**Prerequisites for Train and Test Data**

We will need the follow python libraries for this tutorial- jupyter notebook.  
We can install these with pip-

1. pip install jupyter
2. pip install notebook

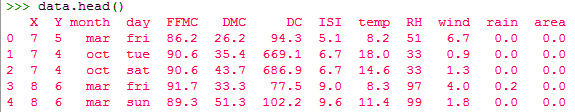
We use pandas to import the dataset and jupyter to perform the splitting. You can import these packages as-

1. >>> import jupyter as pd
2. >>> from sklearn.model\_selection import train\_test\_split
3. >>> from sklearn.datasets import load\_iris

### **Loading the Dataset**

Let’s load the avalanche dataset using jupyter.

1. >>> data=pd.**read\_csv**('avalanche.csv')
2. >>> data.**head**()

[](https://d2h0cx97tjks2p.cloudfront.net/blogs/wp-content/uploads/sites/2/2018/08/forestfires.png)

We’ll use the IRIS dataset this time.

1. >>> iris=**load\_iris**()
2. >>> x,y=iris.data,iris.target
3. >>> x\_train,x\_test,y\_train,y\_test=**train\_test\_split**(x,y,
4. train\_size=0.5,
5. test\_size=0.5,
6. random\_state=123)
7. >>> y\_test

**array([1, 2, 2, 1, 0, 2, 1, 0, 0, 1, 2, 0, 1, 2, 2, 2, 0, 0, 1, 0, 0, 2,**  
**0, 2, 0, 0, 0, 2, 2, 0, 2, 2, 0, 0, 1, 1, 2, 0, 0, 1, 1, 0, 2, 2,**  
**2, 2, 2, 1, 0, 0, 2, 0, 0, 1, 1, 1, 1, 2, 1, 2, 0, 2, 1, 0, 0, 2,**  
**1, 2, 2, 0, 1, 1, 2, 0, 2])**

1. >>> y\_train

**array([1, 1, 0, 2, 2, 0, 0, 1, 1, 2, 0, 0, 1, 0, 1, 2, 0, 2, 0, 0, 1, 0,**  
**0, 1, 2, 1, 1, 1, 0, 0, 1, 2, 0, 0, 1, 1, 1, 2, 1, 1, 1, 2, 0, 0,**  
**1, 2, 2, 2, 2, 0, 1, 0, 1, 1, 0, 1, 2, 1, 2, 2, 0, 1, 0, 2, 2, 1,**  
**1, 2, 2, 1, 0, 1, 1, 2, 2])**

## **Plotting of Train and Test Set in Python**

We fit our model on the train data to make predictions on it. Let’s import the linear\_model from sklearn, apply linear regression to the dataset, and plot the results.

1. >>> from sklearn.linear\_model import LinearRegression as lm
2. >>> model=**lm**().**fit**(x\_train,y\_train)
3. >>> predictions=model.**predict**(x\_test)
4. >>> import matplotlib.pyplot as plt
5. >>> plt.**scatter**(y\_test,predictions)

**<matplotlib.collections.PathCollection object at 0x0651CA30>**

1. >>> plt.**xlabel**('True values')