**11.LINEAR REGRESSION**

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**CLASS: CSE-B**

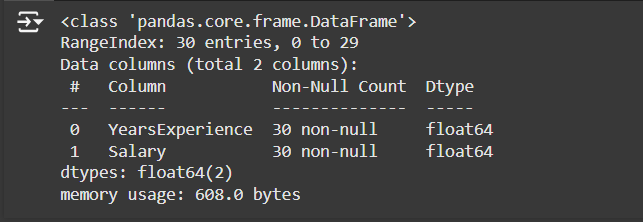
**ROLL NO : 230701130**

import numpy as np

import pandas as pd

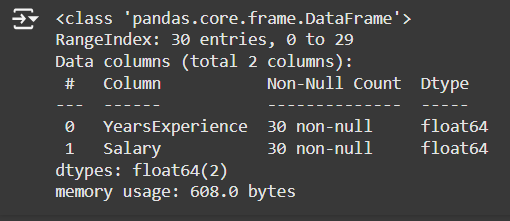
df=pd.read\_csv('Salary\_data.csv')

df.info()

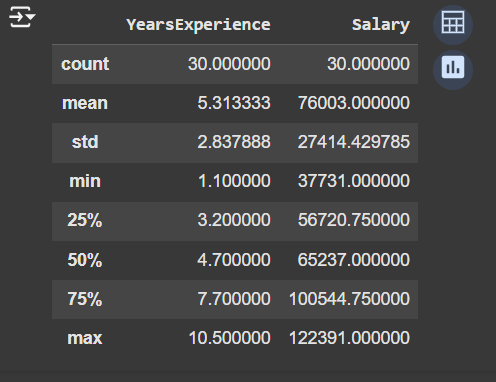


df.dropna(inplace=True)

df.info()



df.describe()



features=df.iloc[:,[0]].values

label=df.iloc[:,[1]].values

from sklearn.model\_selection import train\_test\_split

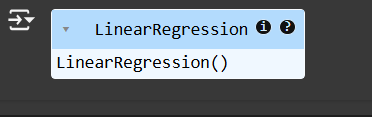
# Assuming `features` and `label` are already defined in your code

x\_train, x\_test, y\_train, y\_test = train\_test\_split(features, label, test\_size=0.2, random\_state=42)

from sklearn.linear\_model import LinearRegression

model=LinearRegression()

model.fit(x\_train,y\_train)



model.score(x\_train,y\_train)



model.score(x\_test,y\_test)



model.coef\_



import pickle

pickle.dump(model,open('SalaryPred.model','wb'))

model=pickle.load(open('SalaryPred.model','rb'))

yr\_of\_exp=float(input("Enter Years of Experience: "))

yr\_of\_exp\_NP=np.array([[yr\_of\_exp]])

Salary=model.predict(yr\_of\_exp\_NP)



print("Estimated Salary for {} years of experience is {}: " .format(yr\_of\_exp,Salary))

