```
In [1]: import numpy as np
```

```
In [3]: import pandas as pd
```

```
In [5]: df=pd.read_csv('data- linear regression.csv')
```

```
In [6]: df
```

Out[6]:

	qualification	experience	previous exp	Salary
0	0	1	5	23500
1	0	3	2	24500
2	0	5	6	32500
3	0	8	4	36500
4	0	4	2	26500
5	0	6	2	30500
6	0	6	6	34500
7	0	7	4	34500
8	0	8	10	42500
9	0	5	2	28500
10	0	3	5	27500
11	0	2	3	23500
12	0	4	4	28500
13	0	6	2	30500
14	1	1	5	73000
15	1	3	2	73000
16	1	5	6	87000
17	1	8	4	92000
18	1	4	5	82000
19	1	6	3	84000
20	1	6	4	86000
21	1	7	4	89000
22	1	8	10	104000
23	1	5	2	79000
24	1	3	5	79000
25	1	2	3	72000
26	1	4	4	80000
27	1	6	2	82000
28	1	6	2	82000

```
df=pd.read_csv('data- linear regression.csv')
```

```
In [7]:  X1 = df.iloc[:,:3]
         Y1 = df.iloc[:,-1]
```

```
In [8]:  from sklearn.svm import SVC
```

```
In [9]:  sv1 = SVC(kernel='linear')
```

```
In [10]:  sv1
```

```
Out[10]:  SVC(kernel='linear')
```

```
In [11]:  sv1.fit(X1,Y1)
```

```
Out[11]:  SVC(kernel='linear')
```

```
In [12]:  y_predict1 = sv1.predict(X1)
          y_predict1
```

```
Out[12]:  array([ 23500,  24500,  32500,  36500,  28500,  30500,  34500,  34500,
                  42500,  28500,  27500,  23500,  28500,  30500,  73000,  73000,
                  87000,  92000,  82000,  82000,  86000,  89000, 104000,  79000,
                  79000,  73000,  79000,  82000,  82000], dtype=int64)
```

```
In [13]:  from sklearn.metrics import confusion_matrix, accuracy_score
```

```
In [14]:  confusion_matrix(Y1, y_predict1)
```
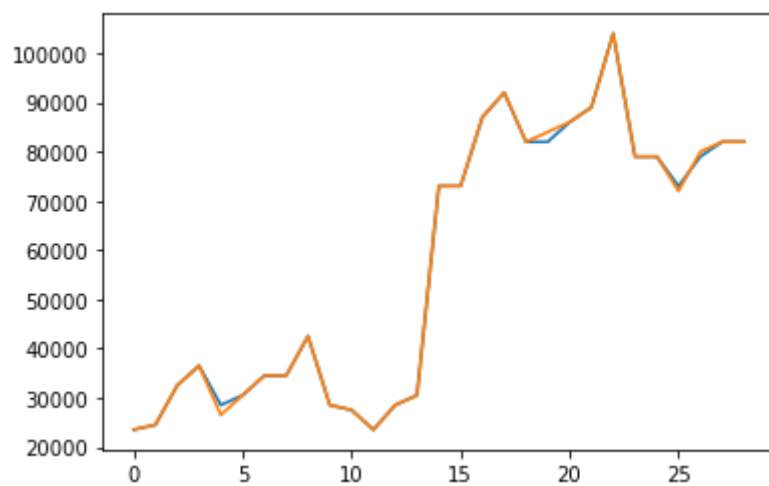
```
Out[14]:  array([[2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 2, 0, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 3, 0, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 0],
                 [0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1]],
                dtype=int64)
```

```
In [15]:  accuracy_score(Y1, y_predict1)
```

```
Out[15]:  0.8620689655172413
```

```
In [26]:  import matplotlib.pyplot as plt
          plt.plot(y_predict1)
          plt.plot(Y1)
```

```
Out[26]:  [<matplotlib.lines.Line2D at 0x2863edf3a30>]
```