21st Nov

In [5]:
```
#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,"2

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

#Salaries
Sachin_Salary = [15946875,17718750,19490625,21262500,23034375,24806250,25244493,278
Rahul_Salary = [12000000,12744189,13488377,14232567,14976754,16324500,18038573,1975
Smith_Salary = [4621800,5828090,13041250,14410581,15779912,14500000,16022500,175450
Sami_Salary = [3713640,4694041,13041250,14410581,15779912,17149243,18518574,1945000
Pollard_Salary = [4493160,4806720,6061274,13758000,15202590,16647180,18091770,19536
Morris_Salary = [3348000,4235220,12455000,14410581,15779912,14500000,16022500,17545
Samson_Salary = [3144240,3380160,3615960,4574189,13520500,14940153,16359805,1777945
Dhoni_Salary = [0,0,4171200,4484040,4796880,6053663,15506632,16669630,17832627,1899
Kohli_Salary = [0,0,0,4822800,5184480,5546160,6993708,16402500,17632688,18862875]
Sky_Salary = [3031920,3841443,13041250,14410581,15779912,14200000,15691000,17182000
#Matrix
Salary = np.array([Sachin_Salary, Rahul_Salary, Smith_Salary, Sami_Salary, Pollard_

#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

#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_
```

In [7]:
```
Salary
```

Out[7]:
```
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 [9]:
```
Games / Points
```

```
C:\Users\bikas\AppData\Local\Temp\ipykernel_8812\1477202112.py:1: RuntimeWarning: in
valid value encountered in divide
  Games / Points
```

Out[9]:
```
array([[0.02824859, 0.03168724, 0.03529918, 0.03725579, 0.03705584,
        0.03946102, 0.03589109, 0.03656821, 0.07228916, 0.04475703],
       [0.04960678, 0.03997195, 0.04609331, 0.04680095, 0.04694256,
        0.05487805, 0.05314438, 0.06153846, 0.06345382, 0.06932409],
       [0.03188055, 0.03658537, 0.03333333, 0.03515625, 0.0336581 ,
        0.03742302, 0.03683898, 0.03732809, 0.03685974, 0.03958692],
       [0.03770028, 0.03455609, 0.03892821, 0.04388298, 0.03551209,
        0.03908629, 0.04417671, 0.03489583, 0.03645833, 0.04140787],
       [0.06346749, 0.05682606, 0.04837758, 0.04864532, 0.05455755,
        0.04372197, 0.04851752, 0.05864198, 0.05474171, 0.06346749],
       [0.04452926, 0.04420243, 0.0447861 , 0.0441008 , 0.04171633,
        0.05354659, 0.05560976, 0.06006494, 0.06167057, 0.04741379],
       [0.06200318, 0.05797101, 0.04750594, 0.04379562, 0.05350773,
        0.06309148, 0.05046257, 0.05902192, 0.05232068, 0.05242967],
       [0.03875969, 0.03875969, 0.04926108, 0.03955104, 0.03317152,
        0.0360944 , 0.03567568, 0.03552632, 0.03123795, 0.0393586 ],
       [0.06700168, 0.06700168, 0.06700168, 0.05951506, 0.04817789,
        0.03998026, 0.04577465,        nan, 0.06289308, 0.05641593],
       [0.03676471, 0.0365068 , 0.04066986, 0.03310981, 0.03765281,
        0.03915507, 0.04528651, 0.04716336, 0.05252918, 0.04658152]])
```

In [11]:
```
import warnings
warnings.filterwarnings('ignore')
```

In [13]:
```
import matplotlib.pyplot as plt
```

In [14]:
```
%matplotlib inline
```

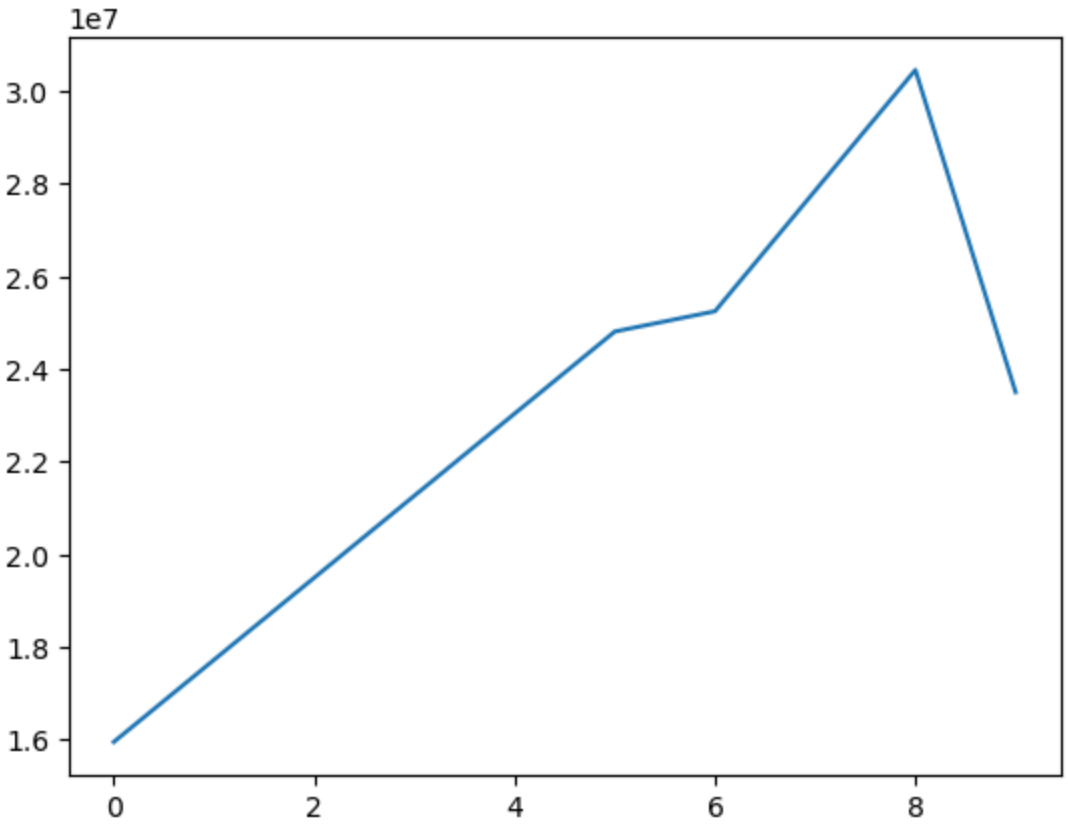
In [15]:
```
Salary
```

Out[15]:
```
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]])
```

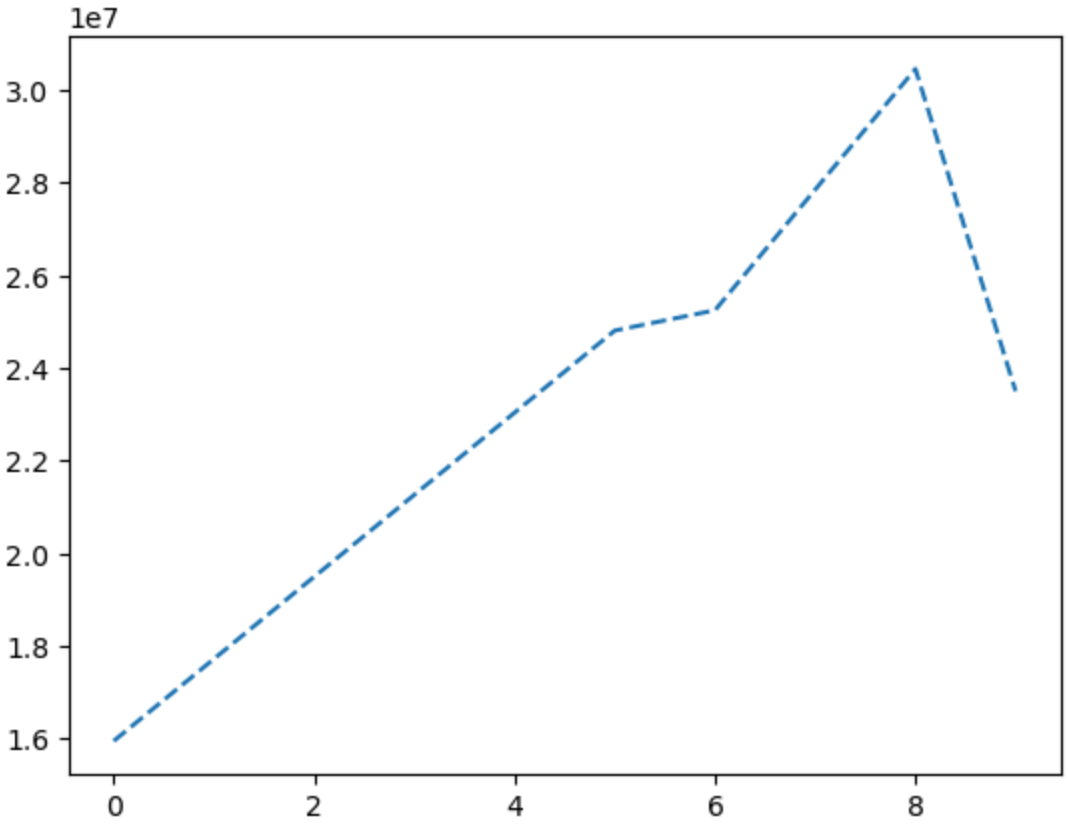
In [16]:
```
Salary[0]
```

Out[16]:
```
array([15946875, 17718750, 19490625, 21262500, 23034375, 24806250,
       25244493, 27849149, 30453805, 23500000])
```

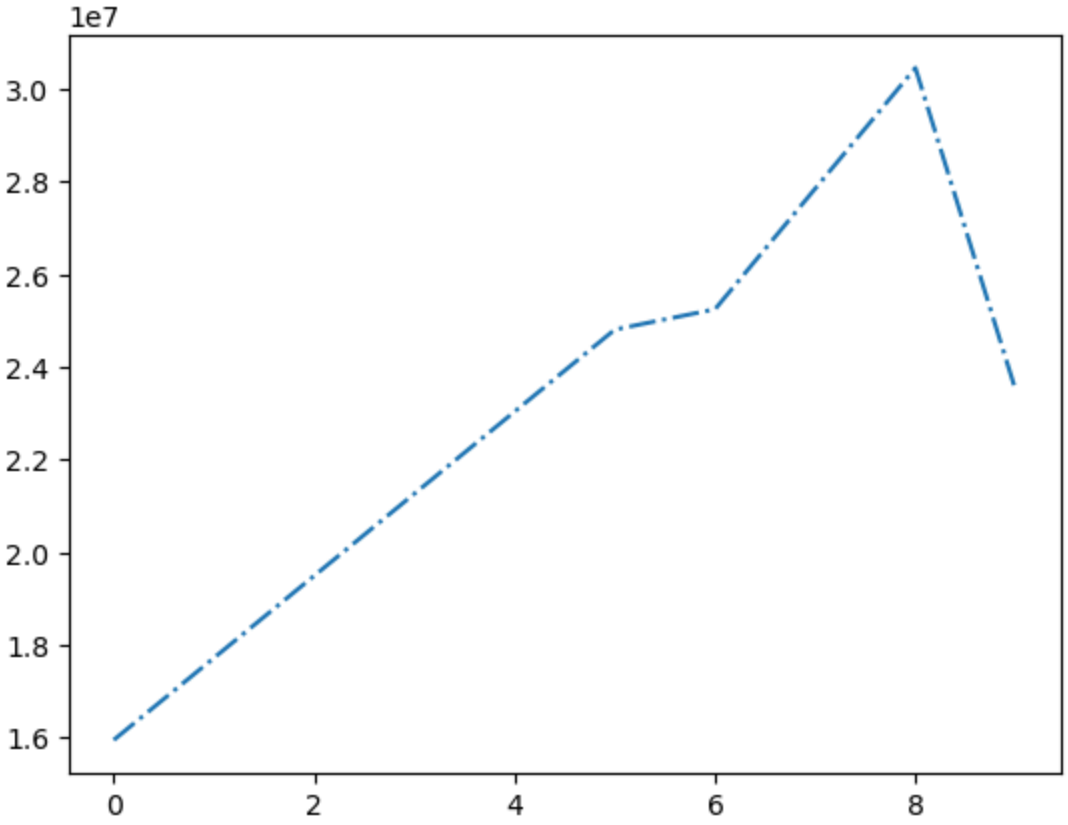
In [17]:
```
plt.plot(Salary[0])
plt.show()
```



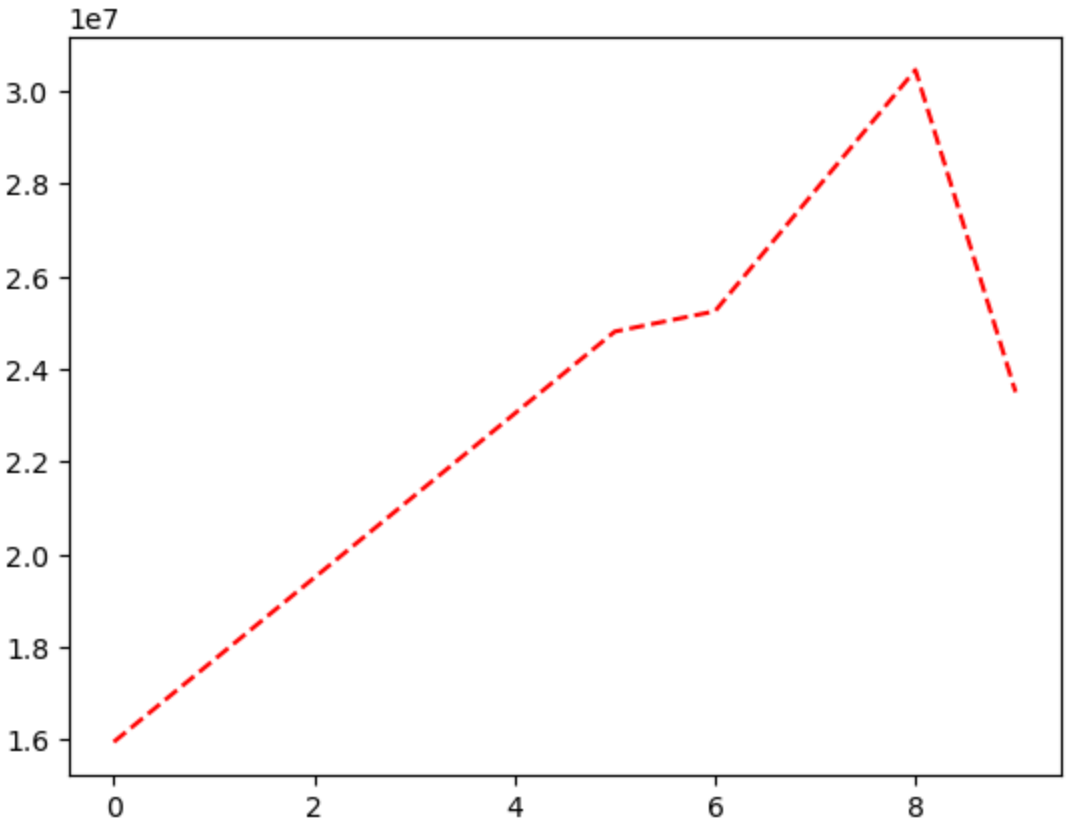
In [23]:
```
plt.plot(Salary[0],ls ='--')
plt.show()
```



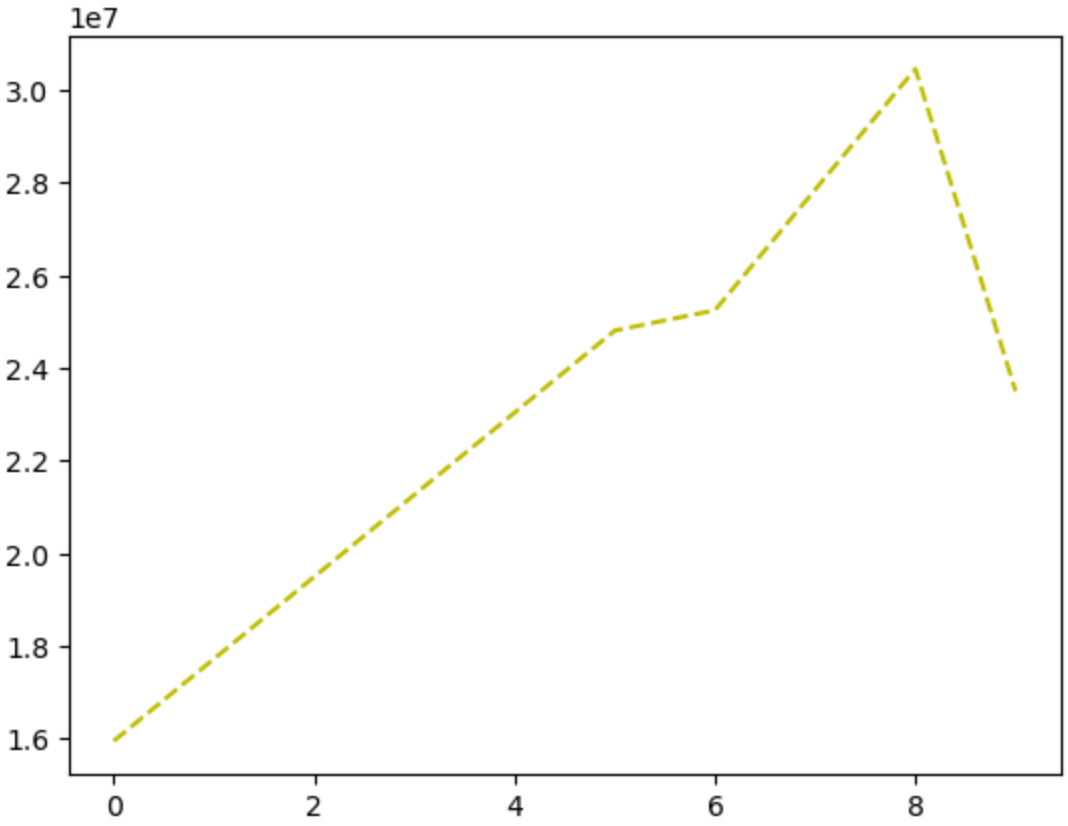
In [25]:
```
plt.plot(Salary[0],ls ='-.')
plt.show()
```



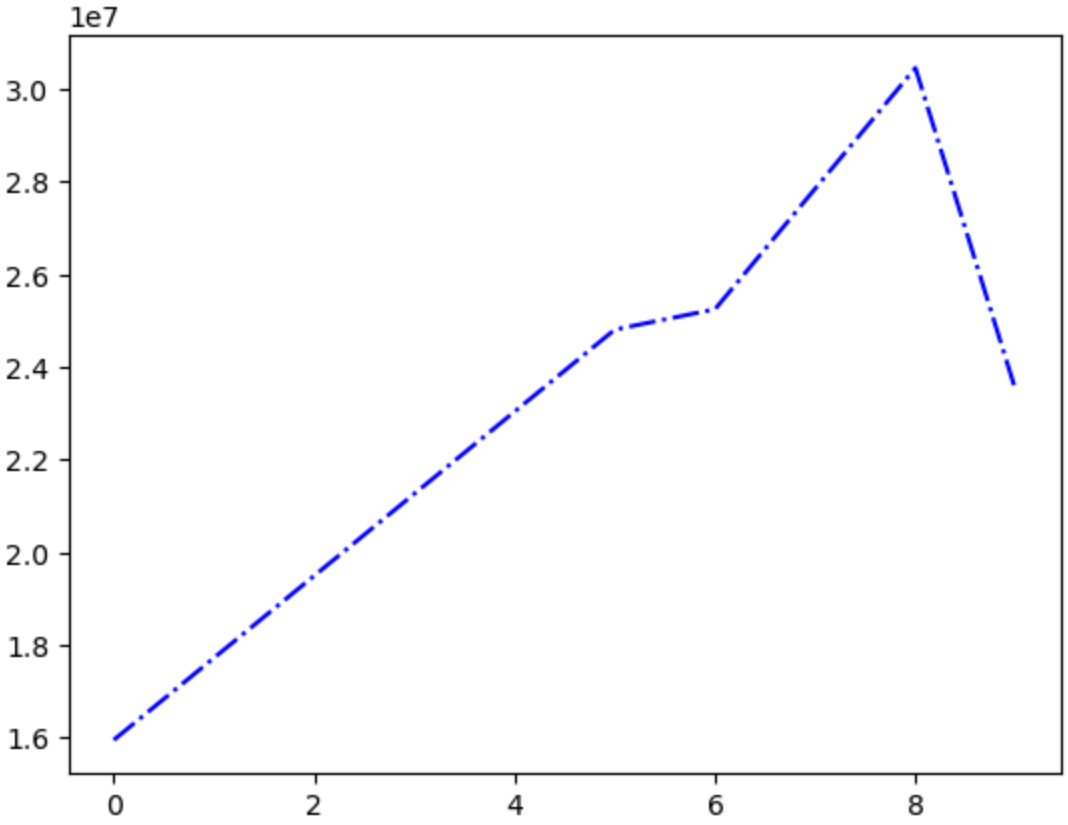
In [27]:
```
plt.plot(Salary[0],ls ='--', c = 'red')
plt.show()
```



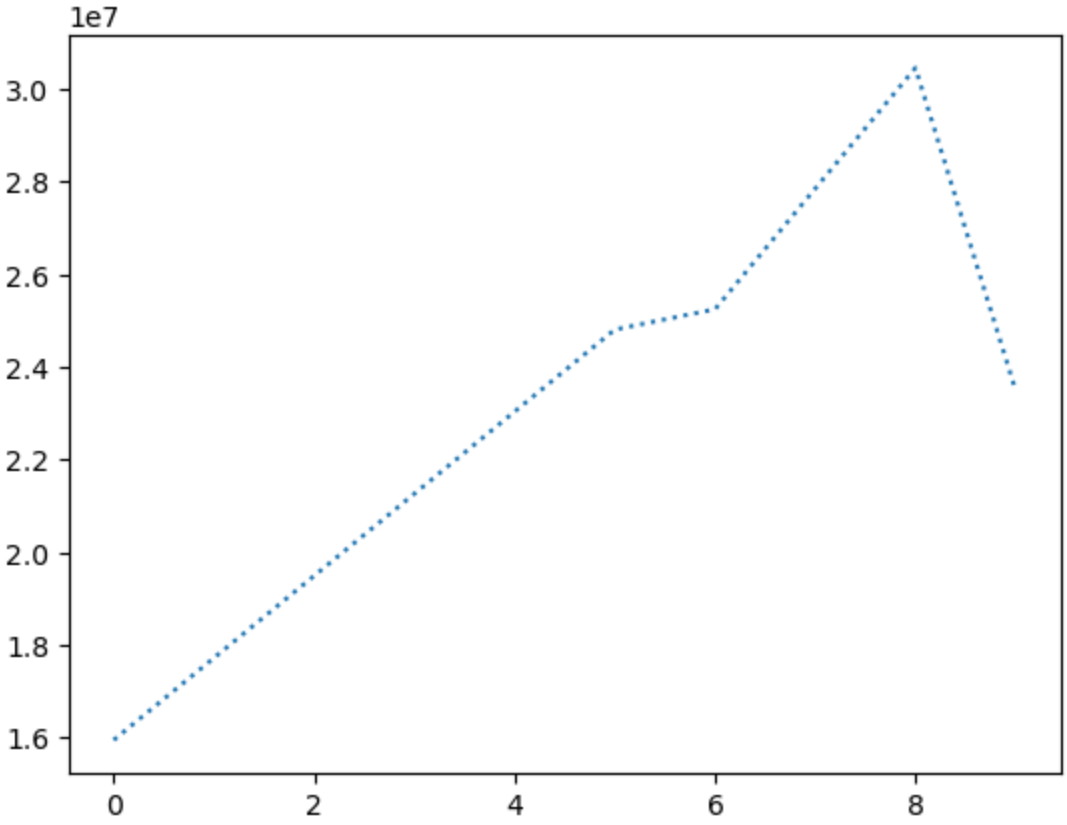
In [29]:
```
plt.plot(Salary[0],ls ='--',c = 'y')
plt.show()
```



In [31]:
```
plt.plot(Salary[0],ls ='-.',c = 'b')
plt.show()
```



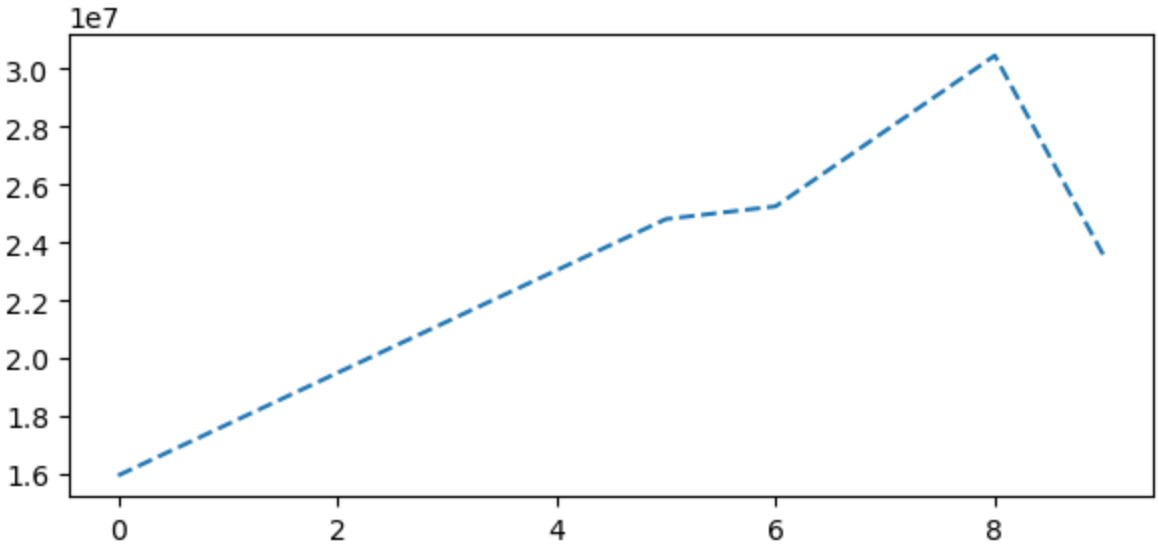
In [33]:
```
plt.plot(Salary[0],ls ='dotted')
plt.show()
```



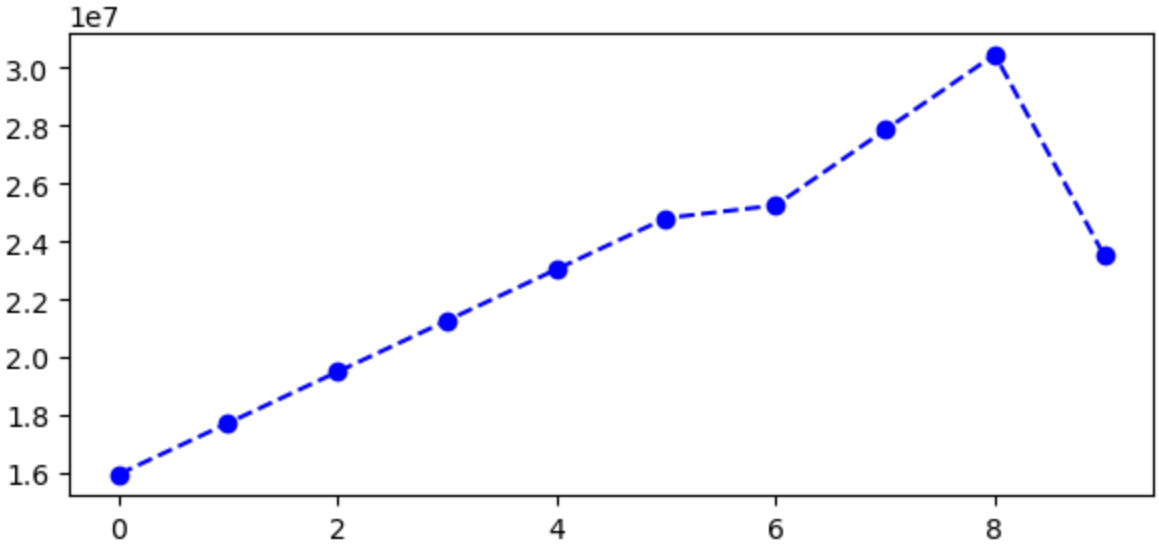
In [35]:
```
%matplotlib inline
```

In [37]:
```
plt.rcParams['figure.figsize']=7,3
```

In [39]:
```
plt.plot(Salary[0],ls ='--')
plt.show()
```



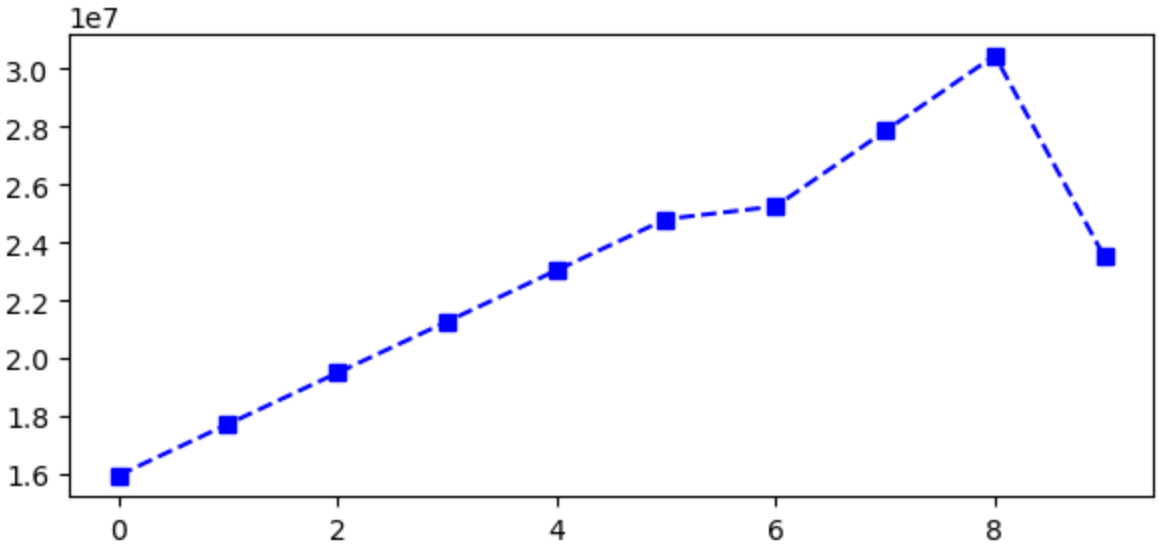
In [41]:
```
plt.plot(Salary[0],ls ='--',c= 'b',marker='o')
plt.show()
```



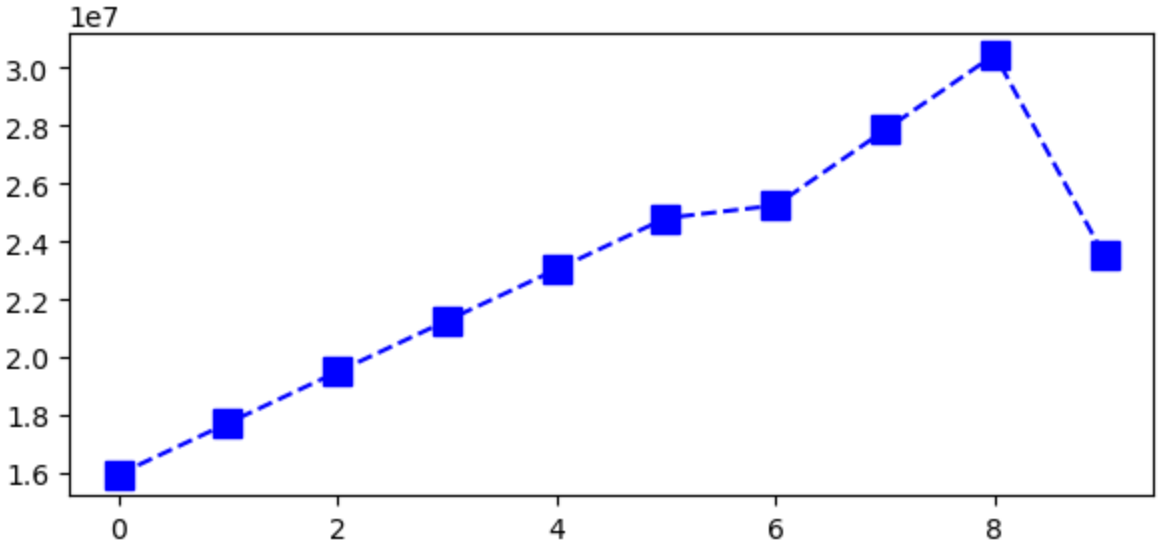
In [43]:
```
Games
```

Out[43]:
```
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]])
```

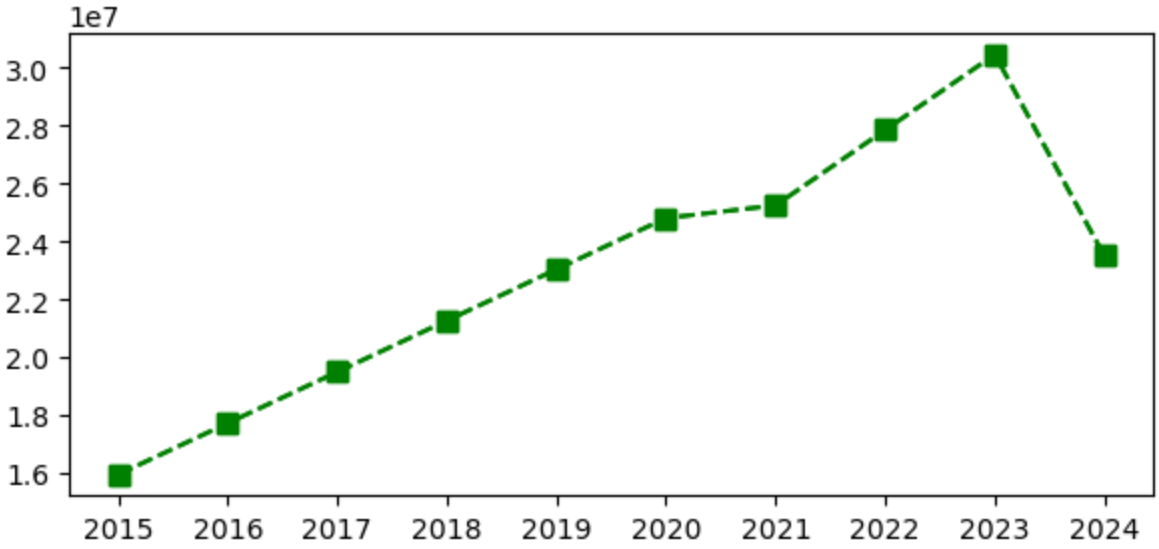
In [45]:
```
plt.plot(Salary[0],ls ='--',c= 'b',marker='s')
plt.show()
```



In [47]:
```
plt.plot(Salary[0],ls ='--',c= 'b',marker='s',ms = 10)
plt.show()
```



In [55]:
```
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()
```



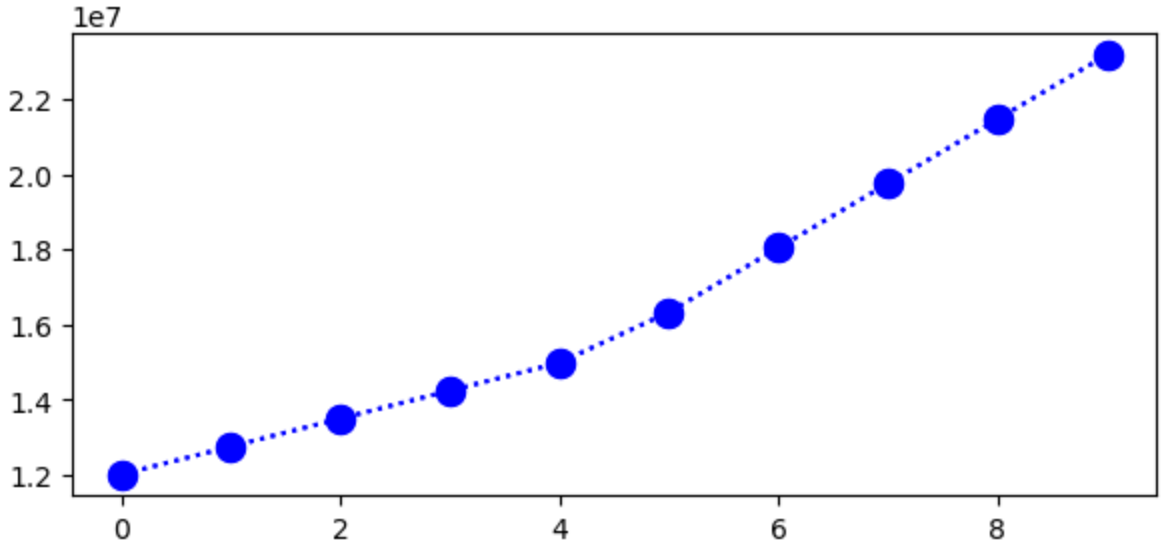
In [57]:
```
Salary[0]
```

Out[57]:
```
array([15946875, 17718750, 19490625, 21262500, 23034375, 24806250,
       25244493, 27849149, 30453805, 23500000])
```

In [59]:
```
Salary[1]
```

Out[59]:
```
array([12000000, 12744189, 13488377, 14232567, 14976754, 16324500,
       18038573, 19752645, 21466718, 23180790])
```

In [63]:
```
plt.plot(Salary[1], c='Blue', ls = ':', marker = 'o', ms = 10, label = Players[1])
plt.show()
```



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