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Perform the data classification using classification algorithm.

**OR** 

**Data Analysis using Time Series Analysis** 

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Time series is a series of data points in which each data point is associated with a timestamp. A simple example is the price of a stock in the stock market at different points of time on a given day. Another example is the amount of rainfall in a region at different months of the year. R language uses many functions to create, manipulate and plot the time series data. The data for the time series is stored in an R object called time-series object. It is also a R data object like a vector or data frame.

itvo The time series object is created by using the ts() function rs.in itvo yagers.in Syntax

The basic syntax for ts() function in time series analysis is -

timeseries.object.name <- .ts(data, start, end, frequency)
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Following is the description of the parameters used –

- data is a vector or matrix containing the values used in the time series.
- start specifies the start time for the first observation in time series.
- ityo end specifies the end time for the last observation in time series, you agers in
  - frequency specifies the number of observations per unit time.

Except the parameter "data" all other parameters are optional

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We create an R time series object for a period of 12 months and plot it.

Code to run in R

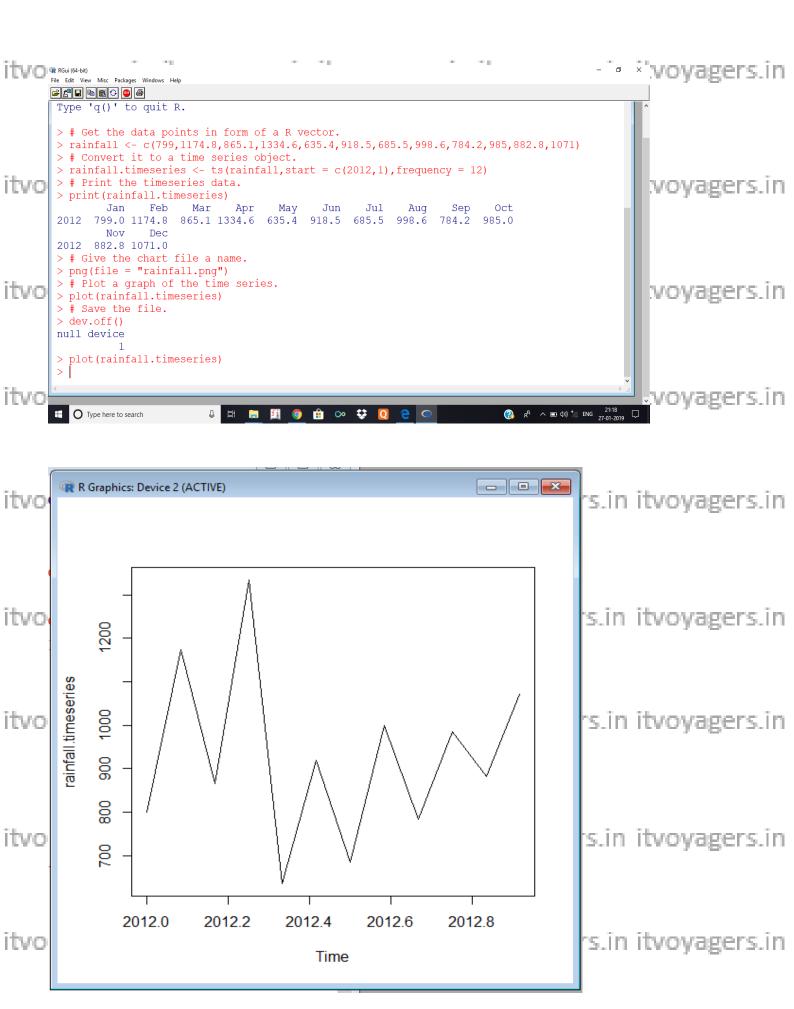
# Get the data points in form of a R vector.
itvoyagers.in itvoyagers.in itvoyagers.in itvoyagers.in itvoyagers.in itvoyagers.in c(799,1174.8,865.1,1334.6,635.4,918.5,685.5,998.6,784.2,985,882.8,1071)

rainfall.timeseries <- ts(rainfall,start = c(2012,1),frequency = 12)

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itvo#agattalentimeseriegattalin itvoyagers.in itvoyagers.in itvoyagers.in
    print(rainfall.timeseries)
    # Give the chart file a name.
itvoyagers.in itvoyagers.in itvoyagers.in itvoyagers.in itvoyagers.in png(file = "rainfall.png")
    # Plot a graph of the time series.
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    # Save the file.
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    After this again plot to get chart
plot(rainfall.timeseries) itvoyagers.in itvoyagers.in itvoyagers.in itvoyagers.in
    Output:
    When we execute the above code, it produces the following result and chart
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                                     Jul Aug Sep 2012 799.0 1174.8
                    Apr
                        May
                               Jun <sup>*</sup>
    865.1 1334.6 635.4 918.5 685.5 998.6 784.2
                                                               Dec 2012
                                                    Oct Nov
    985.0 882.8 1071.0
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