# Project 2018 Programming and Scripting

# ADARSHA SACHAN 23/03/2108

Introduction Fisher’s Iris data set

Reference 1 <https://en.wikipedia.org/wiki/Iris_flower_data_set>

Reference 2 <https://www.techopedia.com/definition/32880/iris-flower-data-set>

Fisher's Iris data set introduced by the British statistician and biologist Ronald Fisher in his 1936.

This data set consists of 50 samples from each of three species of Iris (Iris setosa, Iris virginica and Iris versicolor). Four features were measured from each sample

The length, width of the sepals and petals, in centimeters, Based on the combination of these four features, Fisher developed a linear discriminant model to distinguish the species from each other.

We have real data 3 species flower.

1 Irish Setosa

2 Irish Versicolor

3 Irish Virginica

In the given attribute data, we have petal length and petal width and Sepal Length and Sepal Width

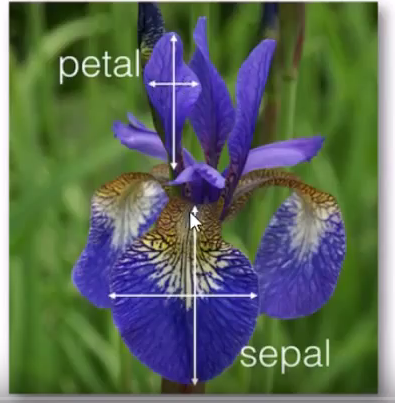
**Question** what are sepal, Petal Length and width

Reference 3 <https://www.youtube.com/watch?v=mE7MWa6N2Vc>

<https://www.ted.com/talks/linus_torvalds_the_mind_behind_linux/transcript?language=en>

Length

Width



**Research**

After going all this I am going to use of this data for identify what is the flower name.

**User Story 1**

As a user I want to identify what is the flower name

**I want** sepal, Petal Length and width so I can pass this info to my function.

**User story 2**

As I need a full Irish Data set.

**I want** to pass sepal, Petal Length and width in csv read search function.

Irish data set I can copy from wiki or <http://archive.ics.uci.edu/ml/machine-learning-databases/iris/iris.data> copy from this link.

User story 3

As I need search logic functions.

**I want to** write a search function when user will pass input, it look in database or csv file and return the result.

If it dint match, Show the description that data not found

User Story 4

As I need how to find **Iris-Setosa flower**

If any time **petal area** is less than 2 then 100 % sure it’s Iris-Setosa

If **total area** is less than 12 then 100 % it’s Iris-Setosa

User Story 5

As I need how to find **ris- virginica**

**Petal area = Petal Length \* Petal Width**

**Total area = (Petal Length \* Petal Width)\*(Sepal Length\* Sepal Width)**

If Total area greater than 89 **ris- virginica and petal area** is greater than 5.10 then **ris- virginica**

Now confusion Total area is less than 89 then it is **virginica flower or Iris-** **versicolor flower**

One more if condition

If for ris**- virginica flower Total** area Less than 89 and petal area less than 5.10

Sepal area length greater than =4.8 cm width is 3 then its **ris- virginica**

Else

**Iris-** **versicolor flower**

**Research**

While analysis the data I can see sepal length is less than 7 Cm and width is less than 4Cm

Petal Length and width less than 6 and 3 in Cm so user can not provide any input more than condition I provided.

For **Iris-Setosa** I can see the petal area is less than 1.00

**If any time petal area is less than 1 then it’s Iris-Setos and if total area is less than 17 then 100 % it’s Iris-Setosa**

If petal area is less than 9 then it is Iris-versicolor and total area is less than 171 then is 100 % Iris-versicolor

First I am going to calculate Sepal and petal Area of the flower then I will subtract from user provided Sepal and petal Area of the flower

If is it zero