

In [1]:

```
import pandas as pd
import numpy as np
```

In [4]:

```
iris=pd.read_csv('F:\\DSE\\3rd year engineering\\5th sem\\6th sem\\DSBDA\\dataset\\iris.
```

In [5]:

```
column = len(list(iris))
column
```

Out[5]:

5

In [6]:

```
iris.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 150 entries, 0 to 149
Data columns (total 5 columns):
#   Column          Non-Null Count  Dtype  
---  -
0   sepal_length    150 non-null   float64
1   sepal_width     150 non-null   float64
2   petal_length    150 non-null   float64
3   petal_width     150 non-null   float64
4   species         150 non-null   object  
dtypes: float64(4), object(1)
memory usage: 6.0+ KB
```

In [8]:

```
np.unique(iris["species"])
```

Out[8]:

```
array(['setosa', 'versicolor', 'virginica'], dtype=object)
```

In [9]:

```
iris.describe()
```

Out[9]:

	sepal_length	sepal_width	petal_length	petal_width
count	150.000000	150.000000	150.000000	150.000000
mean	5.843333	3.054000	3.758667	1.198667
std	0.828066	0.433594	1.764420	0.763161
min	4.300000	2.000000	1.000000	0.100000
25%	5.100000	2.800000	1.600000	0.300000
50%	5.800000	3.000000	4.350000	1.300000
75%	6.400000	3.300000	5.100000	1.800000
max	7.900000	4.400000	6.900000	2.500000

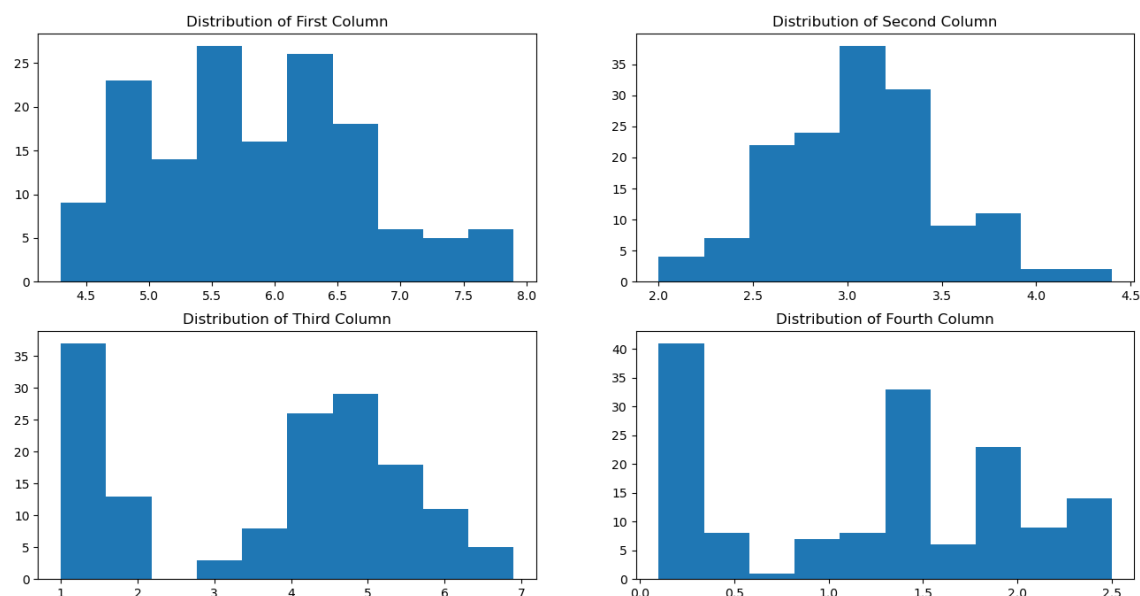
In [10]:

```
import seaborn as sns
import matplotlib
import matplotlib.pyplot as plt
%matplotlib inline
```

In [13]:

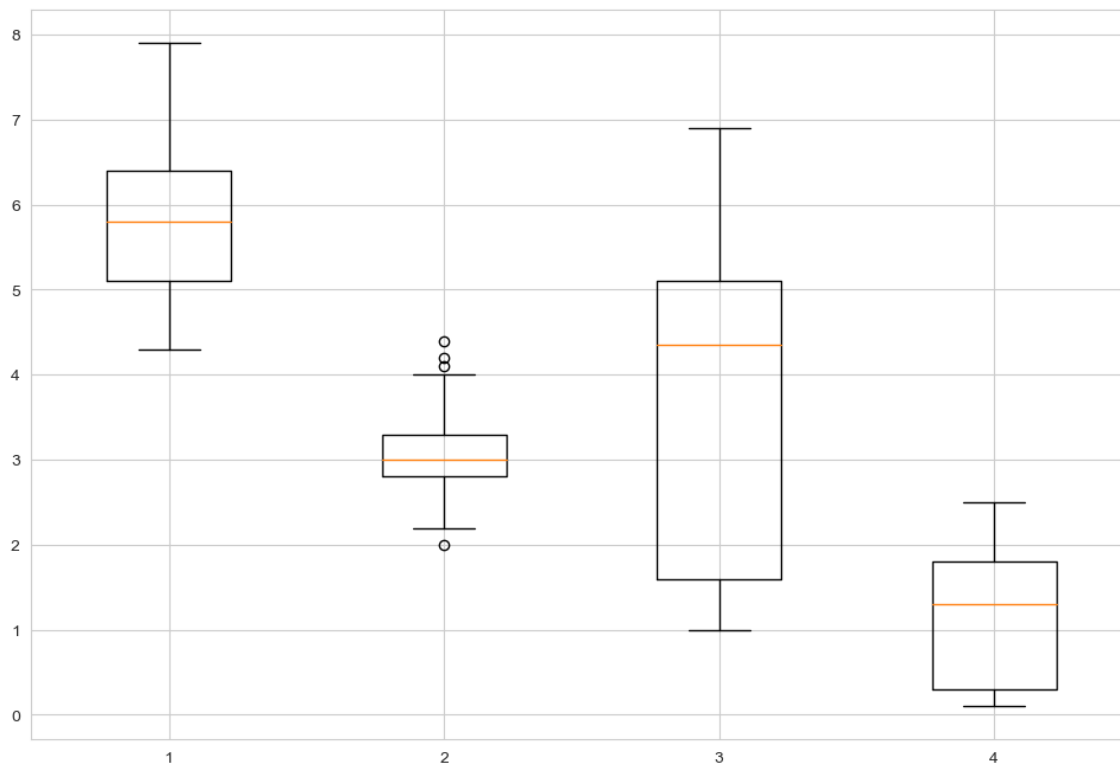
```
fig, axes = plt.subplots(2, 2, figsize=(16, 8))

axes[0,0].set_title("Distribution of First Column")
axes[0,0].hist(iris["sepal_length"]);
axes[0,1].set_title("Distribution of Second Column")
axes[0,1].hist(iris["sepal_width"]);
axes[1,0].set_title("Distribution of Third Column")
axes[1,0].hist(iris["petal_length"]);
axes[1,1].set_title("Distribution of Fourth Column")
axes[1,1].hist(iris["petal_width"]);
```



In [15]:

```
data_to_plot = [iris["sepal_length"],iris["sepal_width"],iris["petal_length"],iris["petal_width"])
sns.set_style("whitegrid")
# Creating a figure instance
fig = plt.figure(1, figsize=(12,8))
# Creating an axes instance
ax = fig.add_subplot(111)
# Creating the boxplot
bp = ax.boxplot(data_to_plot);
```



In []: