

A) Here is the observation for the mean and standard deviation values for each of the four features:

```
***** PART A *****
Standard Deviation of sepal length values is: 0.825301291785
Mean of sepal length values is: 5.84333333333

Standard Deviation of sepal Width values is: 0.432146580071
Mean of sepal Width values is: 3.054

Standard Deviation of petal length values is: 1.75852918341
Mean of petal length values is: 3.75866666667

Standard Deviation of petal width values is: 0.760612618588
Mean of petal width values is: 1.19866666667
***** PART A ENDS *****
```

b) Mean and standard deviation values for flower 'Iris Setosa'

```
***** PART B *****
***** Calculation for Iris-setosa *****
Standard Deviation of sepal length values for Iris-setosa is: 0.348946987378
Mean of sepal length values for Iris-setosa is : 5.006
Standard Deviation of sepal Width values for Iris-setosa is: 0.377194909828
Mean of sepal Width values for Iris-setosa is: 3.418
Standard Deviation of petal length values Iris-setosa is: 0.171767284429
Mean of petal length values for Iris-setosa is: 1.464
Standard Deviation of petal width values for Iris-setosa is: 0.106131993291
Mean of petal width values for Iris-setosa is: 0.244
```

Mean and standard deviation values for 'Iris Versicolor':

```
***** Calculation for Iris-versicolor *****
Standard Deviation of sepal length values for Iris-versicolor is: 0.50845976645
4
Mean of sepal length values for Iris-versicolor is: 5.9431372549
Standard Deviation of sepal Width values for Iris-versicolor is: 0.316239923713

Mean of sepal Width values for Iris-versicolor is: 2.78039215686
Standard Deviation of petal length values for Iris-versicolor is: 0.51995918569
3
Mean of petal length values for Iris-versicolor is: 4.29411764706
Standard Deviation of petal width values for Iris-versicolor is: 0.253115914715

Mean of petal width values for Iris-versicolor is: 1.34901960784
```

Mean and standard deviation values for 'Iris Virginica:

```

***** Calculation for Iris-virginica *****
Standard Deviation of sepal length values for Iris-virginica is: 0.629488681391
Mean of sepal length values for Iris-virginica is: 6.588
Standard Deviation of sepal Width values for Iris-virginica is: 0.319255383666
Mean of sepal Width values for Iris-virginica is: 2.974
Standard Deviation of petal length values for Iris-virginica is: 0.546347874527
Mean of petal length values for Iris-virginica is: 5.552
Standard Deviation of petal width values for Iris-virginica is: 0.271889683512
Mean of petal width values for Iris-virginica is: 2.026
***** PART B ENDS *****

```

c) Here are the four box plots for four different features against three flowers:

Things tried as graph features:

Tried imparting different colors to graph using the below function and importing pylab library.

```

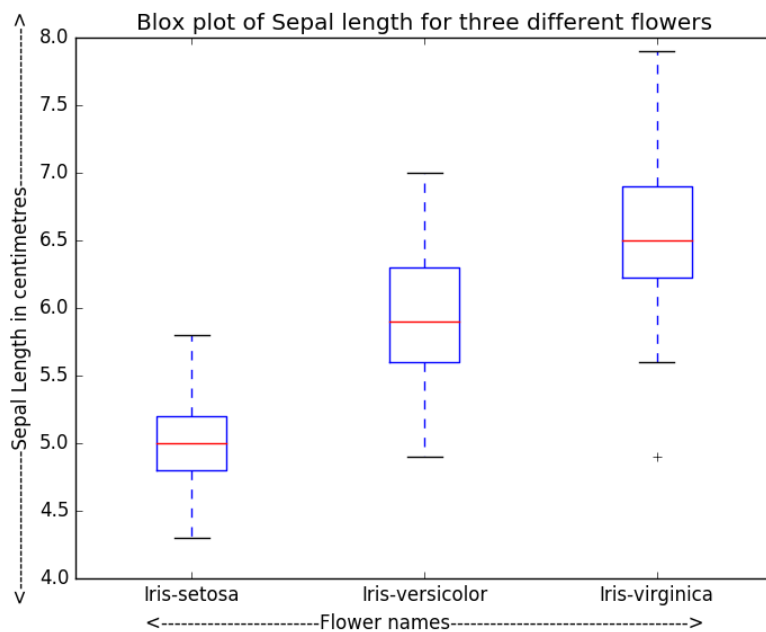
def setBoxColors(bp):
    setp(bp['boxes'][0], color='blue')
    setp(bp['caps'][0], color='blue')
    setp(bp['caps'][1], color='blue')
    setp(bp['whiskers'][0], color='blue')
    setp(bp['whiskers'][1], color='blue')
    setp(bp['fliers'][0], color='blue')
    setp(bp['fliers'][1], color='blue')
    setp(bp['medians'][0], color='blue')

```

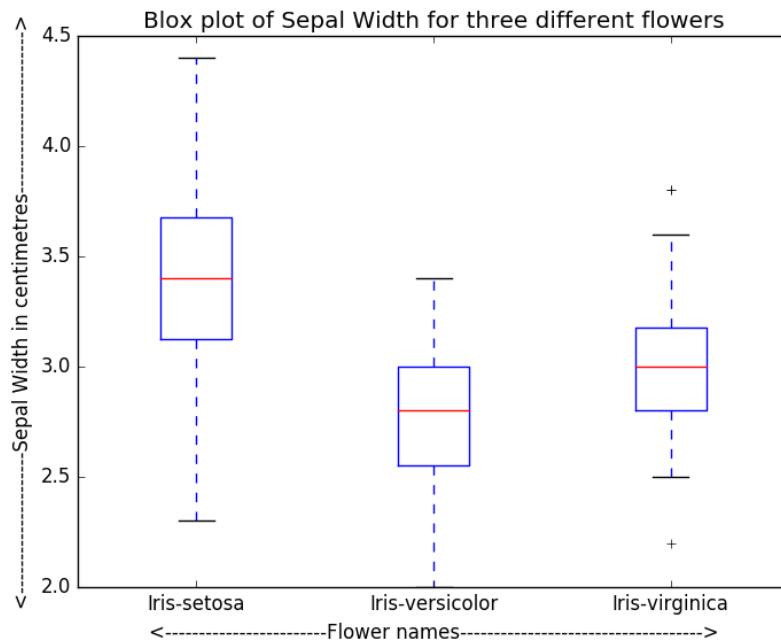
Also tried giving box borders and dimensions of the plots in various measurements.

My inference was that the graph with minimal colors to differentiate works best professionally and one which is not too dressed up catches the understanding and attention quickly. Too heavy borders and darker colors make the graph cluttered and the inference appears convoluted to the onlookers.

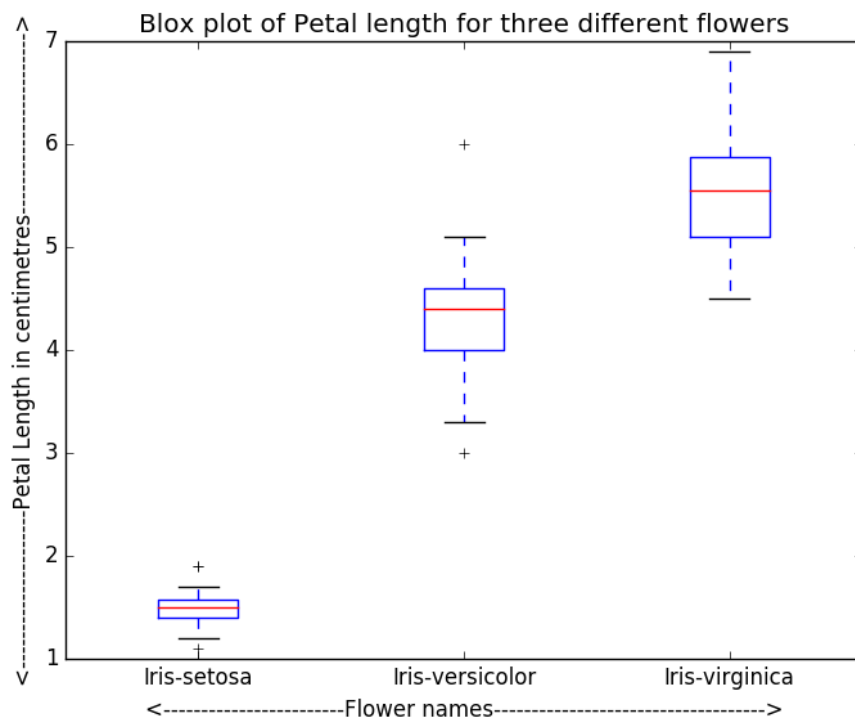
Box plot for Sepal Length:



Box plot for Sepal Width:



Box plot for petal Length:



Box plot for Petal Width:

