

nit-project-task

October 17, 2024

1 IPL Data analysis using Numpy and Matplotlib

```
[118]: # Data Analyst work on historical data
```

```
[119]: #Import numpy
import numpy as np

#Seasons
Seasons =_
↳["2015","2016","2017","2018","2019","2020","2021","2022","2023","2024"]
Sdict = {"2015":0,"2016":1,"2017":2,"2018":3,"2019":4,"2020":5,"2021":6,"2022":
↳7,"2023":8,"2024":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 =_
↳[3144240,3380160,3615960,4574189,13520500,14940153,16359805,17779458,18668431,20068563]
Dhoni_Salary =_
↳[0,0,4171200,4484040,4796880,6053663,15506632,16669630,17832627,18995624]
```

```

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])

```

[120]: Seasons

[120]: ['2015',
 '2016',
 '2017',
 '2018',
 '2019',
 '2020',

```
'2021',  
'2022',  
'2023',  
'2024']
```

```
[121]: Salary
```

```
[121]: 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]])
```

```
[122]: Games
```

```
[122]: 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]])
```

```
[123]: Points
```

```
[123]: 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]])
```

```
[124]: Games[5]
```

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

```
[125]: Games[:5]
```

```
[125]: 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]])
```

```
[126]: Games[0,5]
```

```
[126]: 82
```

```
[127]: Games
```

```
[127]: 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]])
```

```
[128]: Games[0,2]
```

```
[128]: 82
```

```
[129]: Pdict
```

```
[129]: {'Sachin': 0,
        'Rahul': 1,
        'Smith': 2,
        'Sami': 3,
        'Pollard': 4,
```

```
'Morris': 5,  
'Samson': 6,  
'Dhoni': 7,  
'Kohli': 8,  
'Sky': 9}
```

```
[130]: Pdict['Sachin']
```

```
[130]: 0
```

```
[131]: Games[0]
```

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

```
[132]: Games[Pdict['Sachin']]
```

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

```
[133]: Games
```

```
[133]: 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]])
```

```
[134]: Pdict['Rahul']
```

```
[134]: 1
```

```
[135]: Games[Pdict['Rahul']]
```

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

```
[136]: Points
```

```
[136]: 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]])
```

```
[137]: Salary
```

```
[137]: 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]])
```

```
[138]: np.round(Salary/Games)
```

```
[138]: 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.]])

```

```
[139]: import warnings
warnings.filterwarnings('ignore')
```

```
[140]: import matplotlib.pyplot as plt
```

```
[141]: %matplotlib inline
```

```
[142]: Salary
```

```
[142]: 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]])

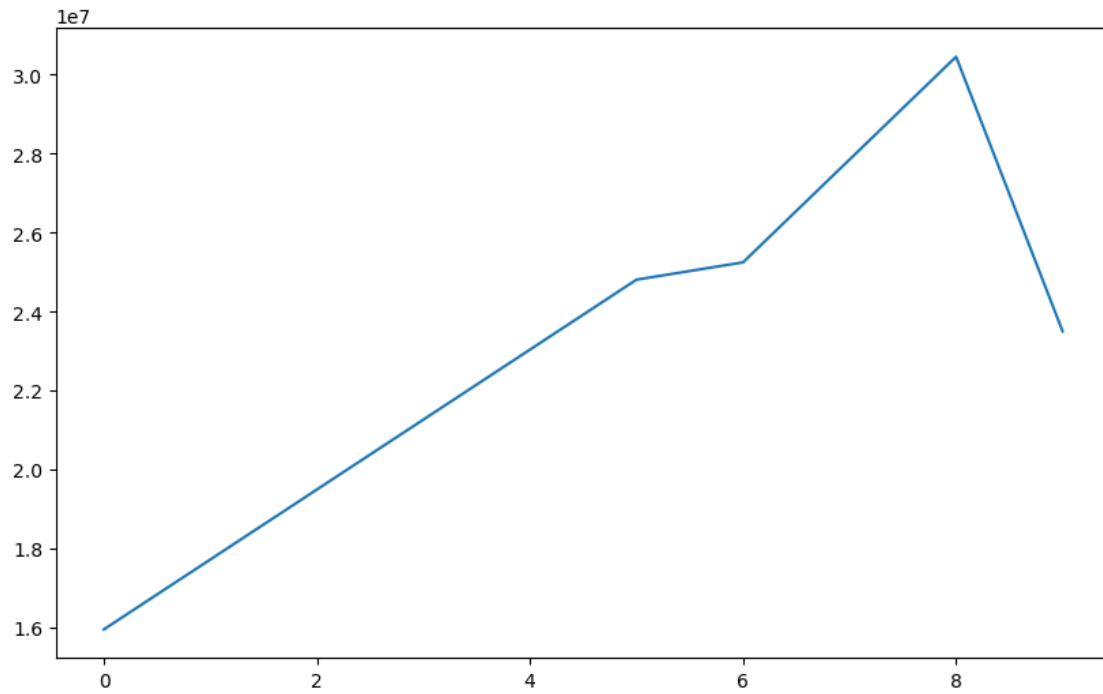
```

```
[143]: Salary[0]
```

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

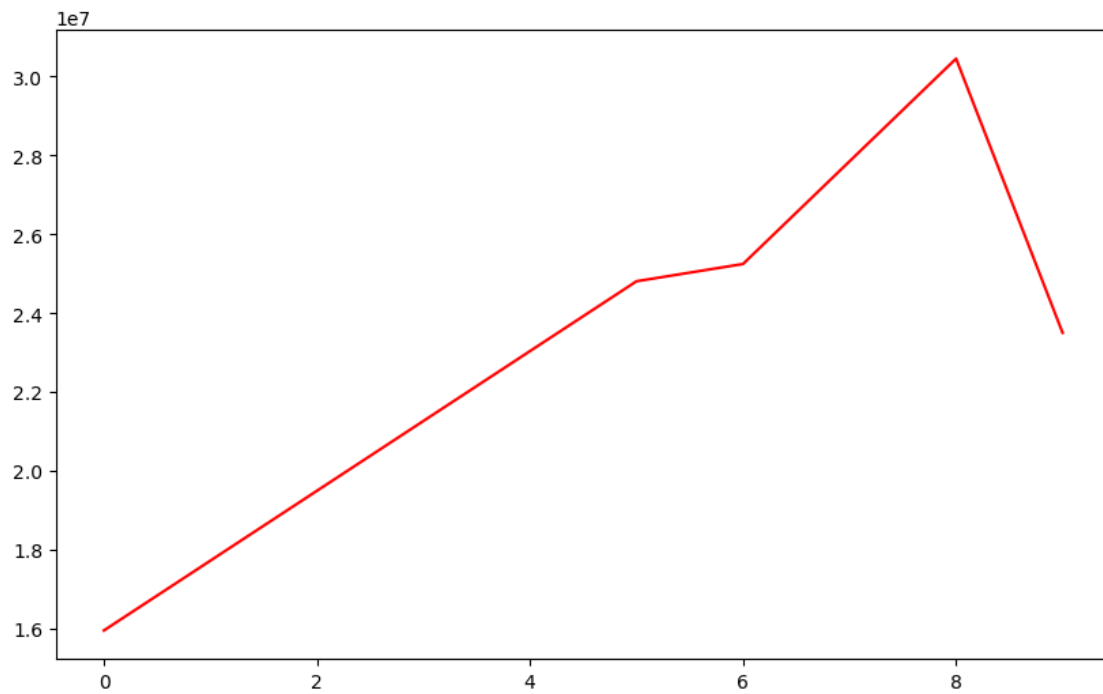
```
[144]: plt.plot(Salary[0])
```

```
[144]: [<matplotlib.lines.Line2D at 0x1a6ee405cd0>]
```



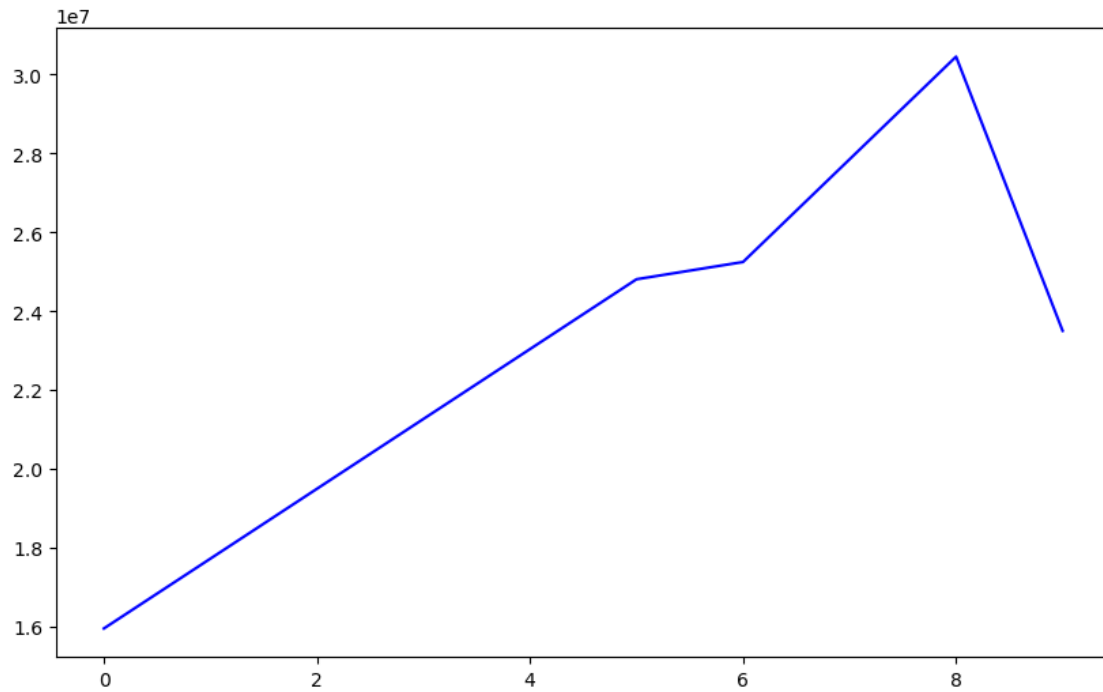
```
[145]: plt.plot(Salary[0],color='r')
```

```
[145]: [<matplotlib.lines.Line2D at 0x1a6ee770d90>]
```



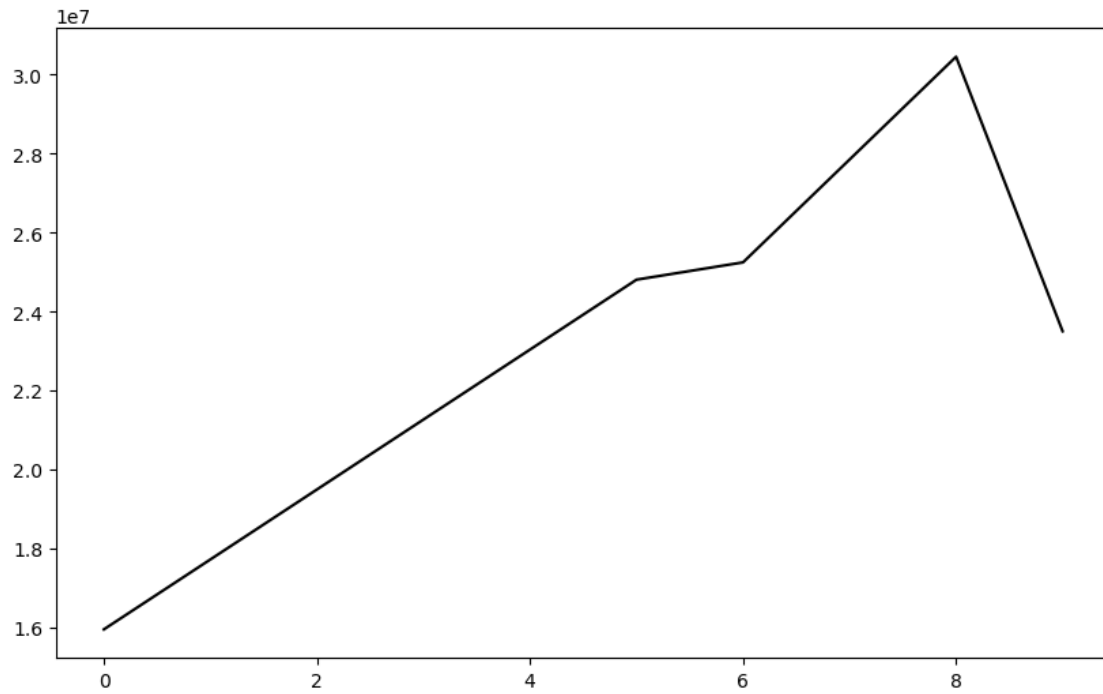

```
[146]: plt.plot(Salary[0],color='b')
```

```
[146]: [<matplotlib.lines.Line2D at 0x1a6ee84ab50>]
```



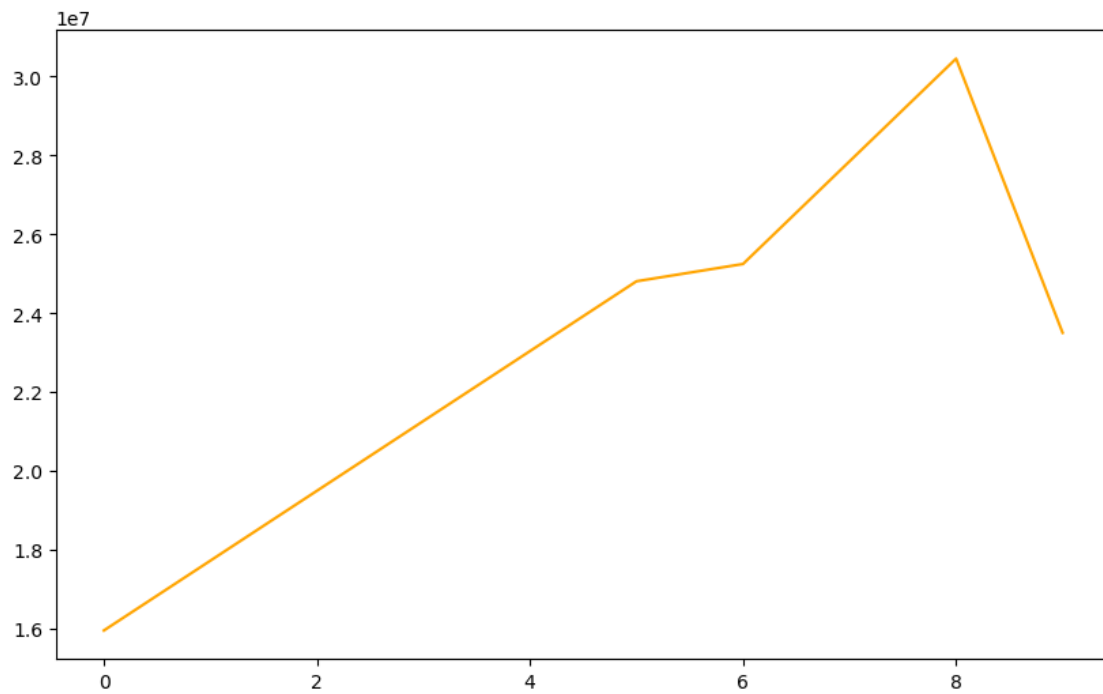
```
[147]: plt.plot(Salary[0],color='k')
```

```
[147]: [<matplotlib.lines.Line2D at 0x1a6ee3e7710>]
```



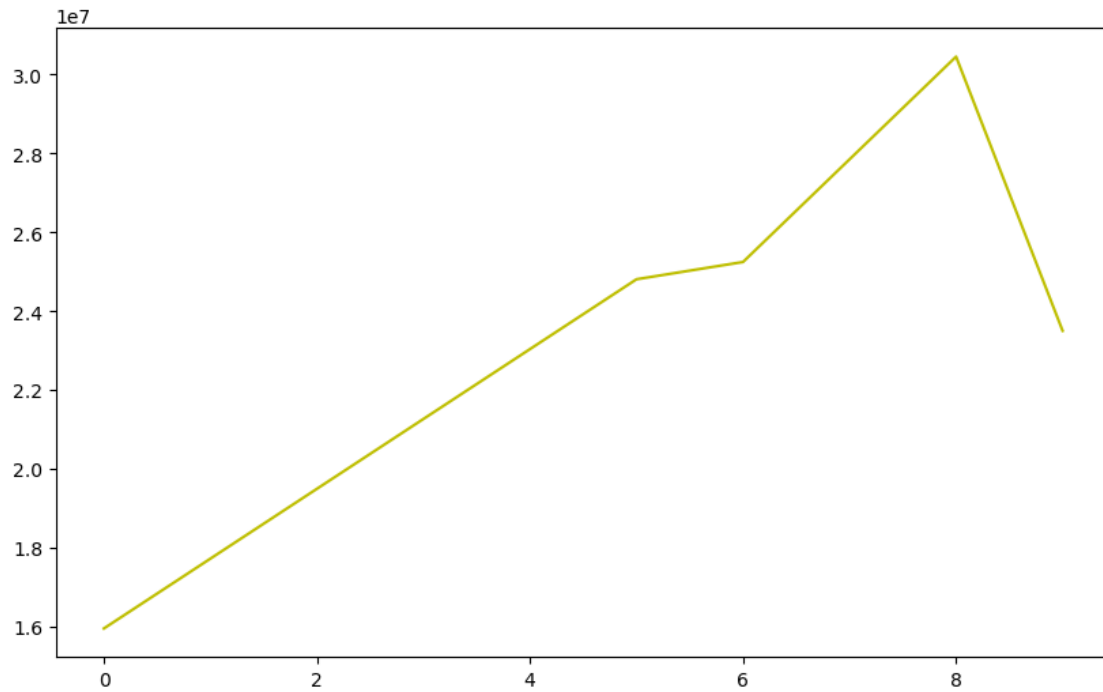
```
[148]: plt.plot(Salary[0],color='Orange')
```

```
[148]: [<matplotlib.lines.Line2D at 0x1a6eef0de10>]
```



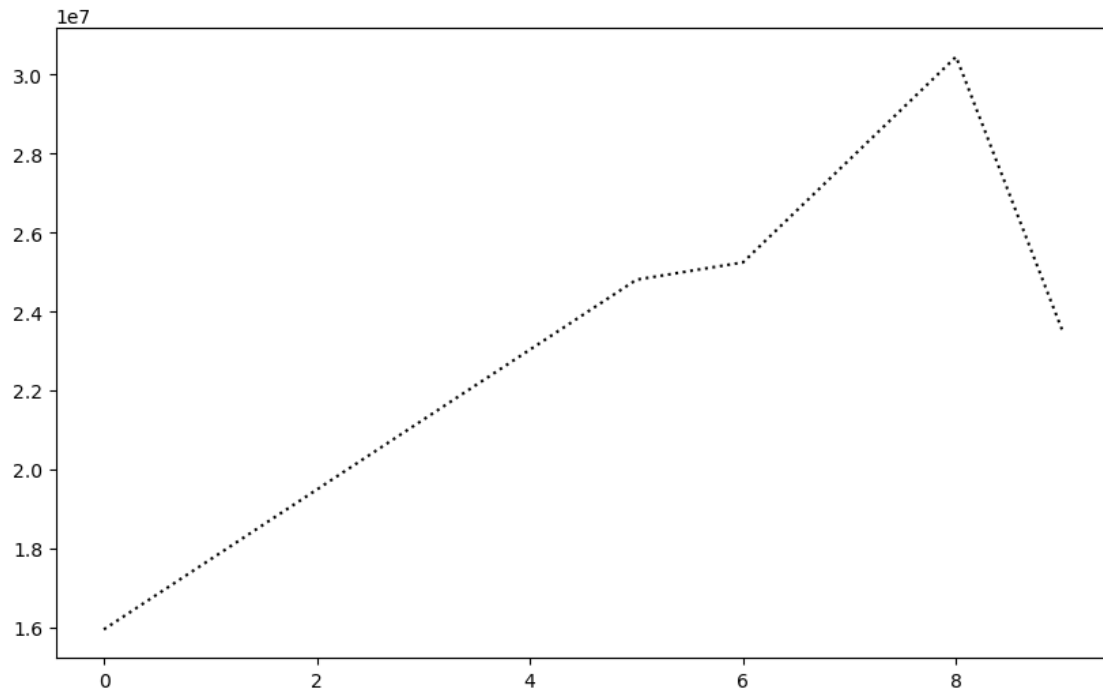
```
[149]: plt.plot(Salary[0],color='y')
```

```
[149]: [<matplotlib.lines.Line2D at 0x1a6eeee8d90>]
```



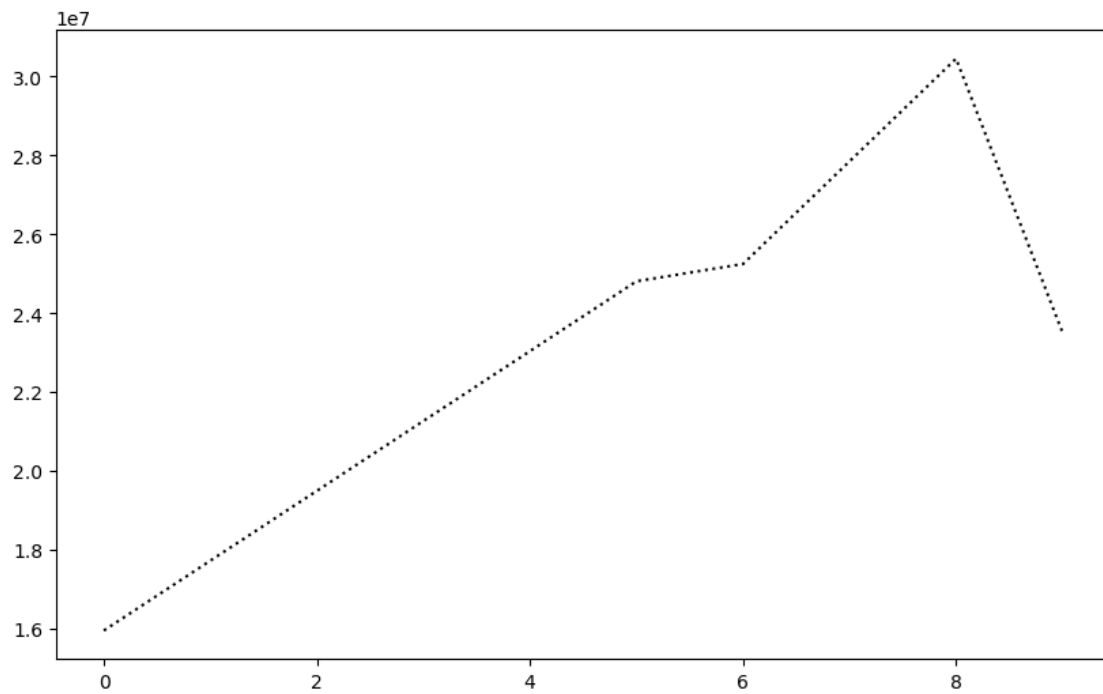
```
[150]: plt.plot(Salary[0],c='k' ,ls='dotted')
```

```
[150]: [<matplotlib.lines.Line2D at 0x1a6ef343d50>]
```



```
[151]: plt.plot(Salary[0],c='k' ,ls='dotted')
```

```
[151]: [<matplotlib.lines.Line2D at 0x1a6ee884cd0>]
```

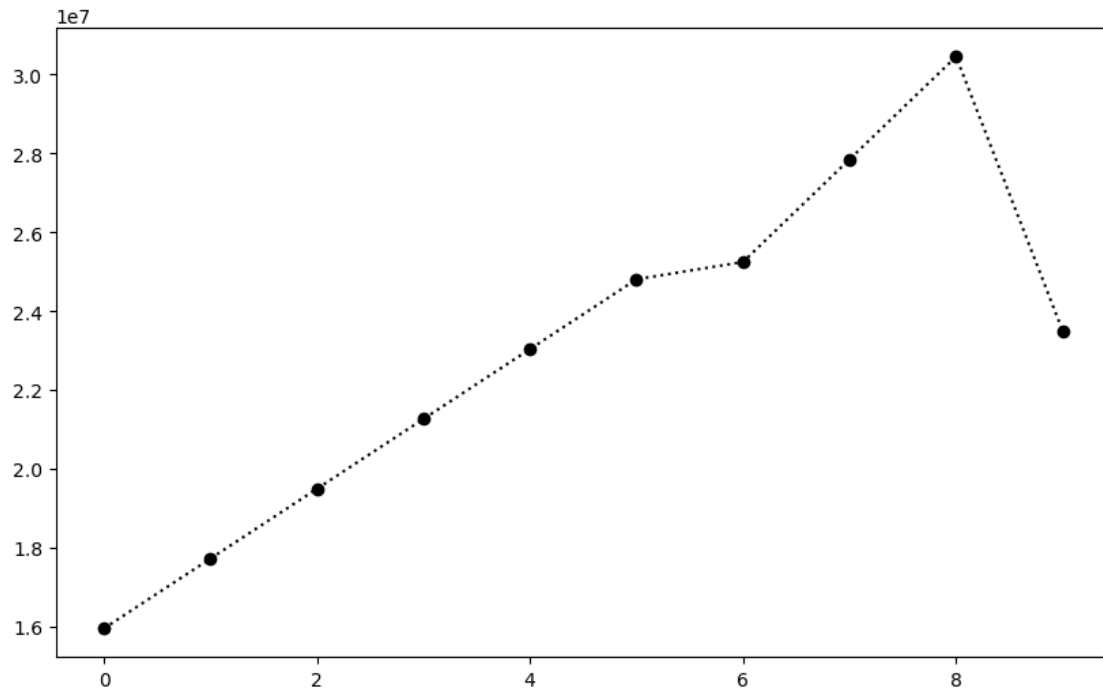


```
[152]: plt.rcParams['figure.figsize'] = 10, 6
```

```
[153]: # Marker
```

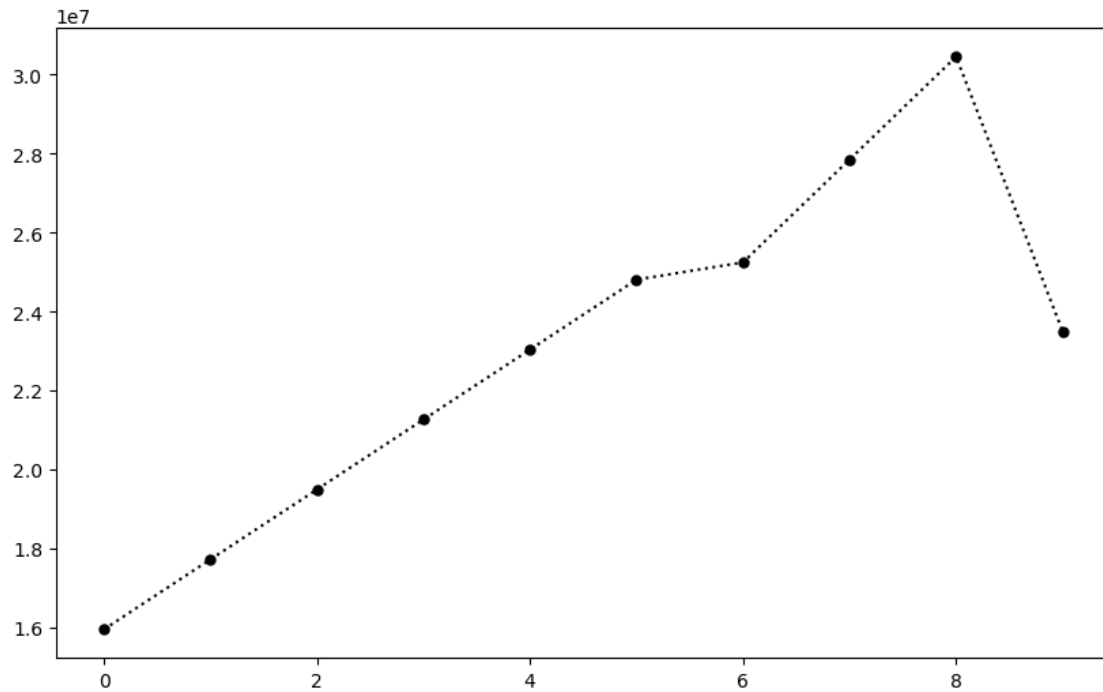
```
[154]: plt.plot(Salary[0],c='k' ,ls='dotted',marker='o')
```

```
[154]: [<matplotlib.lines.Line2D at 0x1a6ee8fe410>]
```



```
[155]: plt.plot(Salary[0],c='k' ,ls='dotted',marker='o',ms=5)
```

```
[155]: [<matplotlib.lines.Line2D at 0x1a6ee94dc50>]
```



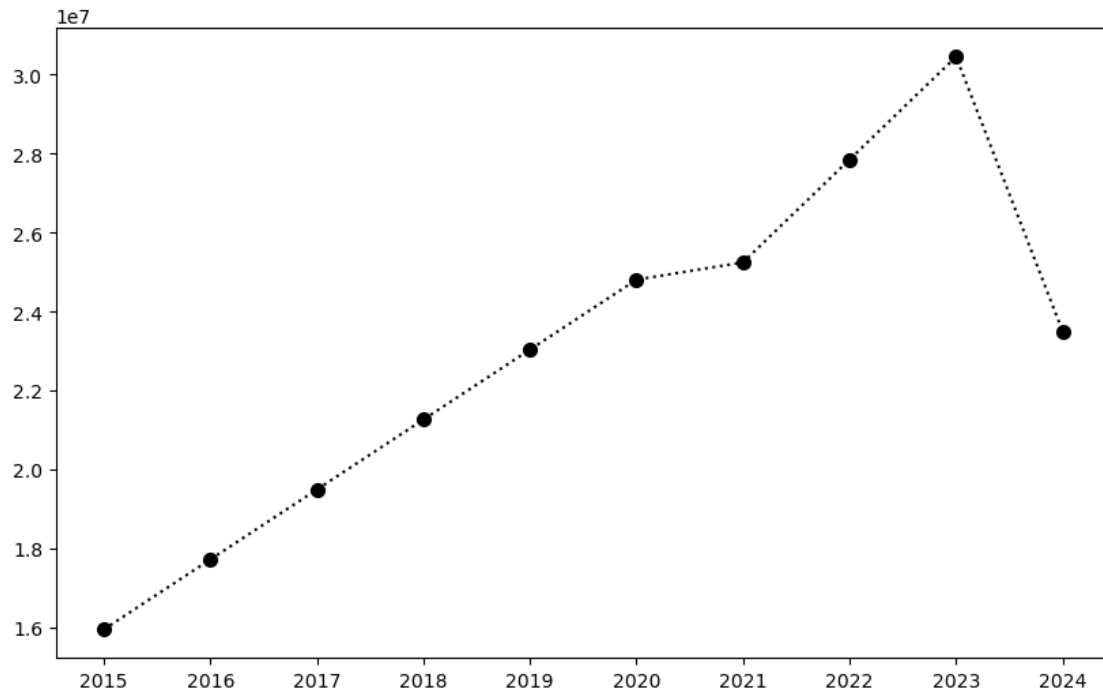
```
[156]: list(range(0,10))
```

```
[156]: [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

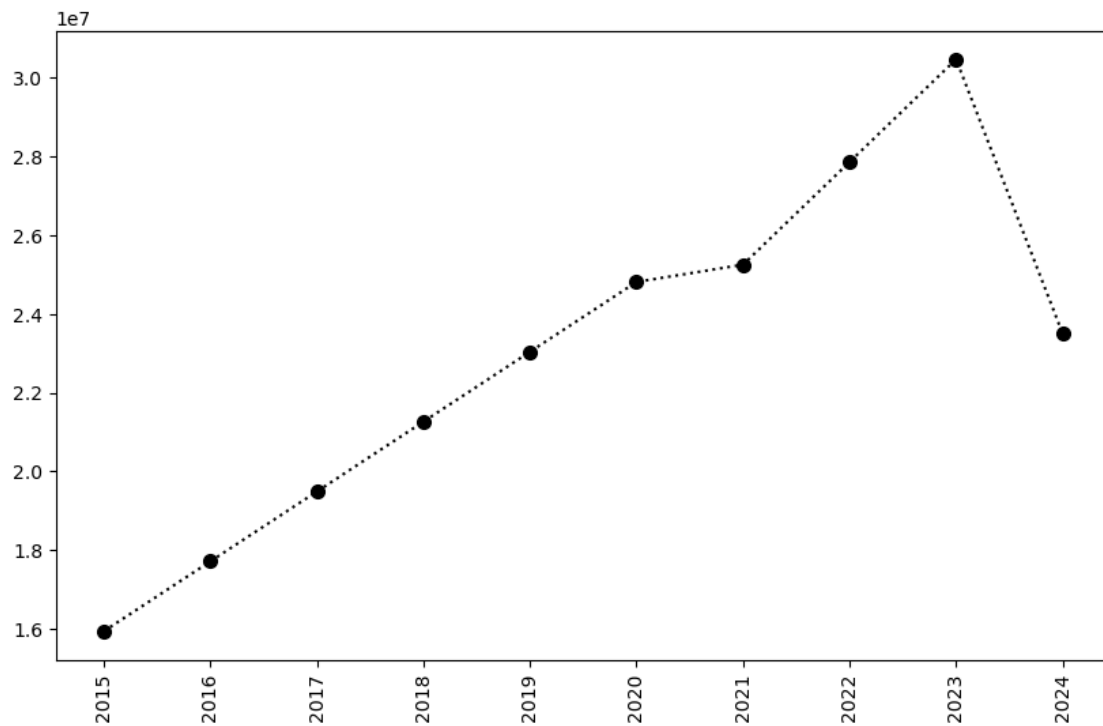
```
[157]: Sdict
```

```
[157]: {'2015': 0,
        '2016': 1,
        '2017': 2,
        '2018': 3,
        '2019': 4,
        '2020': 5,
        '2021': 6,
        '2022': 7,
        '2023': 8,
        '2024': 9}
```

```
[158]: plt.plot(Salary[0],c='k',ls='dotted',marker='o',ms=7)
plt.xticks(list(range(0,10)),Seasons)
plt.show()
```

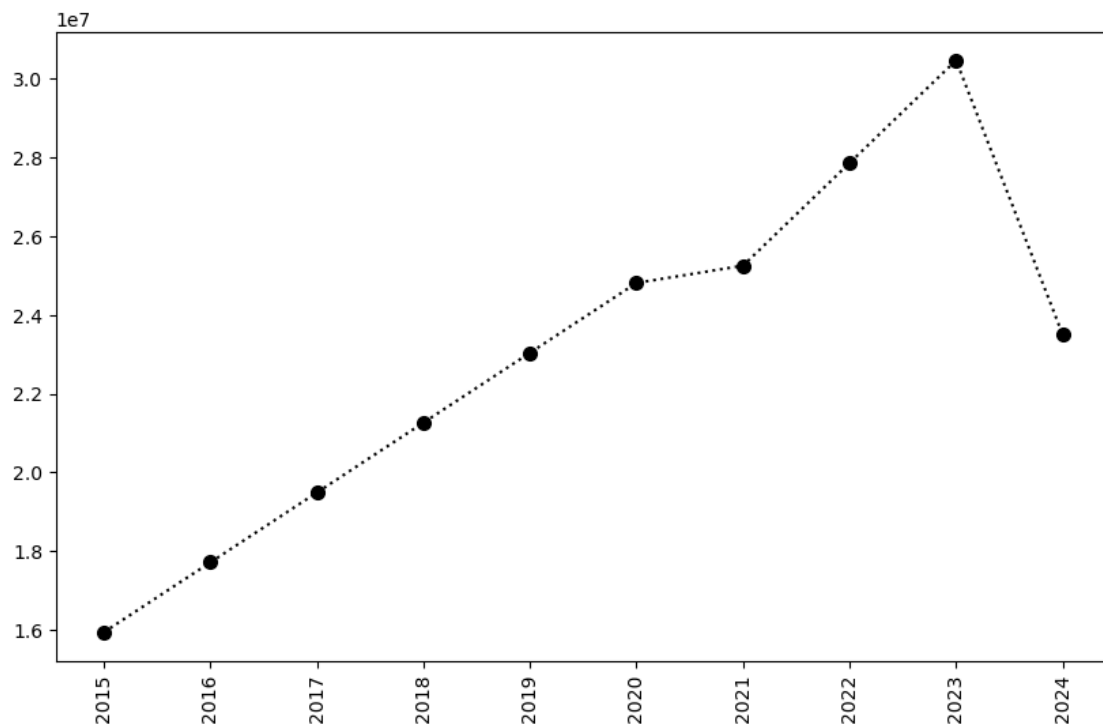


```
[159]: plt.plot(Salary[0],c='k' ,ls='dotted',marker='o',ms=7)
plt.xticks(list(range(0,10)),Seasons,rotation='vertical')
plt.show()
```



```
[160]: plt.plot(Salary[0],c='k' ,ls='dotted',marker='o',ms=7)
plt.xticks(list(range(0,10)),Seasons,rotation='vertical')

plt.show()
```



```
[161]: Salary[0]
```

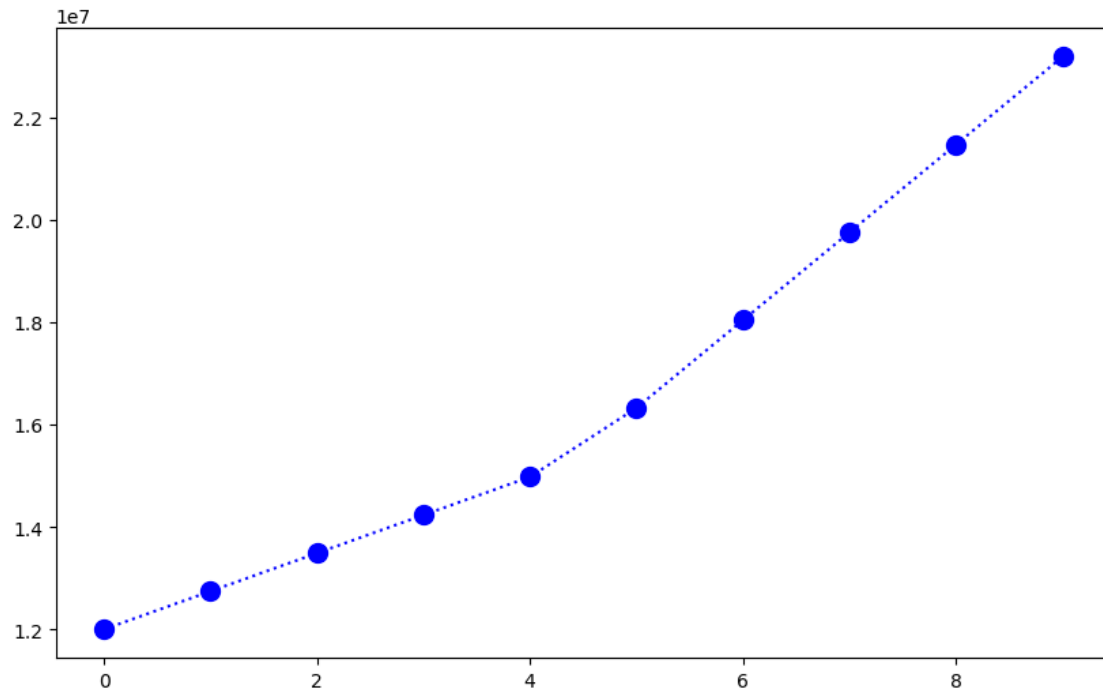
```
[161]: array([15946875, 17718750, 19490625, 21262500, 23034375, 24806250,
          25244493, 27849149, 30453805, 23500000])
```

```
[162]: Salary[1]
```

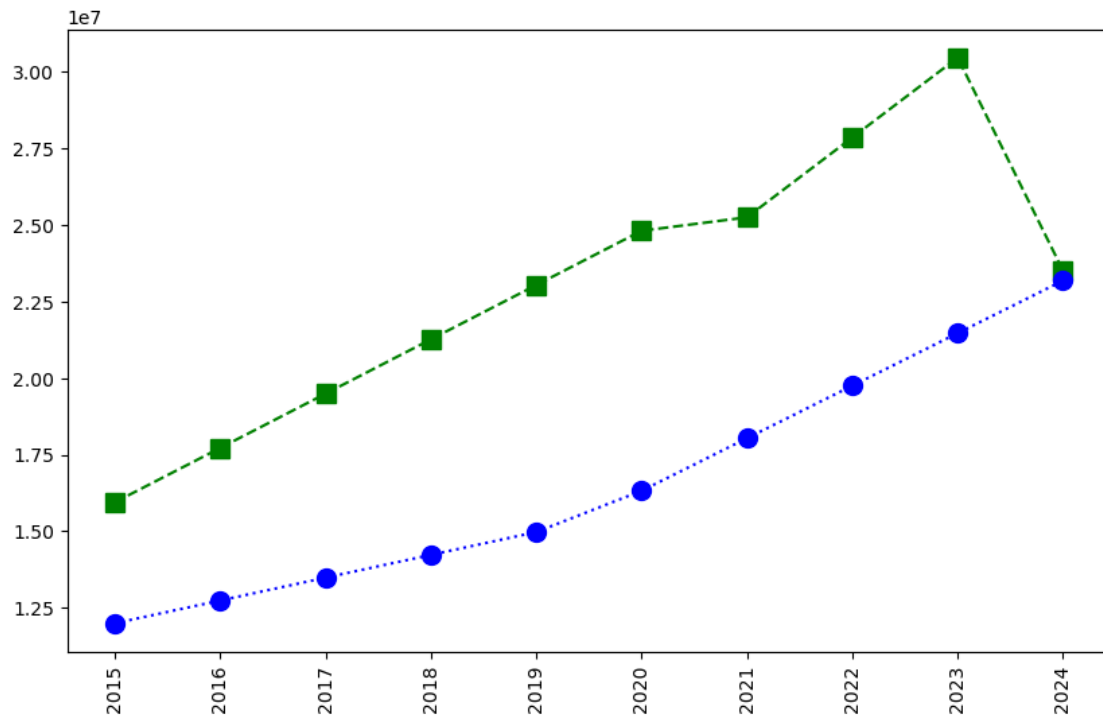
```
[162]: array([12000000, 12744189, 13488377, 14232567, 14976754, 16324500,
          18038573, 19752645, 21466718, 23180790])
```

```
[163]: plt.plot(Salary[1],c='Blue',ls=":",marker='o',ms=10,label=Players[1])
```

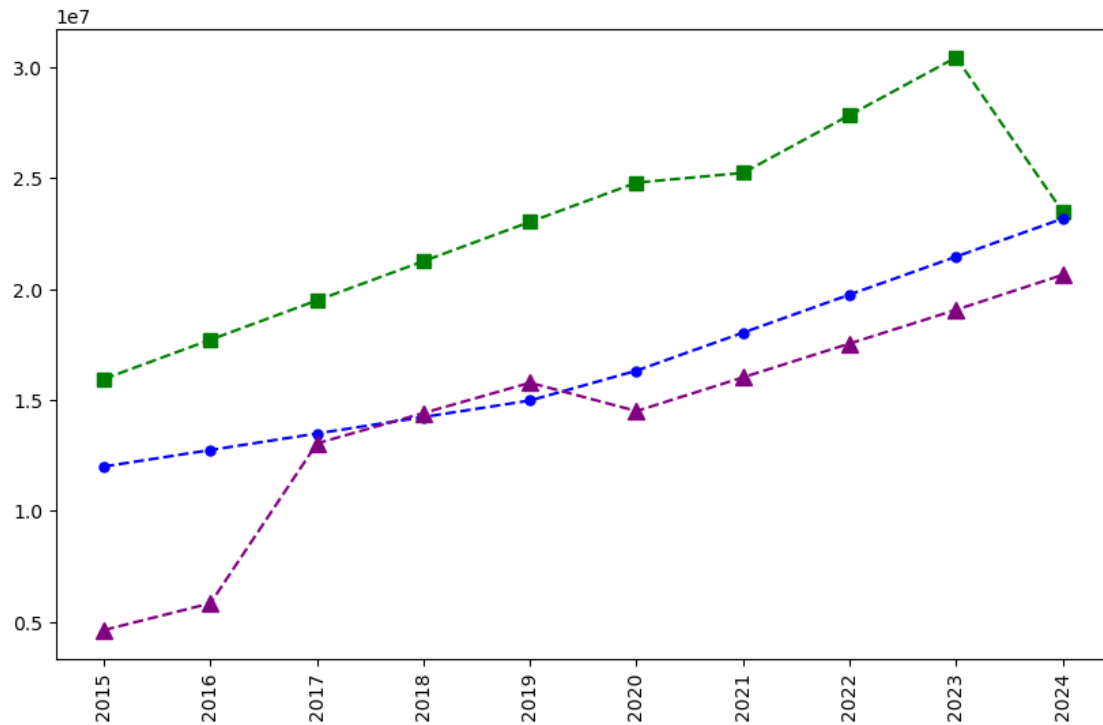
```
[163]: [<matplotlib.lines.Line2D at 0x1a6ef933d50>]
```

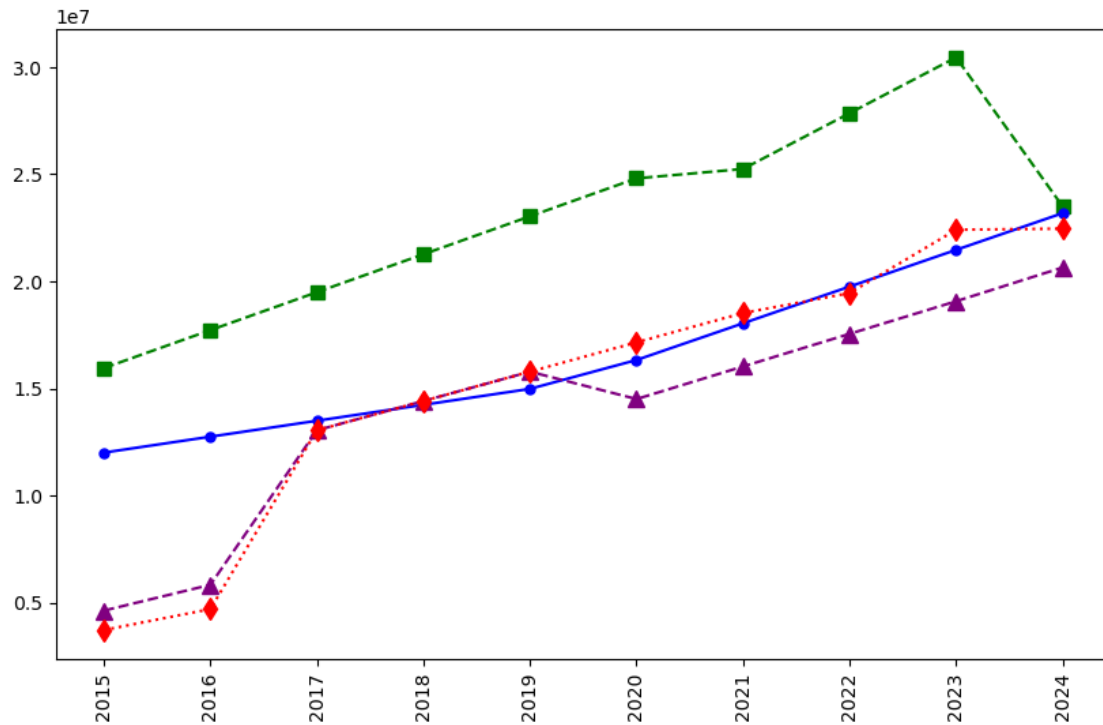
```
[164]: plt.plot(Salary[0],c='Green',ls='--',marker='s',ms=10,label=Players[0])
plt.plot(Salary[1],c='Blue',ls=':',marker='o',ms=10,label=Players[1])
plt.xticks(list(range(0,10)),Seasons,rotation='vertical')
plt.show()
```



```
[165]: 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()
```

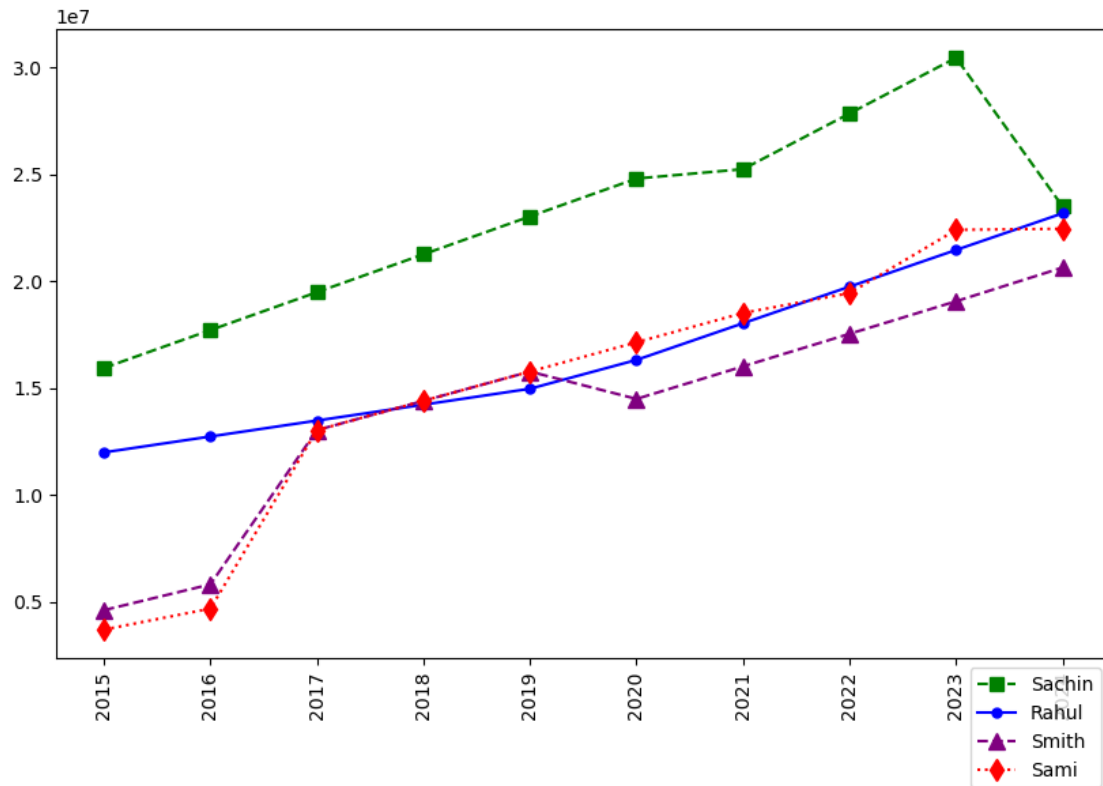


```
[166]: plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
        plt.plot(Salary[1], c='Blue', ls = '-', marker = 'o', ms = 5, label = Players[1])
        plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])
        plt.plot(Salary[3],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



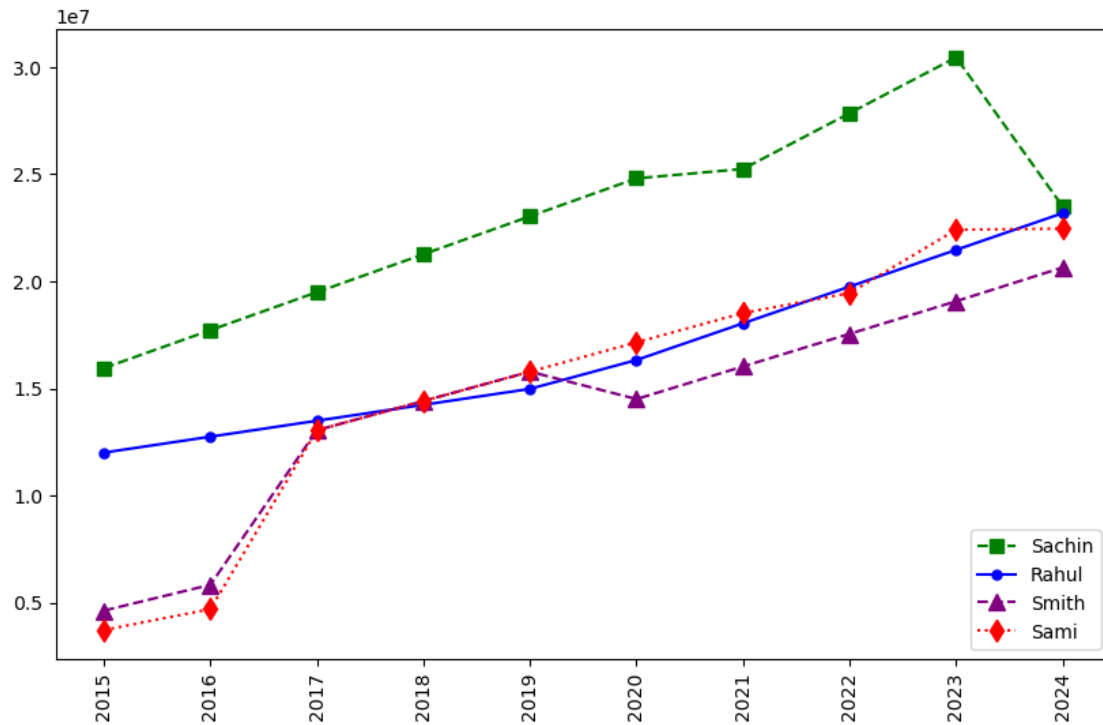
```
[167]: plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = "
↳Players[0])
plt.plot(Salary[1], c='Blue', ls = '-', marker = 'o', ms = 5, label = "
↳Players[1])
plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = "
↳Players[2])
plt.plot(Salary[3], c='Red', ls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

plt.show()
```



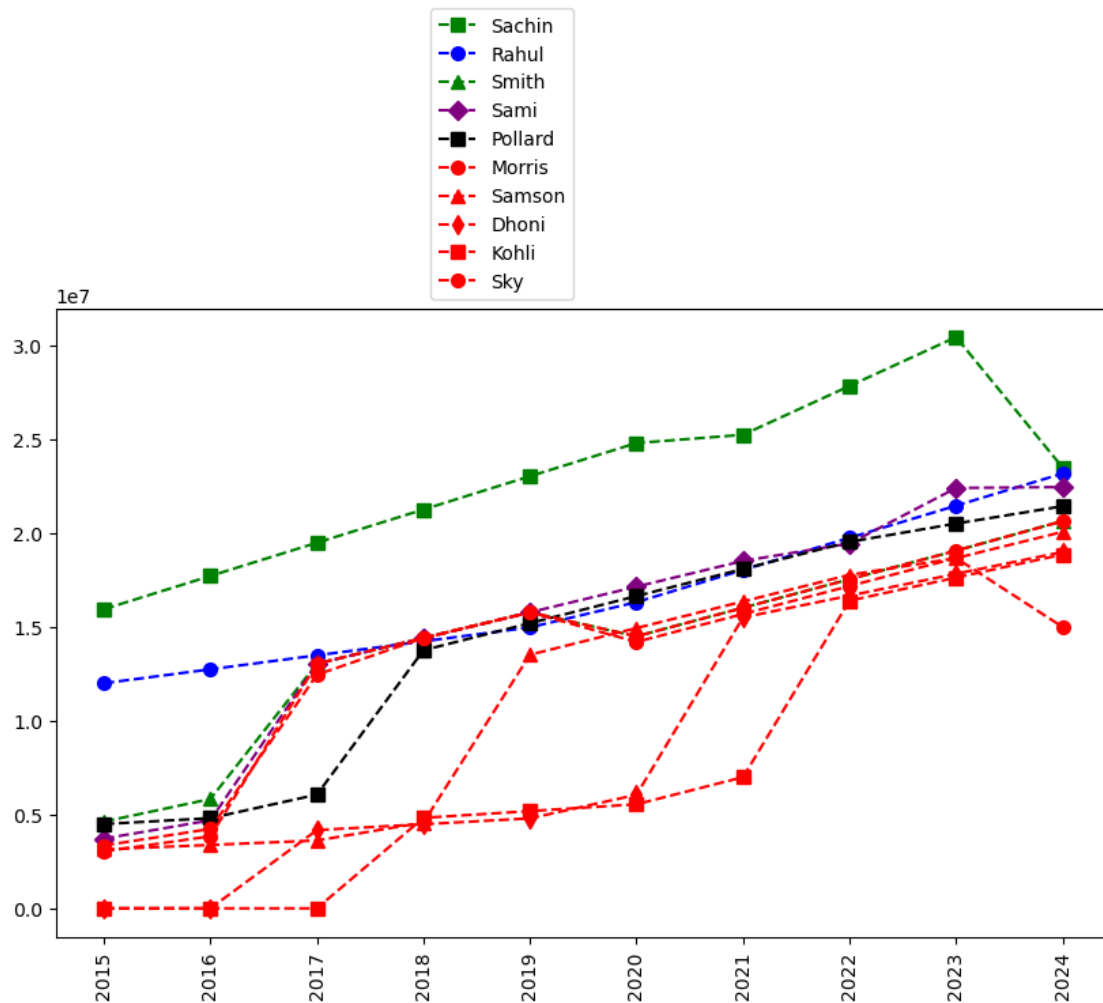
```
[168]: plt.plot(Salary[0], c='Green', ls = '--', marker = 's', ms = 7, label = Players[0])
        plt.plot(Salary[1], c='Blue', ls = '-', marker = 'o', ms = 5, label = Players[1])
        plt.plot(Salary[2], c='purple', ls = '--', marker = '^', ms = 8, label = Players[2])
        plt.plot(Salary[3],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

        plt.show()
```



```
[170]: 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()
```



```
[177]: 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.xlabel('Season')

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

plt.show()

```

