KORELASI

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

TABEL KONTINGENSI

In [2]:
```
data_chi2 = pd.DataFrame([[250,200],[50,1000]], columns =
["Male", "Female"], index=["Fiction", "Non Fiction"])

data_chi2["Total"] = data_chi2.sum(axis=1)
data_chi2.loc["Total"] = data_chi2.sum(axis=0)
data_chi2
```

Out[2]:

	Male	Female	Total
Fiction	250	200	450
Non Fiction	50	1000	1050
Total	300	1200	1500

In [4]:
```
from scipy.stats import chi2_contingency
res = chi2_contingency(data_chi2)

print (f'X-squared: {res.statistic}')
print (f'p-value: {res.pvalue}')
print(f'expected value: \n{res.expected_freq}')
```

```
X-squared: 507.93650793650795
p-value: 1.2866926877823818e-108
expected value:
[[  90.  360.  450.]
 [ 210.  840. 1050.]
 [ 300. 1200. 1500.]]
```

Korelasi Pearson

In [5]:
```
X = [2,1,5,0]
Y = [5,3,6,2]

from scipy.stats import pearsonr
correlation_coefficient, p_value = pearsonr(X, Y)

print("Koefisien Korelasi Pearson:", correlation_coefficient)
print("Nilai p-value:", p_value)
```

```
Koefisien Korelasi Pearson: 0.9296696802013683
Nilai p-value: 0.0703303197986318
```

Korelasi Rank Spearman

In [6]:
```
Kedisiplinan = [75,45,44,70,75,64,80,77,92,66]
Kinerja = [80,45,34,80,70,65,79,76,89,72]

from scipy.stats import spearmanr
correlation_coefficient, p_value = spearmanr(Kedisiplinan, Kinerja)

print("Koefisien Korelasi Spearman:", correlation_coefficient)
print("Nilai p-value:", p_value)
```

```
Koefisien Korelasi Spearman: 0.8079268292682927
Nilai p-value: 0.004688879032099628
```

Korelasi Tau-Kendall

In [7]:
```
Pewawancara_1 = [7,1.5,8,10,9,6,5,3,1.5,4]
Pewawancara_2 = [5,2,6,8,7,9.5,9.5,3.5,1,3.5]

from scipy.stats import kendalltau
correlation_coefficient, p_value = kendalltau(Pewawancara_1, Pewawancar

print("Koefisien Korelasi Kendall:", correlation_coefficient)
print("Nilai p-value:", p_value)
```

```
Koefisien Korelasi Kendall: 0.5977406368332138
Nilai p-value: 0.018597570480518855
```

In [ ]:
```
```