```python
In [2]:  # Import numpy
         import numpy as np

In [3]:  #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_Sala

         #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
```

```python
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_
```

In [4]: `Salary`

Out[4]:
```
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 [5]: `Games`

```
Out[5]:  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 [6]: `Points`

```
Out[6]:  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 [7]: `Games[0,6]`

Out[7]: 58

In [8]: `Salary`

```
Out[8]:  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`

```
Out[9]:  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 [10]: `Salary / Games`

```
C:\Users\ADMIN\AppData\Local\Temp\ipykernel_12972\1572766764.py:1: RuntimeWarning: divide by zero encountered in divide
  Salary / Games
```

```
Out[10]: 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]])
```

```python
In [11]: np.round(Salary / Games)
```

```
Out[11]: 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.]])
```

```python
In [12]: import warnings
         warnings.filterwarnings('ignore')
```
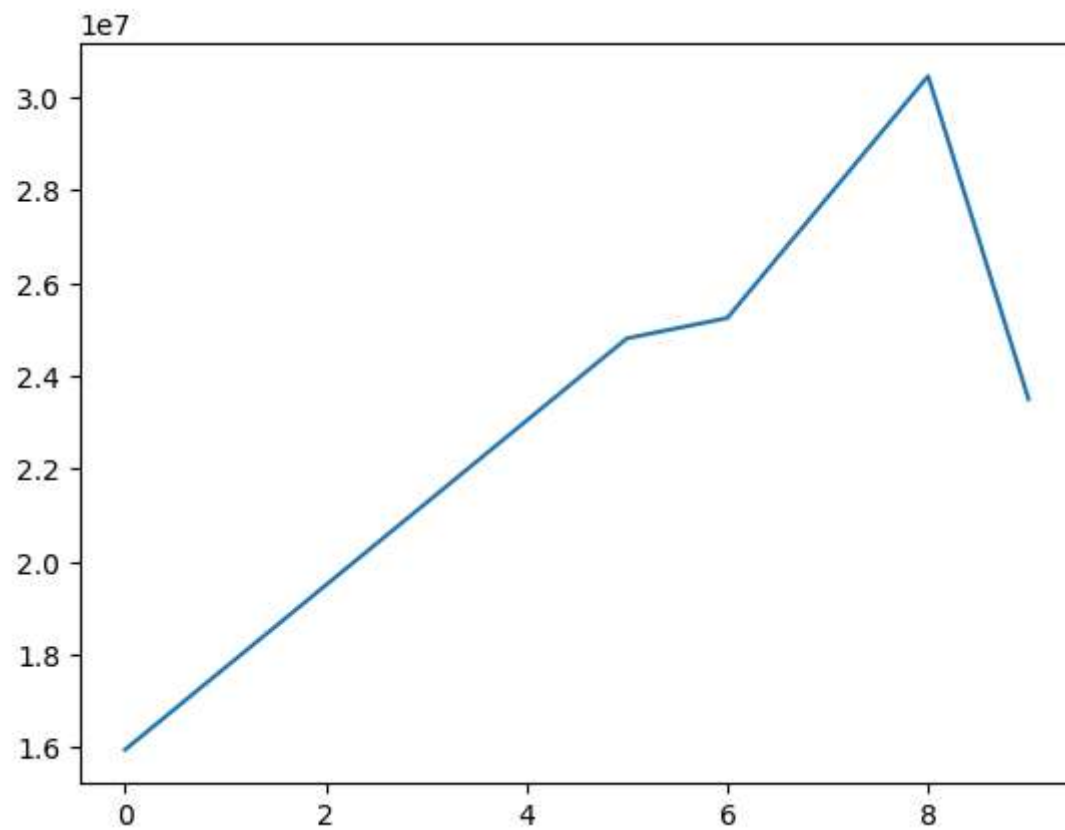
```python
In [13]: import matplotlib.pyplot as plt
```

```python
In [14]: Salary[0]
```

```
Out[14]: array([15946875, 17718750, 19490625, 21262500, 23034375, 24806250,
                25244493, 27849149, 30453805, 23500000])
```
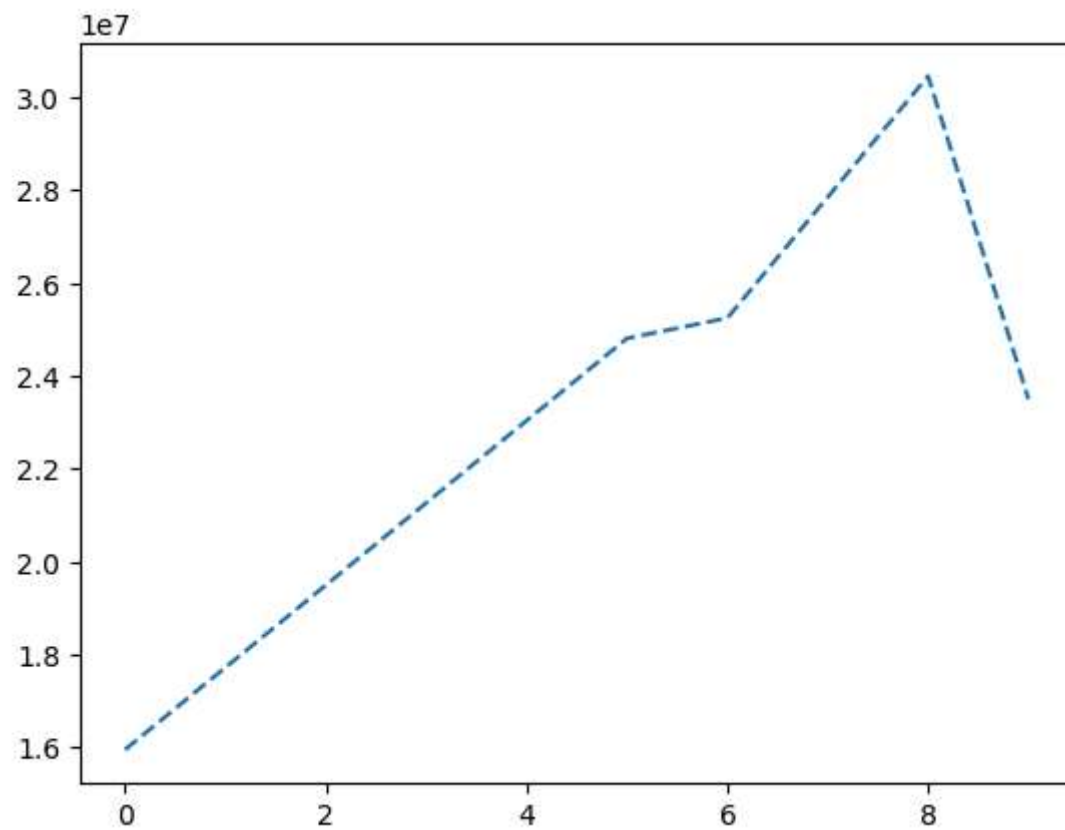
```python
In [15]: plt.plot(Salary[0])
```
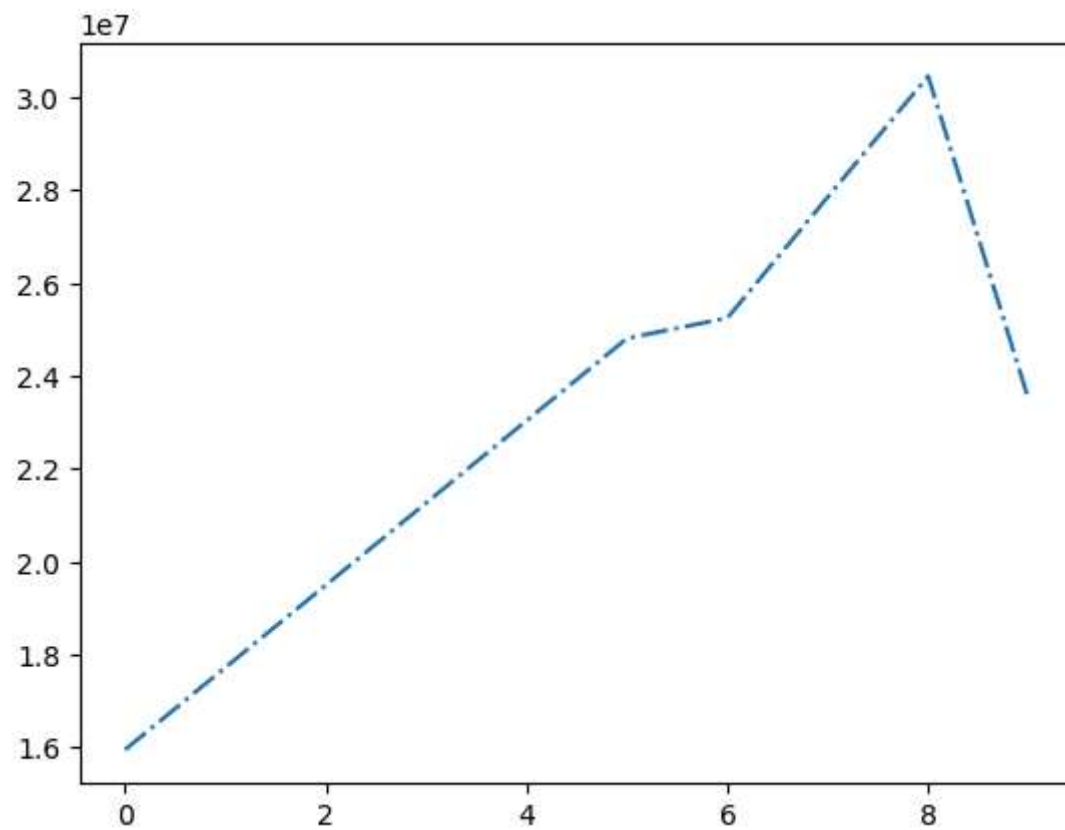
```
Out[15]: [<matplotlib.lines.Line2D at 0x21e93bba810>]
```

```
In [16]: plt.plot(Salary[0] , ls='--')
```
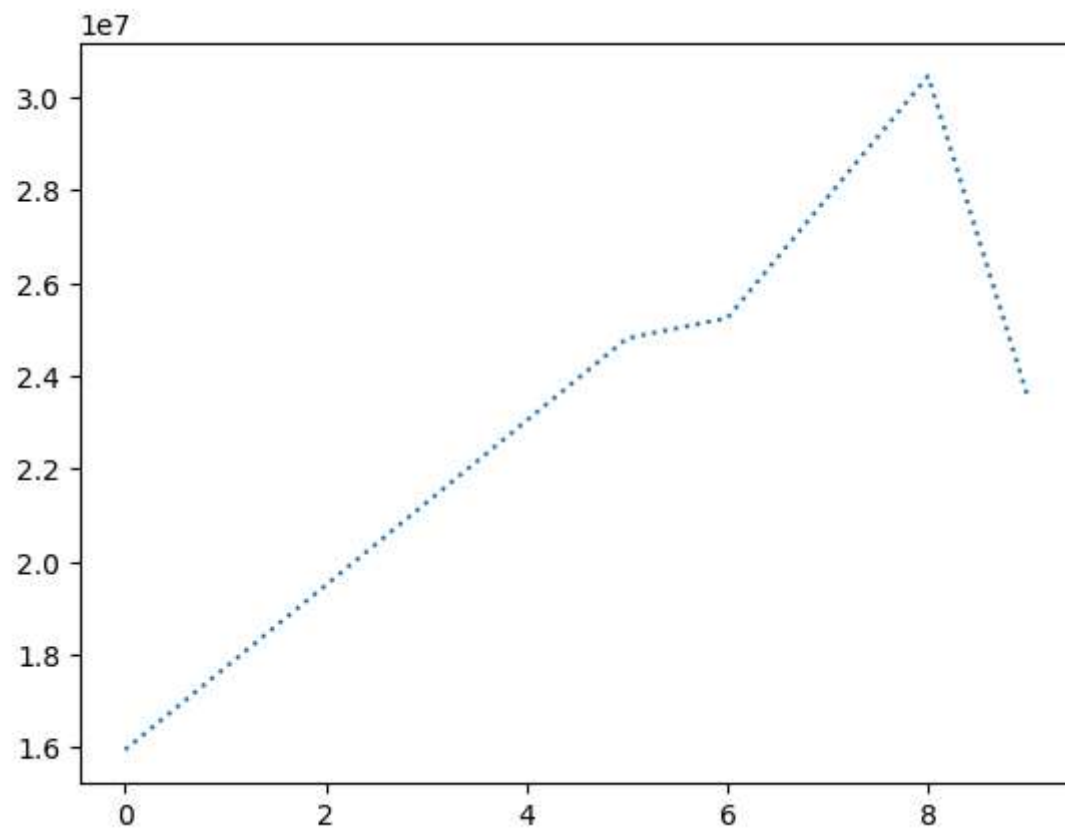
Out[16]: [<matplotlib.lines.Line2D at 0x21e93c199a0>]

In [17]: `plt.plot(Salary[0] , ls='-.')`
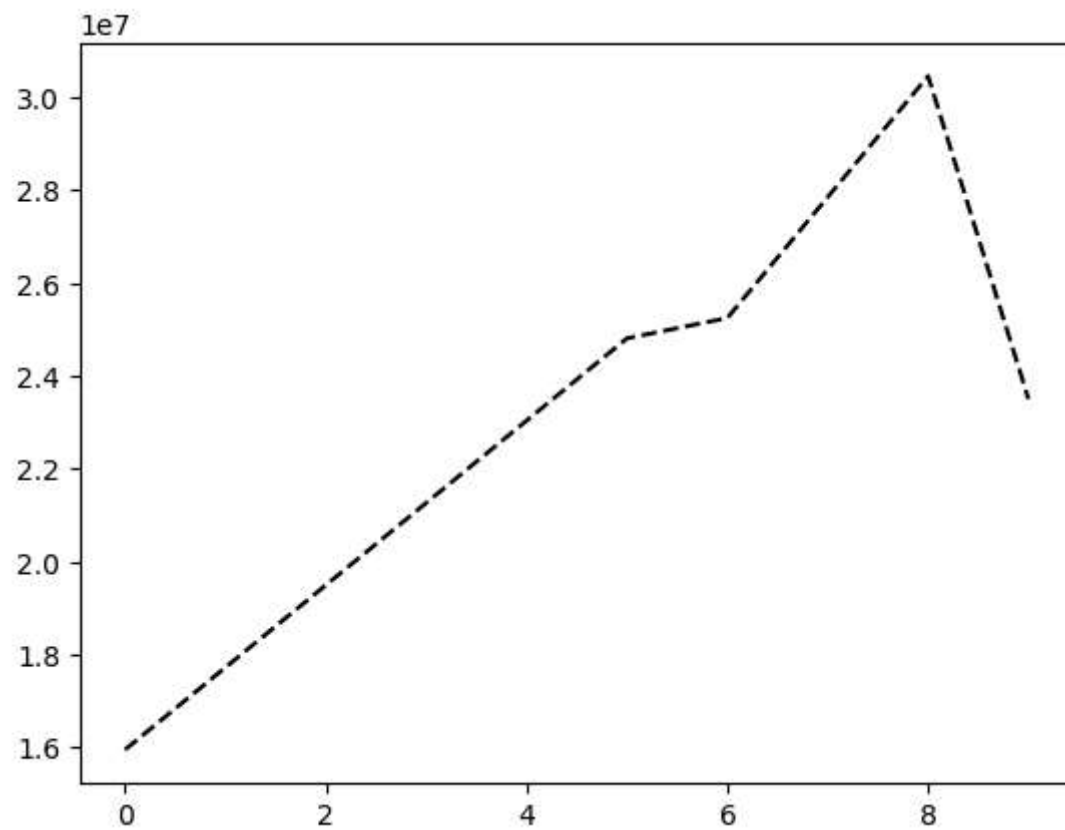
Out[17]: [<matplotlib.lines.Line2D at 0x21e95e25850>]

In [18]: `plt.plot(Salary[0] , ls=':')`

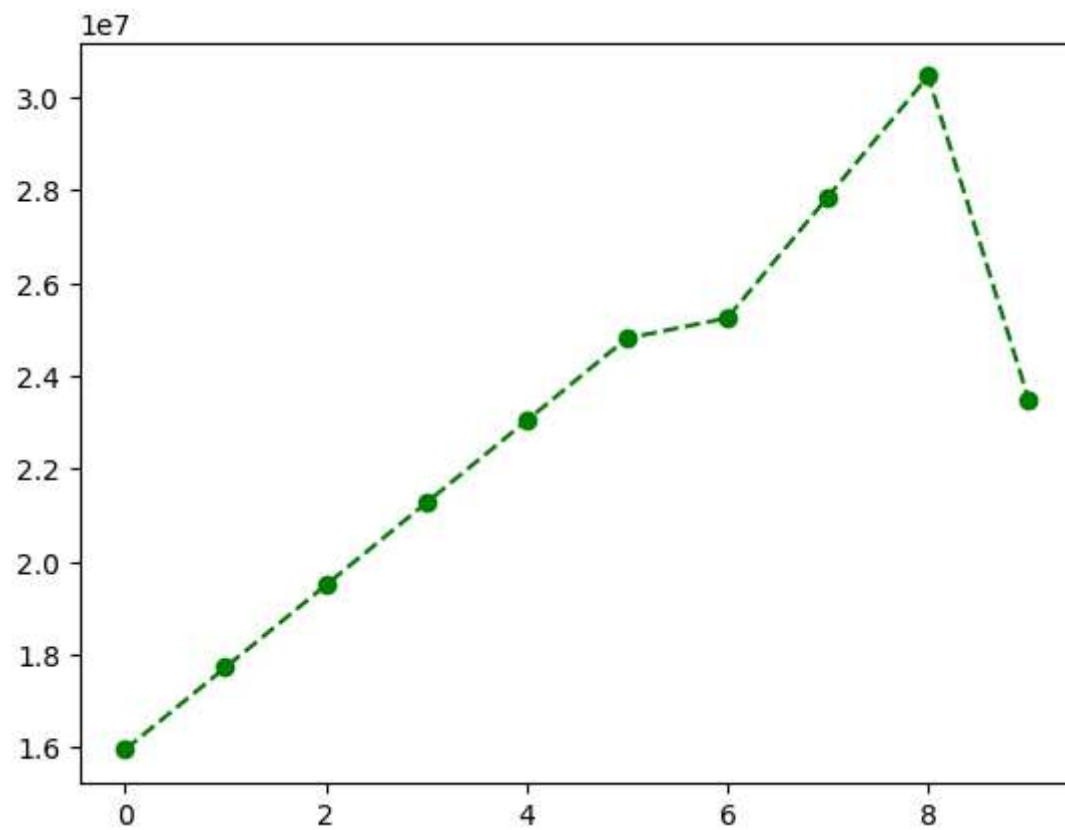Out[18]: [<matplotlib.lines.Line2D at 0x21e93c18e00>]

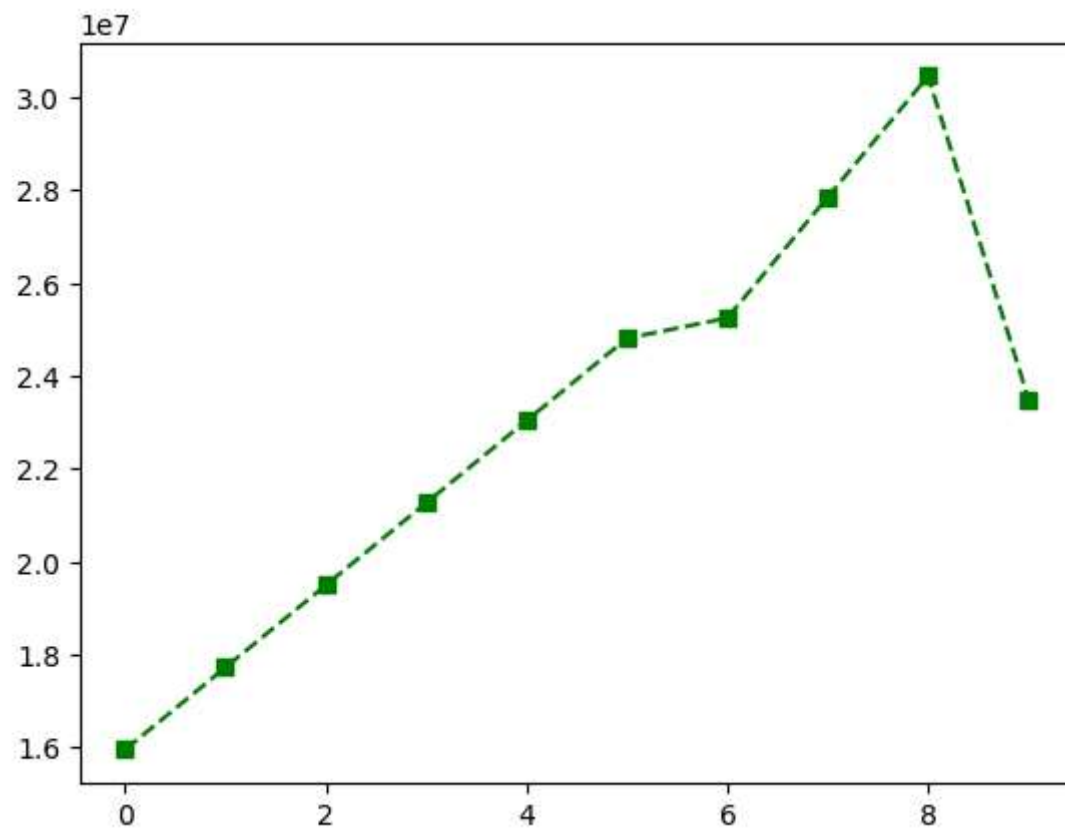In [19]: `plt.plot(Salary[0] , ls='--',color = 'black')`

Out[19]: `[<matplotlib.lines.Line2D at 0x21e96ed7b60>]`

`plt.plot(Salary[0] , ls='--',color = 'green' , marker ='o')`

`[<matplotlib.lines.Line2D at 0x21e96f2fb30>]`

In [22]:
```python
plt.plot(Salary[0] , ls='--',color = 'green' , marker ='s',ms=8)
```

Out[22]: [<matplotlib.lines.Line2D at 0x21e93d1a240>]