, 79, 44],
       [78, 64, 80, 78, 45, 80, 60, 70, 62, 82],
       [35, 35, 80, 74, 82, 78, 66, 81, 81, 27],
       [40, 40, 40, 81, 78, 81, 39, 0, 10, 51],
       [75, 51, 51, 79, 77, 76, 49, 69, 54, 62]])
```

In [105...]: `Salary/Games`

```
C:\Users\DELL\AppData\Local\Temp\ipykernel_12396\3709746658.py:1: RuntimeWarning:
divide by zero encountered in divide
    Salary/Games
```

```
Out[105... array([[ 199335.9375 ,  230113.63636364,  237690.54878049,
   259298.7804878 ,  315539.38356164,  302515.24390244,
   435249.87931034,  357040.37179487,  5075634.16666667,
   671428.57142857],
 [ 146341.46341463,  223582.26315789,  164492.40243902,
  180159.07594937,  197062.55263158,  226729.16666667,
  300642.88333333,  274342.29166667,  271730.60759494,
  289759.875     ],
 [ 58503.79746835,  74719.1025641 ,  173883.33333333,
  177908.40740741,  207630.42105263,  183544.30379747,
  258427.41935484,  230855.26315789,  247629.87012987,
  299194.20289855],
 [ 46420.5       ,  72216.01538462,  169366.88311688,
  218342.13636364,  228694.37681159,  222717.44155844,
  336701.34545455,  290298.50746269,  291006.15584416,
  561450.        ],
 [ 54794.63414634,  58618.53658537,  73917.97560976,
  174151.89873418,  185397.43902439,  213425.38461538,
  335032.77777778,  257057.36842105,  288918.        ,
  522835.87804878],
 [ 47828.57142857,  61380.        ,  185895.52238806,
  187150.4025974 ,  225427.31428571,  188311.68831169,
  281096.49122807,  237094.59459459,  241360.75949367,
  469190.90909091],
 [ 40310.76923077,  52815.        ,  45199.5       ,
  58643.44871795,  300455.55555556,  186751.9125     ,
  272663.41666667,  253992.25714286,  301103.72580645,
  244738.57317073],
 [ 0.        ,  0.        ,  52140.        ,
  60595.13513514,  58498.53658537,  77611.06410256,
  234948.96969697,  205797.90123457,  220155.88888889,
  703541.62962963],
 [ 0.        ,  0.        ,  0.        ,
  59540.74074074,  66467.69230769,  68471.11111111,
  179325.84615385,  inf,  1763268.8       ,
  369860.29411765],
 [ 40425.6      ,  75322.41176471,  255710.78431373,
  182412.41772152,  204933.92207792,  186842.10526316,
  320224.48979592,  249014.49275362,  345796.2962963 ,
  241935.48387097]])
```

```
In [106... np.round(Salary/Games)
```

```
C:\Users\DELL\AppData\Local\Temp\ipykernel_12396\3232172828.py:1: RuntimeWarning:
divide by zero encountered in divide
    np.round(Salary/Games)
```

```
Out[106... array([[ 199336.,  230114.,  237691.,  259299.,  315539.,  302515.,
   435250.,  357040.,  5075634.,  671429.],
   [ 146341.,  223582.,  164492.,  180159.,  197063.,  226729.,
   300643.,  274342.,  271731.,  289760.],
   [ 58504.,  74719.,  173883.,  177908.,  207630.,  183544.,
   258427.,  230855.,  247630.,  299194.],
   [ 46420.,  72216.,  169367.,  218342.,  228694.,  222717.,
   336701.,  290299.,  291006.,  561450.],
   [ 54795.,  58619.,  73918.,  174152.,  185397.,  213425.,
   335033.,  257057.,  288918.,  522836.],
   [ 47829.,  61380.,  185896.,  187150.,  225427.,  188312.,
   281096.,  237095.,  241361.,  469191.],
   [ 40311.,  52815.,  45200.,  58643.,  300456.,  186752.,
   272663.,  253992.,  301104.,  244739.],
   [ 0.,  0.,  52140.,  60595.,  58499.,  77611.,
   234949.,  205798.,  220156.,  703542.],
   [ 0.,  0.,  0.,  59541.,  66468.,  68471.,
   179326.,  inf,  1763269.,  369860.],
   [ 40426.,  75322.,  255711.,  182412.,  204934.,  186842.,
   320224.,  249014.,  345796.,  241935.]])
```

In [107... np.round(Salary//Games)

```
C:\Users\DELL\AppData\Local\Temp\ipykernel_12396\3663165759.py:1: RuntimeWarning:
divide by zero encountered in floor_divide
np.round(Salary//Games)
```

```
Out[107... array([[ 199335,  230113,  237690,  259298,  315539,  302515,  435249,
   357040,  5075634,  671428],
   [ 146341,  223582,  164492,  180159,  197062,  226729,  300642,
   274342,  271730,  289759],
   [ 58503,  74719,  173883,  177908,  207630,  183544,  258427,
   230855,  247629,  299194],
   [ 46420,  72216,  169366,  218342,  228694,  222717,  336701,
   290298,  291006,  561450],
   [ 54794,  58618,  73917,  174151,  185397,  213425,  335032,
   257057,  288918,  522835],
   [ 47828,  61380,  185895,  187150,  225427,  188311,  281096,
   237094,  241360,  469190],
   [ 40310,  52815,  45199,  58643,  300455,  186751,  272663,
   253992,  301103,  244738],
   [ 0,  0,  52140,  60595,  58498,  77611,  234948,
   205797,  220155,  703541],
   [ 0,  0,  0,  59540,  66467,  68471,  179325,
   0,  1763268,  369860],
   [ 40425,  75322,  255710,  182412,  204933,  186842,  320224,
   249014,  345796,  241935]])
```

In [108... import warnings  
warnings.filterwarnings('ignore')

In [109... import numpy as np

In [110... import matplotlib.pyplot as plt

In [111... %matplotlib inline

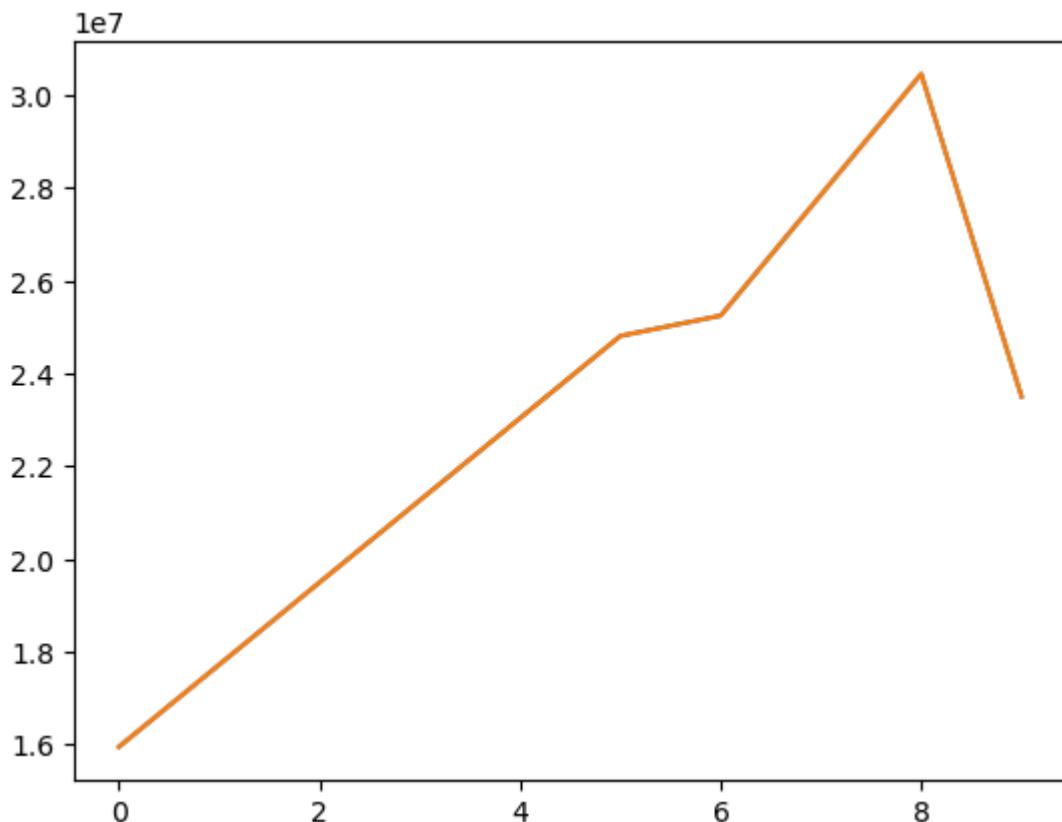
In [112... Salary

```
Out[112... array([[15946875, 17718750, 19490625, 21262500, 23034375, 24806250,
   25244493, 27849149, 30453805, 23500000],
   [12000000, 12744189, 13488377, 14232567, 14976754, 16324500,
   18038573, 19752645, 21466718, 23180790],
   [ 4621800,  5828090, 13041250, 14410581, 15779912, 14500000,
   16022500, 17545000, 19067500, 20644400],
   [ 3713640,  4694041, 13041250, 14410581, 15779912, 17149243,
   18518574, 19450000, 22407474, 22458000],
   [ 4493160,  4806720, 6061274, 13758000, 15202590, 16647180,
   18091770, 19536360, 20513178, 21436271],
   [ 3348000,  4235220, 12455000, 14410581, 15779912, 14500000,
   16022500, 17545000, 19067500, 20644400],
   [ 3144240,  3380160, 3615960, 4574189, 13520500, 14940153,
   16359805, 17779458, 18668431, 20068563],
   [      0,         0, 4171200, 4484040, 4796880, 6053663,
   15506632, 16669630, 17832627, 18995624],
   [      0,         0,         0, 4822800, 5184480, 5546160,
   6993708, 16402500, 17632688, 18862875],
   [ 3031920,  3841443, 13041250, 14410581, 15779912, 14200000,
   15691000, 17182000, 18673000, 15000000]])
```

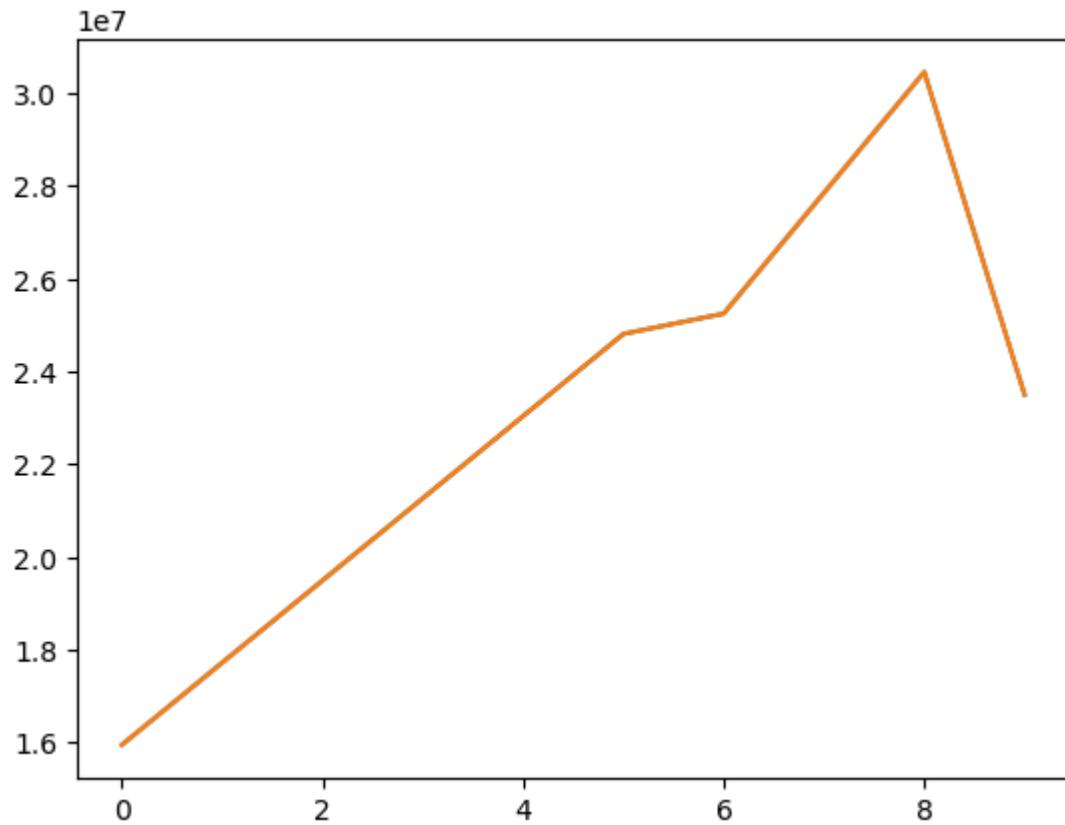
```
In [113... Salary[0]
```

```
Out[113... array([15946875, 17718750, 19490625, 21262500, 23034375, 24806250,
   25244493, 27849149, 30453805, 23500000])
```

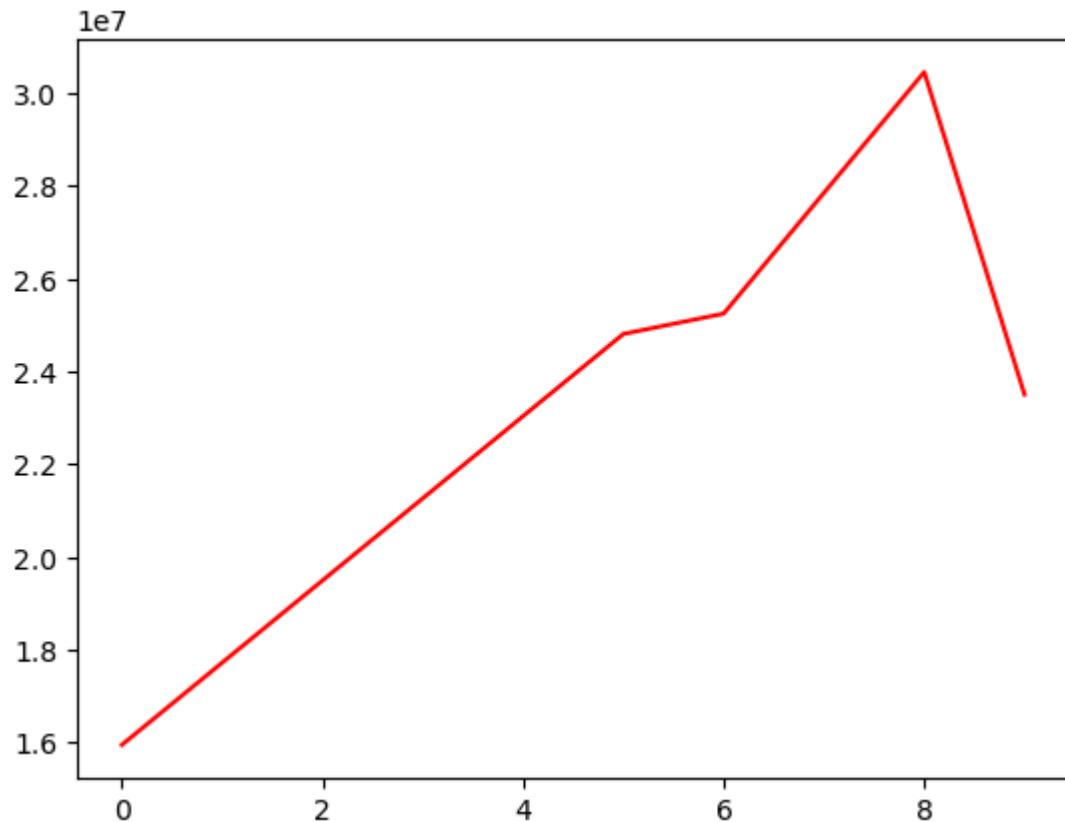
```
In [115... plt.plot(Salary[0])
plt.show()
```



```
In [117... plt.plot(Salary[0])
plt.show()
```

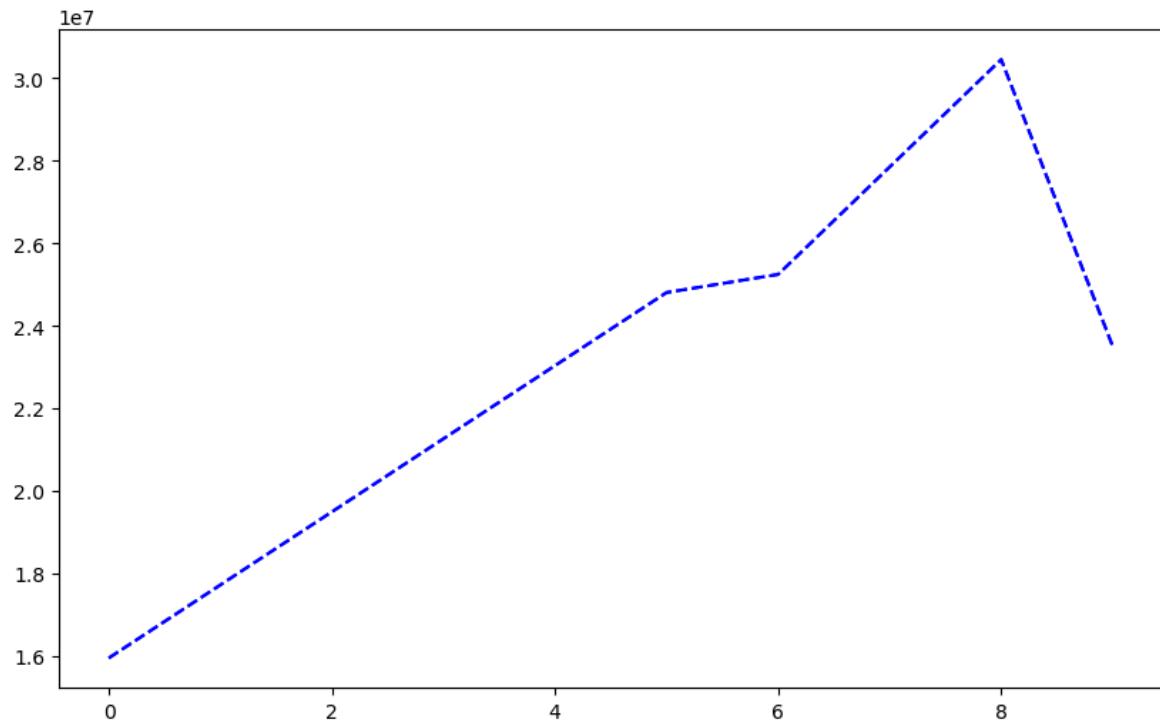


```
In [120]: plt.plot(Salary[0], c='red')
plt.show()
```



```
In [123]: %matplotlib inline
plt.rcParams['figure.figsize']=10,6
plt.show()
```

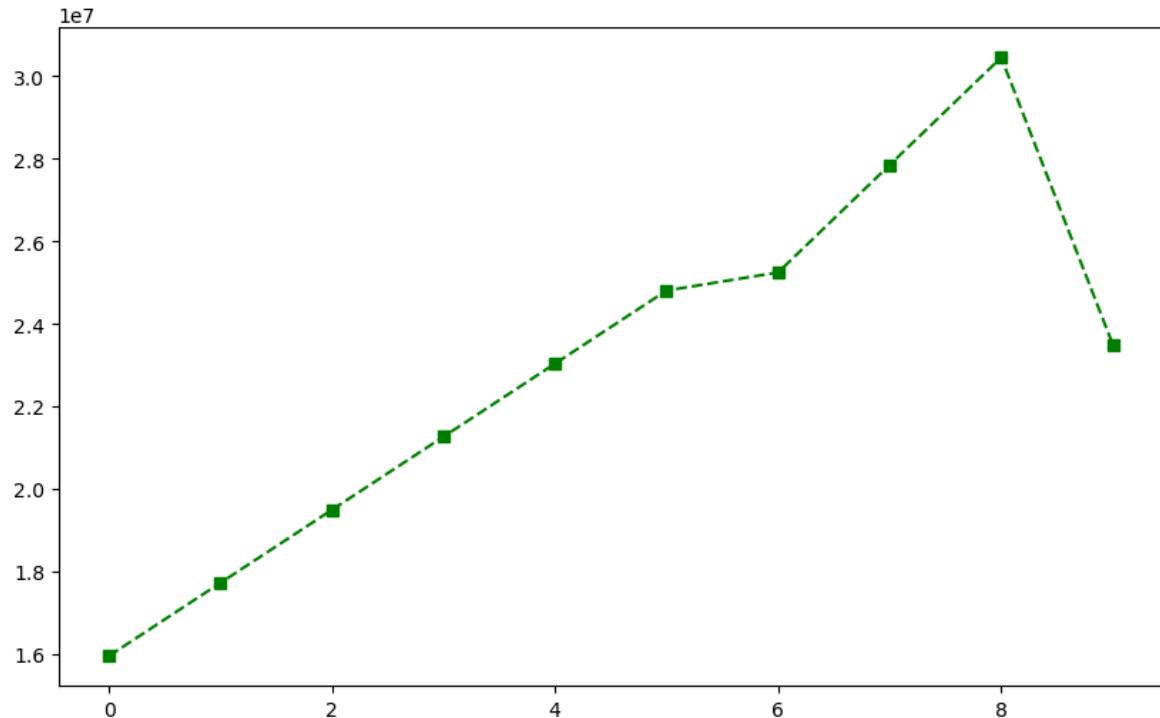
```
In [125... plt.plot(Salary[0],c='Blue',ls='dashed')  
plt.show()
```



```
In [126... plt.plot(Salary[0],c='Green',ls='--',marker='s')
```

```
Out[126... <matplotlib.lines.Line2D at 0x21b1892c770>]
```

```
In [127... plt.show()
```

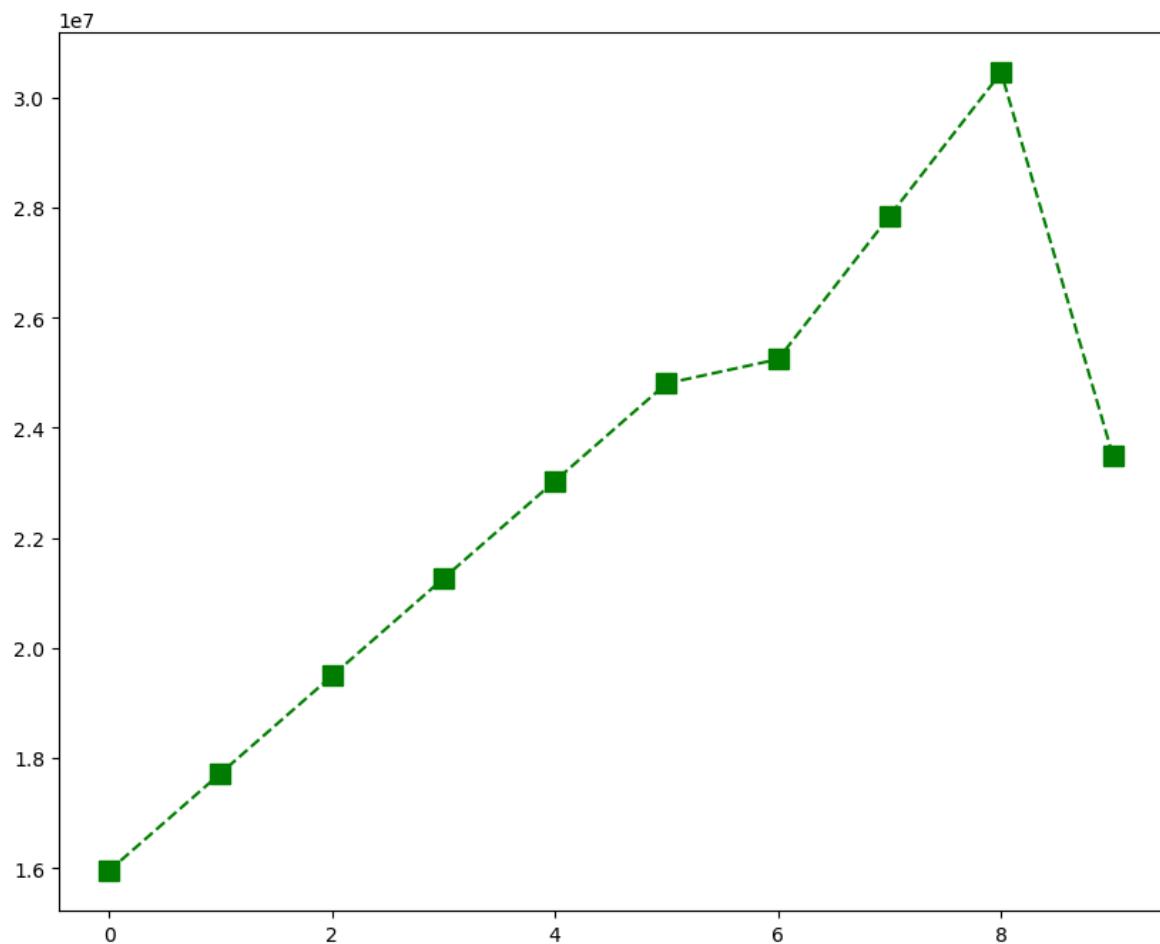


```
In [129... %matplotlib inline  
plt.rcParams['figure.figsize']=10,8
```

```
In [130... plt.plot(Salary[0],c='Green',ls='--',marker='s',ms=10)
```

```
Out[130... <matplotlib.lines.Line2D at 0x21b18945100>]
```

```
In [131... plt.show()
```



```
In [132... list(range(0,10))
```

```
Out[132... [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

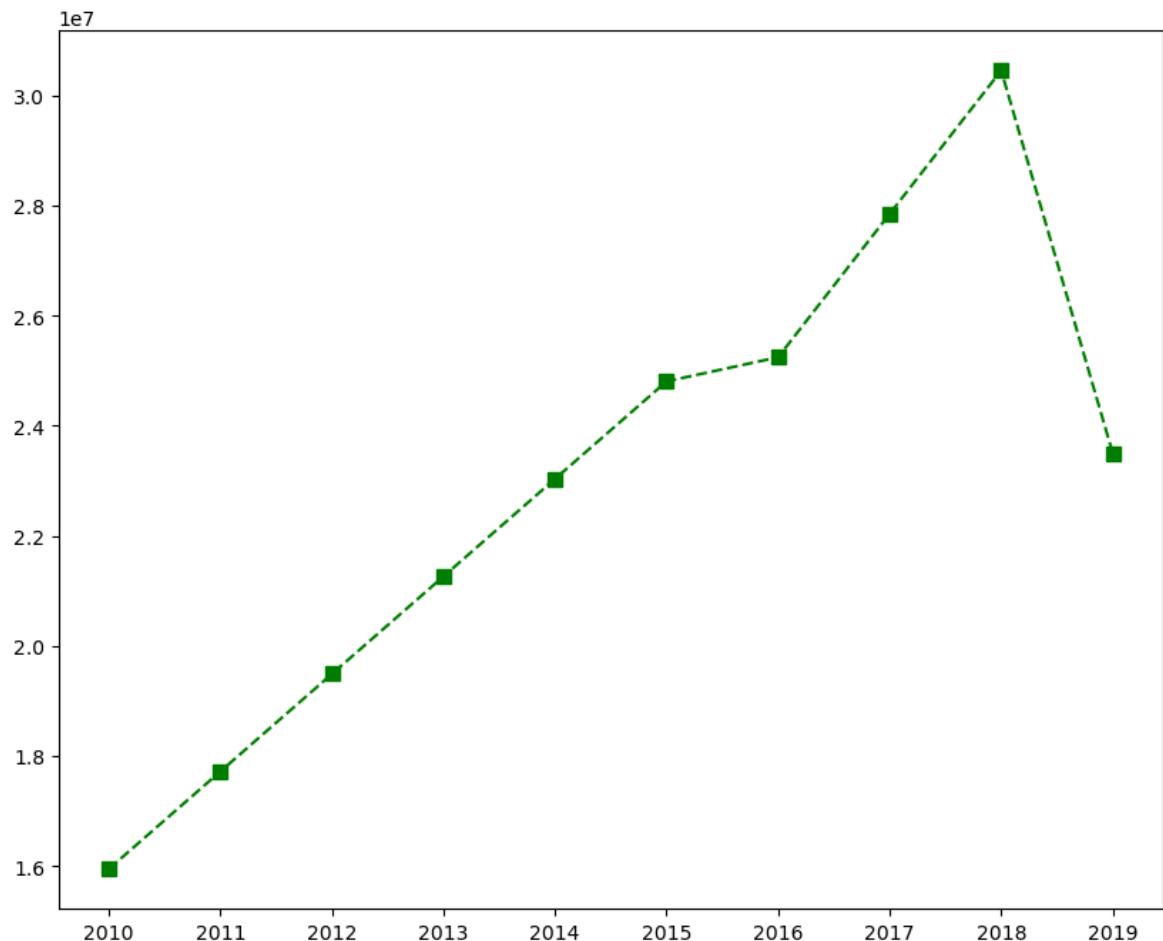
```
In [133... Sdict
```

```
Out[133... {'2010': 0,
            '2011': 1,
            '2012': 2,
            '2013': 3,
            '2014': 4,
            '2015': 5,
            '2016': 6,
            '2017': 7,
            '2018': 8,
            '2019': 9}
```

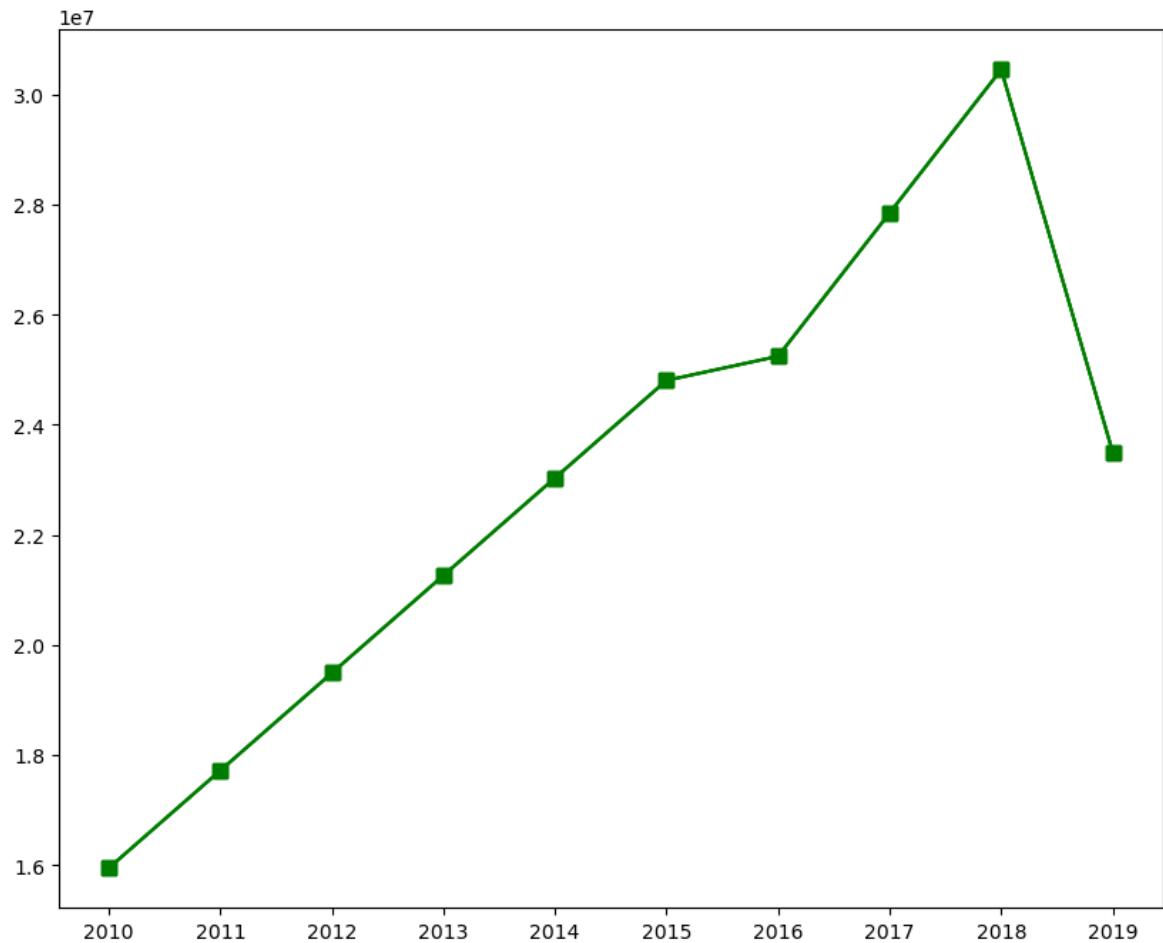
```
In [134... Pdict
```

```
Out[134... {'Sachin': 0,  
 'Rahul': 1,  
 'Smith': 2,  
 'Sami': 3,  
 'Pollard': 4,  
 'Morris': 5,  
 'Samson': 6,  
 'Dhoni': 7,  
 'Kohli': 8,  
 'Sky': 9}
```

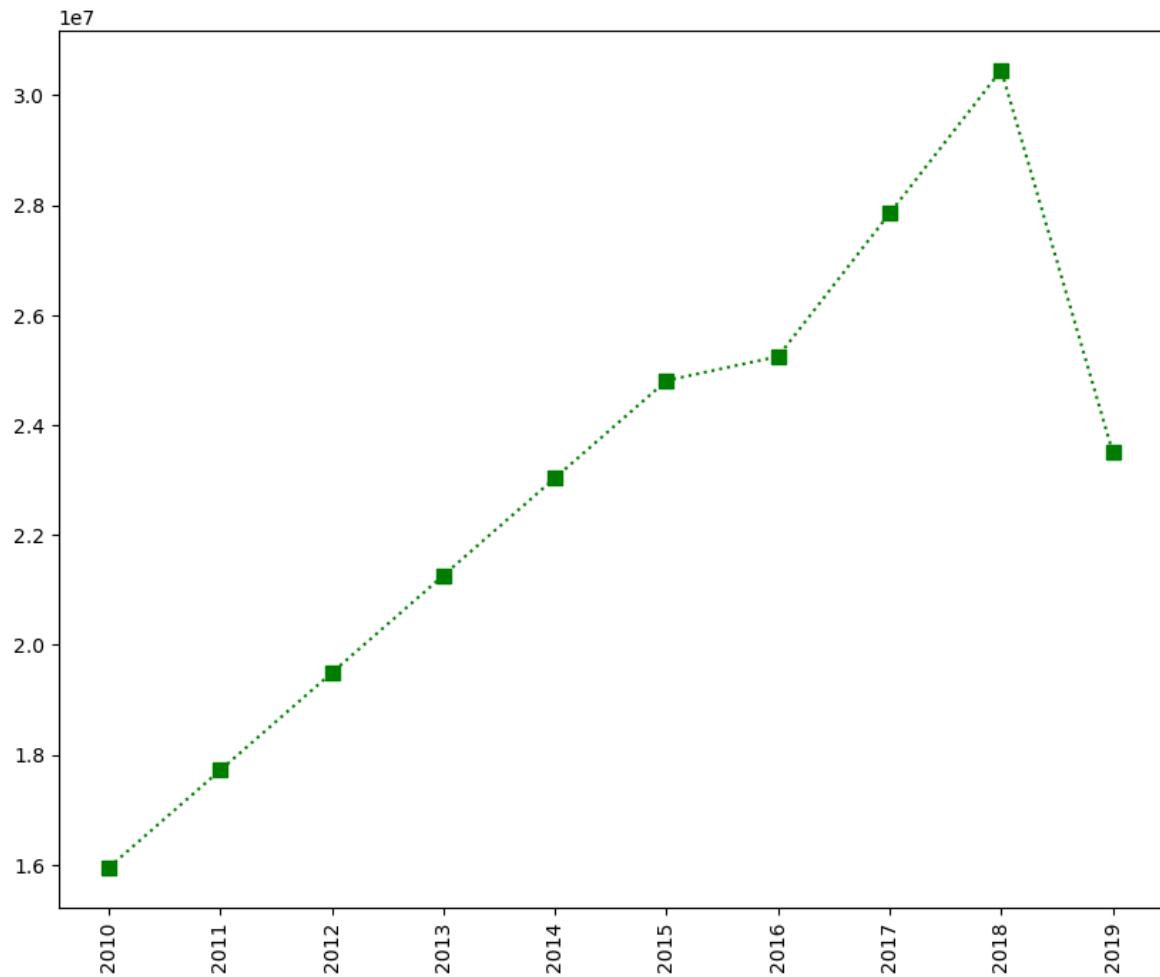
```
In [135... plt.plot(Salary[0],c='Green',ls='--',marker='s',ms=7)  
plt.xticks(list(range(0,10)),Seasons)  
plt.show()
```



```
In [139... plt.plot(Salary[0],c='Green',marker='s',ms=7)  
plt.xticks(list(range(0,10)),Seasons)  
plt.show()
```



```
In [143...]: plt.plot(Salary[0], c='Green', ls=':', marker='s', ms=7, label=Players[0])
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')
plt.show()
```

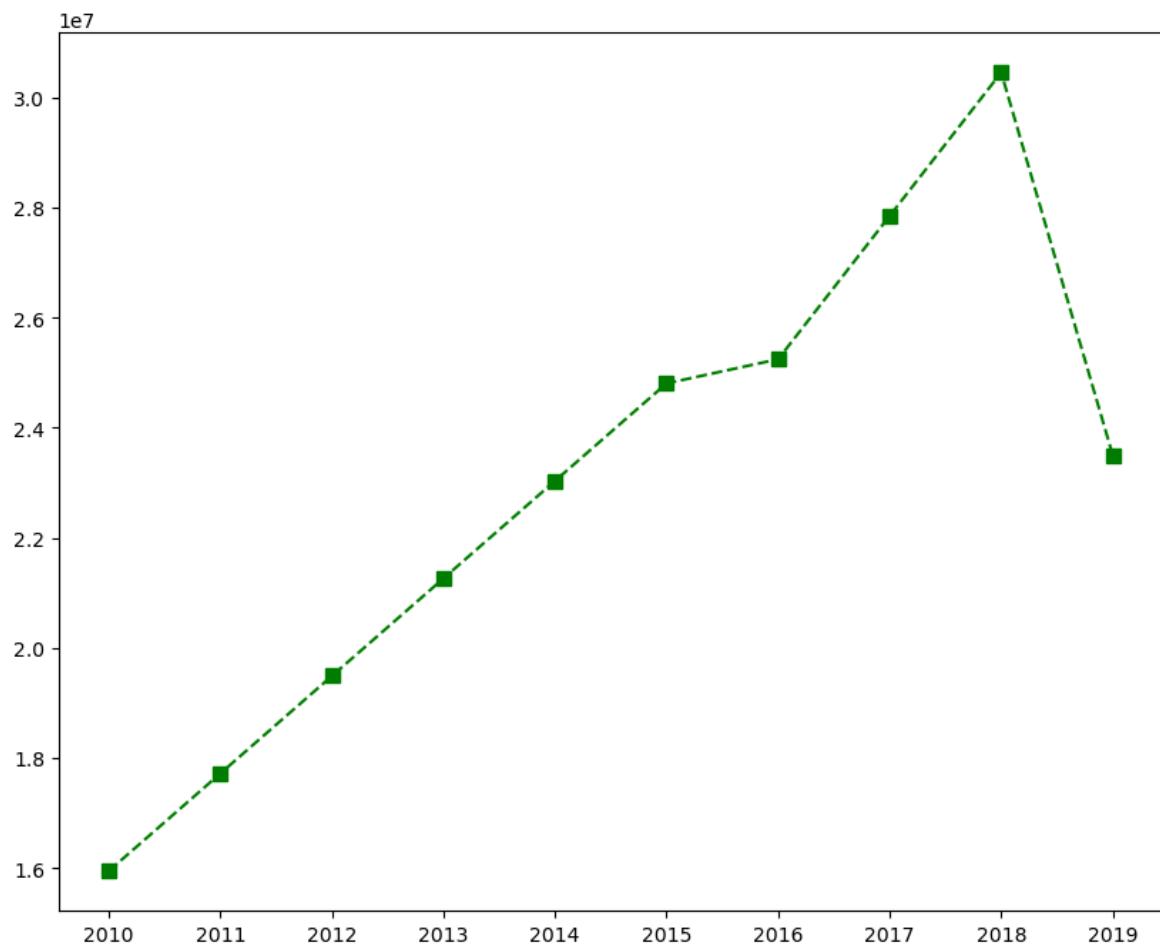


In [144...]: Games

```
Out[144...]: array([[80, 77, 82, 82, 73, 82, 58, 78, 6, 35],
 [82, 57, 82, 79, 76, 72, 60, 72, 79, 80],
 [79, 78, 75, 81, 76, 79, 62, 76, 77, 69],
 [80, 65, 77, 66, 69, 77, 55, 67, 77, 40],
 [82, 82, 82, 79, 82, 78, 54, 76, 71, 41],
 [70, 69, 67, 77, 70, 77, 57, 74, 79, 44],
 [78, 64, 80, 78, 45, 80, 60, 70, 62, 82],
 [35, 35, 80, 74, 82, 78, 66, 81, 81, 27],
 [40, 40, 40, 81, 78, 81, 39, 0, 10, 51],
 [75, 51, 51, 79, 77, 76, 49, 69, 54, 62]])
```

In [145...]:

```
plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.xticks(list(range(0,10)), Seasons, rotation='horizontal')
plt.show()
```



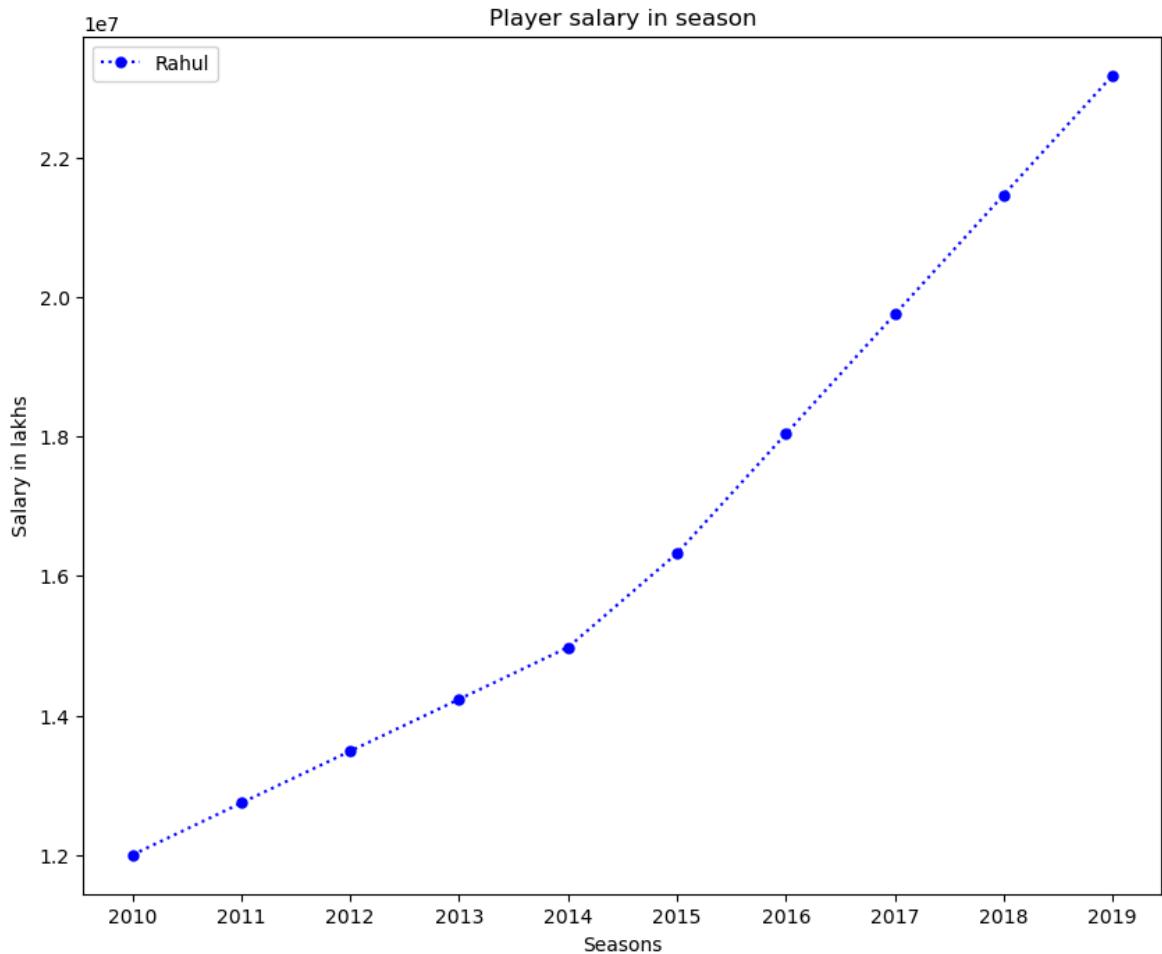
```
In [147...]: Salary[0]
```

```
Out[147...]: array([15946875, 17718750, 19490625, 21262500, 23034375, 24806250,
       25244493, 27849149, 30453805, 23500000])
```

```
In [148...]: Salary[1]
```

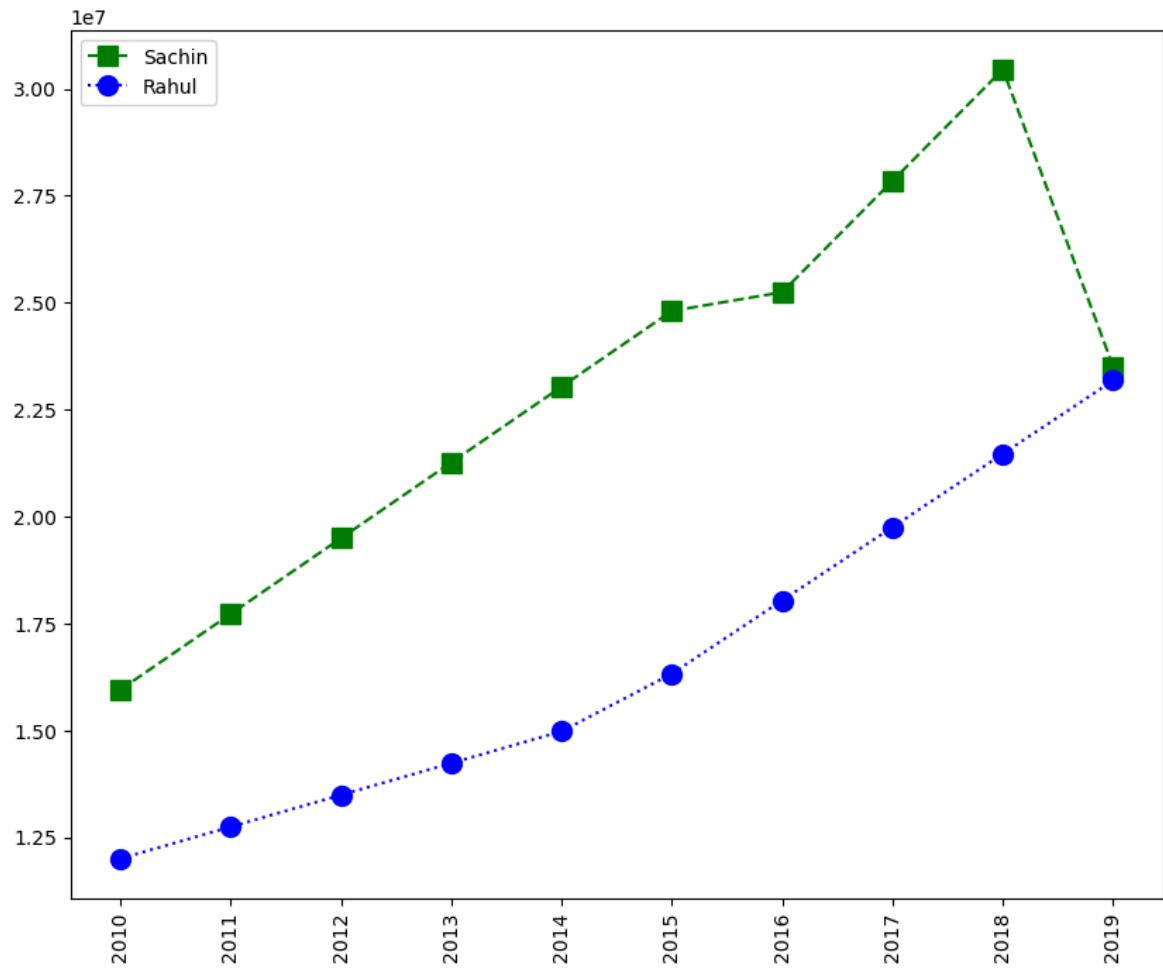
```
Out[148...]: array([12000000, 12744189, 13488377, 14232567, 14976754, 16324500,
       18038573, 19752645, 21466718, 23180790])
```

```
In [164...]: plt.plot(Salary[1], c='Blue', ls=':', marker='o', ms=5, label=Players[1])
plt.xticks(list(range(0,10)), Seasons)
plt.xlabel('Seasons')
plt.ylabel('Salary in lakhs')
plt.title('Player salary in season')
plt.legend()
plt.show()
```



In [176]:

```
plt.plot(Salary[0],c='Green',ls='--',marker='s',ms=10,label=Players[0])
plt.plot(Salary[1],c='blue',ls=':',marker='o',ms=10,label=Players[1])
plt.xticks(list(range(0,10)),Seasons,rotation='vertical')
plt.legend(loc='upper left')
plt.show()
```

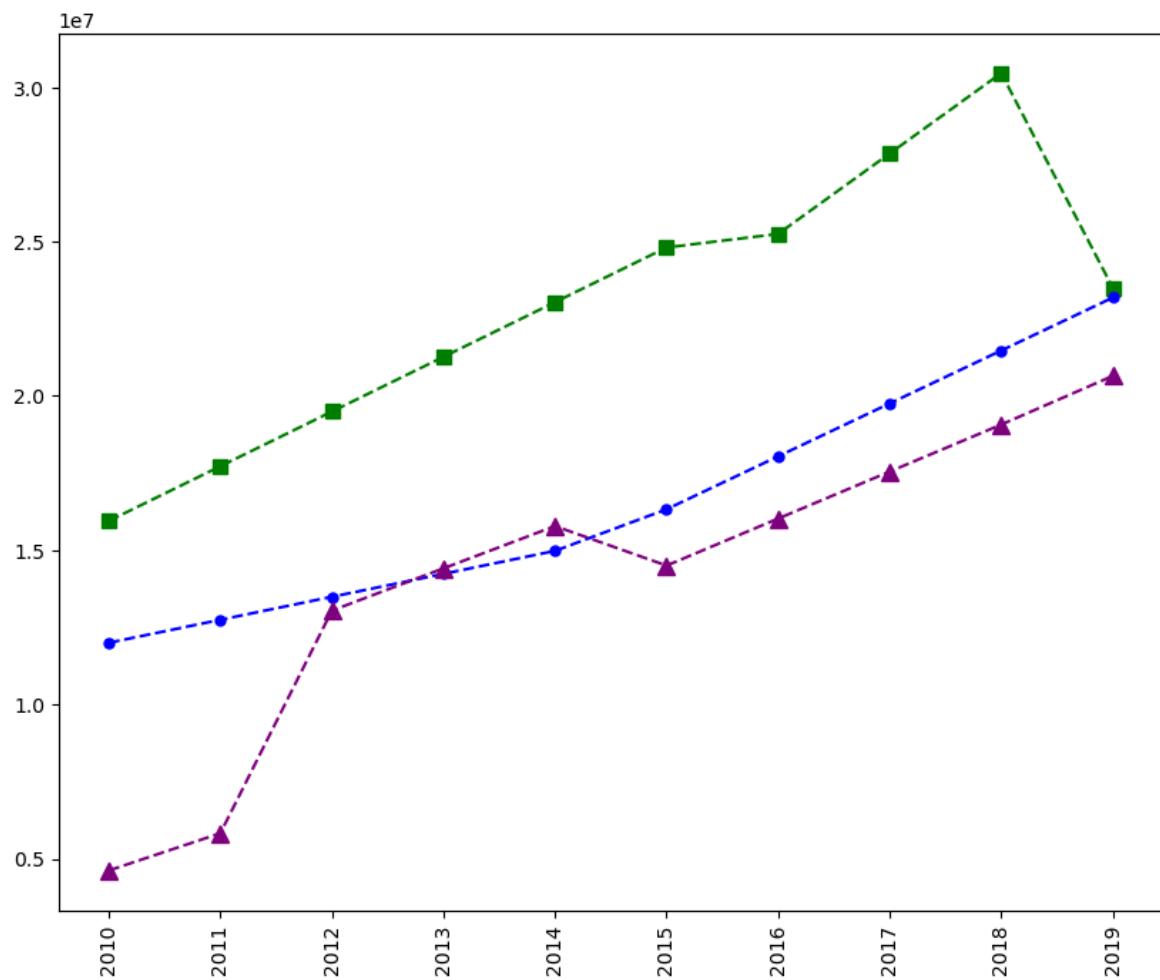


In [177]:

```
plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])

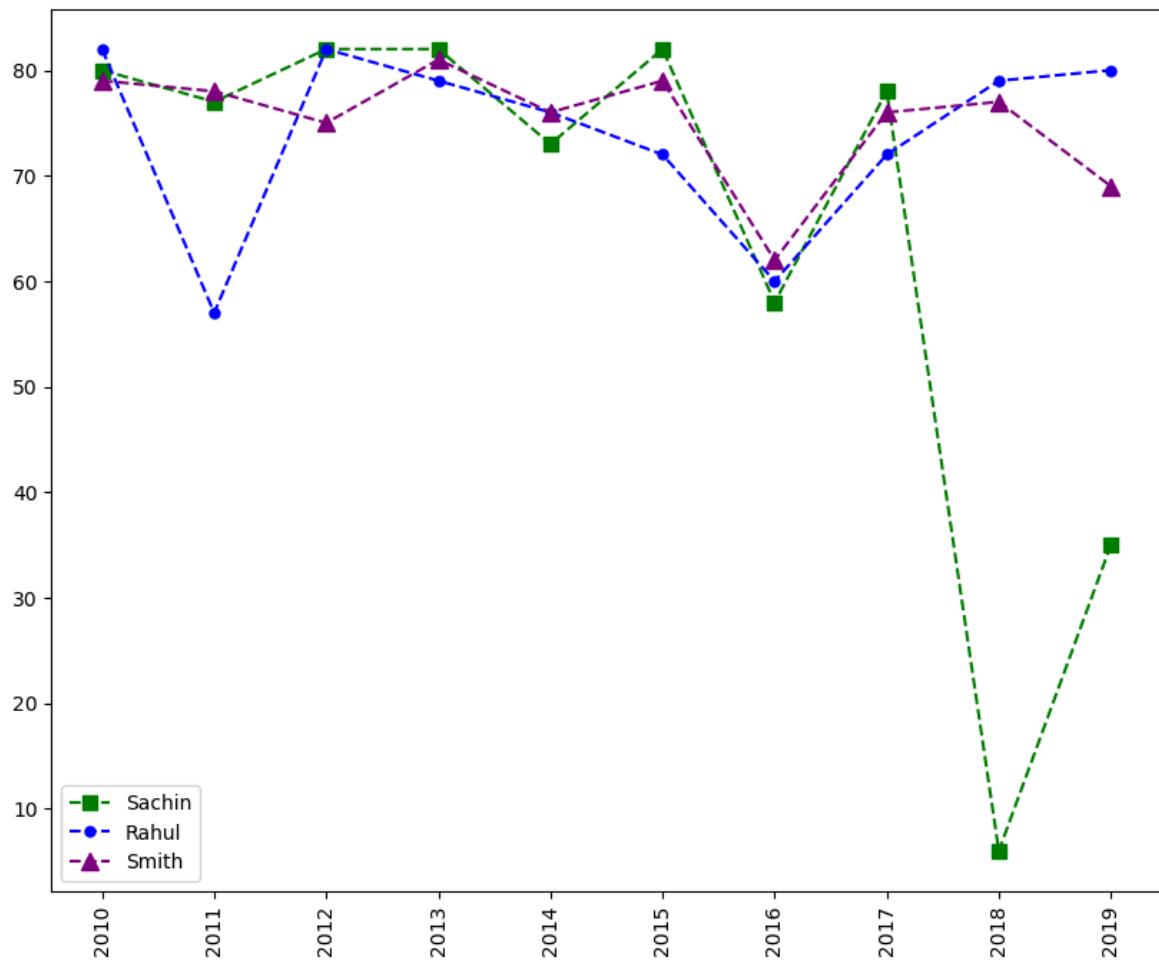
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()
```



```
In [180]: plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Games[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])

plt.xticks(list(range(0,10)), Seasons, rotation='vertical')
plt.legend()
plt.show()
```

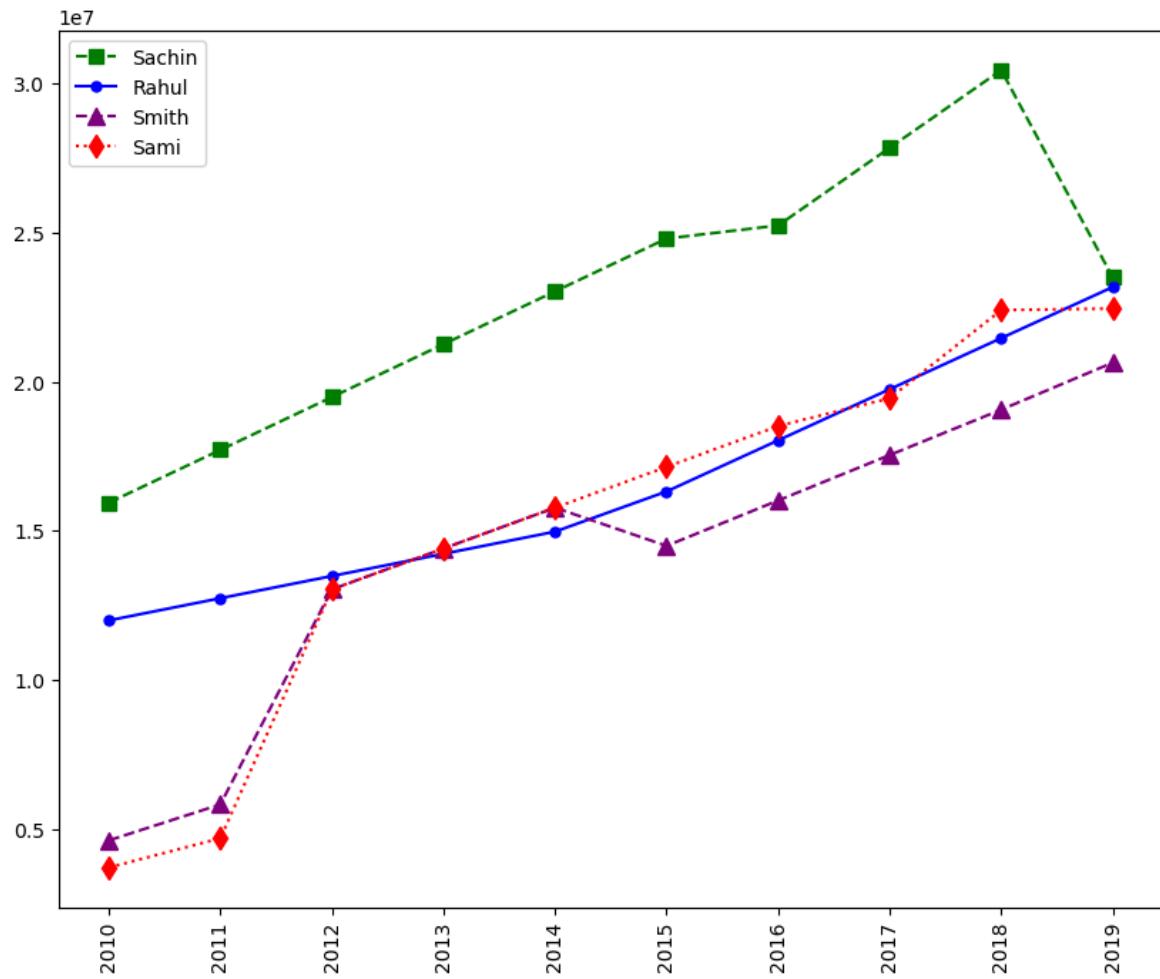


In [181...]

```
plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = ':', marker = 'd', ms = 8, label = Players[3])

plt.xticks(list(range(0,10)), Seasons, rotation='vertical')
plt.legend()

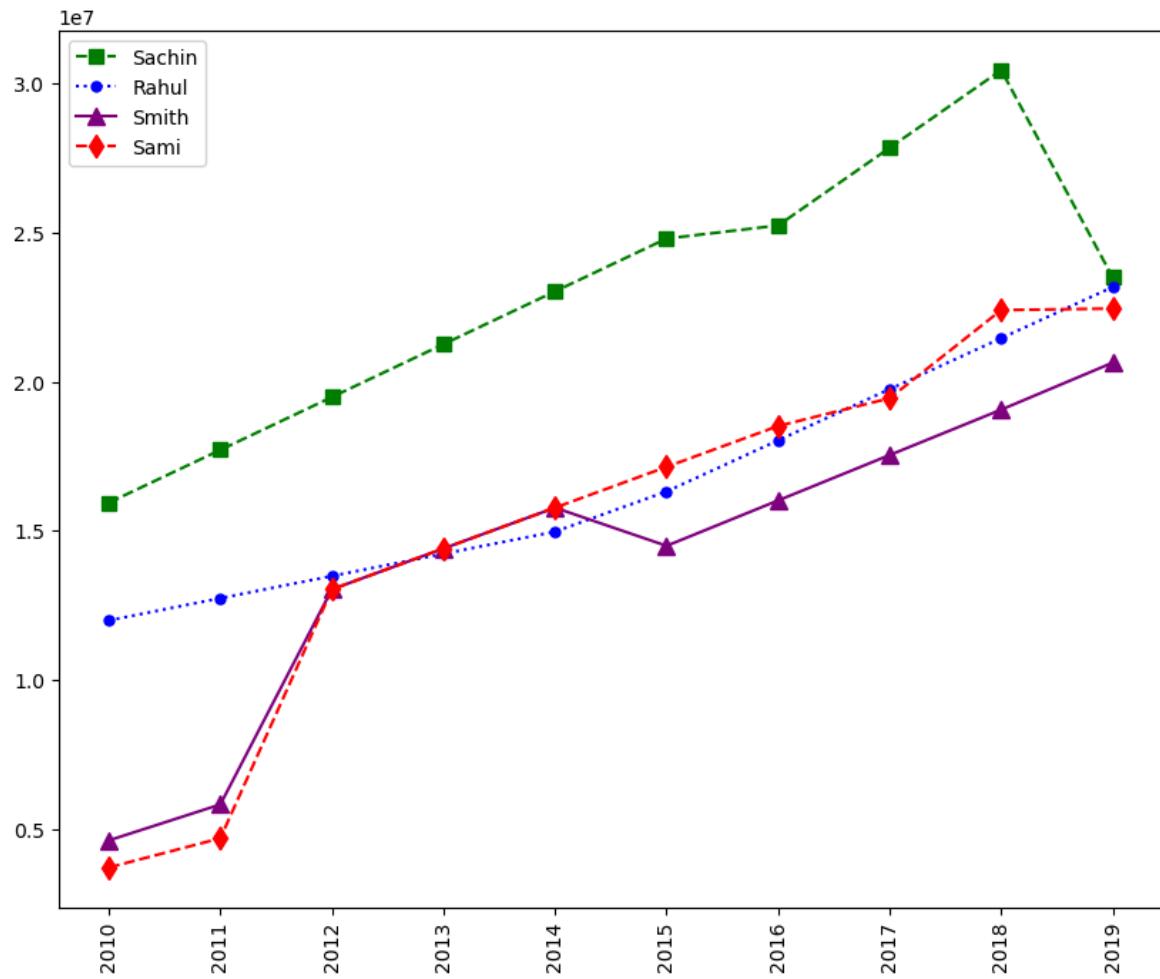
plt.show()
```



In [182]:

```
plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = ':', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '-.', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend()
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

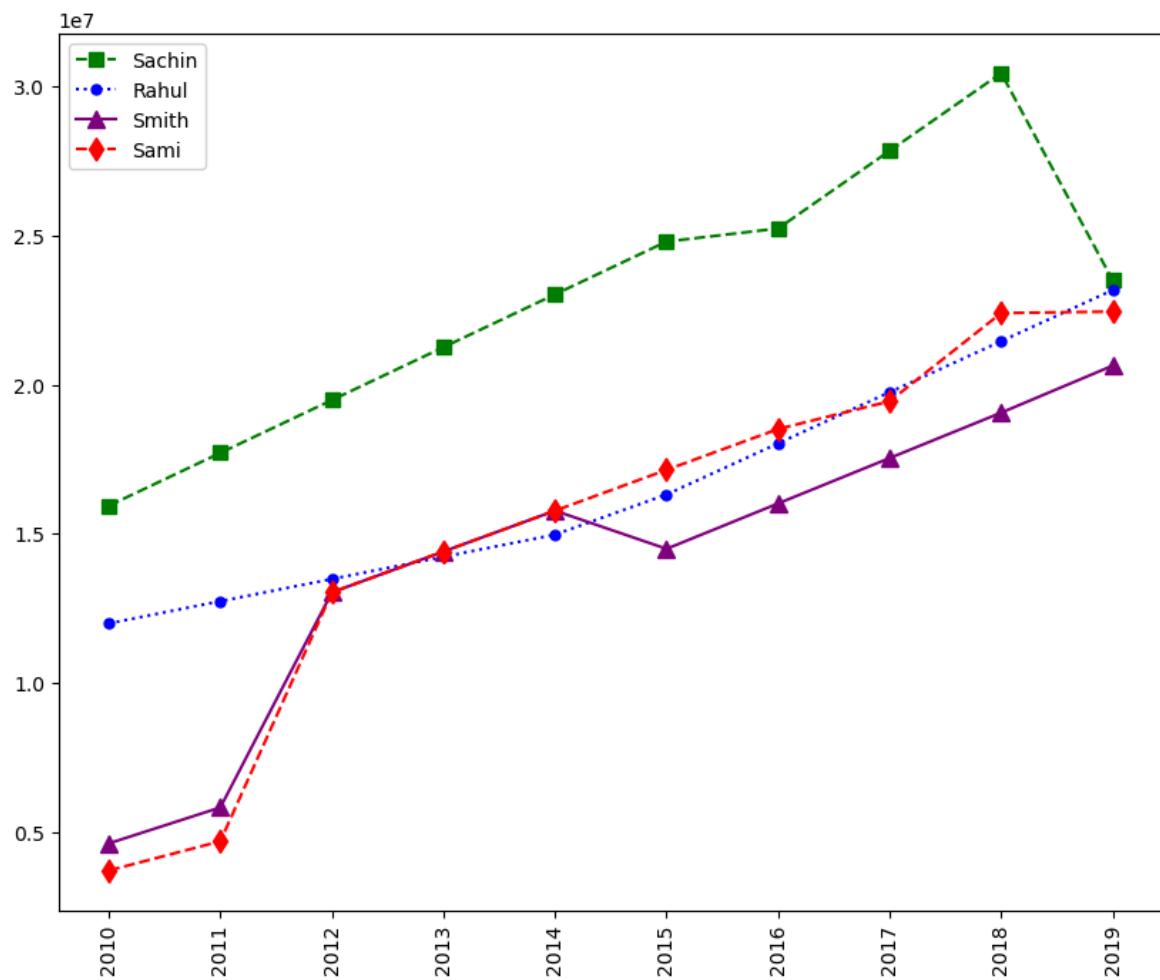
plt.show()
```



In [186]:

```
plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = ':', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '-.', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend()
plt.xticks(list(range(0,10)),Seasons,rotation='vertical')

plt.show()
```



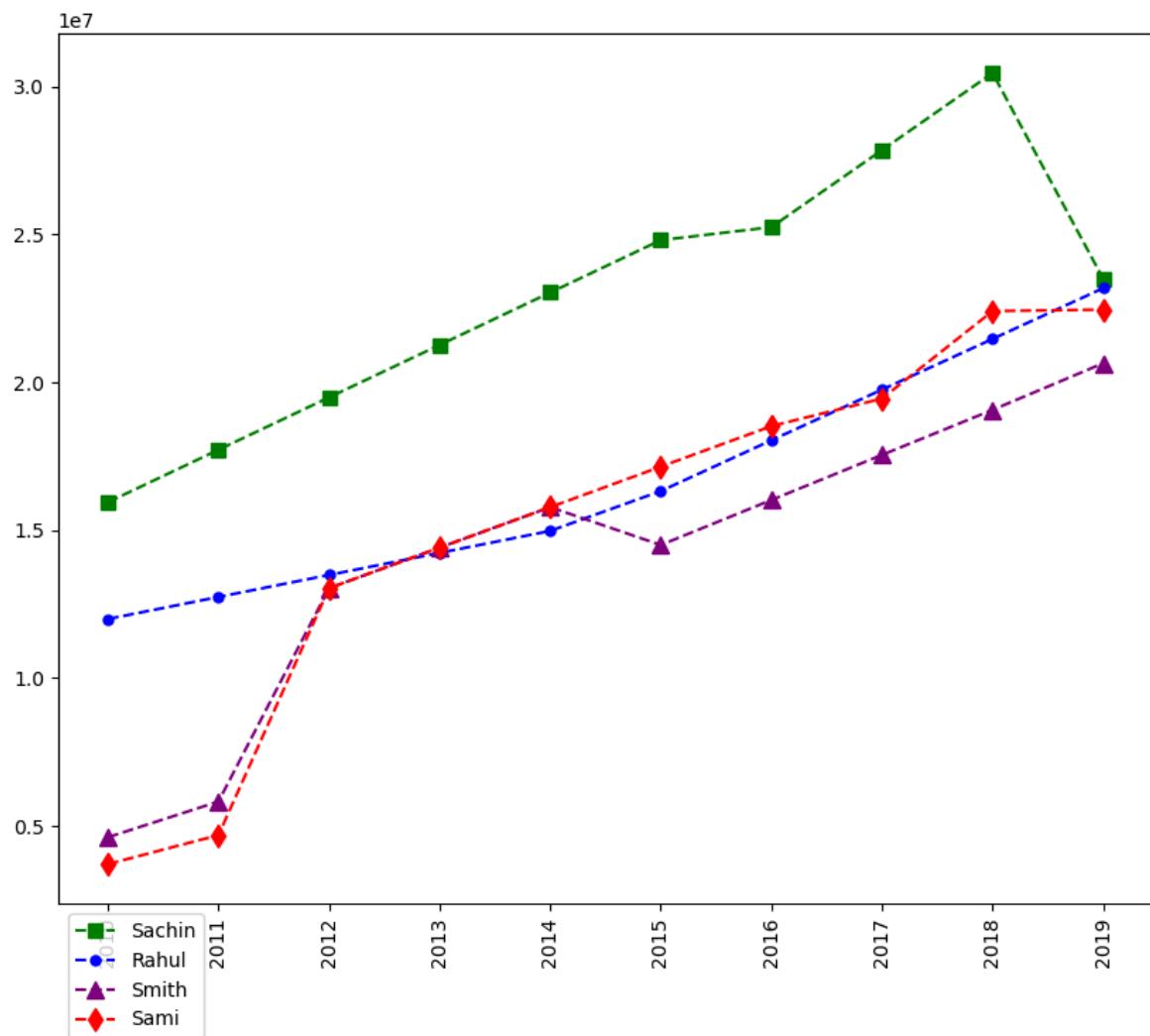
In [192]:

```

plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc = 'upper left',bbox_to_anchor=(0,0))
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

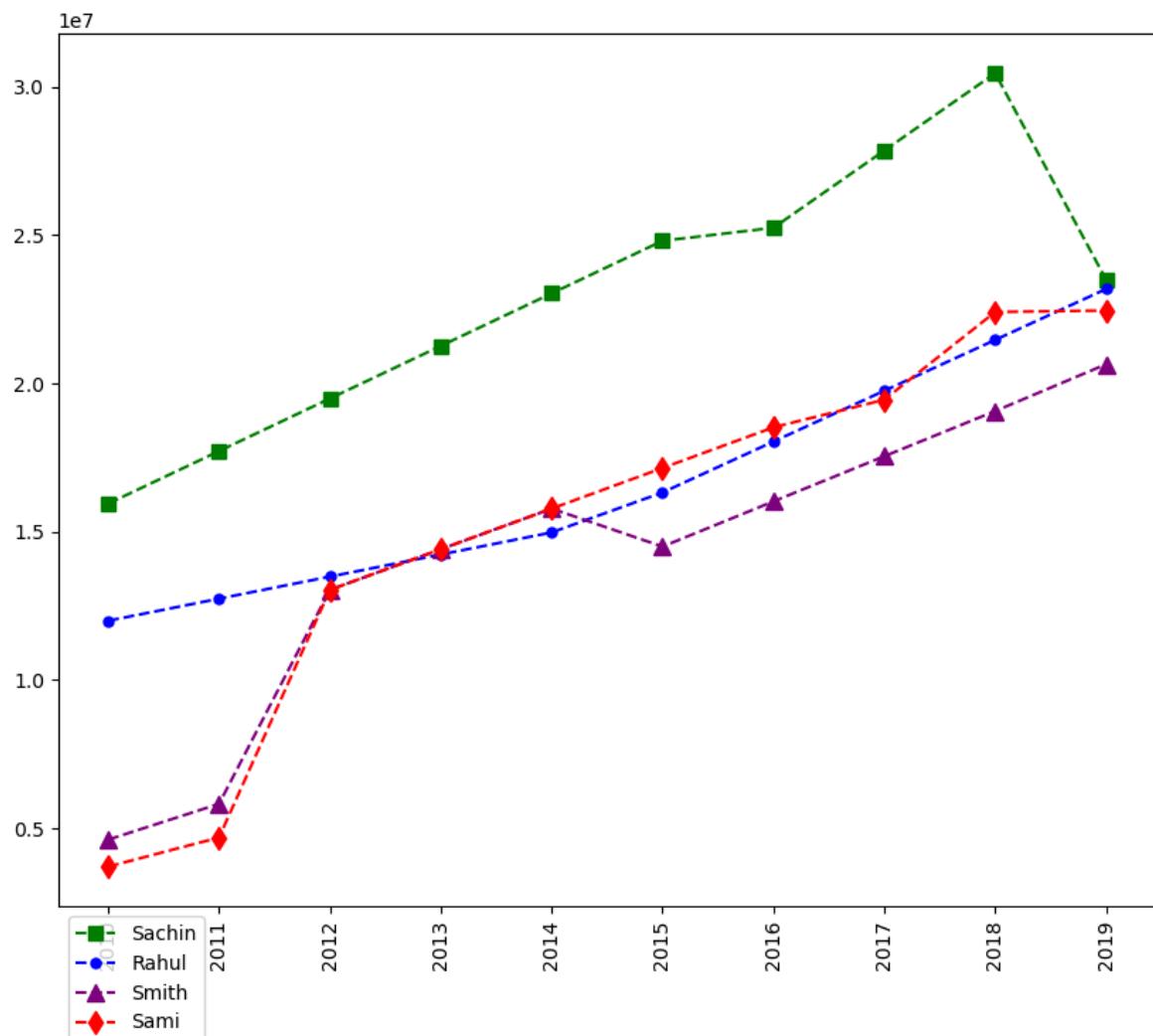
plt.show()

```



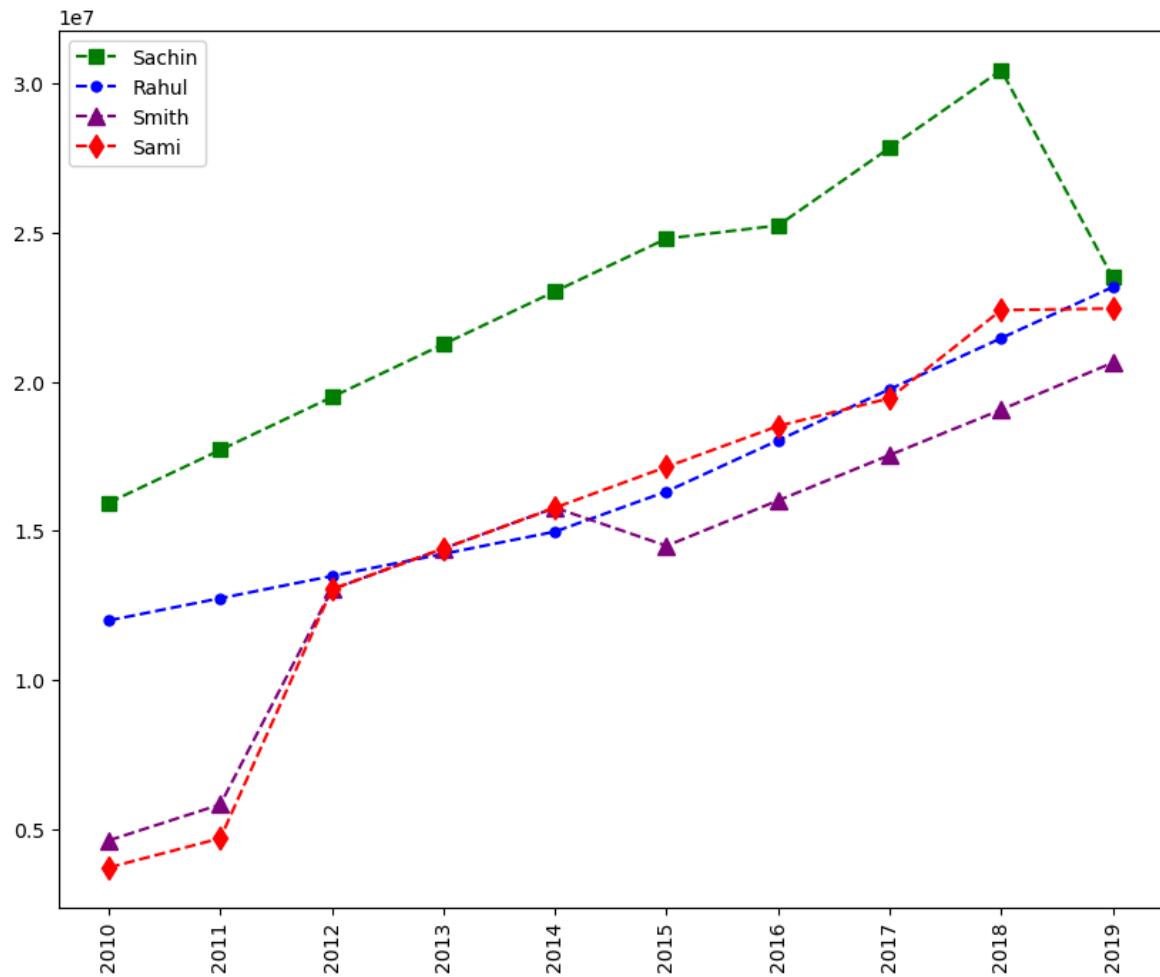
```
In [193]: plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc = 'upper left',bbox_to_anchor=(0,0))
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()
```



```
In [194]: plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc = 'upper left',bbox_to_anchor=(0,1))
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

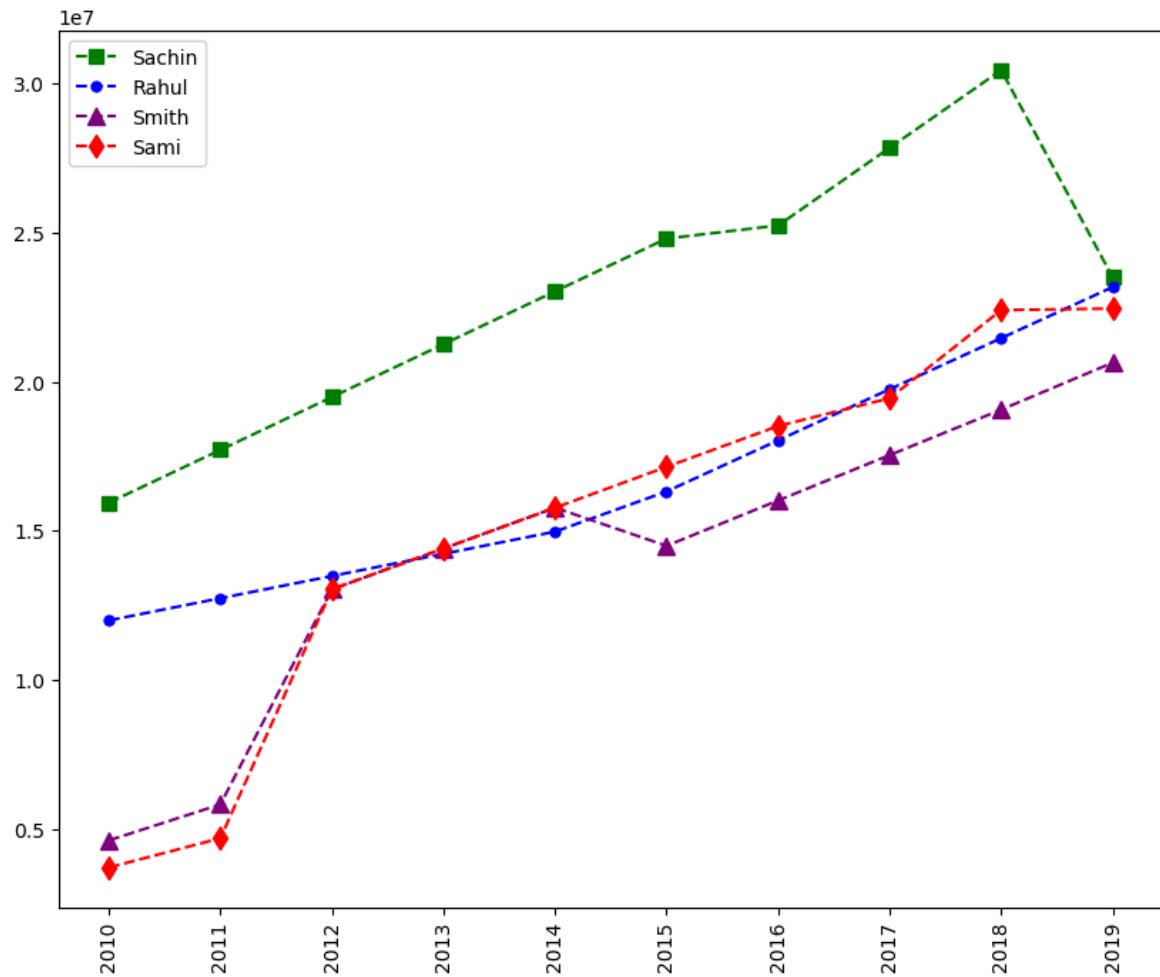
plt.show()
```



In [197]:

```
plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc='upper left',bbox_to_anchor=(0,1))
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

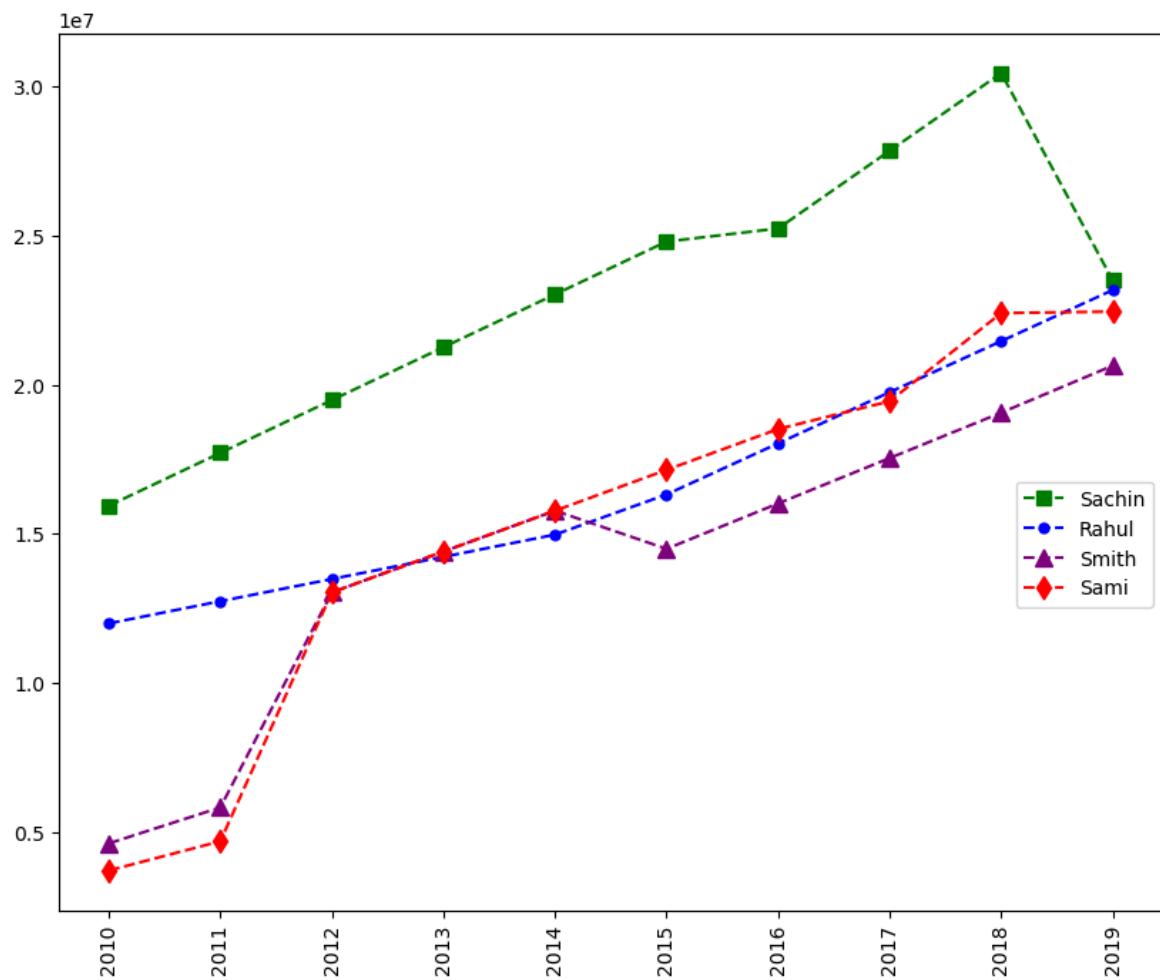
plt.show()
```



In [198]:

```
plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc = 'best',bbox_to_anchor=(0.5,0.,0.5,0.5))
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

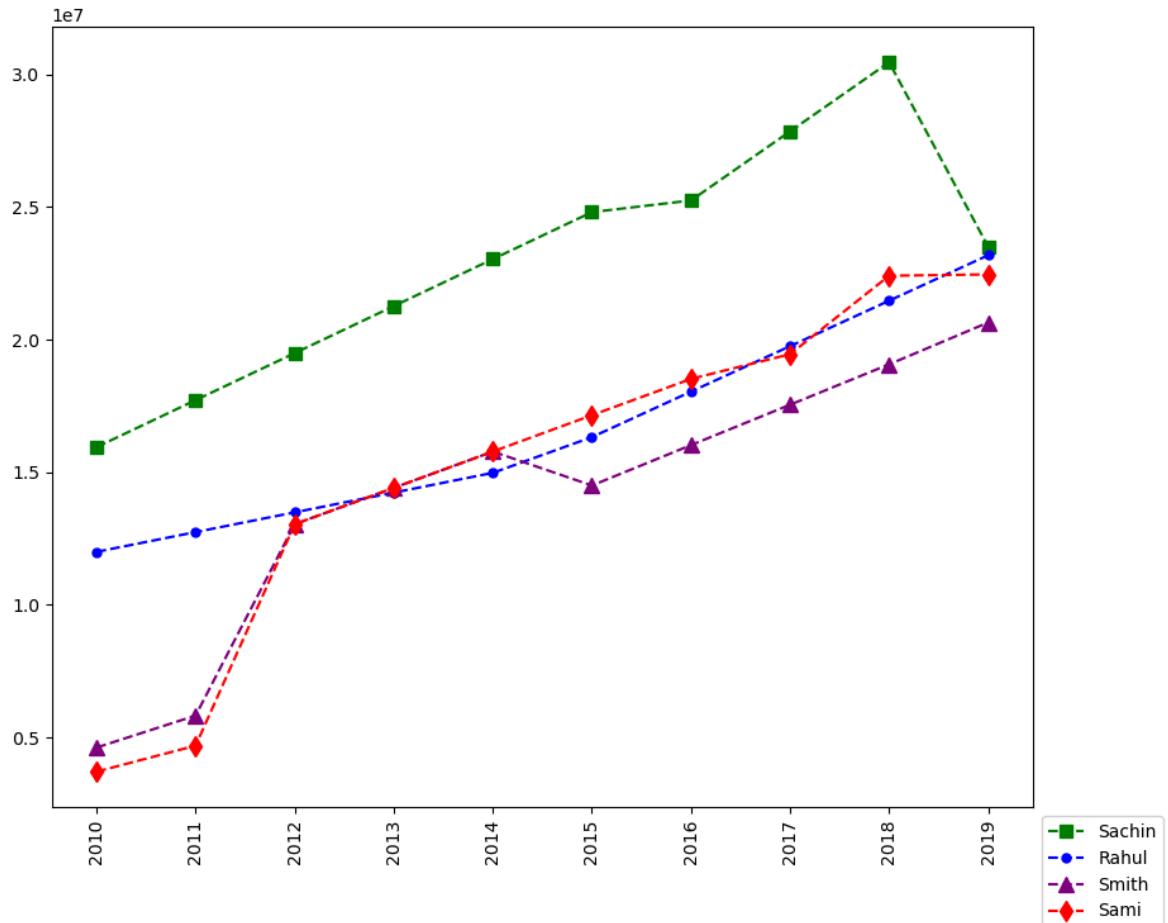
plt.show()
```



In [199]:

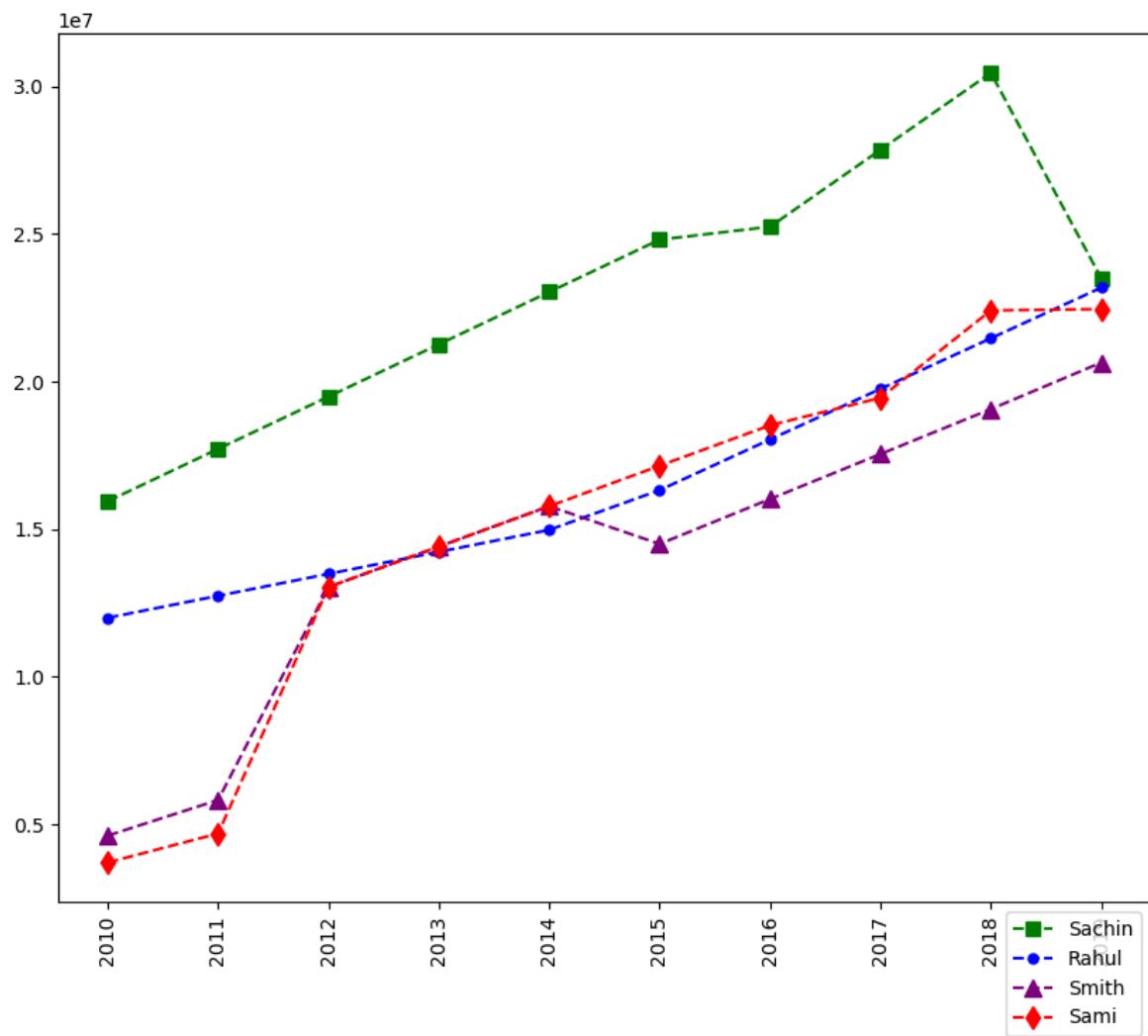
```
plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc = 'upper left',bbox_to_anchor=(1,0) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()
```



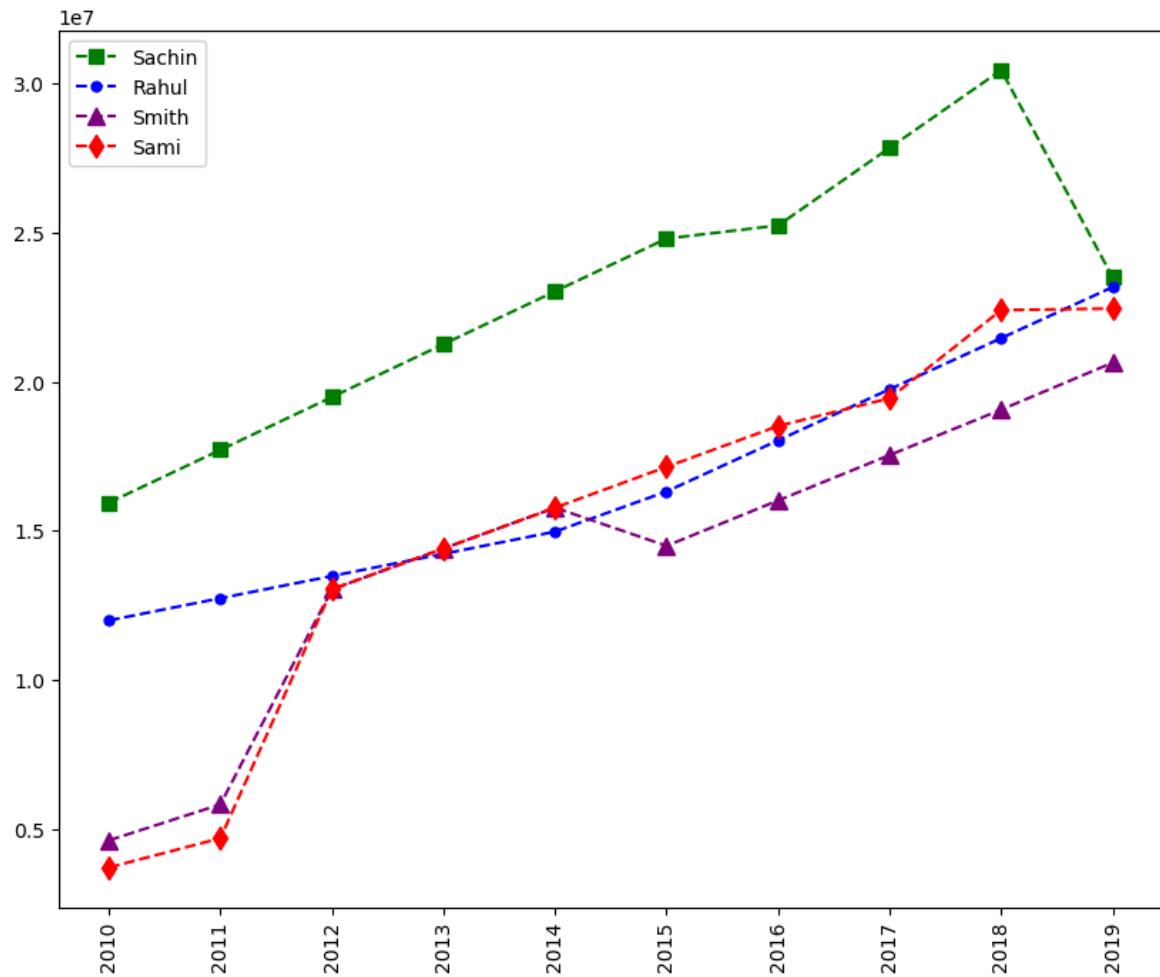
```
In [200]: plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(bbox_to_anchor=(1,0))
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()
```



```
In [201]: plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc = 'upper left')
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

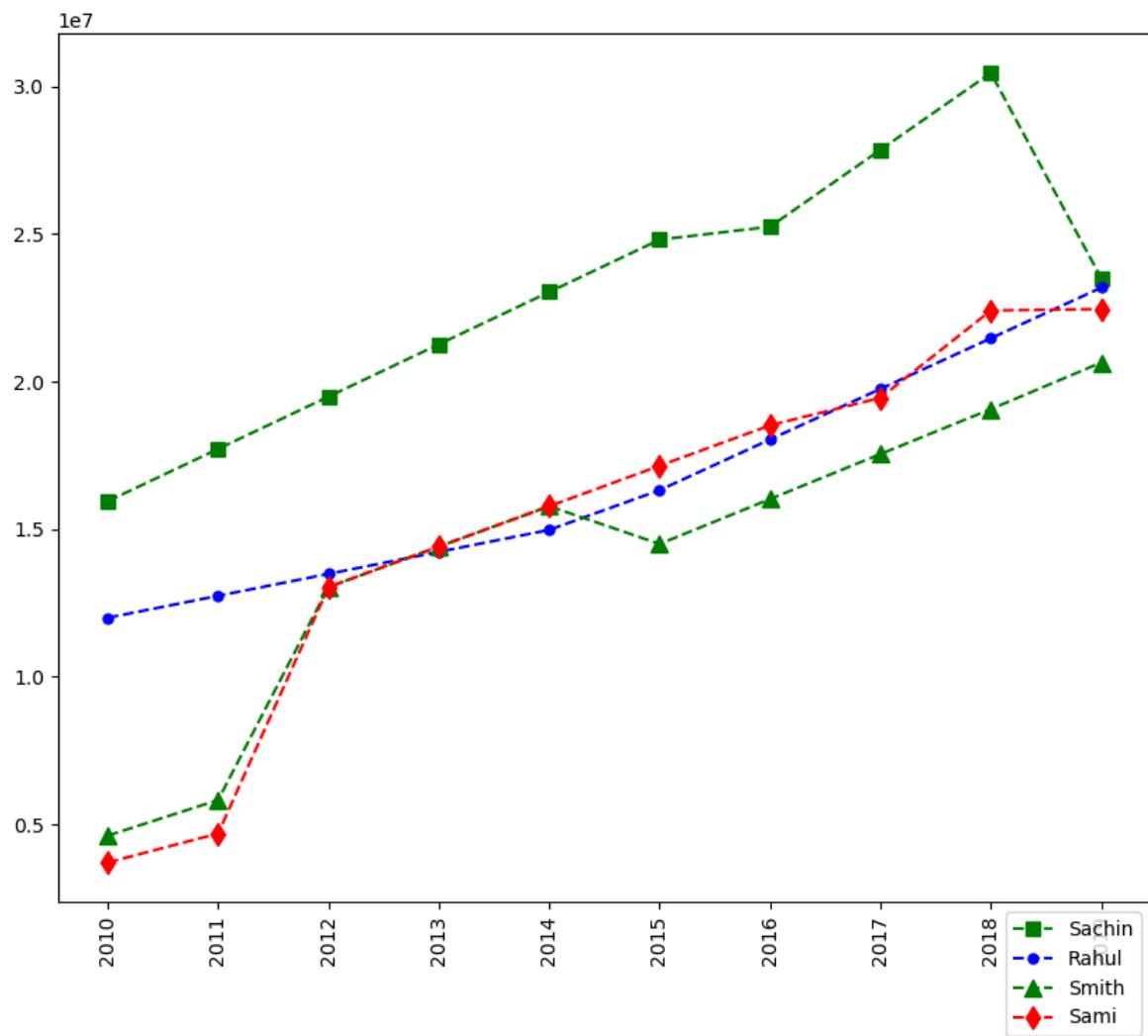
plt.show()
```



In [202]:

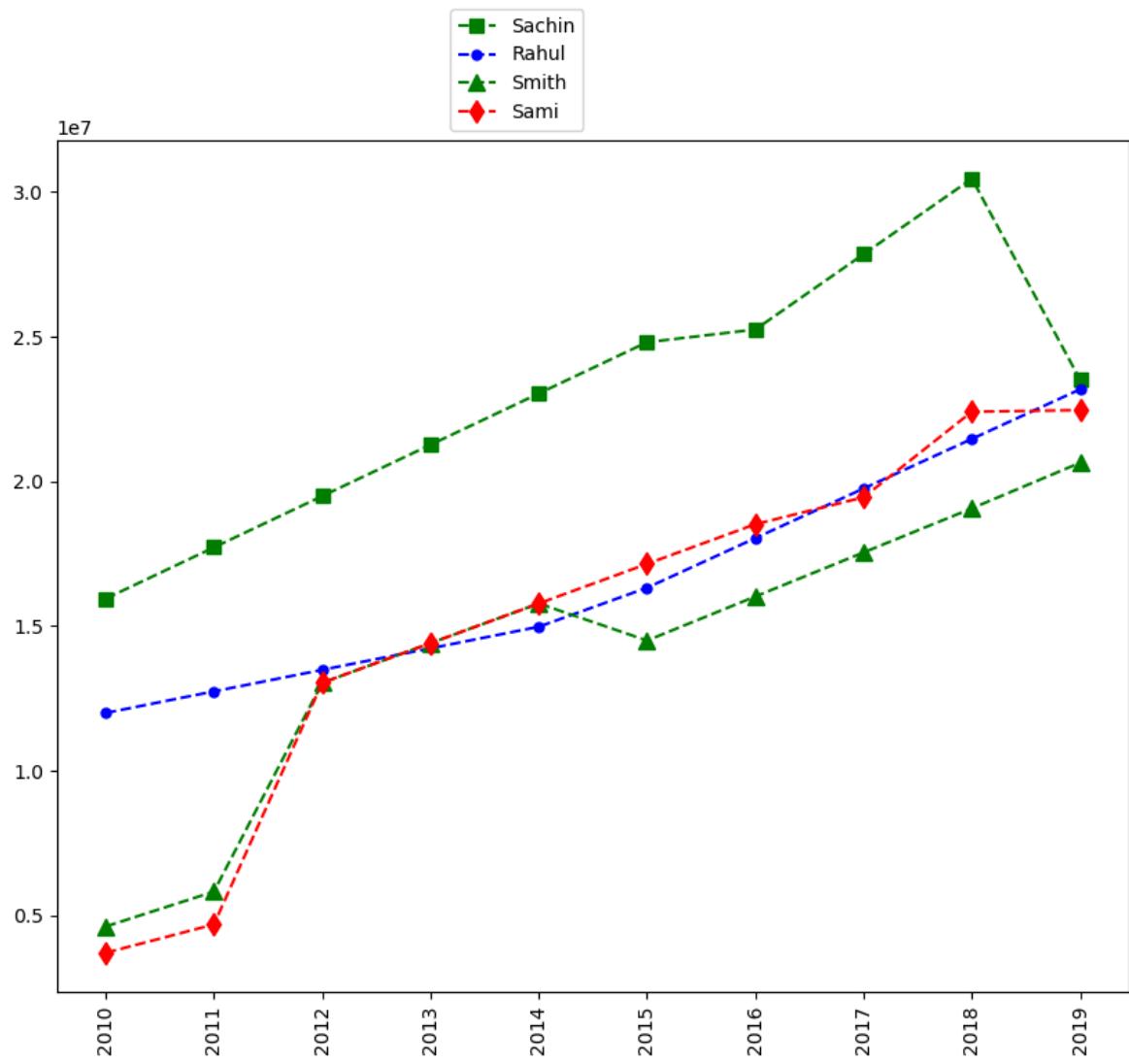
```
plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='Green', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc = 'upper right',bbox_to_anchor=(1,0) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()
```



```
In [203]: plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='Green', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc = 'lower right',bbox_to_anchor=(0.5,1))
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

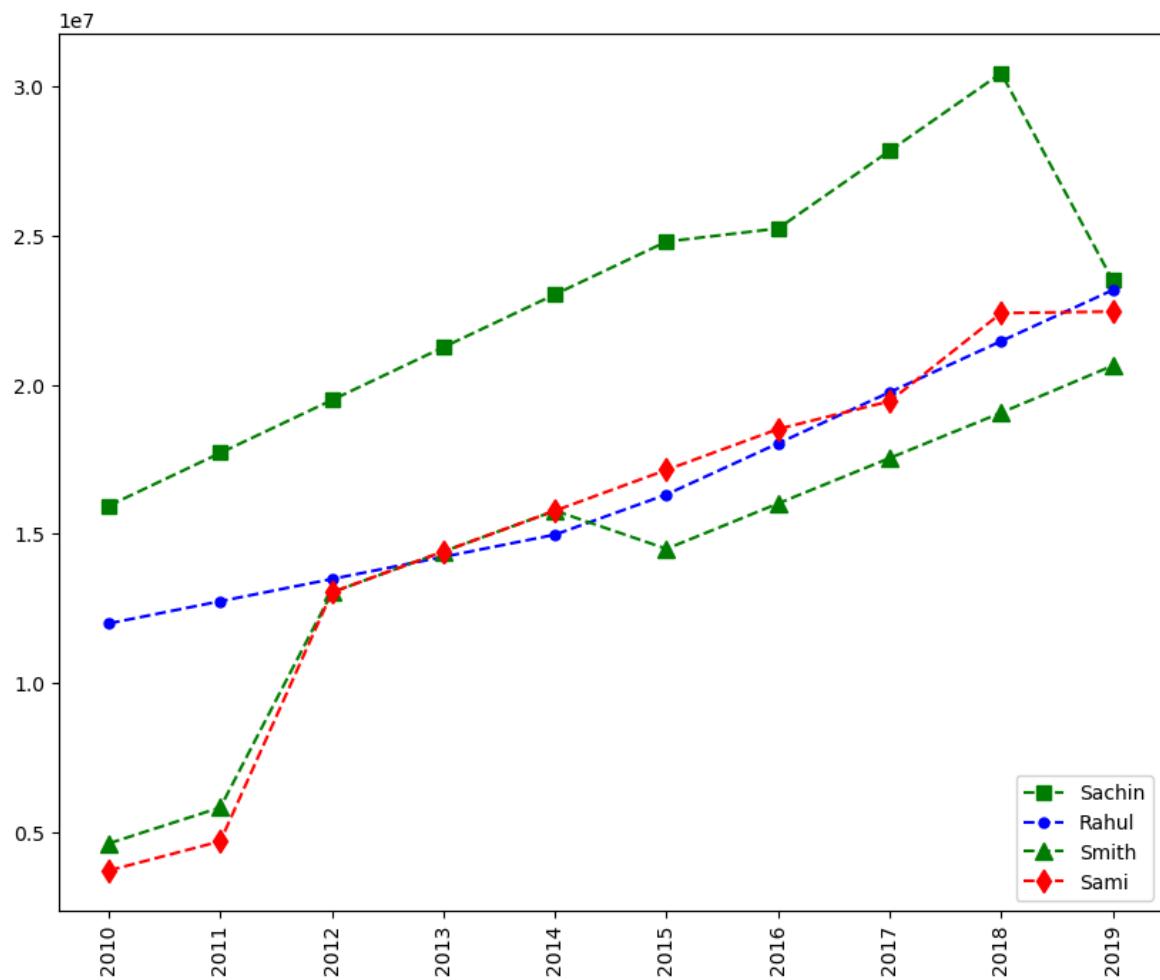
plt.show()
```



In [204]:

```
plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='Green', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc = 'lower right')
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()
```



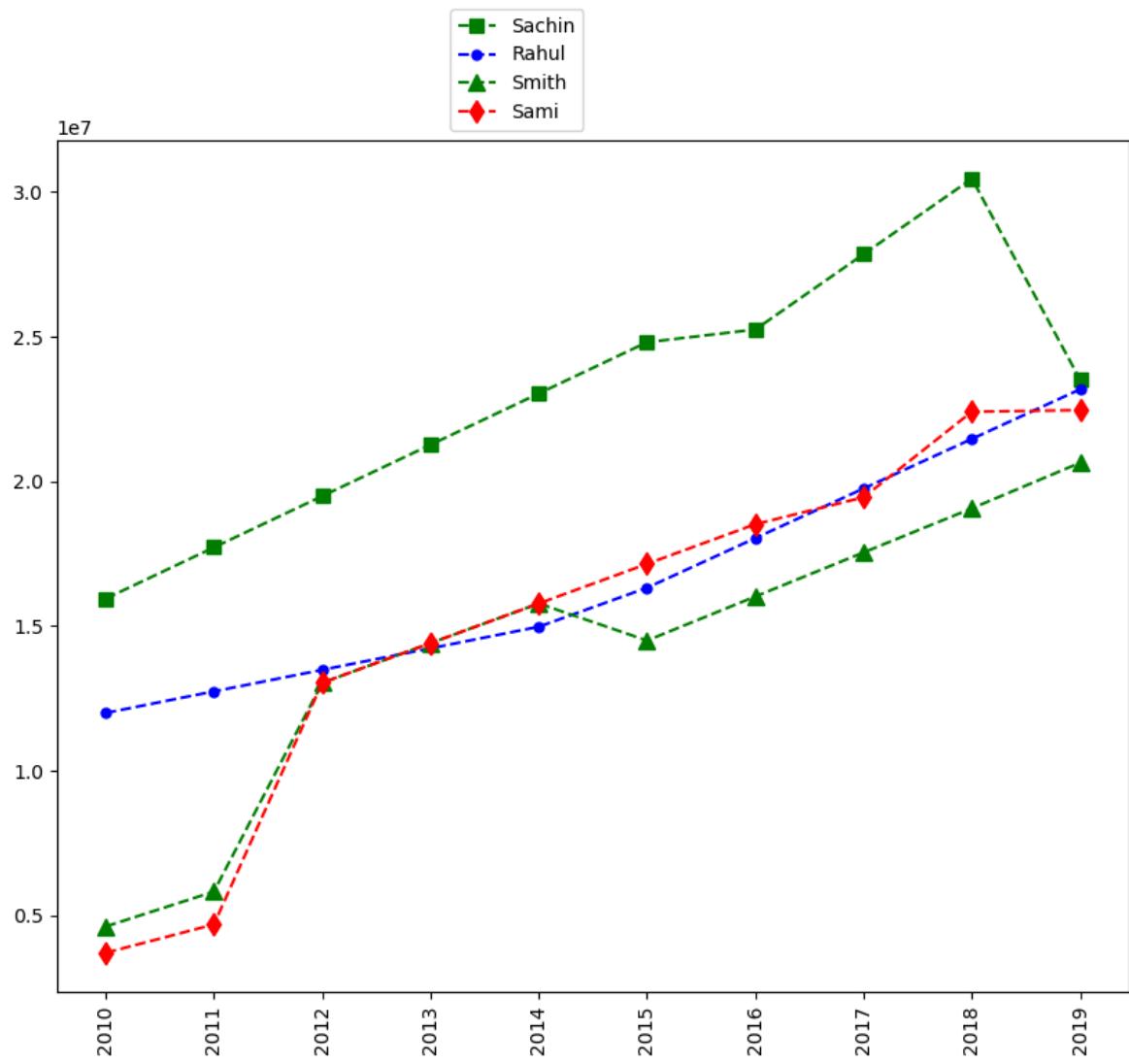
In [205...]

```

plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='Green', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc = 'lower right',bbox_to_anchor=(0.5,1) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

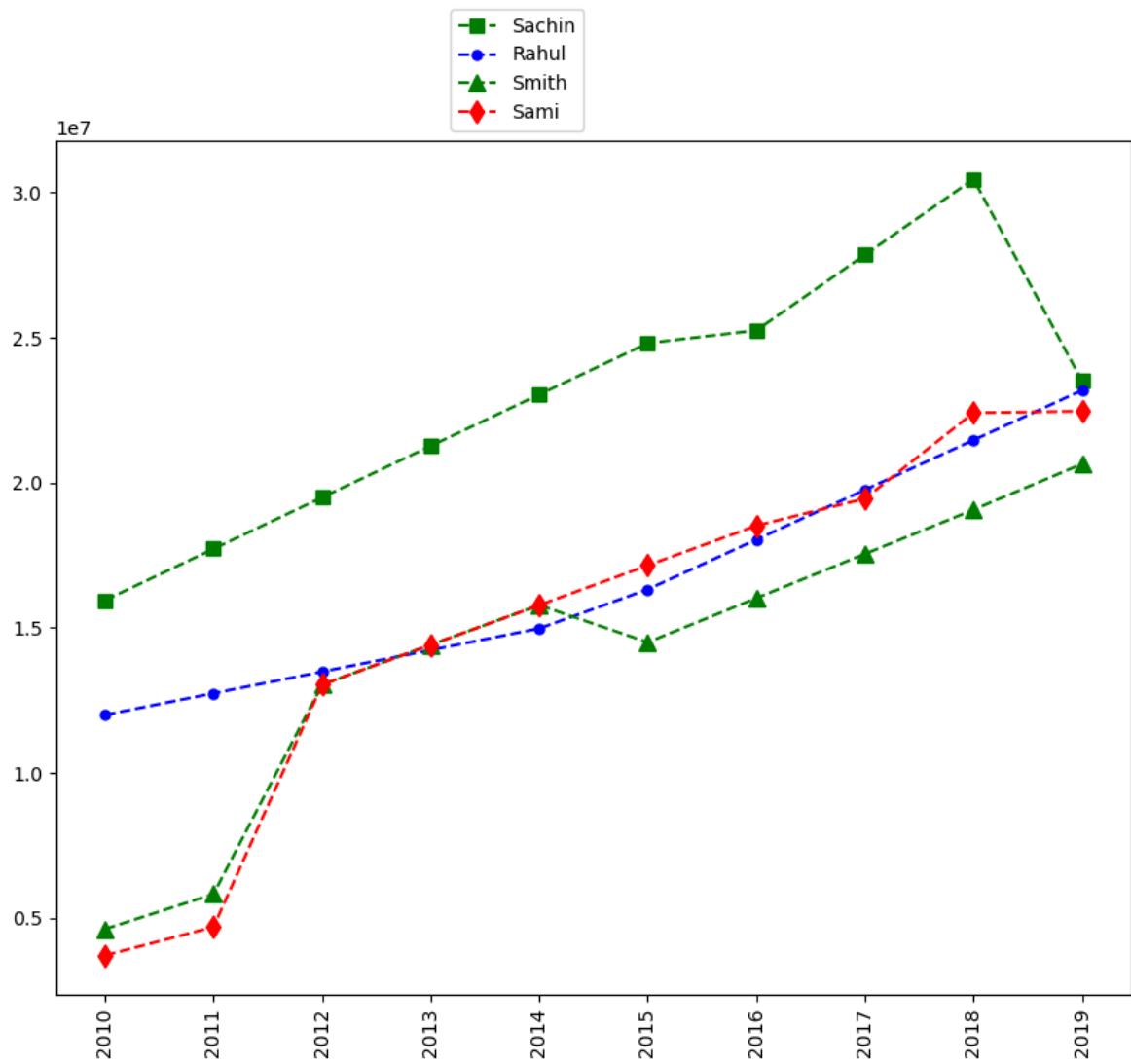
```



In [206...]

```
plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 5, label = Players[1])
plt.plot(Salary[2], c='Green', ls = '--', marker = '^', ms = 8, label = Players[2])
plt.plot(Salary[3], c='Red', ls = '--', marker = 'd', ms = 8, label = Players[3])
plt.legend(loc = 'lower right',bbox_to_anchor=(0.5,1) )
plt.xticks(list(range(0,10)), Seasons,rotation='vertical')

plt.show()
```



In [208]:

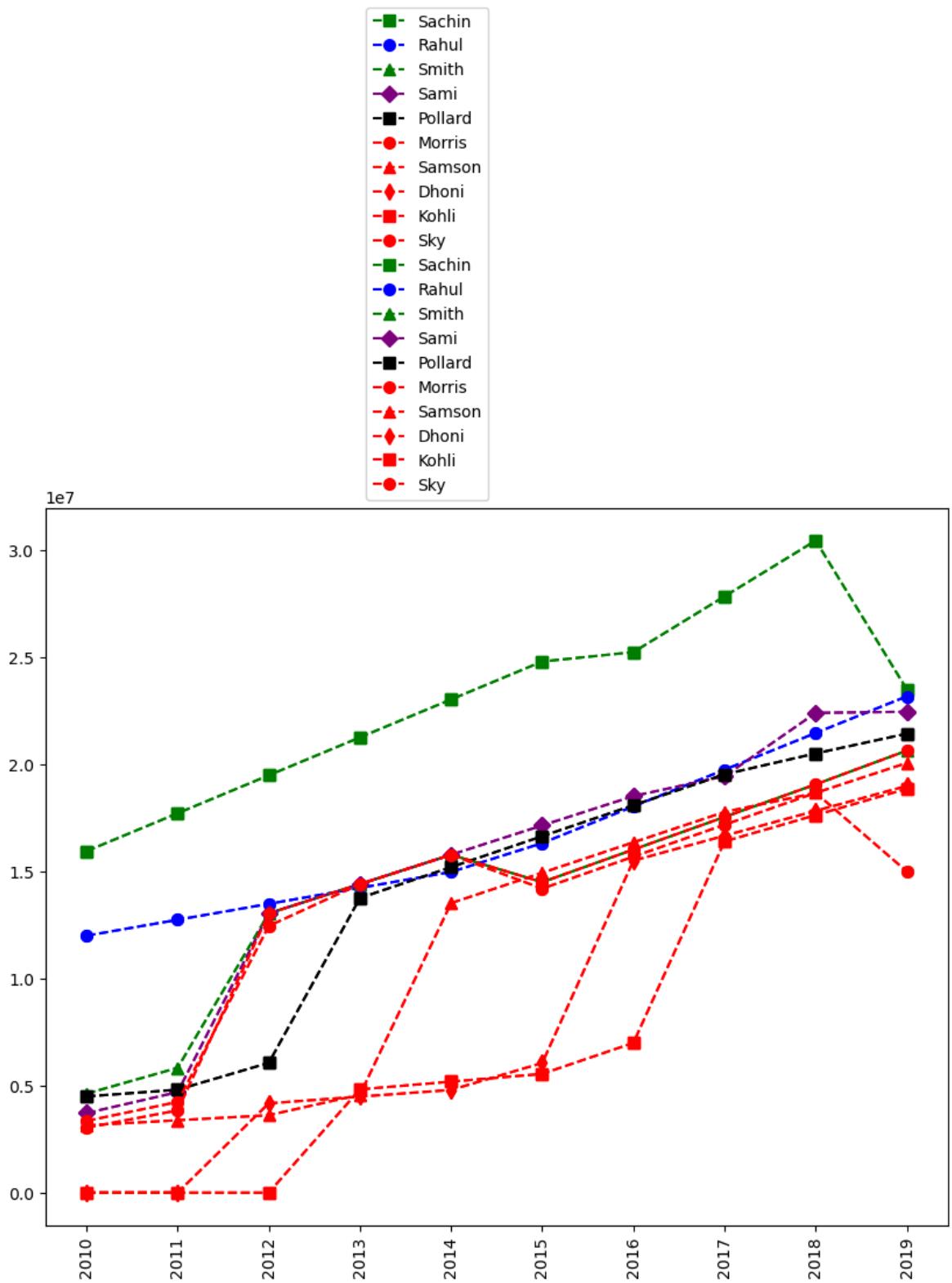
```

plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Salary[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Salary[3], c='Purple', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Salary[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Salary[5], c='Red', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Salary[6], c='Red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Salary[7], c='Red', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Salary[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Salary[9], c='Red', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(0.5,1) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

```



In [211]:

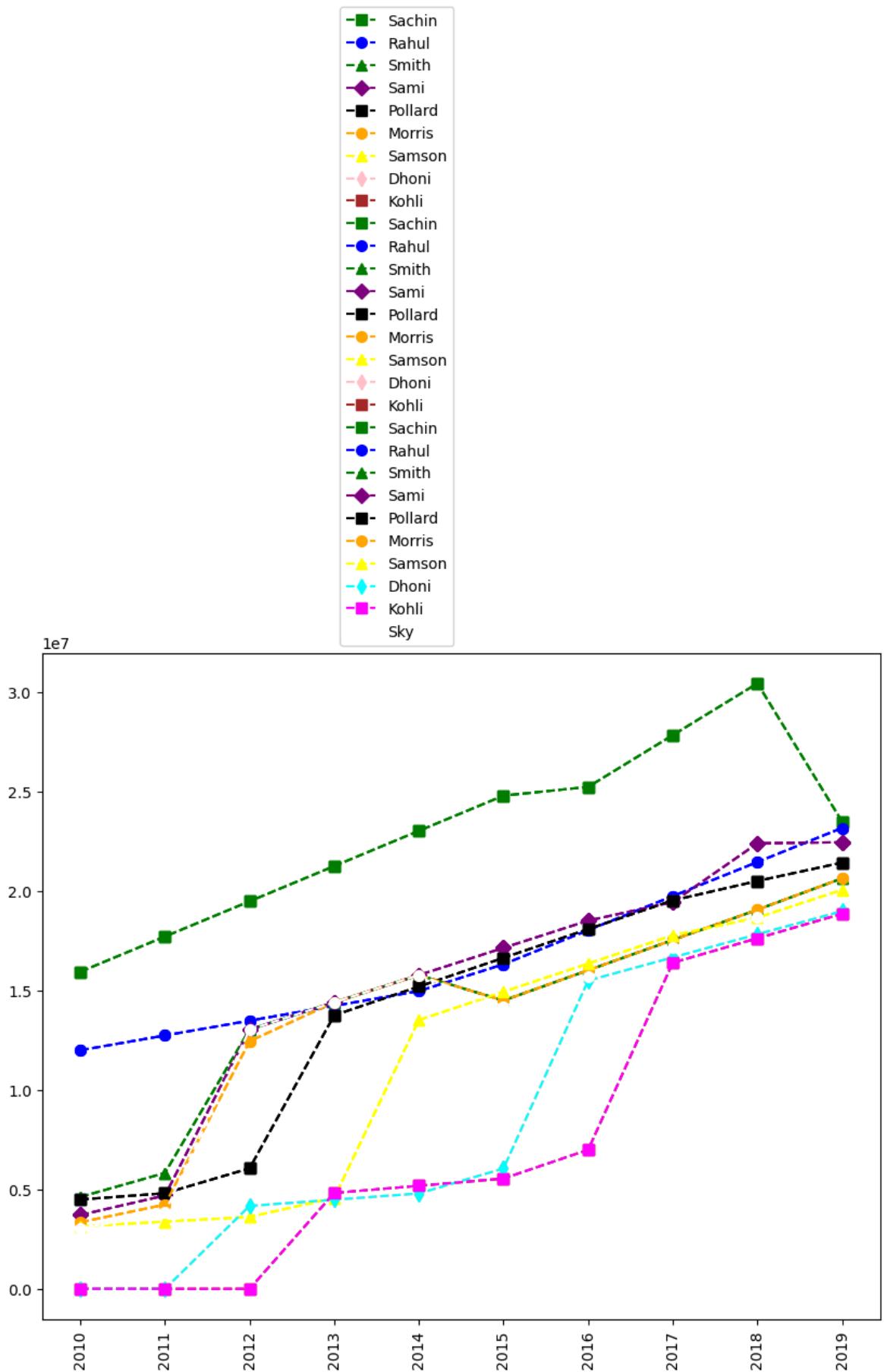
```

plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Salary[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Salary[3], c='Purple', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Salary[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Salary[5], c='orange', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Salary[6], c='yellow', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Salary[7], c='cyan', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Salary[8], c='magenta', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Salary[9], c='white', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right', bbox_to_anchor=(0.5,1) )

```

```
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')  
plt.show()
```



```
In [214...]: plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Salary[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
```

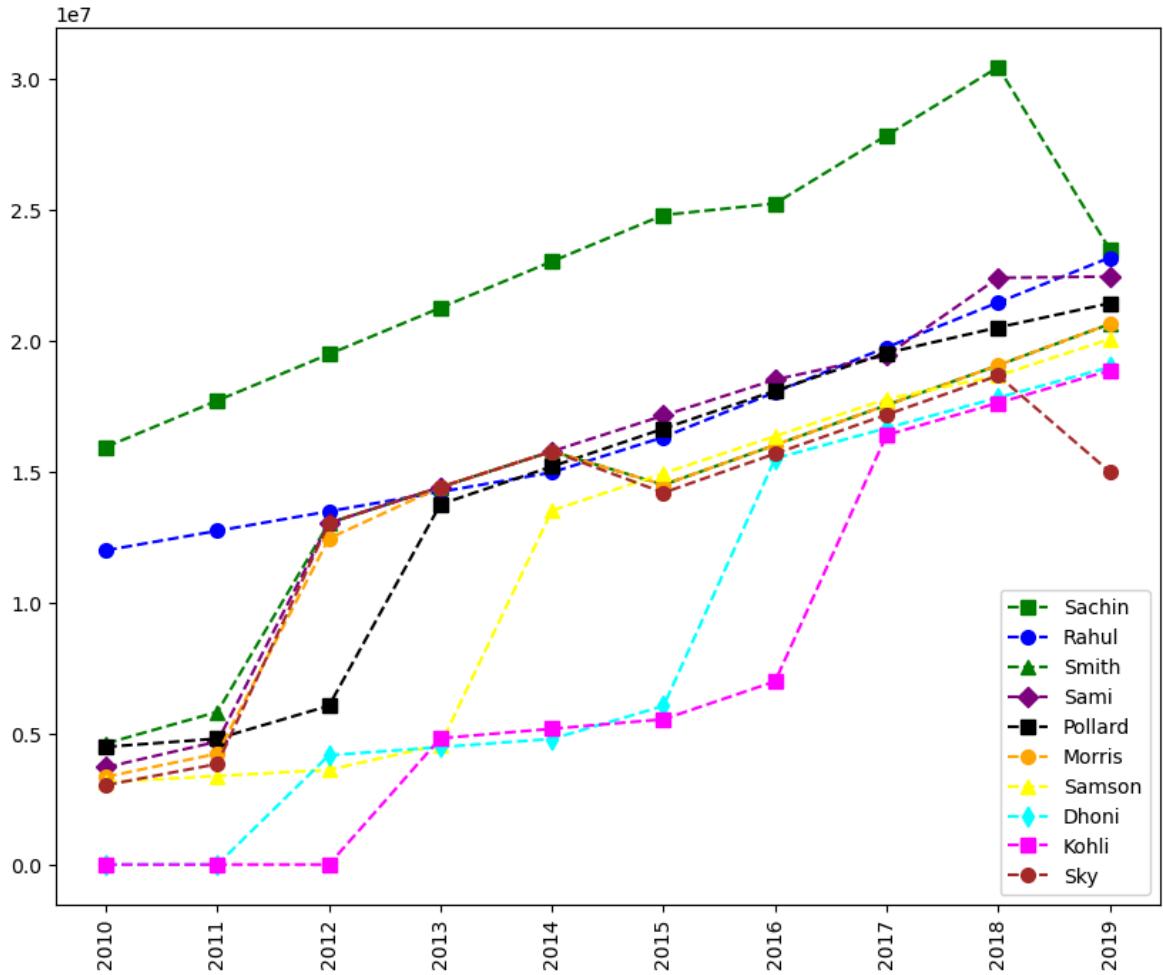
```

plt.plot(Salary[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Salary[3], c='Purple', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Salary[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Salary[5], c='orange', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Salary[6], c='yellow', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Salary[7], c='cyan', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Salary[8], c='magenta', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Salary[9], c='brown', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right')
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

```



In [215]:

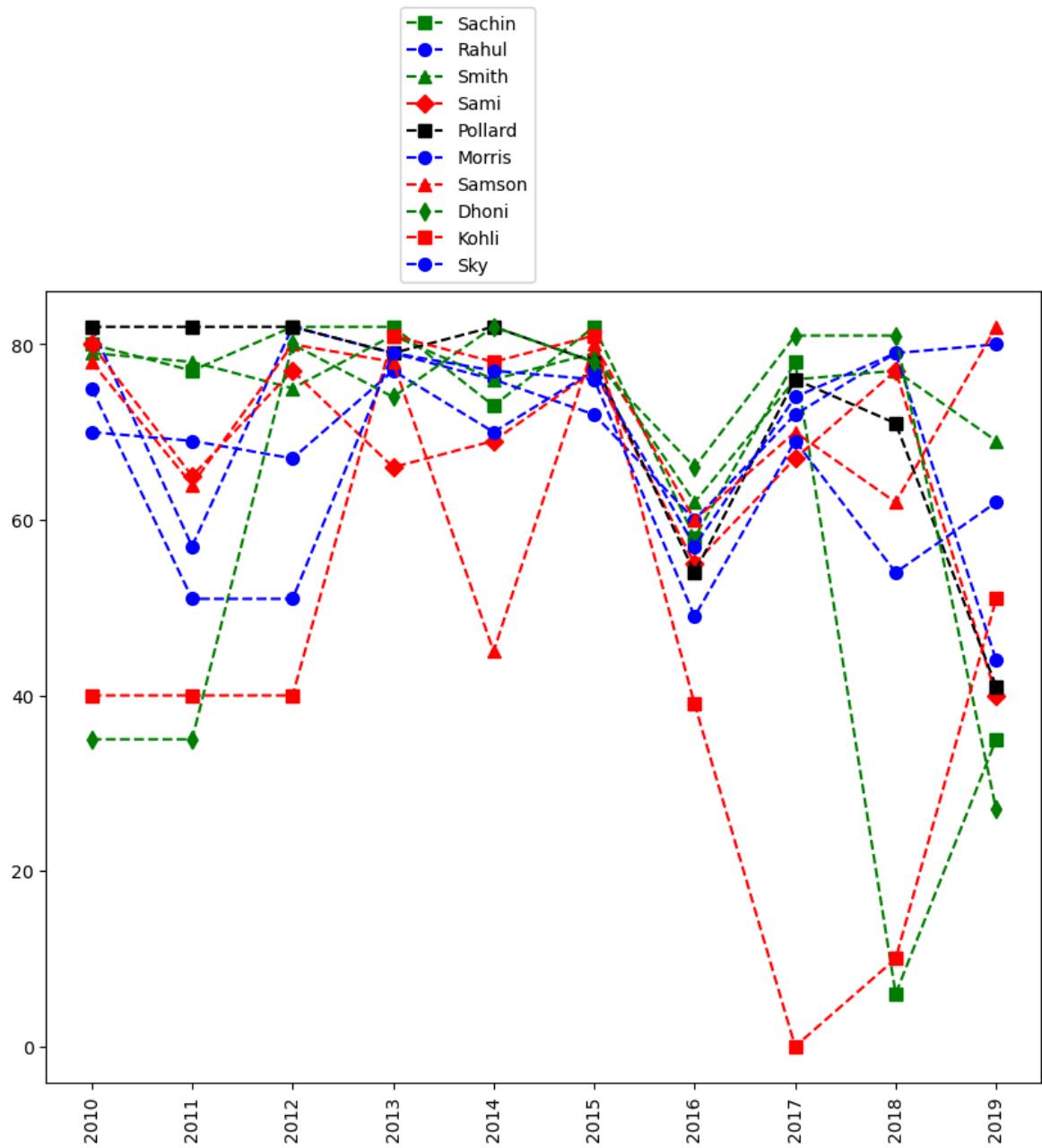
```

plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right', bbox_to_anchor=(0.5,1) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

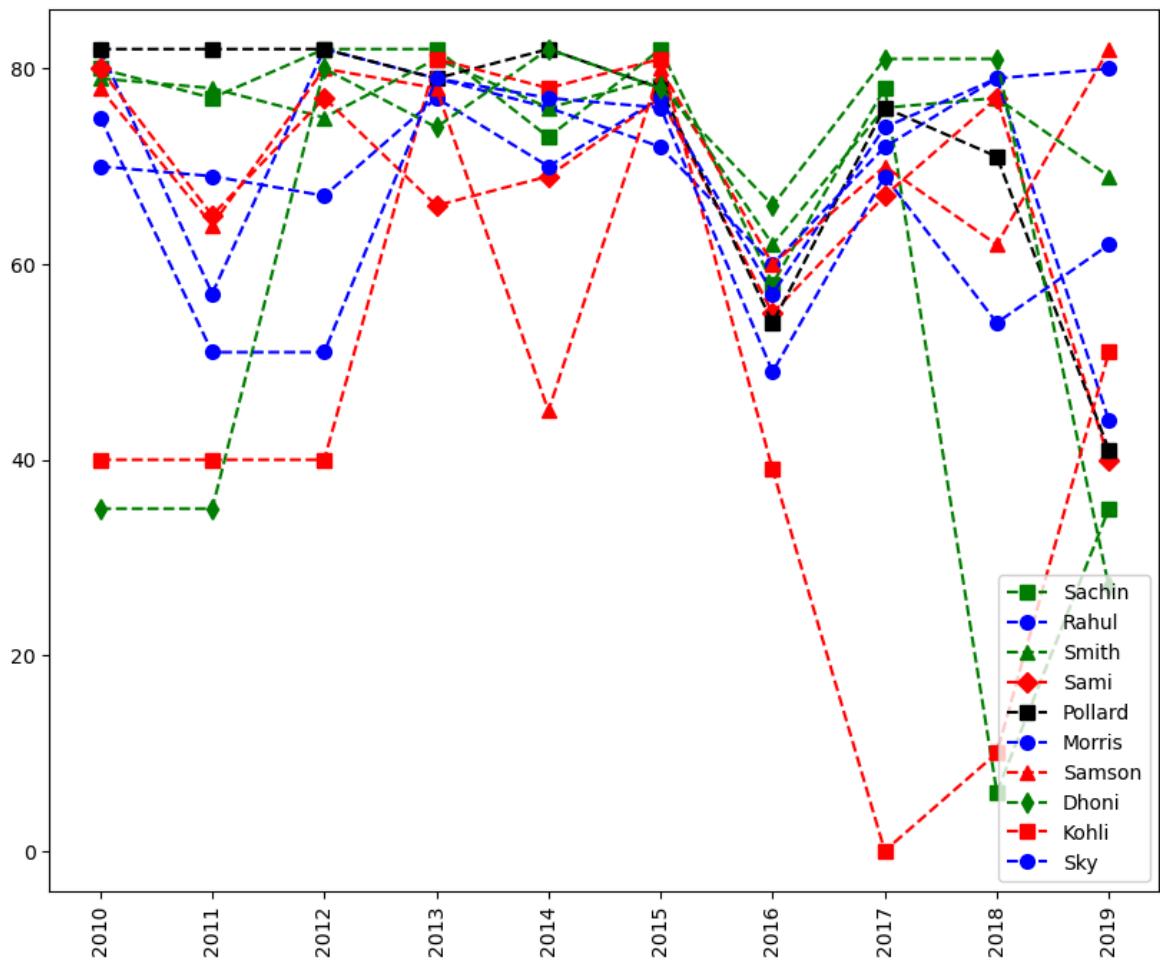
```



```
In [216]: plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right')
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()
```



In [218]:

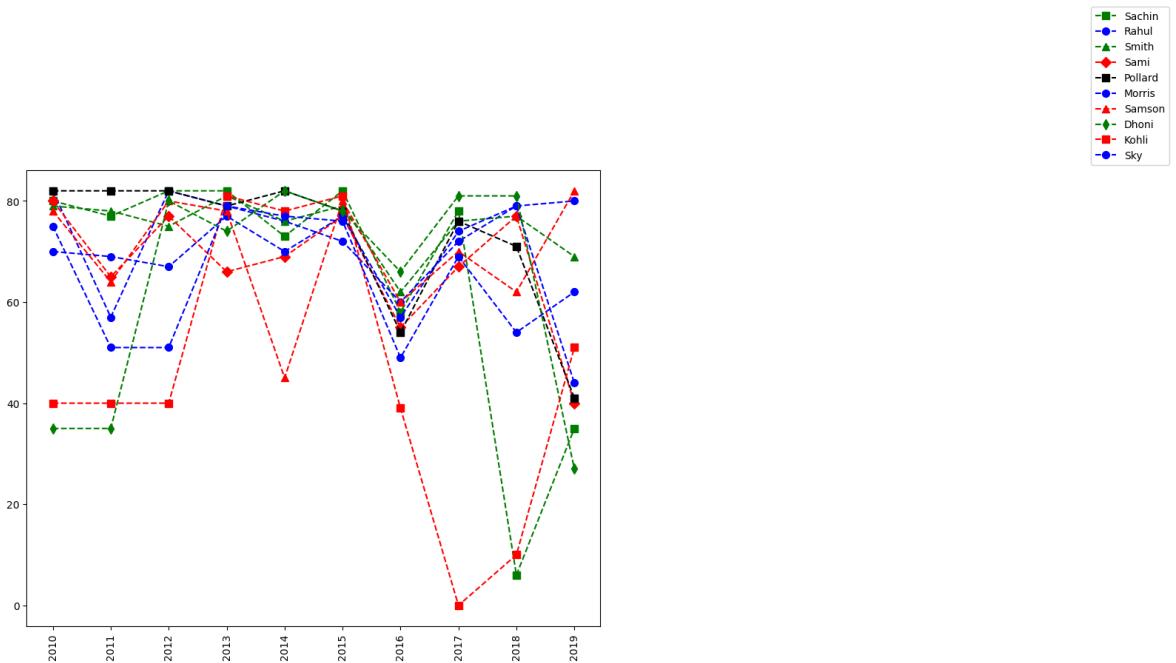
```

plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(2,1) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

```



In [220]:

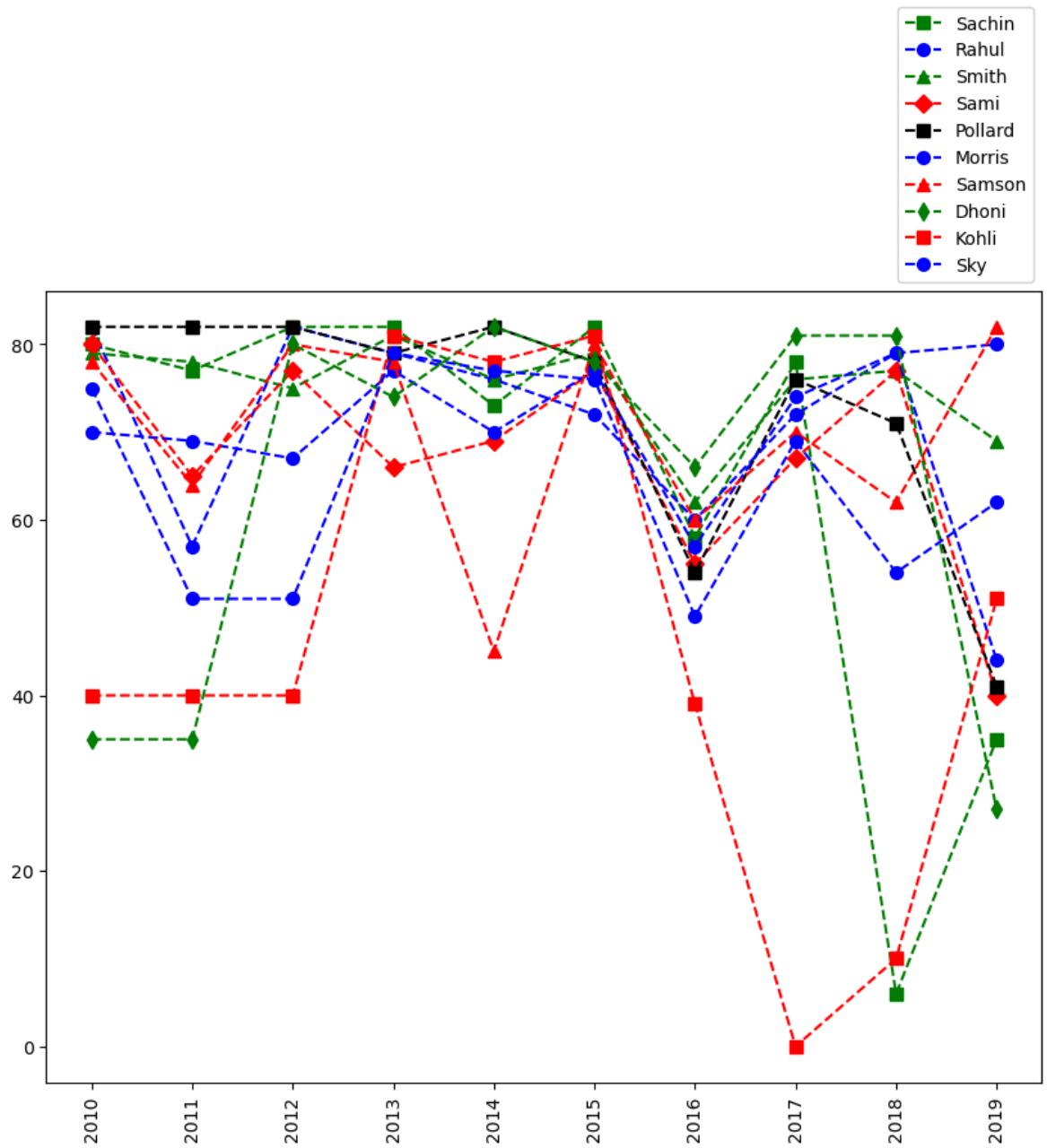
```

plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(1,1) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

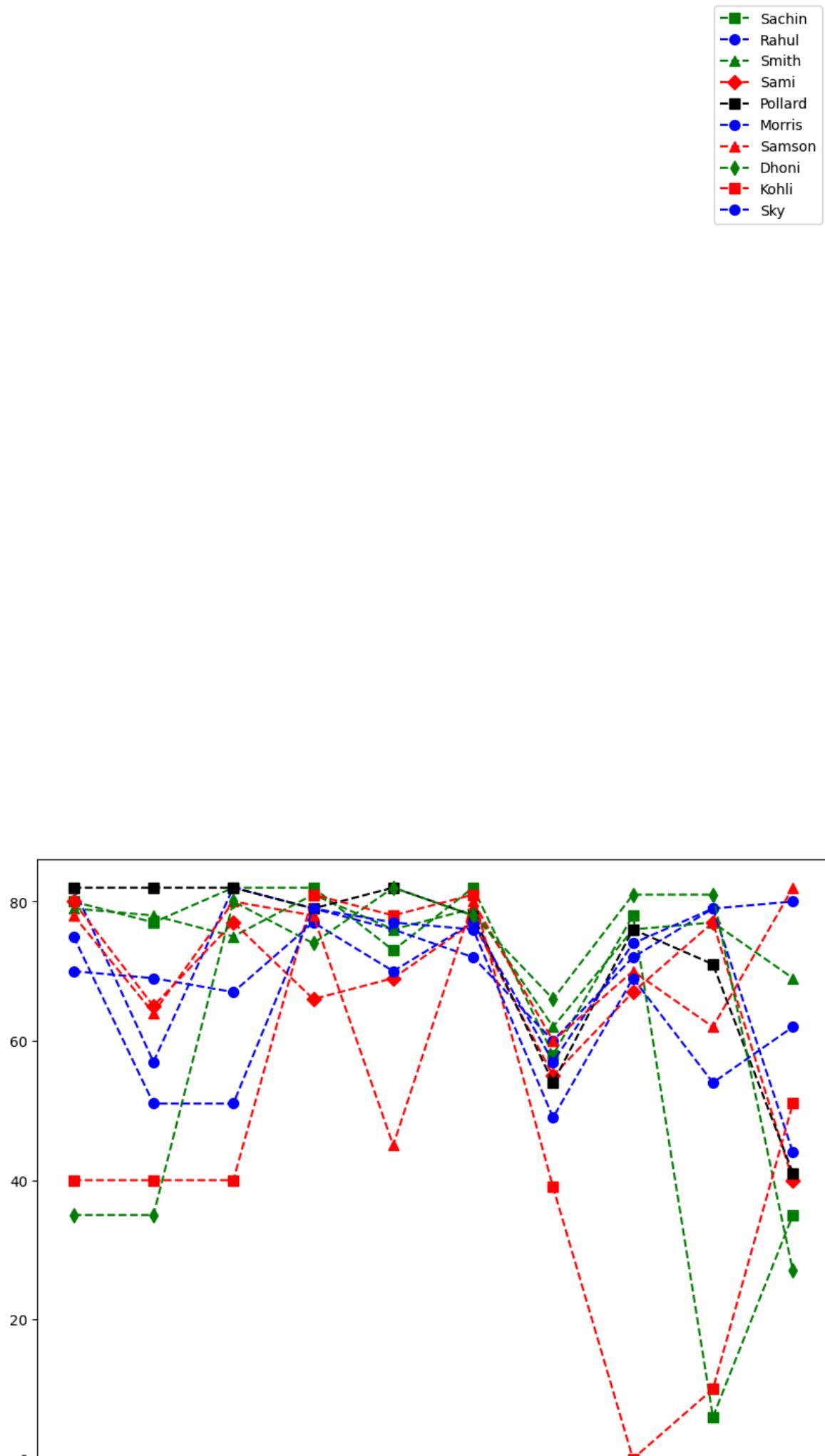
```



```
In [222]: plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(1,2))
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()
```



In [224...]

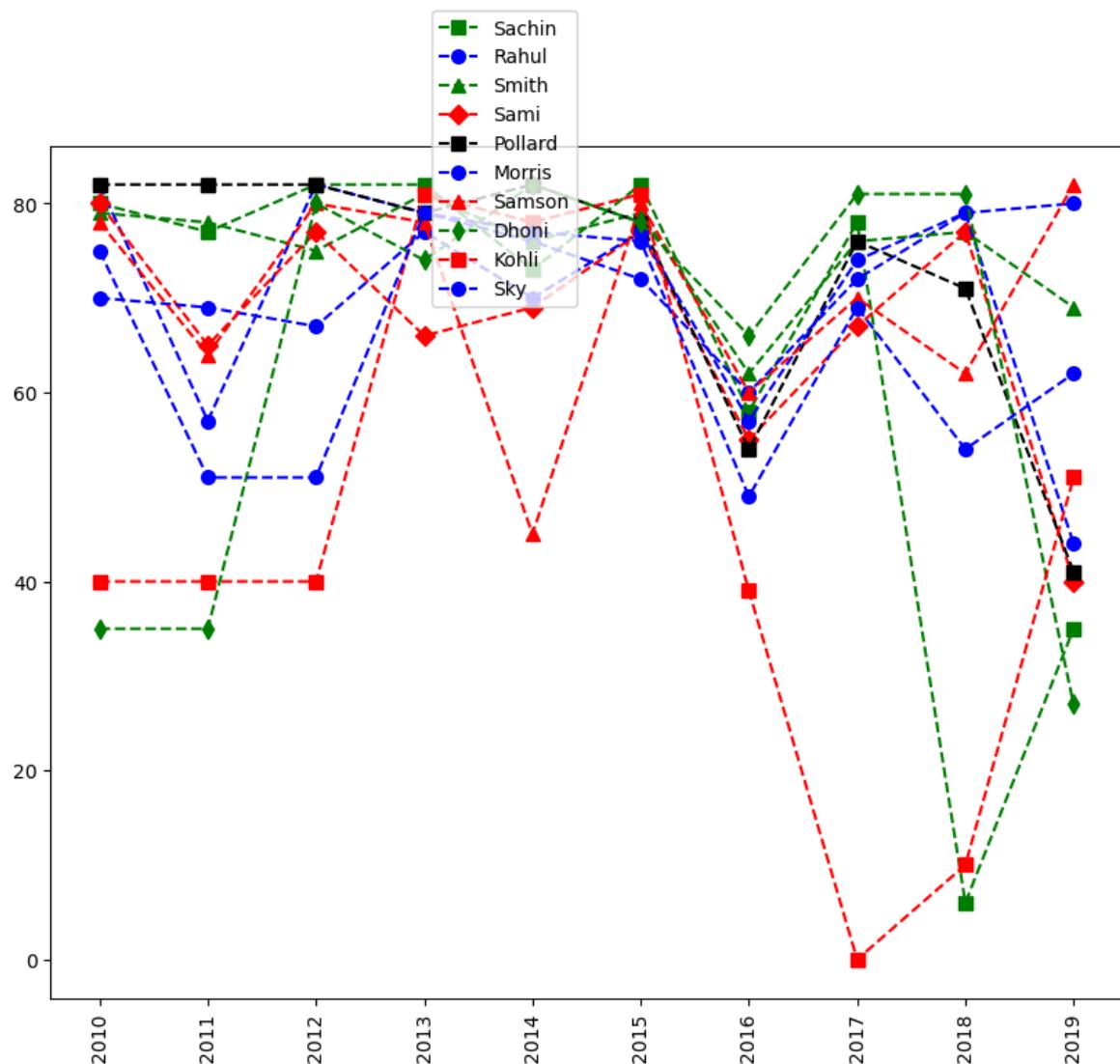
```

plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(0.5,0.8) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

```



In [225...]

```

plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])

```

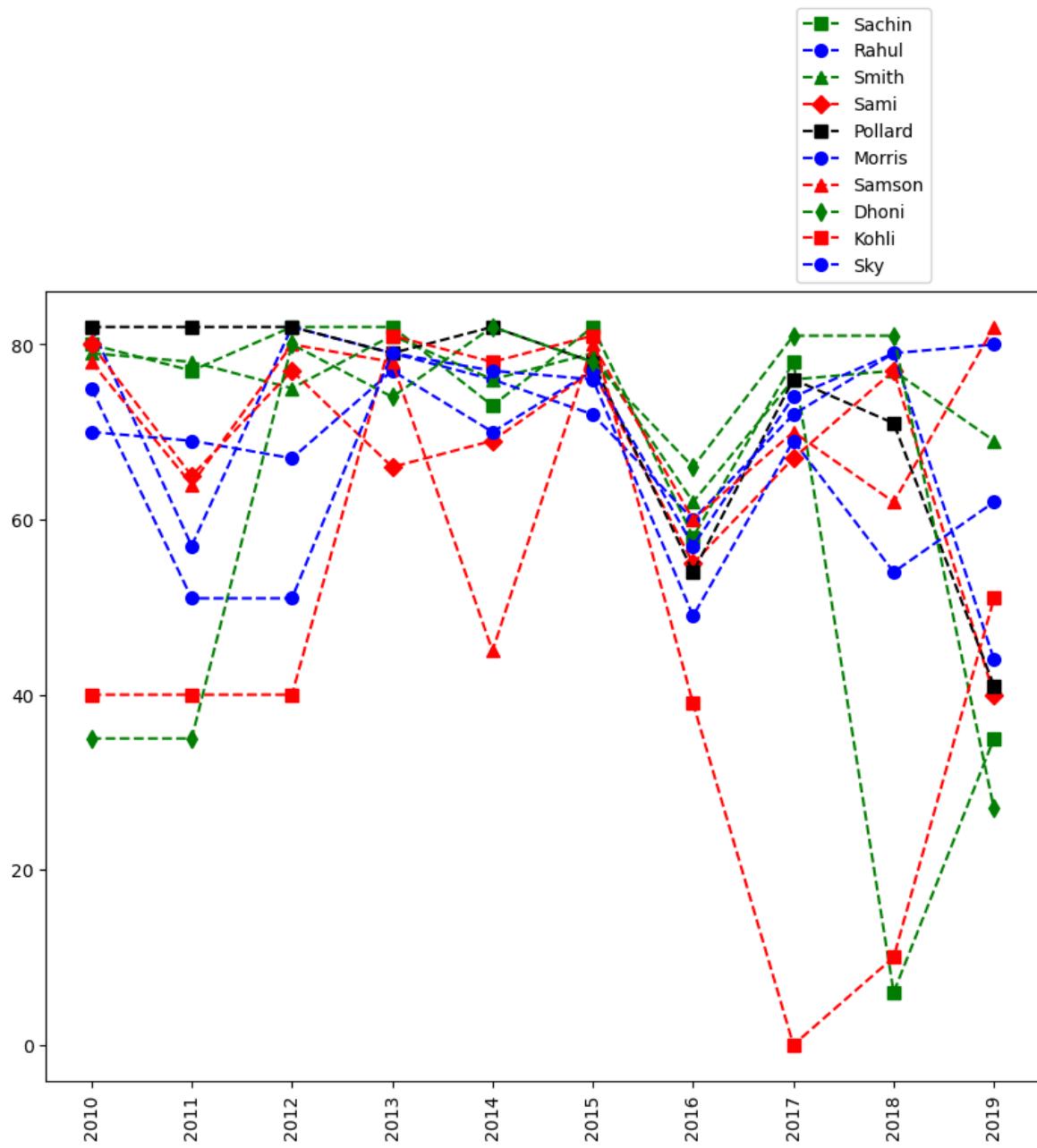
```

plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(0.9,1) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

```



In [227...]

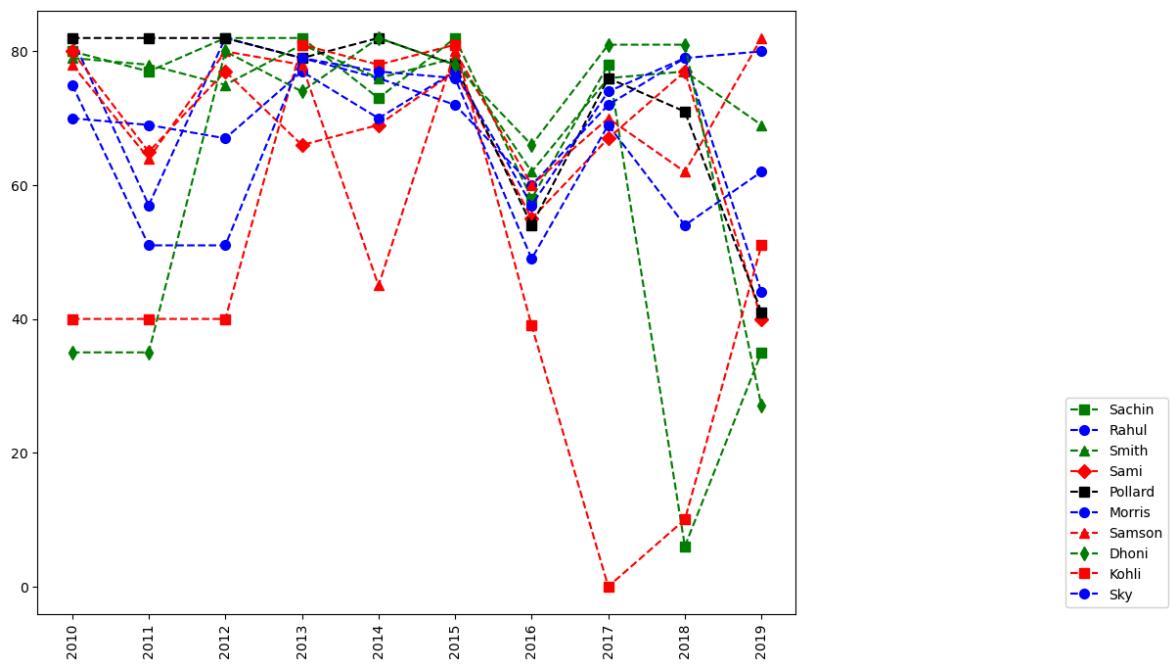
```

plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

```

```
plt.legend(loc = 'lower right',bbox_to_anchor=(1,0.,0.5,1) )
plt.xticks(list(range(0,10)), Seasons,rotation='vertical')

plt.show()
```

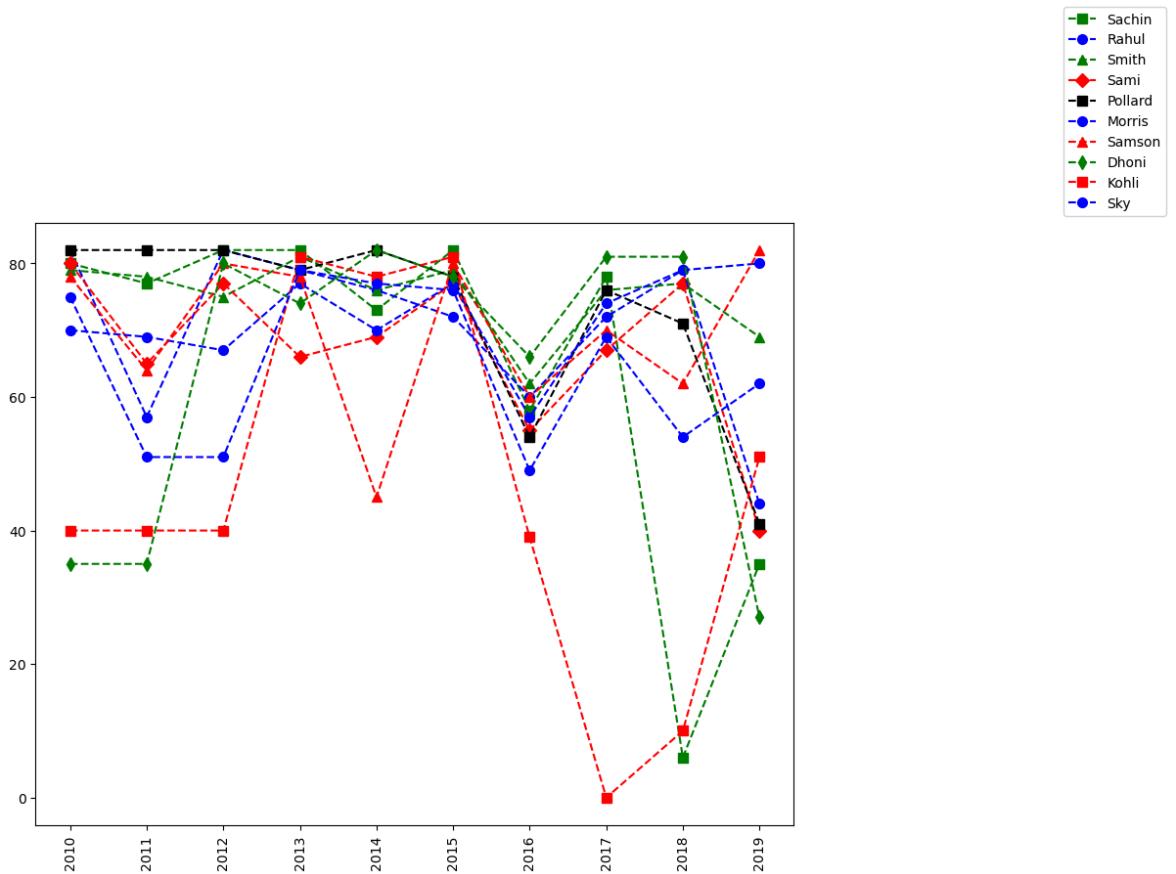


In [228...]

```
plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(1,1,0.5,1) )
plt.xticks(list(range(0,10)), Seasons,rotation='vertical')

plt.show()
```



In [229...]

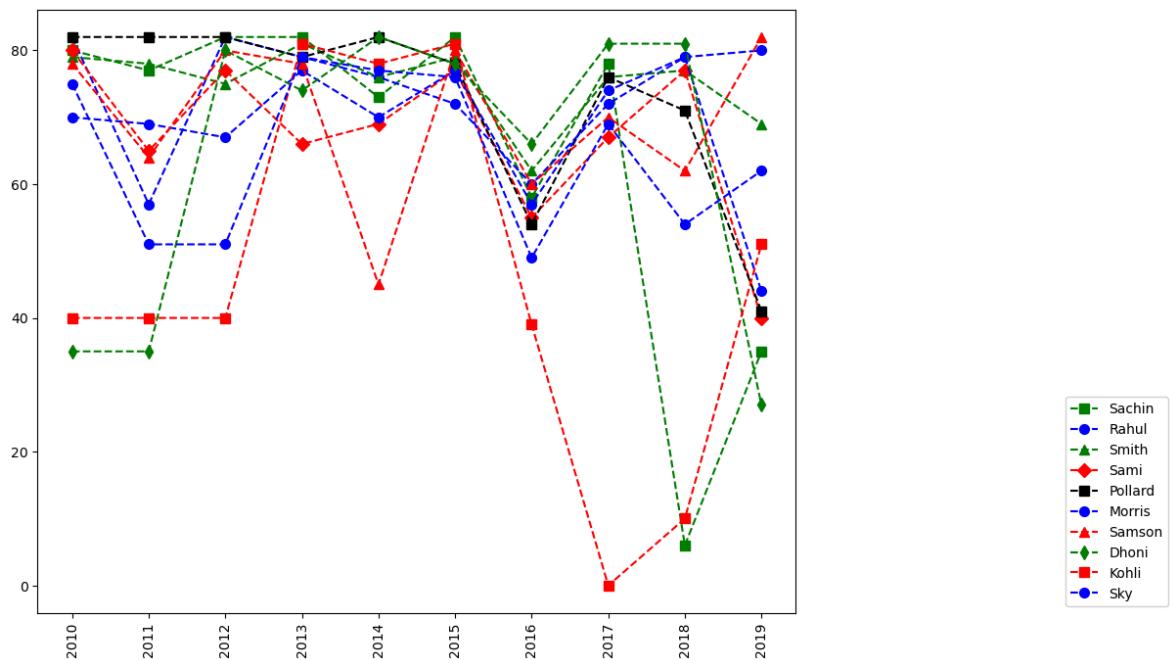
```

plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(1,0.,0.5,1) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

```



In [230]:

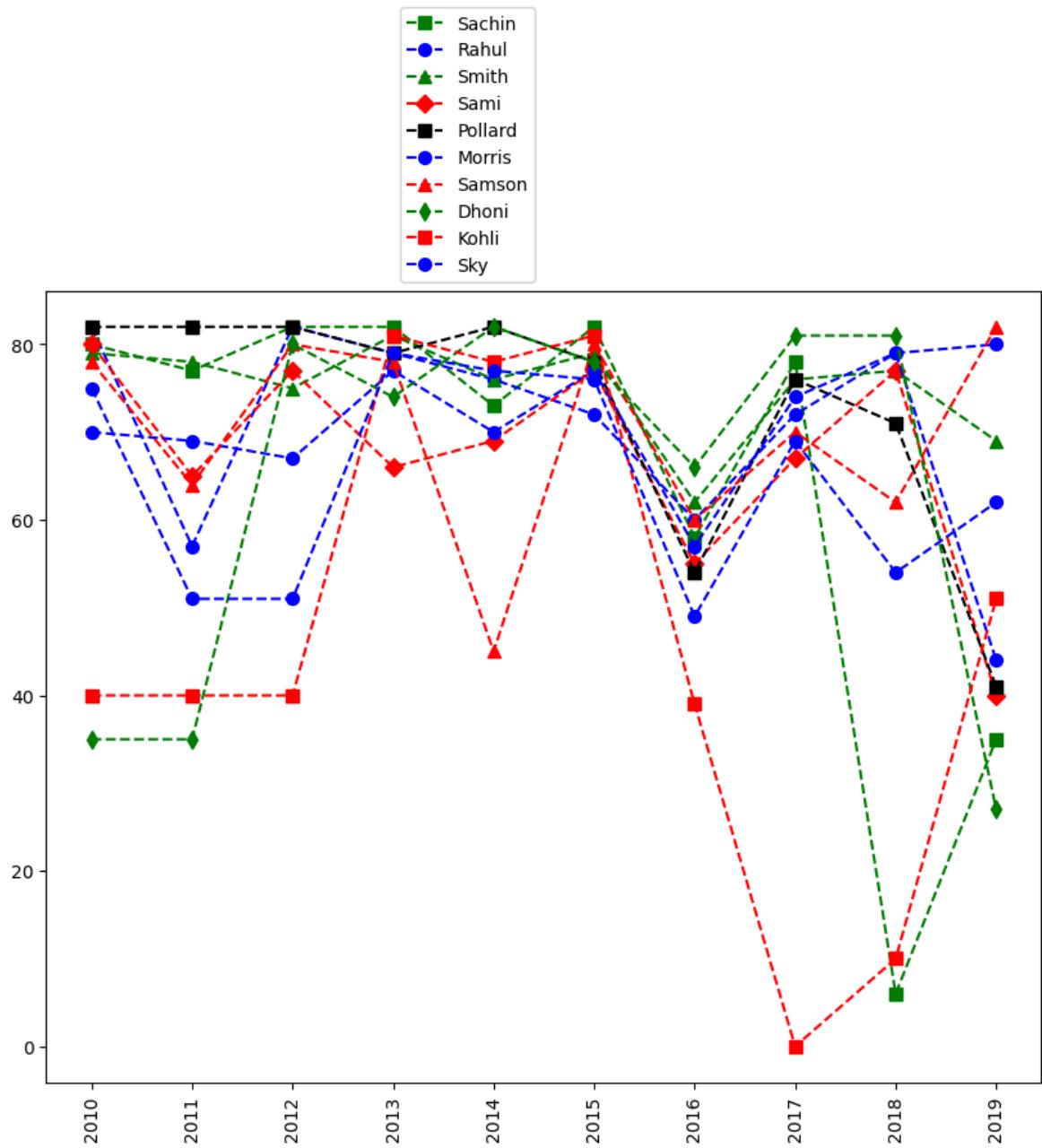
```

plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(0.5,1) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

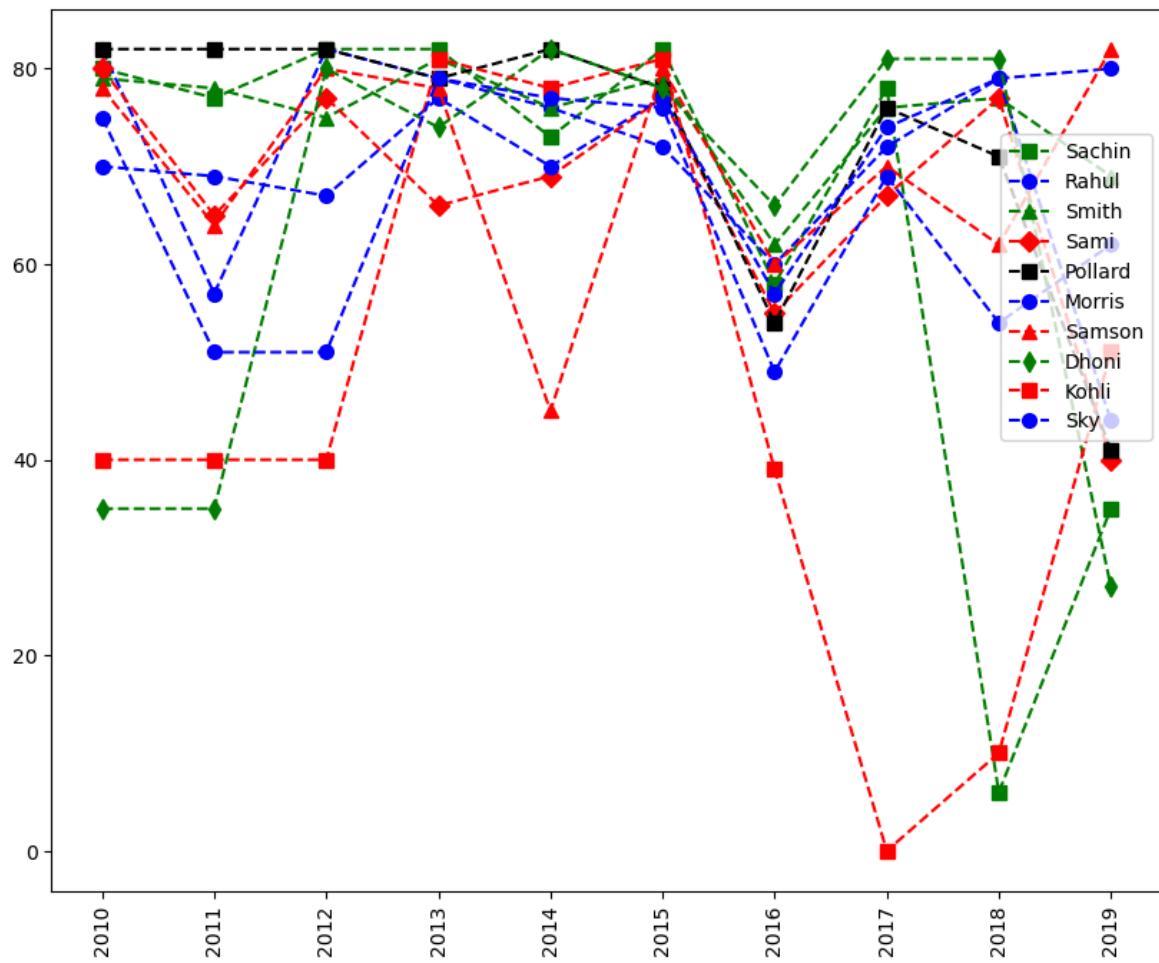
```



```
In [231]: plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(0.5,0.5,0.5,1) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()
```



In [232...]

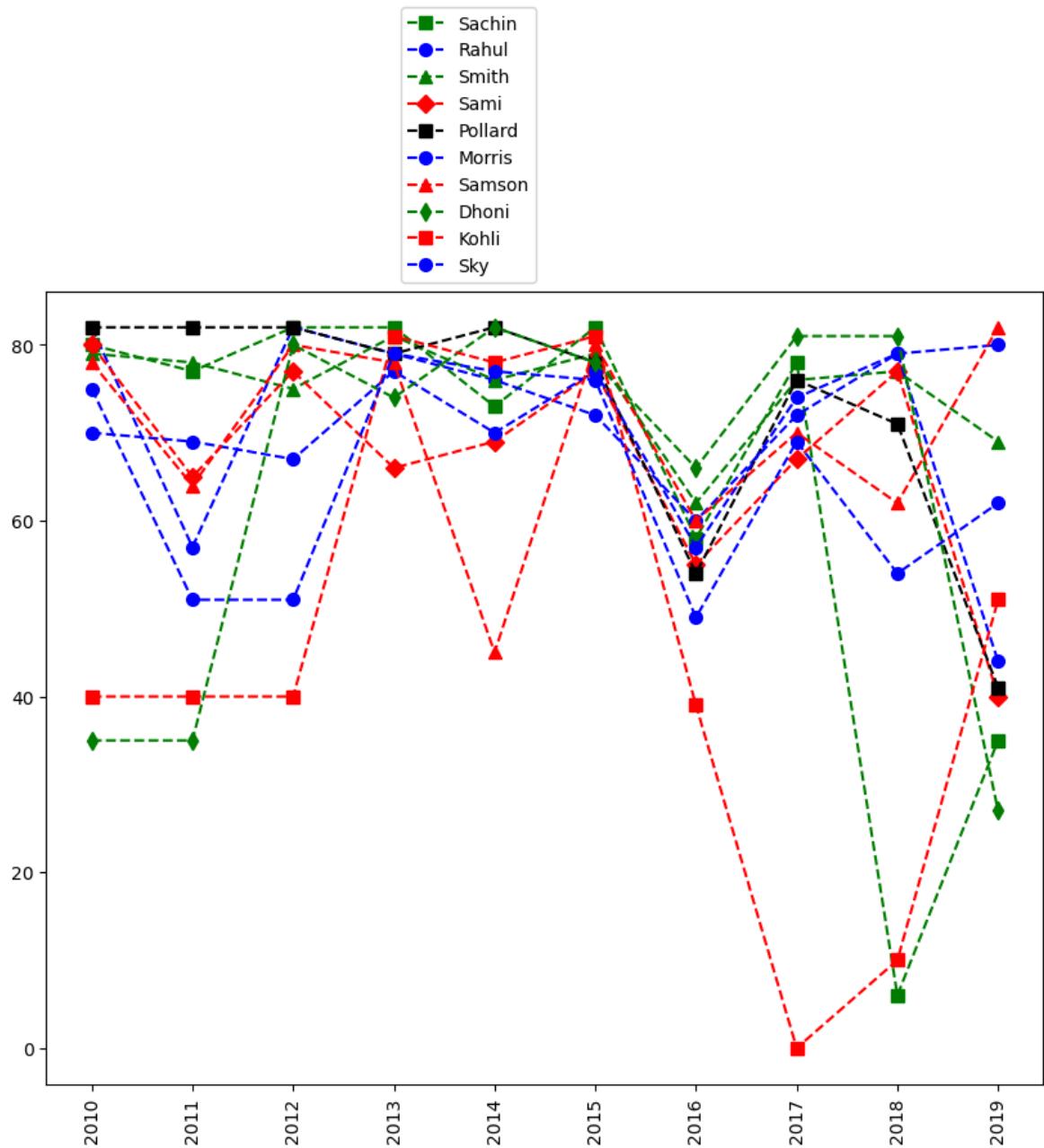
```

plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(0.5,1) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

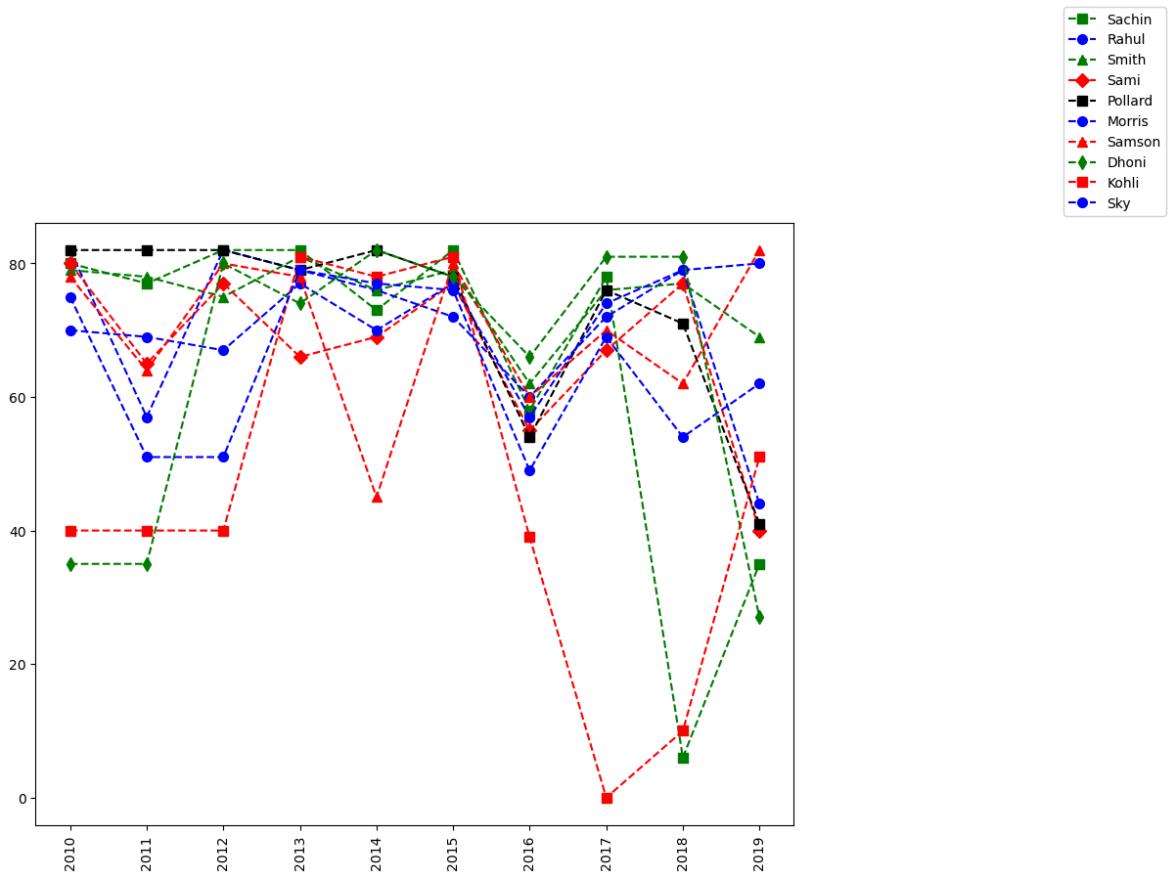
```



```
In [233]: plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(1,1,0.5,1))
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()
```



In [234...]

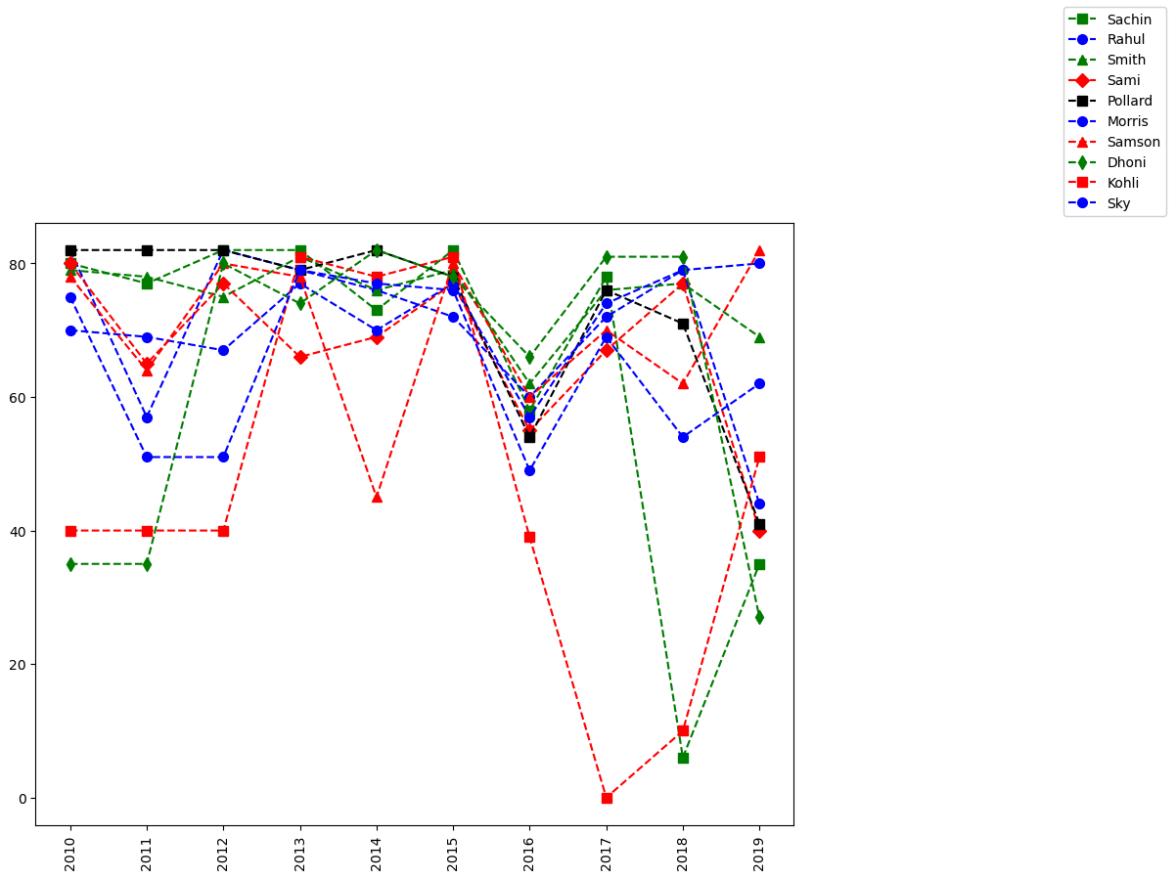
```

plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(1,1,0.5,0.))
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

```



In [235...]

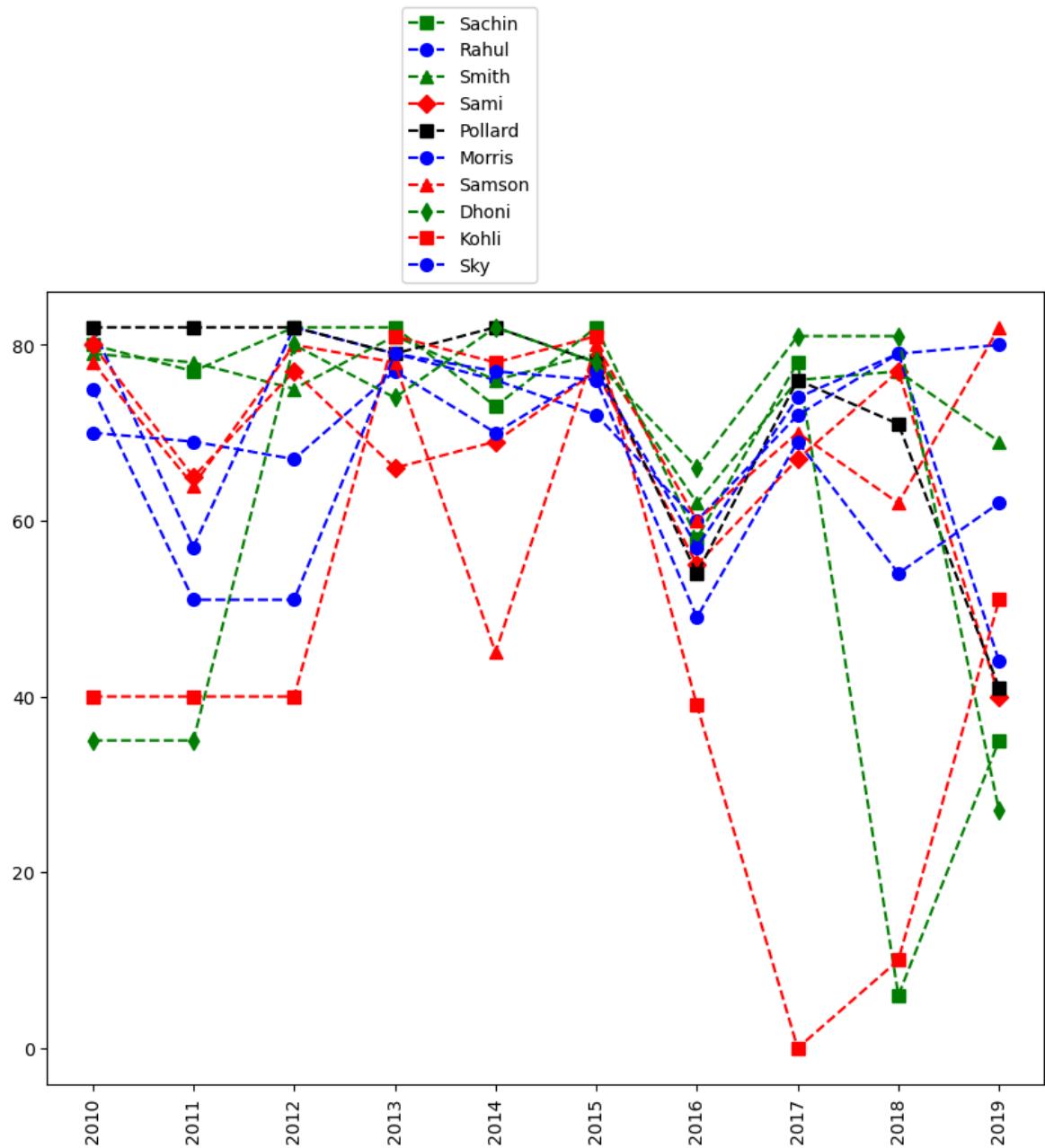
```

plt.plot(Games[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
plt.plot(Games[1], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[1])
plt.plot(Games[2], c='Green', ls = '--', marker = '^', ms = 7, label = Players[2])
plt.plot(Games[3], c='Red', ls = '--', marker = 'D', ms = 7, label = Players[3])
plt.plot(Games[4], c='Black', ls = '--', marker = 's', ms = 7, label = Players[4])
plt.plot(Games[5], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[5])
plt.plot(Games[6], c='red', ls = '--', marker = '^', ms = 7, label = Players[6])
plt.plot(Games[7], c='Green', ls = '--', marker = 'd', ms = 7, label = Players[7])
plt.plot(Games[8], c='Red', ls = '--', marker = 's', ms = 7, label = Players[8])
plt.plot(Games[9], c='Blue', ls = '--', marker = 'o', ms = 7, label = Players[9])

plt.legend(loc = 'lower right',bbox_to_anchor=(0.5,1) )
plt.xticks(list(range(0,10)), Seasons, rotation='vertical')

plt.show()

```



In [ ]: