**Packages in R**

R packages are the collection of R functions, sample data, and compile codes. In the R environment, these packages are stored under a directory called "library." During installation, R installs a set of packages. We can add packages later when they are needed for some specific purpose. Only the default packages will be available when we start the R console. Other packages which are already installed will be loaded explicitly to be used by the R program.

There is the following list of commands to be used to check, verify, and use the R packages.



Check Available R Packages

To check the available R Packages, we have to find the library location in which R packages are contained. R provides libPaths() function to find the library locations.

**libPaths()**

**Getting the list of all the packages installed**

**R provides library() function, which allows us to get the list of all the installed packages.**

**library()**

**Like library() function, R provides search() function to get all packages currently loaded in the R environment.**

**search()**

**Install a New Package**

**In R, there are two techniques to add new R packages. The first technique is installing package directly from the CRAN directory, and the second one is to install it manually after downloading the package to our local system.**

**install.packages("Package Name")**

**The syntax of installing XML package is as follows:**

**install.packages("XML")**

**List of R packages**

**R is the language of data science which includes a vast repository of packages. These packages appeal to different regions which use R for their data purposes. CRAN has 10,000 packages, making it an ocean of superlative statistical work. There are lots of packages in R, but we will discuss the important one.**

**There are some mostly used and popular packages which are as follows:**

**1) tidyr**

**The word tidyr comes from the word tidy, which means clear. So the tidyr package is used to make the data' tidy'. This package works well with dplyr. This package is an evolution of the reshape2 package.**

**2) ggplot2**

**R allows us to create graphics declaratively. R provides the ggplot package for this purpose. This package is famous for its elegant and quality graphs which sets it apart from other visualization packages.**

**3) plotly**

**The plotly package provides online interactive and quality graphs. This package extends upon the JavaScript library -plotly.js.**

**4)leaflet**

**For creating interactive visualization, R provides the leaflet package. This package is an open-source JavaScript library. The world's popular websites like the New York Times, Github and Flicker, etc. are using leaflet. The leaflet package makes it easier to interact with these sites.**

**5) dplyr**

**R allows us to perform data wrangling and data analysis. R provides the dplyr library for this purpose. This library facilitates several functions for the data frame in R.**