Assignment Day 12

1 Wilcoxon test

H0 = There is no significant difference between current salary and after 6 months.

H1 = There is significant difference between current salary and after 6 months.

```
In [84]: from scipy.stats import wilcoxon

In [85]: dataset2 =pd.read_excel("3. Descriptive Statistics.xlsx",sheet_name=0)

In [86]: stats,p=wilcoxon(dataset2.CurrentSalary,dataset2.After6Months)

In [87]: print(stats,p)
0.0 2.2184966882780807e-79

In [88]: 2.2184966882780807e-79
Out[88]: 2.2184966882780807e-79

In [89]: 2.2184966882780807e-5
Out[89]: 2.2184966882780806e-05

In [90]: 2.2184966882780807e-3
Out[90]: 0.0022184966882780807
```

H0 is rejected.

2 Friedman Test

H0 = There is no significant difference between current salary and after 6 months and salary in beginning.

H1 = There is significant difference between current salary and after 6 months and salary in beginning.

```
In [90]:

In [91]: from scipy.stats import friedmanchisquare

In [92]: stats,p=friedmanchisquare(dataset2.CurrentSalary,dataset2.After6Months,dataset2.SalBegin)

In [93]: print(stat,p)
Traceback (most recent call last):

  File "<ipython-input-93-b610d7d4ad17>", line 1, in <module>
    print(stat,p)

NameError: name 'stat' is not defined


In [94]: print(stats,p)
947.9999999999991 1.3944905574380424e-206
```

H0 is rejected

3 Mann Whitney Test

H0 = There is no significant difference in DistanceFromHome and Education.

H1 = There is significant difference in DistanceFromHome and Education..

```
In [98]:

In [99]: from scipy.stats import mannwhitneyu

In [100]: stats,p=mannwhitneyu(dataset1.DistanceFromHome,dataset1.Education)

In [101]: print(stats,p)
5503365.0 2.371790832392393e-279

In [102]:
```

H0 is rejected

4 Kruskal wallis test

H0 = There is no significant difference in DistanceFromHome,Education and JobLevel.

H1 = There is significant difference in DistanceFromHome,Education and JobLevel.

```
In [101]:

In [102]: from scipy.stats import kruskal

In [103]: stats,p=kruskal(dataset1.DistanceFromHome,dataset1.Education,dataset1.JobLevel)

In [104]: print(stats,p)
3329.7165437937156 0.0

In [105]:
```

H0 is accepeted.