

```
In [1]: import numpy as np
import pandas as pd
import scipy
from scipy import stats
from scipy.stats import chi2_contingency
```

```
In [2]: Data_set = pd.read_csv("Costomer+OrderForm.csv")
```

```
In [3]: Data_set.shape
```

```
Out[3]: (300, 4)
```

```
In [4]: Data_set.head(10)
```

```
Out[4]:
```

	Phillippines	Indonesia	Malta	India
0	Error Free	Error Free	Defective	Error Free
1	Error Free	Error Free	Error Free	Defective
2	Error Free	Defective	Defective	Error Free
3	Error Free	Error Free	Error Free	Error Free
4	Error Free	Error Free	Defective	Error Free
5	Error Free	Error Free	Error Free	Error Free
6	Error Free	Defective	Error Free	Error Free
7	Error Free	Error Free	Error Free	Error Free
8	Error Free	Error Free	Error Free	Error Free
9	Error Free	Error Free	Error Free	Error Free

```
In [5]: Data_set.tail(10)
```

```
Out[5]:
```

	Phillippines	Indonesia	Malta	India
290	Error Free	Error Free	Error Free	Error Free
291	Defective	Error Free	Error Free	Error Free
292	Error Free	Defective	Error Free	Error Free
293	Error Free	Error Free	Error Free	Error Free
294	Error Free	Defective	Error Free	Error Free
295	Error Free	Error Free	Error Free	Error Free
296	Error Free	Error Free	Error Free	Error Free
297	Error Free	Error Free	Defective	Error Free
298	Error Free	Error Free	Error Free	Error Free
299	Error Free	Defective	Defective	Error Free

```
In [6]: Phillippines = Data_set["Phillippines"].value_counts()
Phillippines
```

```
Out[6]: Error Free    271
        Defective     29
        Name: Phillippines, dtype: int64
```

```
In [7]: Indonesia = Data_set["Indonesia"].value_counts()
        Indonesia
```

```
Out[7]: Error Free    267
        Defective     33
        Name: Indonesia, dtype: int64
```

```
In [8]: Malta = Data_set["Malta"].value_counts()
        Malta
```

```
Out[8]: Error Free    269
        Defective     31
        Name: Malta, dtype: int64
```

```
In [9]: India = Data_set["India"].value_counts()
        India
```

```
Out[9]: Error Free    280
        Defective     20
        Name: India, dtype: int64
```

```
In [10]: Data_set2 = [[271,29],[267,33],[269,31],[280,20]]
```

```
In [11]: stats,p,dof, expected = chi2_contingency(Data_set2)
```

```
In [12]: stats
```

```
Out[12]: 3.8589606858203545
```

```
In [13]: p
```

```
Out[13]: 0.2771020991233144
```

```
In [14]: dof
```

```
Out[14]: 3
```

```
In [ ]:
```