



TECNOLÓGICO NACIONAL DE MÉXICO
INSTITUTO TECNOLÓGICO DE TIJUANA



SUBDIRECTORATE ACADEMIC
DEPARTMENT SYSTEMS AND COMPUTING
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COMPUTER ENGINEERING

MATERIAL
DATA MINING

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Unit 2

Task 4

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DEADLINE
MAY

Split Ratio () and lm ()

Generally, though The data that you want to work with is given in tables, they are not organized in the way you intend to work on them. The function **split ()** allows you to classify the data, typically given as a vector, or as a data frame.

Splitting ratio:

- `if (0<= splitratio <1) <code ="">` then SplitRatio fraction of points from Y will be set to True
- `if (SplitRatio ==1)` then one random point from Y will be set to True
- `if (SplitRatio>1)` then SplitRatio number of points from Y will be set to True

lm ()

Used to fit linear models can be used to perform regression, single-stratum analysis of variance and covariance analysis.

Models for lm are specified symbolically.

`lm` returns an object of class `"lm"` or for multiple responses of class `c ("mlm", "lm")`.

An object of class `"lm"` is a list containing at least the following components:

- coefficients
a named vector of coefficients
- residual rights copyrights
the residuals, that is, the answer minus the fitted values.
- fitted values the adjusted
mean values
- range
The numerical range of the fitted linear model.
- weights
(for weighted adjustments only) the specified weights.
- `df.residual`
The residual degrees of freedom.
- `call`
the matching call
- conditions
The terms object used.
- contrasts

- (only where relevant) the contrasts used.
- xlevels
(only where relevant) a record of the levels of the factors used in the adjustment.
- offset
offset used (missing if none were used).
- and
if requested, the response used.
- X
if requested, the model matrix used.
- model
if requested (the default), the frame of the model used.
- na.action
(where applicable) information returned by model.frame about special handling of NAs.

In addition, nonzero adjustments will have assigned components, effects, and (unless requested) qr related to linear adjustment, for use by extractor functions such as summary and effects .

1. RDocumentation. (sf). sample.split function | R Documentation. Retrieved May 29, 2020, from <https://www.rdocumentation.org/packages/caTools/versions/1.17.1/topics/sample.split>
2. RDocumentation. (sf-a). lm function | R Documentation. Retrieved May 29, 2020, from <https://www.rdocumentation.org/packages/stats/versions/3.6.2/topics/lm>