# Package 'mlrpro'

October 13, 2022

**Type** Package

**Title** Stepwise Regression with Assumptions Checking

**Version** 0.1.2

**Description**
The stepwise regression with assumptions checking and the possible Box-Cox transformation.

**License** GPL-3

**Encoding** UTF-8

**Imports** car, dplyr, MASS

**RoxygenNote** 7.2.0

**Suggests** knitr, rmarkdown, testthat (>= 3.0.0)

**VignetteBuilder** knitr

**Config/testthat/edition** 3

**NeedsCompilation** no

**Author** Thidarat Thongsri [aut, cre],
Klairung Samart [aut]

**Maintainer** Thidarat Thongsri <k.th.thidarat@gmail.com>

**Repository** CRAN

**Date/Publication** 2022-08-10 16:10:09 UTC

## R topics documented:

`mlrpro-package` *Perform stepwise regression with verifying assumptions and identifying possible Box-Cox transformation*

## Description

A tool for multiple regression, select independent variables, check multiple linear regression assumptions and identify possible.

## Usage

```
mlrpro(Data,Y,Column_Y,Alpha)
```

## Arguments

| | |
|---|---|
| `Data` | a data frame containing the variables in the model. |
| `Y` | the response variable. |
| `Column_Y` | the column response variable. |
| `Alpha` | significance level. |

## Value

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

| | |
|---|---|
| `coefficients` | a named vector of coefficients. |
| `residuals` | the residuals, that is response minus fitted values. |
| `fitted.values` | the fitted mean values. |
| `rank` | the numeric rank of the fitted linear model. |
| `df.residual` | the residual degrees of freedom. |
| `call` | the matched call. |
| `terms` | the terms object used. |
| `model` | if requested (the default), the model frame used. |
| `lambda` | lambda value utilized in the data conversion. |

## Examples

```
data(trees)
Model1 <- mlrpro(Data = trees,Y = trees$Volume, Column_Y = 3, Alpha = 0.05)
## or ##
data(mtcars)
Model2 <- mlrpro(Data = mtcars,Y = mtcars$mpg, Column_Y = 1 , Alpha = 0.01)
```

# Index