



Univerzitet u Zenici

Politehnički fakultet

Odsjek SOFTVERSKO INŽENJERSTVO

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## Zadaća 13

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POSLOVNA INTELIGENCIJA

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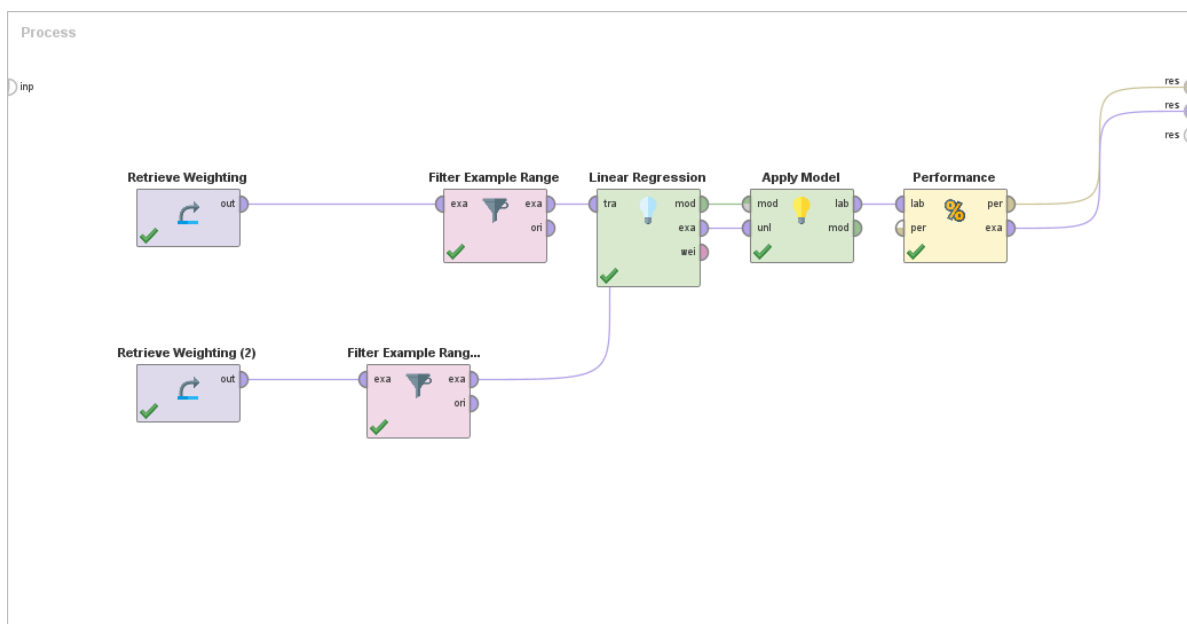
# 1. Izrada zadatka

## 1.1 Zadatak 1: Screenshot rapidminer projekta

### 1.1.1 Obrazloženje

Nad sample skupom podataka iz rapidminer koji nije polynomial dataset napraviti i primijeniti model linearne regresije. U ovom zadatku koristio sam weight dataset.

### 1.1.2 Slika




## 1.2 Zadatak 2: Primjer skupa podataka


### 1.2.1 Obrazloženje


Ovdje je prikazan skup podataka nad kojim sam izvršio linearnu regresiju.

### 1.2.2 Slika

Open in 

 Turbo Prep

 Auto Model

 Interactive Analysis

Row No.	weighting.d...	weighting.d...	weighting.d...	weighting.d...	weighting.d...	weighting.d...	weighting.d...
1	negative	2.522	9.912	5.474	9.709	3.056	3.380
2	positive	7.859	7.723	6.137	5.415	4.316	5.141
3	negative	0.117	5.276	0.901	6.577	4.379	2.075
4	negative	1.913	7.986	3.786	8.899	0.910	6.283
5	negative	4.923	2.889	9.938	2.146	2.631	7.894
6	positive	8.095	1.374	4.541	0.369	2.821	0.773
7	negative	0.856	5.497	0.261	1.712	7.141	7.054
8	negative	9.454	9.764	9.871	5.705	4.958	8.023
9	negative	0.212	5.010	6.989	7.555	3.813	8.200
10	positive	8.702	4.536	5.719	3.634	7.026	9.335
11	positive	8.375	3.521	8.745	7.373	7.541	4.465
12	positive	9.919	7.514	5.419	4.280	4.281	2.280
13	positive	6.839	2.022	2.770	7.401	3.919	4.289
14	positive	8.927	5.722	3.849	1.616	0.200	0.477
15	negative	3.053	8.927	9.004	1.995	9.743	0.142
16	negative	5.183	7.336	8.357	4.704	1.658	2.748
17	positive	7.199	0.785	1.709	8.729	4.337	8.194
18	negative	1.146	5.081	1.638	4.216	8.587	7.407
19	negative	1.806	0.994	9.778	9.711	7.225	2.665
20	negative	5.601	9.185	5.839	3.398	6.477	1.678
21	negative	4.574	2.748	6.659	4.697	6.774	2.319
22	negative	2.113	9.851	4.954	0.233	5.840	8.192
23	positive	7.169	1.837	3.556	4.483	3.831	3.438
24	negative	0.257	9.124	1.913	6.589	8.463	5.638
25	positive	9.773	6.715	5.806	7.445	1.046	9.682

## 1.3 Zadatak 3: Rezultat modela linearne regresije

### 1.3.1 Obrazloženje

Na slici je prikazano šta daje linearna regresija nad odabranim skupom podataka.

### 1.3.2 Slika

Attribute	Coefficient	Std. Error	Std. Coefficient	Tolerance	t-Stat	p-Value	Code
weighting dat (1)	0.128	0.010	0.741	0.992	13.194	0	****
weighting dat (2)	-0.052	0.010	-0.293	0.975	-5.314	0.000	****
weighting dat (3)	-0.049	0.010	-0.279	0.998	-5.083	0.000	****
weighting dat (4)	0.017	0.010	0.095	0.957	1.702	0.092	*
(Intercept)	0.227	0.105	?	?	2.167	0.033	**

## 1.4 Zadatak 4: Rezultat testnog skupa podataka

### 1.4.1 Obrazloženje

Na slici se nalazi prikaz podataka nakon što je obrađen performance dio.

## 1.4.2 Slika

### PerformanceVector

```
PerformanceVector:
accuracy: 93.25%
ConfusionMatrix:
True:   negative      positive
negative:      184      25
positive:       2     189
precision: 98.95% (positive class: positive)
ConfusionMatrix:
True:   negative      positive
negative:      184      25
positive:       2     189
recall: 88.32% (positive class: positive)
ConfusionMatrix:
True:   negative      positive
negative:      184      25
positive:       2     189
AUC (optimistic): 0.992 (positive class: positive)
AUC: 0.992 (positive class: positive)
AUC (pessimistic): 0.992 (positive class: positive)
```