

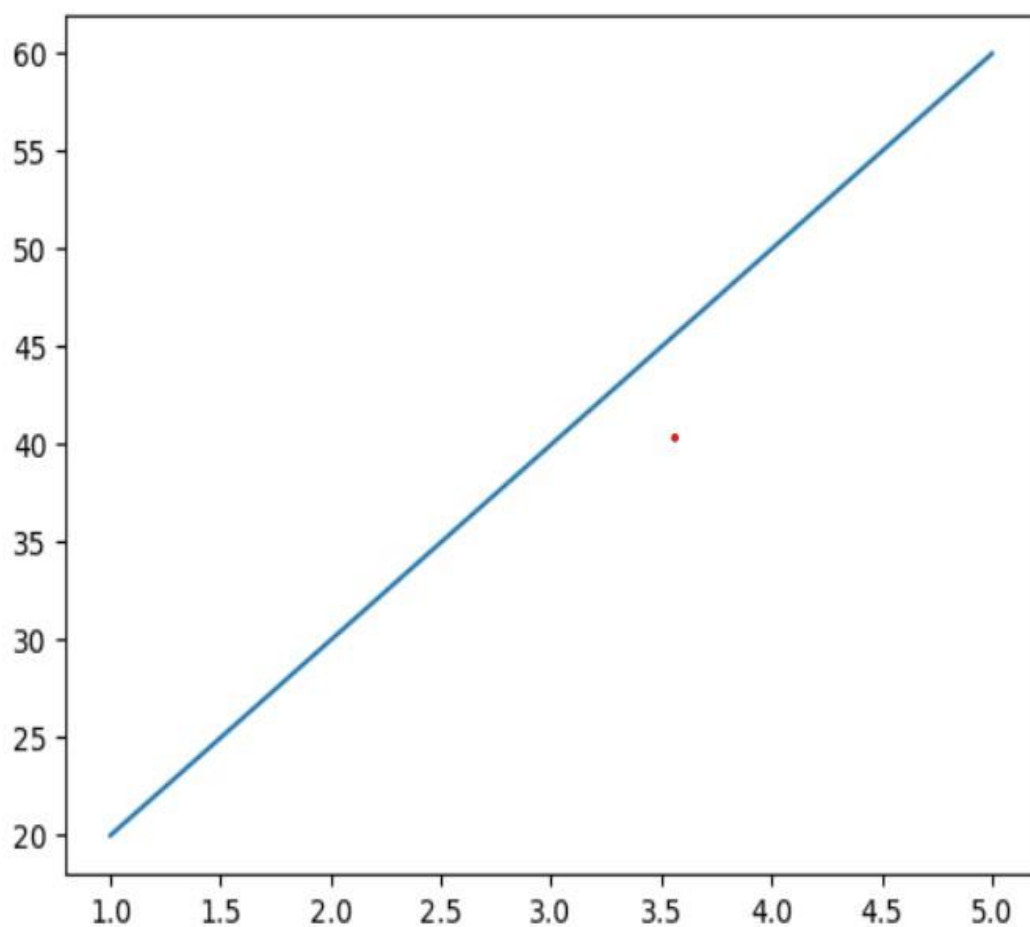
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```
[1]: import matplotlib.pyplot as plt
```

```
[3]: a=(1,2,3,4,5)
      b=(20,30,40,50,60)
      plt.plot(a,b)
```

```
[3]: [<matplotlib.lines.Line2D at 0x1fa701d3b10>]
```



```
[7]: import pandas as pd
import numpy as np
from sklearn.linear_model import LinearRegression
```

```
[9]: dataset=pd.read_csv('C:/Users/Dell/Desktop/College assignment/ML/Practical 3/Salary_Data.csv')
```

```
[8]: dataset
```

```
[8]:
```

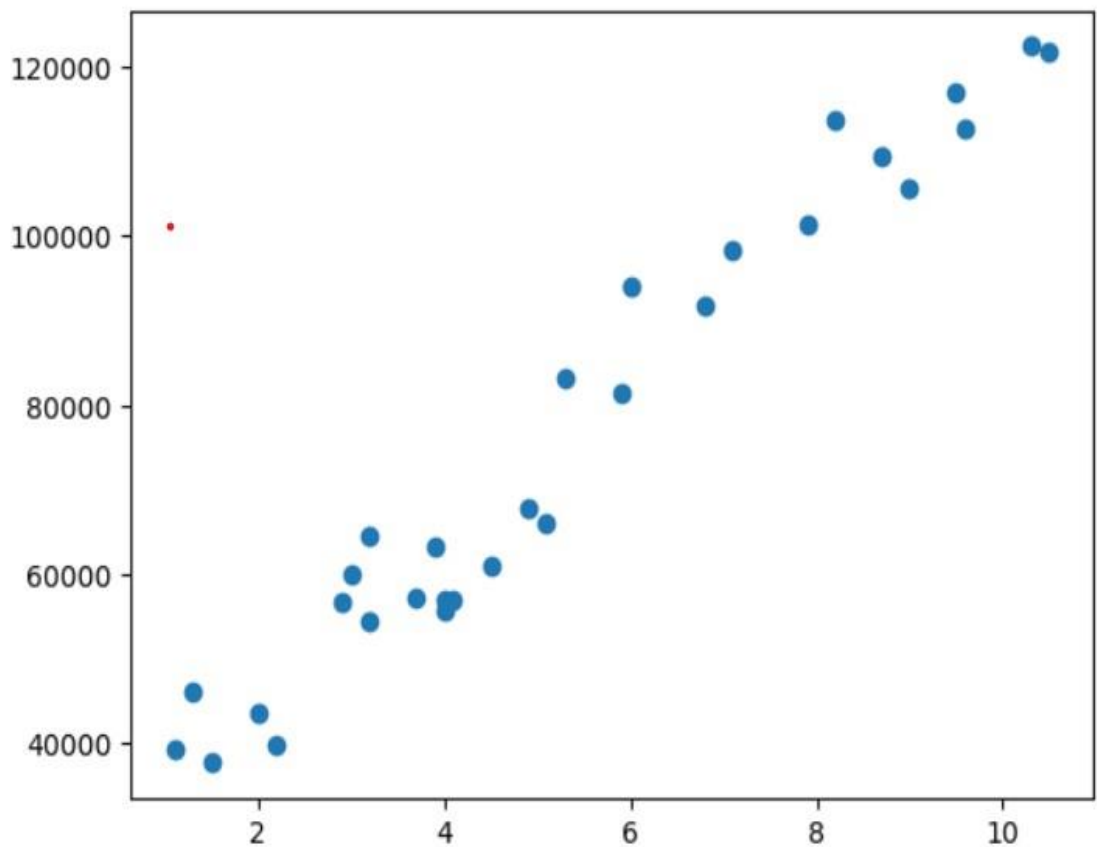
	YearsExperience	Salary
0	1.1	39343.0
1	1.3	46205.0
2	1.5	37731.0
3	2.0	43525.0
4	2.2	39891.0
5	2.9	56642.0
6	3.0	60150.0
7	3.2	54445.0
8	3.2	64445.0
9	3.7	57189.0
10	3.9	63218.0
11	4.0	55794.0
12	4.0	56957.0
13	4.1	57081.0
14	4.5	61111.0
15	4.9	67938.0
16	5.1	66029.0
17	5.3	83088.0
18	5.9	81363.0
19	6.0	93940.0
20	6.8	91738.0
21	7.1	98273.0
22	7.9	101302.0
23	8.2	113812.0
24	8.7	109431.0
25	9.0	105582.0
26	9.5	116969.0
27	9.6	112635.0
28	10.3	122391.0
29	10.5	121872.0

```
[10]: x=dataset.iloc[:, :-1].values  
      y=dataset.iloc[:, 1].values  
      linear=LinearRegression()
```

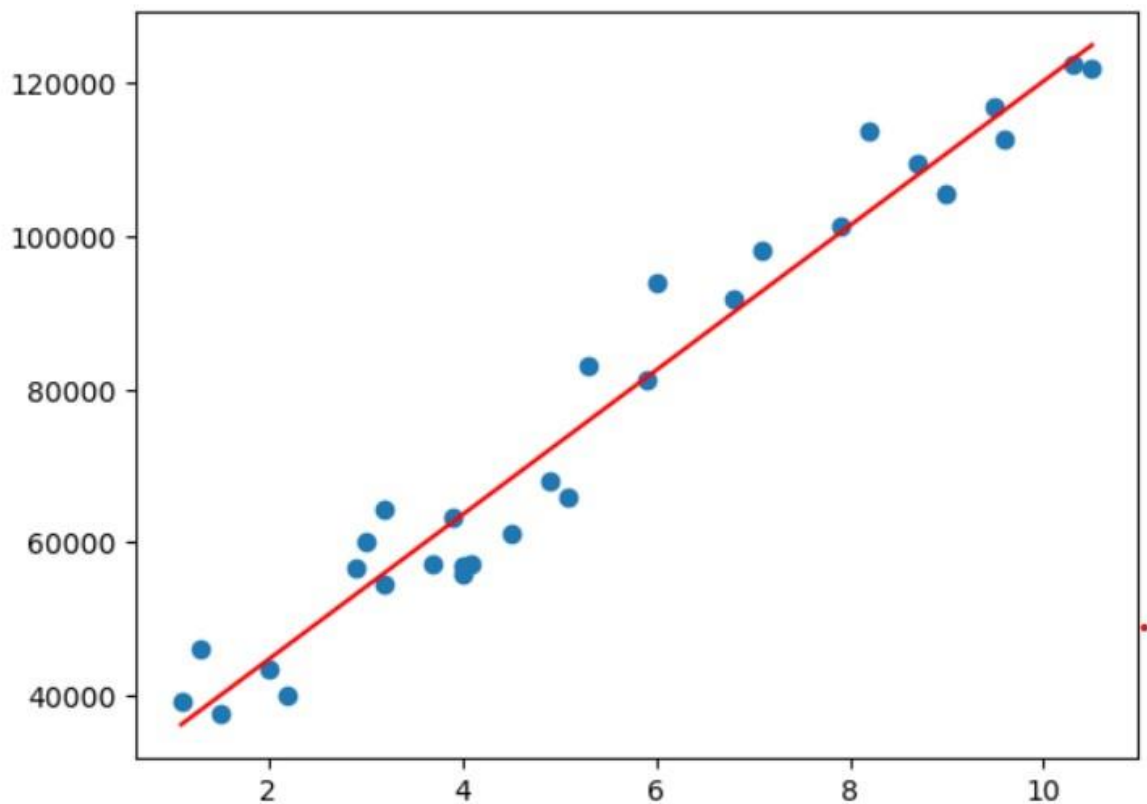
```
[11]: linear.fit(x,y)  
      y_pred=linear.predict(x)
```

```
[12]: plt.scatter(x,y)
```

```
[12]: <matplotlib.collections.PathCollection at 0x1fa762fb310>
```



```
[13]: plt.scatter(x,y)
plt.plot(x,y_pred,color='red')
plt.show()
```



```
[14]: y_pred
```

```
[14]: array([ 36187.15875227,  38077.15121656,  39967.14368085,  44692.12484158,
          46582.11730587,  53197.09093089,  54142.08716303,  56032.07962732,
          56032.07962732,  60757.06078805,  62647.05325234,  63592.04948449,
          63592.04948449,  64537.04571663,  68317.03064522,  72097.0155738 ,
          73987.00803809,  75877.00050238,  81546.97789525,  82491.9741274 ,
          90051.94398456,  92886.932681  , 100446.90253816, 103281.8912346 ,
          108006.87239533, 110841.86109176, 115566.84225249, 116511.83848464,
          123126.81210966, 125016.80457395])
```

```
[15]: y
```

```
[15]: array([ 39343.,  46205.,  37731.,  43525.,  39891.,  56642.,  60150.,
          54445.,  64445.,  57189.,  63218.,  55794.,  56957.,  57081.,
          61111.,  67938.,  66029.,  83088.,  81363.,  93940.,  91738.,
          98273., 101302., 113812., 109431., 105582., 116969., 112635.,
          122391., 121872.])
```