**Programming for Data Analytics**

CRAN:- Comprehensive R Archive Network

R has a very good support for datasets for example WorldPhones, NYC flight 13.

library(ggplot2) is a part of tidyverse.

1. ATOMIC Vectors:- Vector is a one dimensional array which stores one or more values. It is a workhorse of R. A vector can be **Atomic** or a **List.** 
   1. Atomic:- It can have multiple values for example, X<-c(1,2,”Three”)

Create a logical Vector

X\_logi<-c(True, T, False,True,F). Structure will be like an array

X\_logi

typeof(x\_char) will give you the type of datatype

str(x\_char) will display the structure of the object.

There are four main data types:-

1. Logical
2. Integer
3. Numeric/Double
4. Character

Atomics vectors always contain data of same type this is enforced by R using s process known as coercion. Example:- C(10,True) will return 1.

names(x\_logi) is called as a replacement function it can be used to get information and set information it allows you to change the name in vectors. It is used to allocate names to each vector

Missing Values ie missing data

R deals with the missing value in the form of NA.

1. FUNCTIONS()

A function has link to its environment.

1. Environments

Understanding how environments work is key to figuring out how variables are accessed and retrieved in R. Anything you create you create in the global environment. Libraries are loaded in the global environment.