Term	df	idf	d1	d2	d3
car	18165	1.65	27	4	24
auto	6723	2.08	3	33	0
Insu-rance	19241	1.62	0	33	29
best	25235	1.5	14	0	17

q = car insurance

1. TF-IDF = tf * idf

q =[1.65, 0. , 1.62, 0.]
d1 = [44.55, 6.24, 0. , 21.]
d2 = [6.6 , 68.64, 53.46, 0.]
d3 = [39.6 , 0. , 46.98, 25.5]

Нормализация:

q = [0.71356397, 0.   , 0.70059008, 0.   ]
d1 = [0.89736877, 0.12569206, 0.   , 0.42300212]
d2 = [0.07564262, 0.78668324, 0.61270521, 0.   ]
d3 = [0.59526798, 0.   , 0.70620428, 0.3833165]

Ранжирование (cosine(q, d)):

d3 = 0.9195214992872569
d1 = 0.6403300253625414
d2 = 0.48323104205732087

2. TF-IDF = ln(1 + tf) * idf

q = [1.14369285, 0.   , 1.12289843, 0.   ]
d1 = [5.49813744, 2.88349227, 0.   , 4.0620753]
d2 = [2.65557256, 7.33482989, 5.71270405, 0.   ]
d3 = [5.31114511, 0.   , 5.50993976, 4.33555764]

Нормализация:

q = [0.71356397, 0.   , 0.70059008, 0.   ]
d1 = [0.74106897, 0.38865283, 0.   , 0.54750868]
d2 = [0.27465219, 0.75860367, 0.59083555, 0.   ]

d3 = [0.60383263, 0.   , 0.62643392, 0.49291652]

Ранжирование (cosine(q, d)):

d3 = 0.8697465989217978
d2 = 0.6099154319351946
d1 = 0.5288001196002513