Karanjot Singh

In [1]:

```
import numpy as np
import pandas as pd
xls = pd.ExcelFile('naive-bayes-data.xlsx')
df1 = pd.read_excel(xls, 'Sheet1')
df2 = pd.read_excel(xls, 'Sheet2')
```

In [3]:

```
df1
```

Out[3]:

	Swim	Wings	Green Color	Dangerous Teeth	Animal Type
0	50/500	500/500	400/500	0	Parrot
1	450/500	0	0	500/500	Dog
2	500/500	0	100/500	50/500	Fish

In [4]:

```
df2
```

Out[4]:

	Swim	Wings	Green Color	Dangerous Teeth
0	True	False	True	False
1	True	False	True	True
2	False	True	True	False

In [6]:

```
def greatest(n1,n2,n3):
    if n1>n2 and n1>n3:
        print(n1,'is the greatest value')
    elif n2>n1 and n2>n3:
        print(n2,'is the greatest value')
    else:
        print(n3,'is the greatest value')
```

In [10]:

```
pp = 1/3
evd = 0.222
f1 = ((50/500)*(400/500)*pp)/evd
print("The resulant for 1st record for parrot class is:",f1)

f2 = ((450/500)*(0/500)*pp)/evd
print('The resulant for 1st record for dog class is',f2)

f3 = ((500/500)*(100/500)*pp)/evd
print('The resulant for 1st record for fish class is',f3)

greatest(f1,f2,f3)
print("This record belongs to a Fish")
```

```
The resulant for 1st record for parrot class is: 0.12012012012012015
The resulant for 1st record for dog class is 0.0
The resulant for 1st record for fish class is 0.3003003003003003
0.3003003003003003 is the greatest value
This record belongs to a Fish
```

In [12]:

```
pp = 1/3
evd = 0.08148
f1 = ((50/500)*(400/500)*(0/500)*pp)/evd
print("The resulant for 2nd record for parrot class is:",f1)

f2 = ((450/500)*(0/500)*(500/500)*pp)/evd
print('The resulant for 2nd record for dog class is',f2)

f3 = ((500/500)*(100/500)*(50/500)*pp)/evd
print('The resulant for 2nd record for fish class is',f3)

greatest(f1,f2,f3)
print("This record belongs to a Fish")
```

```
The resulant for 2st record for parrot class is: 0.0
The resulant for 2st record for dog class is 0.0
The resulant for 2st record for fish class is 0.08181966944853544
0.08181966944853544 is the greatest value
This record belongs to a Fish
```

In [13]:

```
pp = 1/3
evd = 0.111
f1 = ((500/500)*(400/500)*pp)/evd
print("The resulant for 3rd record for parrot class is:",f1)

f2 = ((0/500)*(0/500)*pp)/evd
print('The resulant for 3rd record for dog class is',f2)

f3 = ((0/500)*(100/500)*pp)/evd
print('The resulant for 3rd record for fish class is',f3)

greatest(f1,f2,f3)
print("This record belongs to a Parrot!!")
```

```
The resulant for 3rd record for parrot class is: 2.4024024024024024
The resulant for 3rd record for dog class is 0.0
The resulant for 3rd record for fish class is 0.0
2.4024024024024024 is the greatest value
This record belongs to a Fish
```