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

In [2]:
```
import pandas as pd
```

In [3]:
```
import numpy as np
```

In [4]:
```
df = pd.read_csv('placement.csv')
```

In [5]:
```
df.head()
```

Out[5]:

	cgpa	package
0	6.89	3.26
1	5.12	1.98
2	7.82	3.25
3	7.42	3.67
4	6.94	3.57

In [6]:
```
X = df.iloc[:,0:1]
```

In [7]:
```
y = df.iloc[:,-1]
```

In [9]:
```
X
```

Out[9]:

	cgpa
0	6.89
1	5.12
2	7.82
3	7.42
4	6.94
...	...
195	6.93
196	5.89
197	7.21
198	7.63
199	6.22

200 rows × 1 columns

In [10]:
```
y
```

Out[10]:
```
0      3.26
1      1.98
2      3.25
3      3.67
4      3.57
       ...
195    2.46
196    2.57
197    3.24
198    3.96
199    2.33
Name: package, Length: 200, dtype: float64
```

In [11]:
```
from sklearn.model_selection import train_test_split
```

In [12]:
```
X_train,X_test,y_train,y_test = train_test_split(X,y,test_size=0.2,random_state=2)
```

In [13]:
```
from sklearn.linear_model import LinearRegression
```

In [14]:
```
lr = LinearRegression()
```

In [15]:
```
lr.fit(X_train,y_train)
```

Out[15]:
```
LinearRegression()
```

In [16]:
```
from sklearn.metrics import mean_absolute_error,mean_squared_error,r2_score
```

In [17]:
```
y_pred = lr.predict(X_test)
```

In [18]:
```
print(y_pred)
```

```
[3.89111601 3.09324469 2.38464568 2.57434935 1.6537286  1.77647803
 2.07219258 2.93143862 3.76278706 2.93701814 4.09197872 3.51170867
 2.97049525 2.40138424 3.18809652 3.46707251 1.94386362 3.24389172
 2.97607477 3.41685683 2.55761079 3.16577844 2.85890486 3.12114229
 3.68467378 2.8700639  3.49497011 3.34432308 3.91901361 1.96060218
 3.65119666 3.2104146  3.74046898 2.7863711  2.78079158 3.27178932
 3.52844723 2.61340599 2.65804215 2.71383735]
```

In [19]:
```
y_test.values
```

Out[19]:
```
array([4.1 , 3.49, 2.08, 2.33, 1.94, 1.48, 1.86, 3.09, 4.21, 2.87, 3.65,
       4.  , 2.89, 2.6 , 2.99, 3.25, 1.86, 3.67, 2.37, 3.42, 2.48, 3.65,
       2.6 , 2.83, 4.08, 2.56, 3.58, 3.81, 4.09, 2.01, 3.63, 2.92, 3.51,
       1.94, 2.21, 3.34, 3.34, 3.23, 2.01, 2.61])
```

In [20]:
```
print("MAE",mean_absolute_error(y_test,y_pred))
```

```
MAE 0.2884710931878175
```

In [21]:
```
print("MSE",mean_squared_error(y_test,y_pred))
```

```
MSE 0.12129235313495527
```

In [22]:
```
print("RMSE",np.sqrt(mean_squared_error(y_test,y_pred)))
```

```
RMSE 0.34827051717731616
```

In [ ]:
```

```