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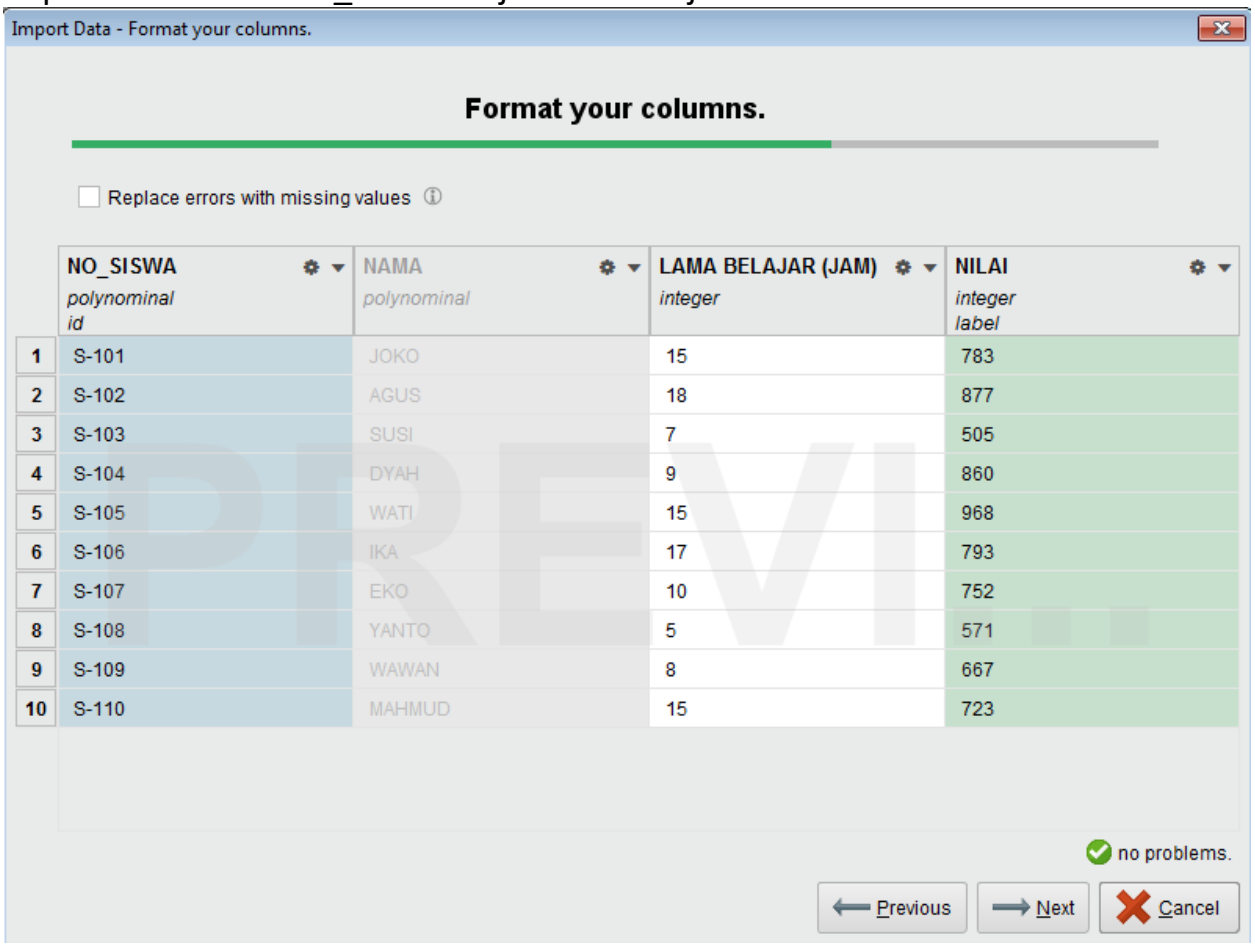
Class : X

Practicum Report Module 12

Find the Value of 't-hitung' and Linear Regression Model

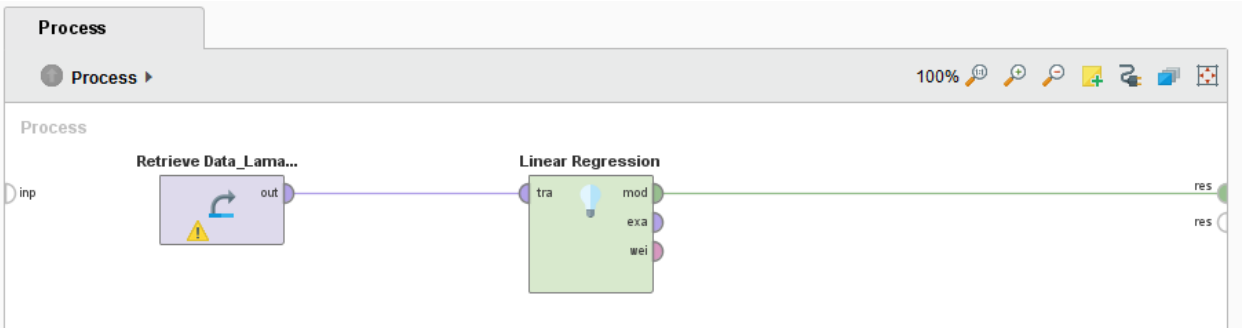
	A	B	C	D
1	NO_SISWA	NAMA	LAMA BELAJAR (JAM)	NILAI
2	S-101	JOKO	15	783
3	S-102	AGUS	18	877
4	S-103	SUSI	7	505
5	S-104	DYAH	9	860
6	S-105	WATI	15	968
7	S-106	IKA	17	793
8	S-107	EKO	10	752
9	S-108	YANTO	5	571
10	S-109	WAWAN	8	667
11	S-110	MAHMUD	15	723

1. Import the data Tabel_LamaBelajardanNilaiUjian.xls



	NO_SISWA polynominal id	NAMA polynominal	LAMA BELAJAR (JAM) integer	NILAI integer label
1	S-101	JOKO	15	783
2	S-102	AGUS	18	877
3	S-103	SUSI	7	505
4	S-104	DYAH	9	860
5	S-105	WATI	15	968
6	S-106	IKA	17	793
7	S-107	EKO	10	752
8	S-108	YANTO	5	571
9	S-109	WAWAN	8	667
10	S-110	MAHMUD	15	723

2. Modelling the Process



3. Run the Process
4. Result of Data View

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

5. Result of Text View

LinearRegression

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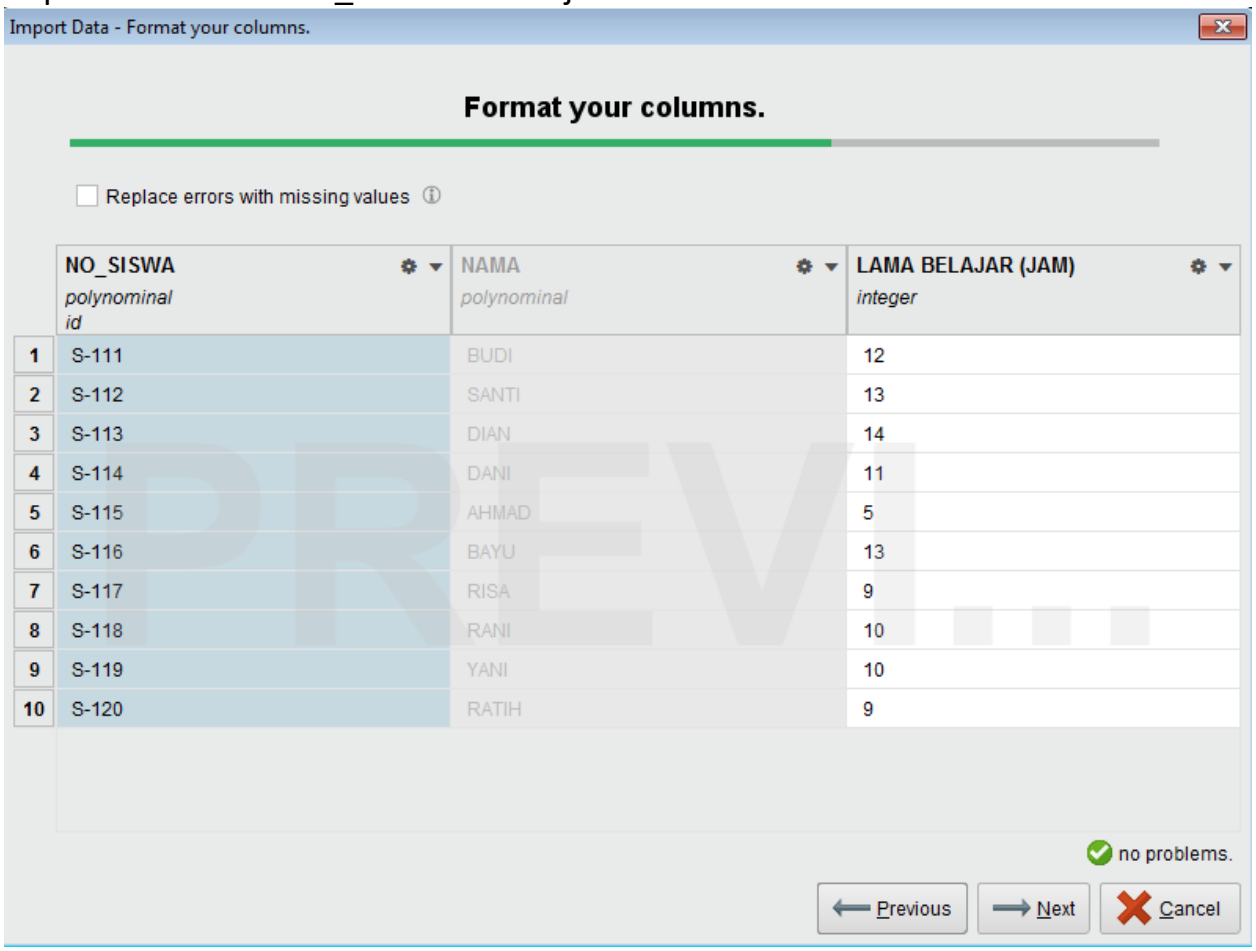
  21.608 * LAMA BELAJAR (JAM)
+ 492.769
```

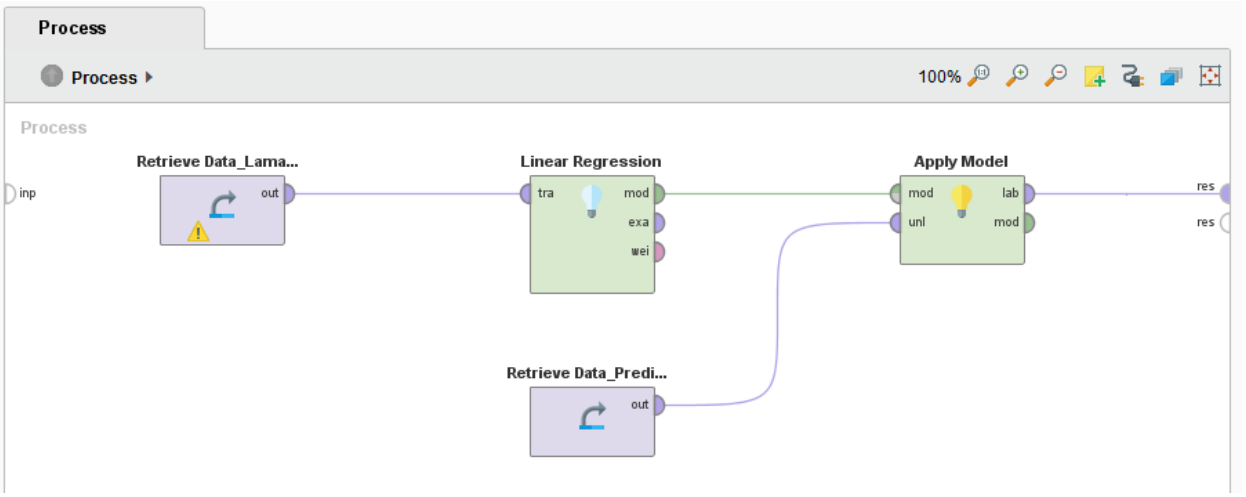
Find the Value of 't' and Linear Regression Model with RapidMiner

	A	B	C
1	NO_SISWA	NAMA	LAMA BELAJAR (JAM)
2	S-111	BUDI	12
3	S-112	SANTI	13
4	S-113	DIAN	14
5	S-114	DANI	11
6	S-115	AHMAD	5
7	S-116	BAYU	13
8	S-117	RISA	9
9	S-118	RANI	10
10	S-119	YANI	10
11	S-120	RATIH	9

1. Import the data Tabel_PrediksiNilaiUjian.xls



2. Modelling the Process



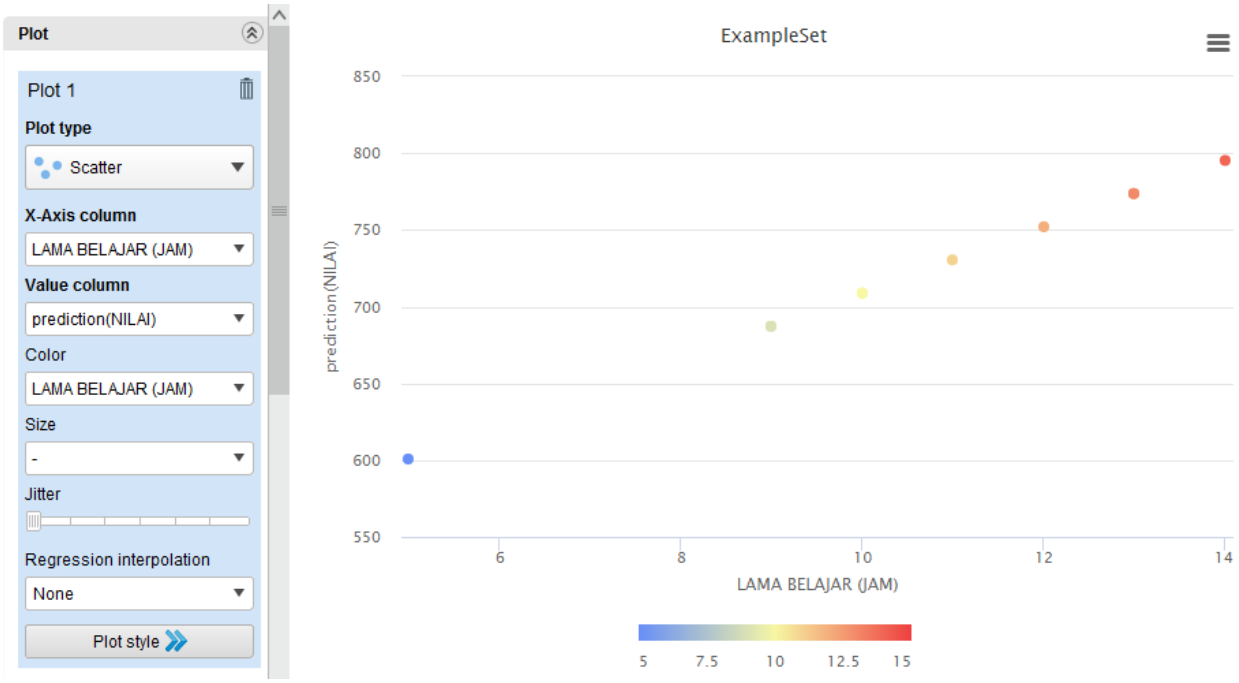
3. Run the Process

4. Result of Data View

Open in Turbo Prep Auto Model

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

5. Result of Charts View



Proof of the Regression Model

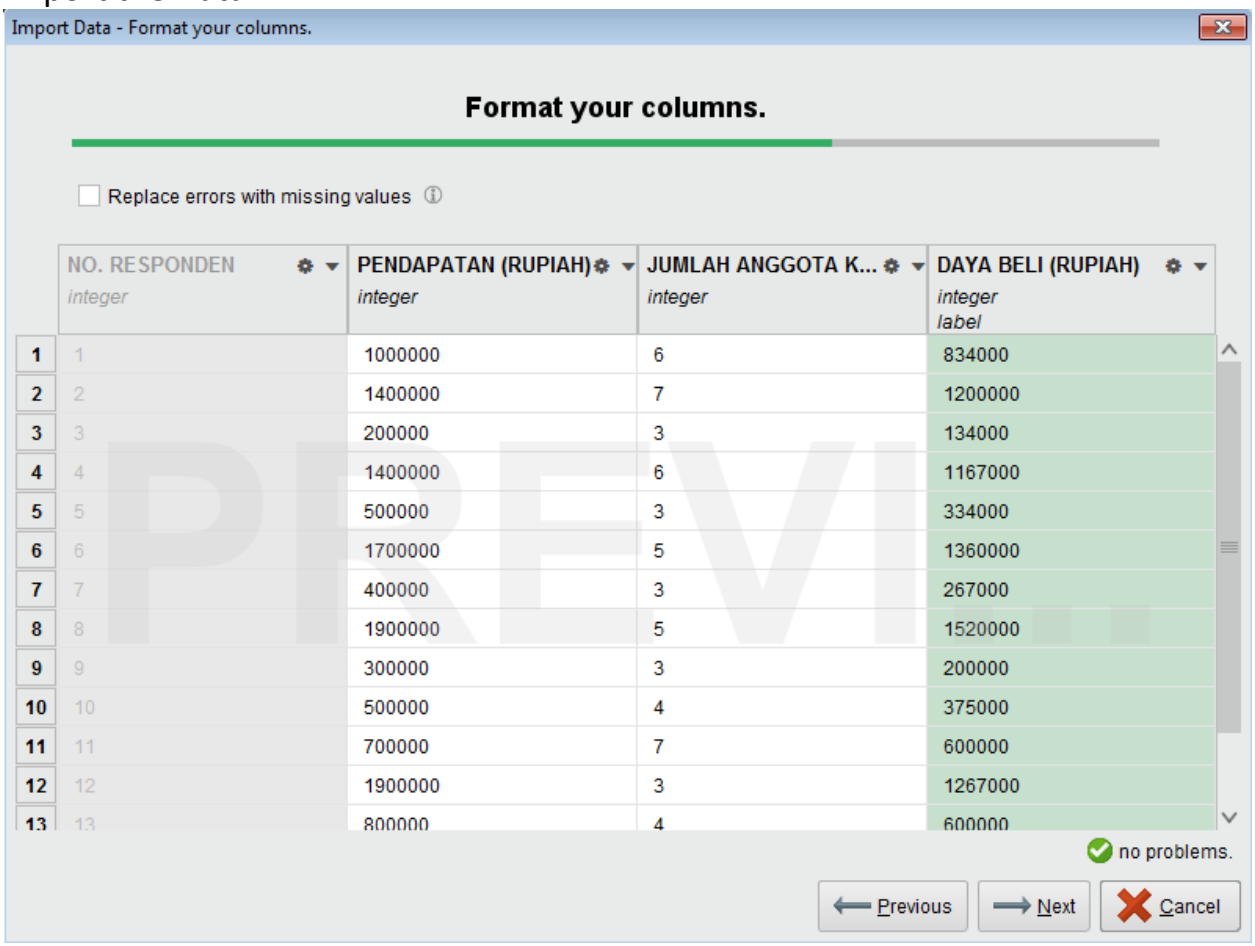
	A	B	C	D	E
1	NO_SISWA	NAMA	LAMA BELAJAR (JAM)	Prediction (Nilai Tabel)	Prediction (Nilai Model Regresi)
2	S-111	BUDI	12	752.0607648	752.065
3	S-112	SANTI	13	773.6684128	773.673
4	S-113	DIAN	14	795.2760608	795.281
5	S-114	DANI	11	730.4531168	730.457
6	S-115	AHMAD	5	600.8072289	600.809
7	S-116	BAYU	13	773.6684128	773.673
8	S-117	RISA	9	687.2378209	687.241
9	S-118	RANI	10	708.8454688	708.849
10	S-119	YANI	10	708.8454688	708.849
11	S-120	RATIH	9	687.2378209	687.241

Assignment

1. Use Data Survey Result

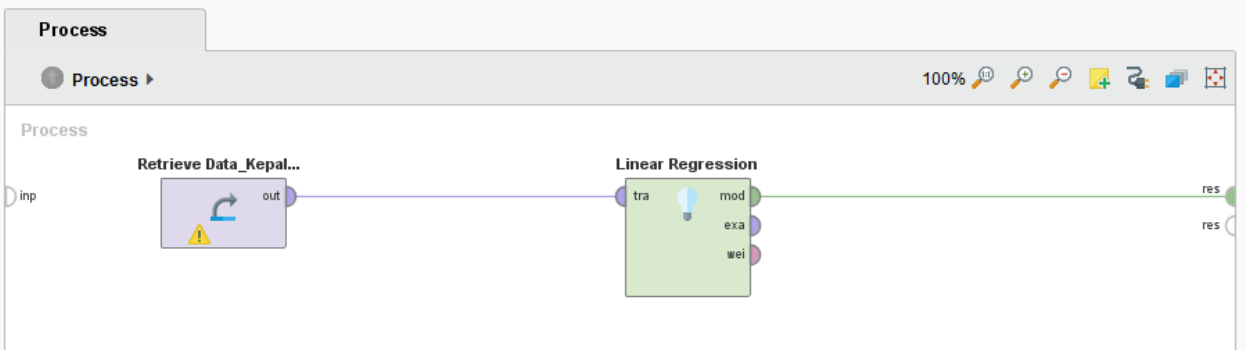
	A	B	C	D
1	NO. RESPONDEN	PENDAPATAN (RUPIAH)	JUMLAH ANGGOTA KELUARGA	DAYA BELI (RUPIAH)
2	1	1,000,000	6	834,000
3	2	1,400,000	7	1,200,000
4	3	200,000	3	134,000
5	4	1,400,000	6	1,167,000
6	5	500,000	3	334,000
7	6	1,700,000	5	1,360,000
8	7	400,000	3	267,000
9	8	1,900,000	5	1,520,000
10	9	300,000	3	200,000
11	10	500,000	4	375,000
12	11	700,000	7	600,000
13	12	1,900,000	3	1,267,000
14	13	800,000	4	600,000
15	14	1,500,000	4	1,125,000
16	15	1,300,000	7	1,115,000

2. Import the Data



	NO. RESPONDEN integer	PENDAPATAN (RUPIAH) integer	JUMLAH ANGGOTA K... integer	DAYA BELI (RUPIAH) integer label
1	1	1000000	6	834000
2	2	1400000	7	1200000
3	3	200000	3	134000
4	4	1400000	6	1167000
5	5	500000	3	334000
6	6	1700000	5	1360000
7	7	400000	3	267000
8	8	1900000	5	1520000
9	9	300000	3	200000
10	10	500000	4	375000
11	11	700000	7	600000
12	12	1900000	3	1267000
13	13	800000	4	600000

3. Modelling the Process and then Run the Process



4. Result of Data View and Text View (Regression Model)

Attribute	Coefficient	Std. Error	Std. Coefficient	Tolerance	t-Stat	p-Value	Code
PENDAPATAN (...	0.739	0.021	0.924	0.857	35.037	0.000	****
JUMLAH ANGG...	47807.624	7833.319	0.161	0.857	6.103	0.000	****
(Intercept)	-180222.487	36497.284	?	?	-4.938	0.000	****

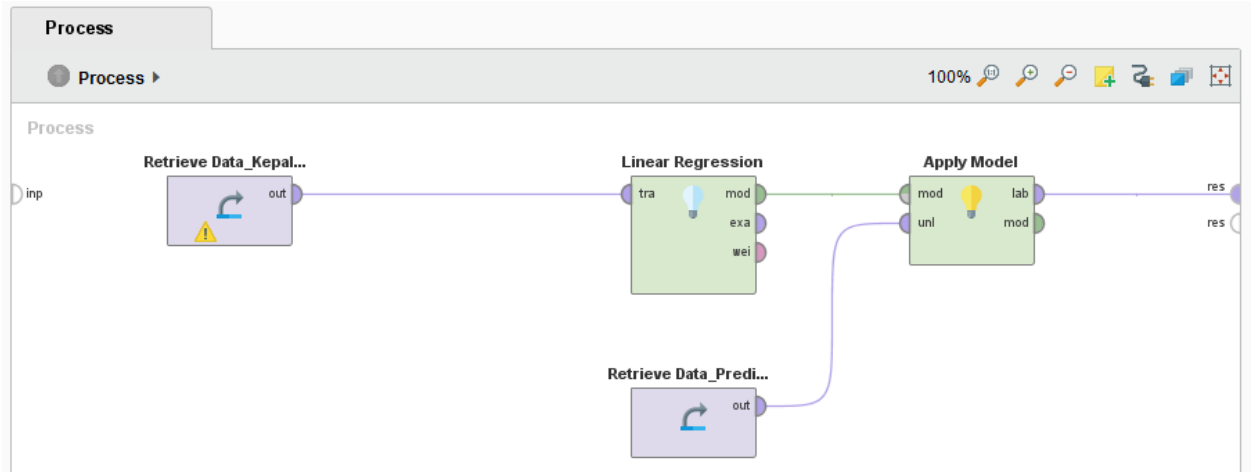
LinearRegression

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

5. Data Testing

	A	B	C
1	NO. RESPONDEN	PENDAPATAN (RUPIAH)	JUMLAH ANGGOTA KELUARGA
2	1	900,000	5
3	2	800,000	3
4	3	500,000	2
5	4	1,900,000	6
6	5	600,000	2
7	6	800,000	5
8	7	1,000,000	6
9	8	1,100,000	4
10	9	1,000,000	4
11	10	500,000	3

6. Modelling the Process and then Run the Process

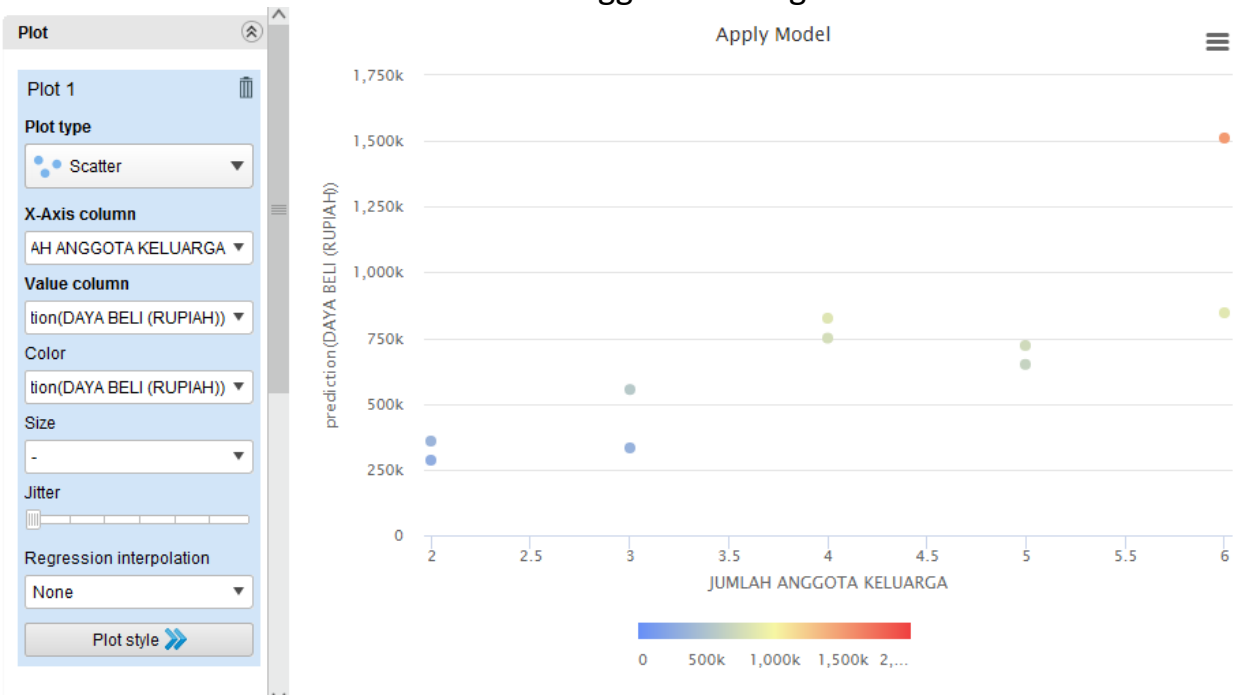


7. The Result of Data View (Prediction)

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

8. Plot View where the x-Axis = Pendapatan (Rupiah)

9. Plot View where the x-Axis = Jumlah Anggota Keluarga



10. Proof of the Regression Model

	A	B	C	D	E
1	NO. RESPONDEN	PENDAPATAN (RUPIAH)	JUMLAH ANGGOTA KELUARGA	Prediksi Daya Beli (Tabel)	Prediksi Daya Beli (Model Regresi)
2	1	900,000	5	723933.2625	723915.633
3	2	800,000	3	554416.0562	554400.385
4	3	500,000	2	284902.5556	284892.761
5	4	1,900,000	6	1510760.476	1510723.257
6	5	600,000	2	358804.5146	358792.761
7	6	800,000	5	650031.3035	650015.633
8	7	1,000,000	6	845642.8452	845623.257
9	8	1,100,000	4	823929.5569	823908.009
10	9	1,000,000	4	750027.5979	750008.009
11	10	500,000	3	332710.1792	332700.385