Iris Data Set

# **Background Information**

**Iris Flowers**

Irises are named after Iris, the goddess of the rainbow in Ancient Greek mythology. There are up to 300 species of iris flowers. Iris flowers have six lobes. The three inner lobes are petals and the three outer lobes are sepals. Most flowers have coloured petals and smaller, green sepals. When the petals and sepals are both large and colourful, as in iris flowers, they are sometimes known as tepals. The three petals of an iris flower stand upright and are often referred to as standards. The three sepals may also stand upright, but they more commonly spread outwards or curve downwards. The sepals are also known as falls.

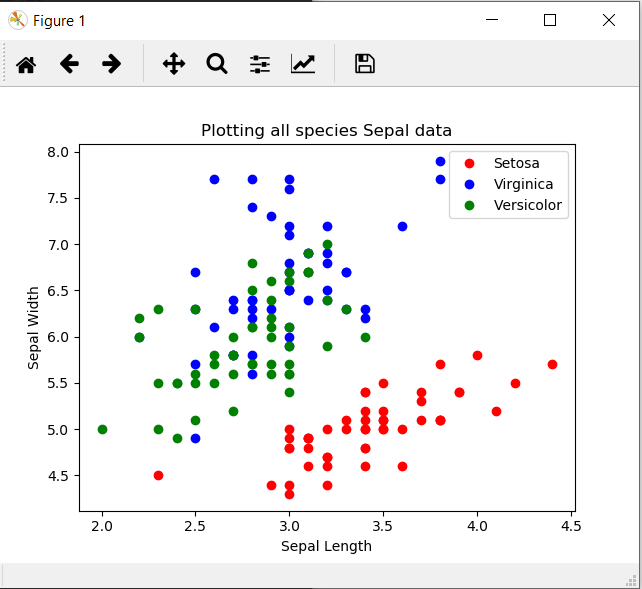
**Iris Data Set**

The Iris flower data set, or Fisher's Iris data set is a multivariate data set multivariate introduced by the British statistician and biologist Ronald in his 1936 paper The use of multiple measurements in taxonomic problems as an example of linear discriminant analysis.

The data set consists of 50 samples from each of three species of Iris (Setosa, Versicolor and Virginica). Four features were measured from each sample: the length and the width of the sepals and petals, in centimetres. Based on the combination of these four features, Fisher developed a linear discriminant model to distinguish the species from each other.

The dataset contains a set of 150 records under five attributes - petal length, petal width, sepal length, sepal width and species.

# **Summary of Investigations**



From the two figures above, you can see the differences between the three-iris species. Setosa is red, Virginica is blue and Versicolor is green. The Figure on the left is for the species Petal data and the figure on the right is for the species Sepal data.

After plotting all the species in the two figures above it is clear that the setosa flower is clearly different from the other two. The setosa in red is shown away from the other two species.

In the figure on the right the similarity between the virginica and versicolor is clearly shown as the two are intertwined and the red is plotted in a bunch by itself.