* The command line interface is what makes R so powerful, and also frustrating to learn.
* There have been attempts to build point-and-click interfaces for R, such as Rcmdr, but none have truly taken off.
* To run the command in R, type it into the console next to the >symbol and press the Enter key.

**Calling Functions**

* Functions use is to make code easily repeatable.

Eg:

>mean(x) x is a vector

>[1] 5.5

* More complicated functions have multiple arguments that can be either specified by the order they are entered or by using their name with an equal sign.\
* We want to calculate the average price for each type of cut: Fair, Good, Very Good, Premium and Ideal. The first argument to aggregate is the formula specifying that price should be broken up (or group by in SQL terms) by cut. The second argument is the data to use, in this case diamonds. The third argument is the function to apply to each subset of the data, i.e the mean.

>aggregate(price~cut, diamonds, mean)

Similarly we can use sum,avg,max,min

Applications of t test

* The T-test is used to compare the mean of two samples, dependent or independent.
* It can also be used to determine if the sample mean is different from the assumed mean.
* T-test has an application in determining the confidence interval for a sample mean.

What is data reshaping

* Focus is on when the data needs to be rearranged from column oriented to row oriented and when the data are in multiple, separate sets and need to be combined into one.
* There are base functions to accomplish these tasks but will focus on those in plyr, reshape2 and data.table.

**cbind and rbind:**

**Joins**

Melt,cast

strsplit() function

The **str\_split()** function from the [stringr](https://stringr.tidyverse.org/" \t "_blank) package in R can be used to split a string into multiple pieces. This function uses the following syntax:

**str\_split(string, pattern)**

where:

* **string:** Character vector
* **pattern:** Pattern to split on

advantages of r programming

Open Source. R is an open-source programming language. ...

Exemplary Support for Data Wrangling. R provides exemplary support for data wrangling. ...

The Array of Packages. ...

Quality Plotting and Graphing. ...

Highly Compatible. ...

R with() function

That is with() function enables us to evaluate an R expression within the function to be passed as an argument. It works on [data frames](https://www.journaldev.com/35741/data-frames-in-r-programming) only. That is why the outcome of the evaluation of the R expression is done with respect to the data frame passed to it as an argument.

Syntax :

with(data-frame, R expression)

hat is the use of subset() and sample() function in R?

The difference between subset () function and sample () is that, subset () is used to select data from the dataset which meets certain condition, while sample () is used for randomly selecting data of size 'n' from the dataset. This recipe demonstrates an example on subset () and sample () in R.

Syntax : subset(x,condition,select)

where, x : dataframe / dataset under consideration

condition : condition that needs to be satisfied

select : selecting only required columns of the dataframe.

Syntax : sample(data,size,replace=TRUE)

where, data : input dataframe

size : sample size

replace=TRUE : multiplies the data elements

Transpose of a matrix is an operation in which we convert the rows of the matrix in column and column of the matrix in rows. The general equation for performing the transpose of a matrix is as follows.

what is the function used for adding datasets in R?

To join two data frames (datasets) vertically, use the **rbind function**

what is the tünction used for mergmg ofdata frames horizontally in R?

cbind

diff sorting algo in r?

* Bubble Sort
* Insertion Sort
* Selection Sort
* Merge Sort
* Quick Sort