

Regression

Pseudocode

Regression_function(input table, min_observations)

{

- **Validate the input**

- Whether the data is numeric form
- Input table has 2 columns

- **Clean the input**

- Remove na observations
- Remove duplicate values
- Remove outliers
- If number of observations is \geq min_observations, //FUNC1

- **Determining which model to fit** - Whether a simple linear model should fit or piecewise model or no model(vertical model) with help of correlation between input and using r squared value of simple linear model. //FUNC2

- Determining the knots(parameters) in case of piecewise linear model //FUNC3
- Fit the regression model so obtained and obtain intercept, slope and condition //FUNC4
- Determining the equation using intercept and slope so obtained
- Determining the mean average error of the model //FUNC5
- Arrange the output obtained in form required to return. //FUNC6
- Return the values

}