

NAMA : DEWI RAHMAWATI

NIM : L200170188

KELAS : F

DATA WAREHOUSING DAN DATA MINING

LATIHAN PERCOBAAN 1

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Find data

Result History LinearRegression (Linear Regression) X

ExampleSet (//Local Repository/Data_LamaBelajardanNilaiUjian.xls) X

Open in Turbo Prep Auto Model Filter (10 / 10 examples): all

Row No.	NO_SISWA	NILAI	LAMA BELA...
1	S-101	783	15
2	S-102	877	18
3	S-103	505	7
4	S-104	860	9
5	S-105	968	15
6	S-106	793	17
7	S-107	752	10
8	S-108	571	5
9	S-109	667	8
10	S-110	723	15

ExampleSet (10 examples, 2 special attributes, 1 regular attribute)

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data, operators...etc All Studio

Repository

- Import Data
- Community Samples
- DB (Legacy)
- Local Repository (LABSI-06)
 - connections (LABSI-06)
 - data (LABSI-06)
 - processes (LABSI-06)
 - Data_LamaBelajarc

Operators

Search for Operators

- Data Access (53)
- Blending (79)
- Cleansing (26)
- Modeling (156)
- Predictive (61)

Get more operators from the Marketplace

Process

Process

100%

Retrieve Data_Lama... Linear Regression

Process design diagram showing a flow from 'Retrieve Data_Lama...' to 'Linear Regression'.

Parameters

Linear Regression

min tolerance 0.05

ridge 1.0E-8

Show advanced parameters

Help

Linear Regression

RapidMiner Studio Core

Tags: Supervised, Classification, Regression, Model, Least squares, Ordinary, Ridge, Ols, Glim, Generalized, Functions

Synopsis

Leverage the Wisdom of Crowds to get operator recommendations based on your process design!

Activate Wisdom of Crowds

<new process*> - RapidMiner Studio Free 9.3.001 @ LABSI-06-PC

File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model

Find data

ExampleSet (//Local Repository/Data_LamaBelajardanNilaiUjian.xls)

Result History

LinearRegression (Linear Regression)

Data

Description


Annotations


Attribute	Coefficient	Std. Error	Std. Coeffici...	Tolerance	t-Stat	p-Value	Code
LAMA BELAJA...	21.608	7.645	0.707	1	2.827	0.022	**
(Intercept)	492.769	96.909	?	?	5.085	0.001	****


ExampleSet (//Local Repository/Data_LamaBelajardanNilaiUjian.xls)

Result History

LinearRegression (Linear Regression)


Data

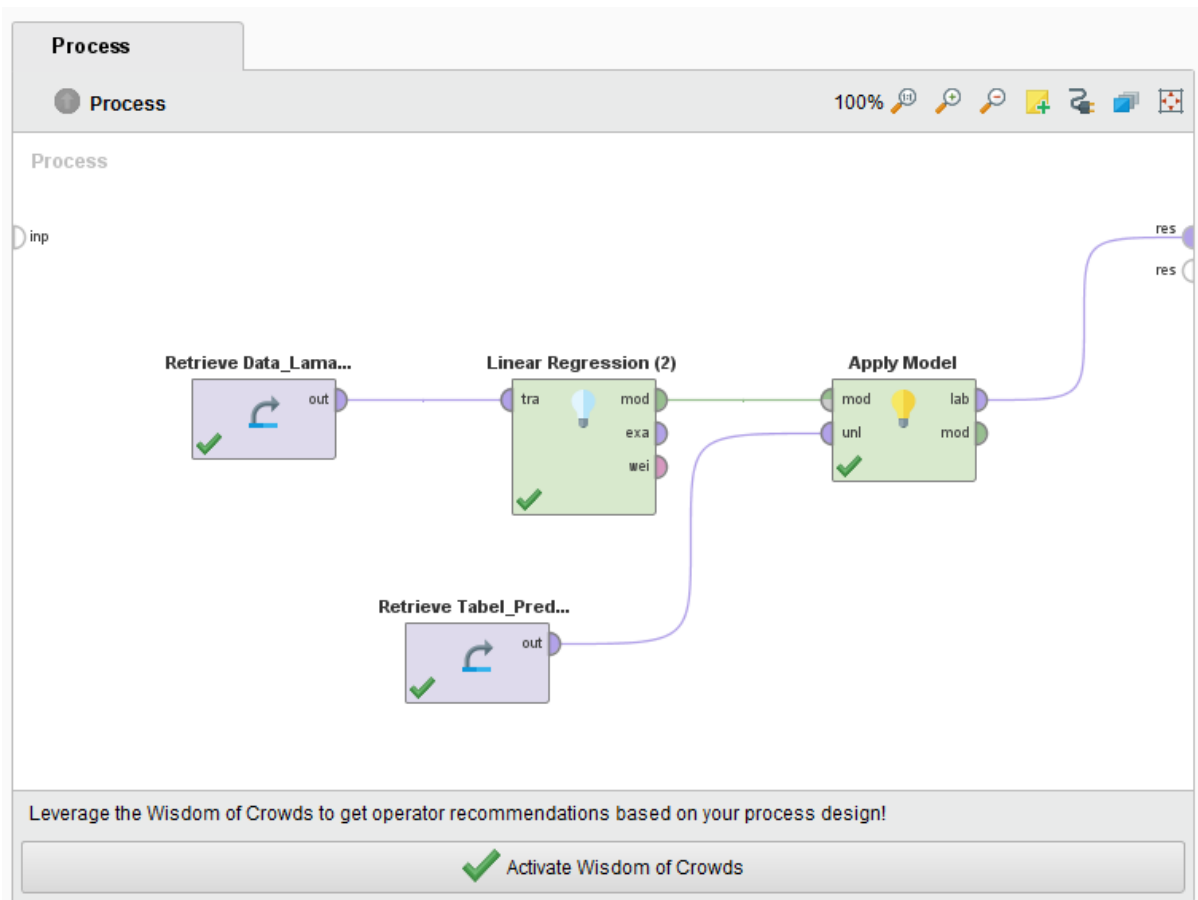

Description


Annotations

LinearRegression

21.608 * LAMA BELAJAR (JAM)
+ 492.769

PERCOBAAN 2



File Edit Process View Connections Settings Extensions Help

Views: Design Results Turbo Prep Auto Model Find data

ExampleSet (//Local Repository/Data_LamaBelajardanNilaiUjian.xls)

Result History ExampleSet (Apply Model) ExampleSet (//Local Repository/Tabel_PrediksiNilaiUjian.xls)

Open in Turbo Prep Auto Model

Filter (10 / 10 examples): all

Row No.	NO_SISWA	prediction(N...	LAMA BELA...
1	S-111	752.061	12
2	S-112	773.668	13
3	S-113	795.276	14
4	S-114	730.453	11
5	S-115	600.807	5
6	S-116	773.668	13
7	S-117	687.238	9
8	S-118	708.845	10
9	S-119	708.845	10
10	S-120	687.238	9

ExampleSet (10 examples, 2 special attributes, 1 regular attribute)

TUGAS



1.

G6					
	A	B	C	D	E
1	NO RESPONDEN	PENDAPATAN (RUPIAH)	JUMLAH ANGGOTA KELUARGA	DAYA BELI (RUPIAH)	
2	1	1000000	6	843000	
3	2	1400000	7	1200000	
4	3	200000	3	134000	
5	4	1400000	6	1167000	
6	5	500000	3	334000	
7	6	1700000	5	1360000	
8	7	400000	3	267000	
9	8	1900000	5	1520000	
10	9	300000	3	200000	
11	10	500000	4	375000	
12	11	700000	7	600000	
13	12	1900000	3	1267000	
14	13	800000	4	600000	
15	14	1500000	4	1125000	
16	15	1300000	7	1115000	
17					

Dengan ketentuan :

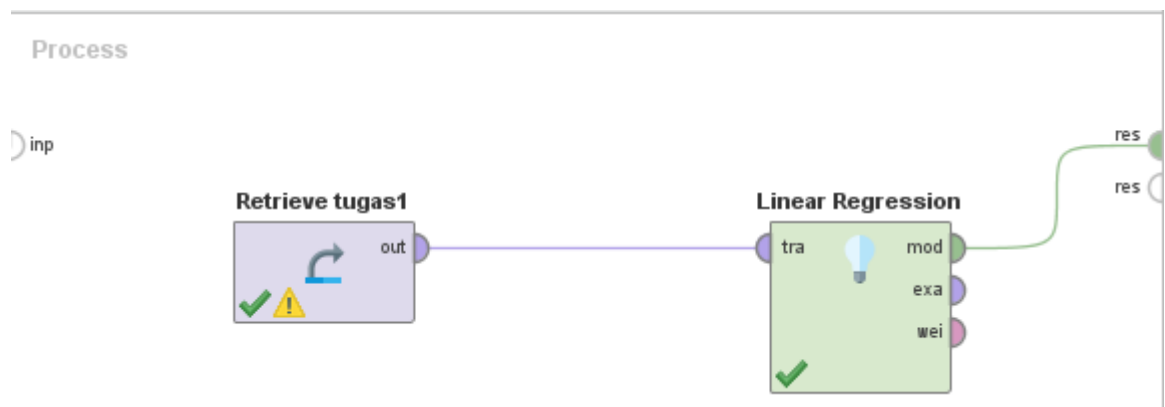
- NO_RESPONDEN : polynomial,
- id PENDAPATAN : integer
- JUMLAH ANGGOTA KELUARGA : integer
- DAYABELI : integer, label

Hasilnya :

Open in  Turbo Prep  Auto Model

Row No.	NO. RESPON...	DAYA BELI (...)	PENDAPATA...	JUMLAH AN...
2	2	1200000	1400000	7
3	3	134000	200000	3
4	4	1167000	1400000	6
5	5	334000	500000	3
6	6	1360000	1700000	5
7	7	267000	400000	3
8	8	1520000	1900000	5
9	9	200000	300000	3
10	10	375000	500000	4
11	11	600000	700000	7
12	12	1267000	1900000	3
13	13	600000	800000	4
14	14	1125000	1500000	4
15	15	1115000	1300000	7

Menentukan min tolerance = 0.05 / 5% pada operator linear regressionnya.



2.

Attribute	Coefficient	Std. Error	Std. Coeff...	Tolerance	t-Stat	p-Value	Code
PENDAPA...	0.739	0.021	0.924	0.857	35.037	0.000	****
JUMLAH A...	47807.624	7833.319	0.161	0.857	6.103	0.000	****
(Intercept)	-180222.4...	36497.284	?	?	-4.938	0.000	****

3.

Attribute	...	...	..	...	t-Stat
PENDAPATAN (RUPIAH)	..	...	.	...	35.037
JUMLAH ANGGOTA KELUARGA	..	...	.	...	6.103
(Intercept)	..	...	.	...	-4.938

Degrees of freedom	Two-tailed test: One-tailed test:	10% 5%
1		6.314
2		2.920
3		2.353
4		2.132
5		2.015
6		1.943
7		1.894
8		1.860
9		1.833
10		1.812
11		1.796
12		1.782
13		1.771
14		1.761
15		1.753

$X1 = 35.037 > t_{stat} = 2.131$ dan $X2 = 6.103 > t_{stat} = 2.131$ dengan toleransi 5%

Variable X dikatakan mempengaruhi secara signifikan terhadap Y jika $t\text{-hitung} > t\text{-tabel}$

4.

LinearRegression

0.739 * PENDAPATAN (RUPIAH)
+ 47807.624 * JUMLAH ANGGOTA KELUARGA
- 180222.487

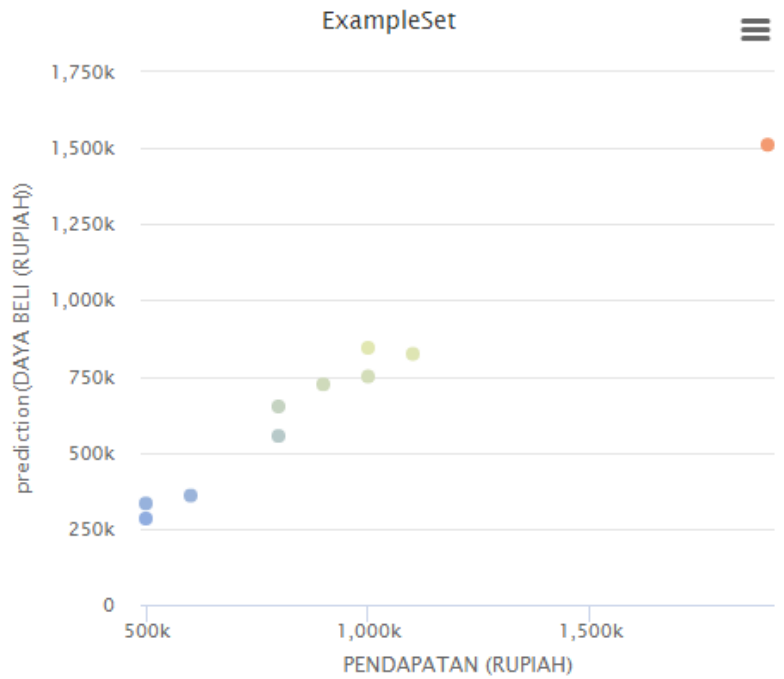
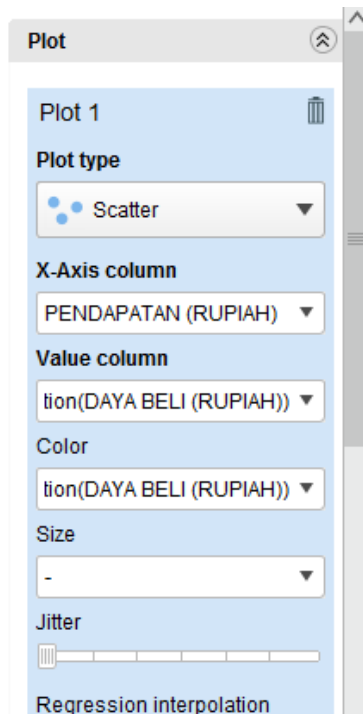
5. a

E2					$=(0,739*B2)+(47807,624*C2)-180222,487$
	A	B	C	D	E
1	NO. RESPONDEN	PENDAPATAN (RUPIAH)	JUMLAH ANGGOTA KELUARGA	DAYA BELI (RUPIAH)	PREDICTION DAYA BELI REGRESI
2	1	1000000	6	834000	845623,257
3	2	1400000	7	1200000	1189030,881
4	3	200000	3	134000	111000,385
5	4	1400000	6	1167000	1141223,257
6	5	500000	3	334000	332700,385
7	6	1700000	5	1360000	1315115,633
8	7	400000	3	267000	258800,385
9	8	1900000	5	1520000	1462915,633
10	9	300000	3	200000	184900,385
11	10	500000	4	375000	380508,009
12	11	700000	7	600000	671730,881
13	12	1900000	3	1267000	1367300,385
14	13	800000	4	600000	602208,009
15	14	1500000	4	1125000	1119508,009
16	15	1300000	7	1115000	1115130,881

b.

Row No.	NO. RESPON...	prediction(DAYA BELI (RUPIAH))	PENDAPATA...	JUMLAH AN...
1	1	723933.263	900000	5
2	2	554416.056	800000	3
3	3	284902.556	500000	2
4	4	1510760.476	1900000	6
5	5	358804.515	600000	2
6	6	650031.304	800000	5
7	7	845642.845	1000000	6
8	8	823929.557	1100000	4
9	9	750027.598	1000000	4
10	10	332710.179	500000	3

6. a



b.

