

```
In [1]: import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
```

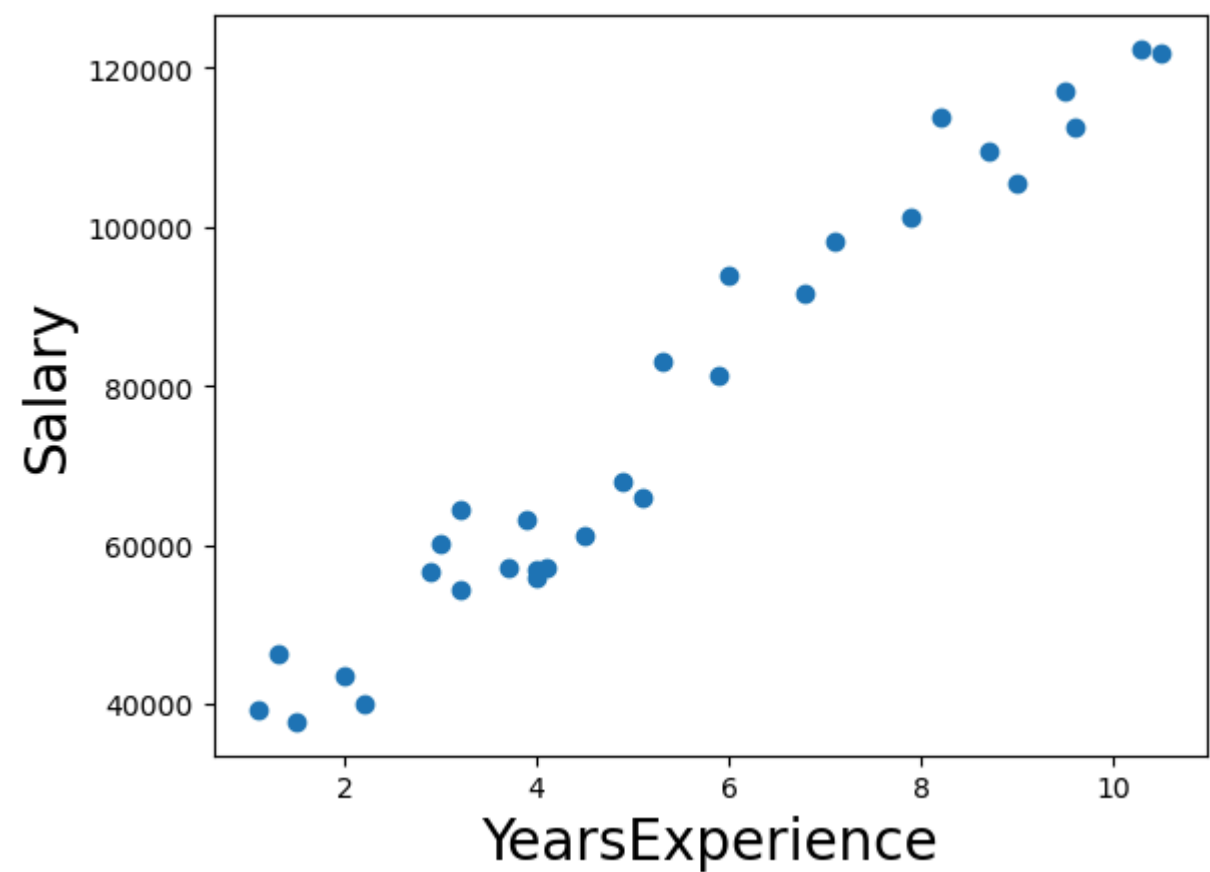
```
In [5]: data=pd.read_csv('Salary_Data.csv')
data.head()
```

Out[5]:

	YearsExperience	Salary
0	1.1	39343
1	1.3	46205
2	1.5	37731
3	2.0	43525
4	2.2	39891

```
In [6]: independent=data[["YearsExperience"]]
dependent=data[["Salary"]]
```

```
In [7]: plt.scatter(independent,dependent)
plt.xlabel('YearsExperience',fontsize=20)
plt.ylabel('Salary',fontsize=20)
plt.show()
```



```
In [8]: from sklearn.model_selection import train_test_split
X_train,X_test,Y_train,Y_test=train_test_split(independent,dependent,test_size=1/3,random_state=0)
```

```
In [10]: import numpy as np
from sklearn import linear_model
regressor=linear_model.RidgeCV(alphas=np.logspace(-6,6,13))
regressor.fit(X_train,Y_train)
```

Out[10]:

▼ RidgeCV

RidgeCV(alphas=array([1.e-06, 1.e-05, 1.e-04, 1.e-03, 1.e-02, 1.e-01, 1.e+00, 1.e+01, 1.e+02, 1.e+03, 1.e+04, 1.e+05, 1.e+06]))

```
In [11]: weight=regressor.coef_

print("Weight of the model={}".format(weight))
bais=regressor.intercept_
print("Bails of the model={}".format(bais))
```

```
Weight of the model=[[9273.5393006]]
Bails of the model=[27158.65910816]
```

```
In [12]: Y_pred=regressor.predict(X_test)

from sklearn.metrics import r2_score
r_score=r2_score(Y_test,Y_pred)
print("r_score=",r_score)
```

```
r_score= 0.974565876421785
```

```
In [13]: import pickle
filename="finalModel.sav"
pickle.dump(regressor,open(filename,'wb'))
```

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In [14]: load_model=pickle.load(open("finalModel.sav","rb"))
```

```
In [16]: result=load_model.predict([[30]])
```

```
C:\ProgramData\anaconda3\Lib\site-packages\sklearn\base.py:464: UserWarning: X does not have valid feature names, but RidgeCV was fitted with feature names
warnings.warn(
```

```
In [17]: result
```

```
Out[17]: array([[305364.83812616]])
```

```
In [ ]:
```