R2 SCORE

In [45]:
```
from sklearn.metrics import r2_score
y_actual = [3.0, 2.5, 4.2, 5.1, 6.3, 7.8, 8.0, 9.2, 10.5, 11.0]
y_pred = [2.8, 2.7, 4.0, 5.3, 6.1, 7.9, 8.2, 9.0, 10.3, 11.2]
r2=r2_score(y_actual,y_pred)
print(f"r2 score is{r2}")
```

```
r2 score is0.9955066550082581
```

now r2 score

In [44]:
```
y_actual = [3.0, 2.5, 4.2, 5.1, 6.3, 7.8, 8.0, 9.2, 10.5, 11.0]
y_pred = [2.8, 2.7, 4.0, 5.3, 6.1, 7.9, 8.2, 9.0, 10.3, 11.2]


y_mean=sum(y_actual)/len(y_actual)

ssr=sum((y_actual[i]-y_pred[i])**2 for i in range (len(y_actual)))
ssm=sum((y_actual[i]-y_mean)**2 for i in range (len(y_actual)))
r2score=1-(ssr/ssm)
print(f"{r2score}")
```

```
0.9955066550082581
```

using numpy

In [46]:
```
import numpy as np
y_actual = [3.0, 2.5, 4.2, 5.1, 6.3, 7.8, 8.0, 9.2, 10.5, 11.0]
y_pred = [2.8, 2.7, 4.0, 5.3, 6.1, 7.9, 8.2, 9.0, 10.3, 11.2]


y_actual_np=np.array(y_actual)
y_pred_np=np.array(y_pred)

ssr_np=np.sum((y_actual_np-y_pred_np)**2)
ssm_np=np.sum((y_actual_np-y_actual_np.mean())**2)
r2score_np=1-(ssr_np/ssm_np)


print(f"{r2score_np}")
```

```
0.9955066550082581
```

In [ ]:
```

```