

Popularity Ranking of Database Management Systems

September 2014

DB-ENGINES

Customized report for:

System 1

System 2

System 3

System 4

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1 Terms of use

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2 The ranking methodology

The DB-Engines Ranking is a list of database management systems ranked by their popularity. We measure the popularity of a system by using the following parameters:

- **Number of mentions of the system on websites**, measured as number of results in search engines queries. At the moment, we use Google and Bing for this measurement. In order to count only relevant results, we are searching for "<system name> database", e.g. "Oracle database".
- **General interest in the system**. For this measurement, we use the frequency of searches in Google Trends.
- **Frequency of technical discussions about the system**. We use the number of related questions and the number of interested users on the well-known IT-related Q&A sites Stack Overflow and DBA Stack Exchange.
- **Number of job offers, in which the system is mentioned**. We use the number of offers on the leading job search engines Indeed and Simply Hired.
- **Number of profiles in professional networks, in which the system is mentioned**. We use the internationally most popular professional network LinkedIn.
- **Relevance in social networks**. We count the number of Twitter tweets, in which the system is mentioned.

We calculate the popularity value of a system by standardizing and averaging of the individual parameters. These mathematical transformations are made in a way so that the distance of the individual systems is preserved. That means, when system A has twice as large a value in the DB-Engines Ranking as system B, then it is twice as popular when averaged over the individual evaluation criteria.

The DB-Engines Ranking does not measure the number of installations of the systems, or their use within IT systems. It can be expected, that an increase of the popularity of a system as measured by the DB-Engines Ranking (e.g. in discussions or job offers) precedes a corresponding broad use of the system by a certain time factor. Because of this, the DB-Engines Ranking can act as an early indicator.

3 Overall ranking

The following tables show the ranking of all database systems as of September 2014. The DB-Engines Ranking currently comprises 223 systems.

We have added systems over the time – and will continue to do so. Empty fields denote that a system was not measured in that ranking. This has to be taken into account, when comparing the ranks of a system between different ranking dates.

The table is sorted according to the rank (and the score) of the systems.

Rank				System	Database Model	Score			
Sep 2014	Aug 2014	Sep 2013	Jan 2013			Sep 2014	Diff to Aug 2014	Diff to Sep 2013	Diff to Jan 2013
1.	1.	1.	1.	System 1	Relational DBMS	1466.91	-3.95	-62.70	-92.42
2.	2.	3.	2.	System 2	Relational DBMS	1297.14	15.92	-8.62	-16.54
3.	3.	2.	3.	System 3	Relational DBMS	1208.87	-33.62	-104.91	-102.47
4.	4.	4.	5.	System 4	Relational DBMS	255.79	5.94	73.56	88.32
5.	5.	6.	7.	System 5	Document store	240.98	3.63	88.80	144.86
6.	6.	5.	6.	System 6	Relational DBMS	197.03	-9.39	24.78	43.36
7.	7.	7.	4.	System 7	Relational DBMS	140.48	0.86	-6.23	-30.45
8.	8.	8.	9.	System 8	Relational DBMS	92.61	3.74	9.83	12.26
9.	10.	10.	10.	System 9	Wide column store	87.86	5.96	36.16	52.94
10.	9.	9.	8.	System 10	Relational DBMS	85.42	-0.75	10.08	1.97
11.	12.	12.		System 11	Search engine	75.77	6.74	35.32	
12.	11.	14.	11.	System 12	Key-value store	74.60	3.80	42.49	48.63
13.	13.	11.		System 13	Relational DBMS	66.15	0.77	15.06	
14.	14.	13.		System 14	Relational DBMS	52.63	0.57	15.87	
15.	15.	17.	14.	System 15	Wide column store	45.02	3.11	17.62	25.33
16.	16.	20.		System 16	Search engine	41.52	2.72	27.75	
17.	17.	16.	13.	System 17	Relational DBMS	33.45	0.29	5.57	9.54
18.	18.	15.	12.	System 18	Key-value store	31.59	0.60	1.16	6.48
19.	19.	18.		System 19	Relational DBMS	31.40	0.59	11.16	
20.	20.			System 20	Search engine	29.76	2.15		
21.	21.	19.	15.	System 21	Document store	25.97	1.84	7.06	6.81
22.	22.	24.	18.	System 22	Graph DBMS	24.22	1.31	13.89	18.07
23.	23.	27.		System 23	Relational DBMS	23.18	0.86	14.62	
24.	24.	29.	23.	System 24	Document store	19.67	2.13	11.87	15.67
25.	25.	22.	16.	System 25	Relational DBMS	17.20	0.40	4.37	2.91
26.	26.	21.		System 26	Relational DBMS	16.54	-0.03	2.79	
27.	27.	34.	33.	System 27	Relational DBMS	15.78	0.42	10.02	13.57
28.	28.			System 28	Relational DBMS	15.25	0.79		
29.	29.	26.	24.	System 29	Relational DBMS	13.55	0.64	4.95	9.80
30.	30.	28.	19.	System 30	Key-value store	12.49	0.82	4.62	6.35
31.	32.	32.	31.	System 31	Key-value store	10.67	0.56	4.26	8.23
32.	33.	25.		System 32	Search engine	10.23	0.22	0.57	
33.	31.	23.		System 33	Relational DBMS	9.92	-0.22	-0.69	
34.	35.	33.	17.	System 34	Relational DBMS	8.72	0.55	2.55	2.46
35.	34.			System 35	Search engine	8.63	0.42		
36.	36.	41.	28.	System 36	Multi-Model	7.46	-0.62	4.45	4.41
37.	38.	31.		System 37	Key-value store	7.05	0.23	0.56	
38.	37.	30.		System 38	Relational DBMS	6.77	-0.39	-0.56	
39.	41.	36.	27.	System 39	Relational DBMS	5.52	0.52	0.87	2.30
40.	39.	40.	26.	System 40	Relational DBMS	5.46	0.05	2.28	2.15
41.	44.	37.	21.	System 41	Document store	5.36	0.78	0.77	1.05

Rank				System	Database Model	Score			
Sep 2014	Aug 2014	Sep 2013	Jan 2013			Sep 2014	Diff to Aug 2014	Diff to Sep 2013	Diff to Jan 2013
42.	40.	35.	20.	System 42	Relational DBMS	5.18	-0.05	0.11	0.17
43.	42.	63.	41.	System 43	Relational DBMS	4.82	-0.11	3.64	3.65
44.	43.	62.		System 44	Key-value store	4.57	-0.10	3.39	
45.	46.	46.	34.	System 45	Relational DBMS	4.20	-0.14	1.78	2.17
46.	45.	38.	32.	System 46	Content store	4.04	-0.40	0.64	1.80
47.	47.	50.	36.	System 47	Relational DBMS	3.93	-0.11	1.89	2.23
48.	48.	52.		System 48	Search engine	3.51	-0.30	1.68	
49.	49.	44.	30.	System 49	Relational DBMS	3.34	-0.09	0.74	0.68
50.	50.	39.	22.	System 50	Multivalued DBMS	3.19	-0.02	-0.01	-1.03
51.	52.	42.	29.	System 51	Key-value store	3.14	0.14	0.15	0.45
52.	51.	43.	25.	System 52	Key-value store	3.08	-0.02	0.38	-0.26
53.	53.			System 53	Relational DBMS	2.84	0.02		
54.	58.	73.		System 54	Relational DBMS	2.82	0.39	1.93	
55.	55.			System 55	Relational DBMS	2.78	0.19		
56.	54.	54.	45.	System 56	Wide column store	2.70	0.09	0.91	1.81
57.	56.	45.		System 57	Key-value store	2.66	0.14	0.17	
58.	57.	48.	35.	System 58	Multi-Model	2.63	0.16	0.51	0.73
59.	60.	49.	39.	System 59	Relational DBMS	2.37	0.24	0.32	1.04
60.	65.	85.		System 60	Document store	2.27	0.41	1.71	
61.	59.	47.		System 61	Multivalued DBMS	2.15	-0.04	0.02	
62.	61.	51.		System 62	Object oriented DBMS	2.07	-0.05	0.19	
63.	63.	83.		System 63	Graph DBMS	2.06	0.00	1.46	
64.	62.	55.		System 64	Document store	2.02	-0.06	0.46	
65.	64.	53.		System 65	Relational DBMS	1.94	-0.02	0.14	
66.	66.	78.	59.	System 66	Multi-Model	1.93	0.15	1.13	1.68
67.	68.	75.		System 67	Relational DBMS	1.78	0.16	0.93	
68.	71.	59.	40.	System 68	Key-value store	1.64	0.15	0.23	0.32
69.	67.	60.	38.	System 69	Object oriented DBMS	1.63	0.01	0.35	0.19
70.	69.	57.		System 70	Relational DBMS	1.62	0.01	0.18	
71.	70.	72.	42.	System 71	Object oriented DBMS	1.60	0.08	0.69	0.54
72.	72.	80.	48.	System 72	RDF store	1.53	0.08	0.84	0.98
73.	74.	68.		System 73	Relational DBMS	1.42	0.03	0.45	
74.	73.	56.	37.	System 74	Relational DBMS	1.33	-0.09	-0.16	-0.24
75.	75.	58.		System 75	Navigational DBMS	1.30	0.05	-0.13	
76.	76.	77.	47.	System 76	RDF store	1.22	0.01	0.41	0.53
77.	77.	61.		System 77	Relational DBMS	1.19	0.01	-0.03	
78.	78.	71.	49.	System 78	Key-value store	1.19	0.05	0.27	0.75
79.	88.	65.		System 79	Navigational DBMS	1.16	0.24	0.03	
80.	86.	66.		System 80	Relational DBMS	1.10	0.13	0.07	
81.	80.	69.		System 81	Relational DBMS	1.09	0.00	0.17	
82.	79.	64.		System 82	Relational DBMS	1.05	-0.07	-0.07	
83.	82.	108.	77.	System 83	Relational DBMS	1.04	0.01	0.73	0.99
84.	83.	74.	43.	System 84	Object oriented DBMS	1.02	0.02	0.14	0.05
85.	87.	79.		System 85	Multivalued DBMS	1.01	0.06	0.30	
86.	85.	67.	46.	System 86	Native XML DBMS	1.00	0.02	0.02	0.27
87.	90.	107.	72.	System 87	Key-value store	0.99	0.10	0.67	0.89
88.	84.	92.	69.	System 88	Key-value store	0.96	-0.03	0.48	0.82
89.	91.	114.		System 89	Search engine	0.93	0.06	0.65	
90.	81.	88.	52.	System 90	Relational DBMS	0.92	-0.13	0.42	0.60
91.	92.	104.	53.	System 91	Graph DBMS	0.84	0.01	0.51	0.53
92.	107.	146.	86.	System 92	Document store	0.82	0.20	0.73	0.82
93.	89.	70.	44.	System 93	Native XML DBMS	0.82	-0.09	-0.10	-0.12
94.	95.	82.		System 94	Multivalued DBMS	0.78	0.02	0.14	

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Sep 2014	Aug 2014	Sep 2013	Jan 2013			Sep 2014	Diff to Aug 2014	Diff to Sep 2013	Diff to Jan 2013
95.	93.	86.		System 95	Document store	0.78	-0.05	0.23	
96.	96.	76.		System 96	Relational DBMS	0.76	0.02	-0.09	
97.	94.	101.	54.	System 97	Relational DBMS	0.75	-0.04	0.39	0.44
98.	97.	84.		System 98	Document store	0.74	0.02	0.15	
99.	98.	106.		System 99	Relational DBMS	0.73	0.02	0.40	
100.	102.	95.	50.	System 100	Key-value store	0.73	0.05	0.30	0.36
101.	100.	81.		System 101	Relational DBMS	0.73	0.02	0.05	
102.	106.	93.	51.	System 102	Relational DBMS	0.72	0.09	0.29	0.36
103.	101.	115.	66.	System 103	RDF store	0.70	0.01	0.43	0.55
104.	99.	113.	74.	System 104	Relational DBMS	0.69	-0.01	0.41	0.62
105.	104.	87.		System 105	Multivalue DBMS	0.69	0.02	0.18	
106.	103.	98.	55.	System 106	Wide column store	0.65	-0.02	0.27	0.35
107.	105.			System 107	Relational DBMS	0.64	-0.01		
108.	109.	97.		System 108	Relational DBMS	0.63	0.07	0.24	
109.	112.	96.		System 109	Key-value store	0.61	0.07	0.20	
110.	111.	100.	67.	System 110	Relational DBMS	0.58	0.03	0.22	0.43
111.	110.	94.		System 111	Key-value store	0.56	0.00	0.12	
112.	108.	90.	58.	System 112	Relational DBMS	0.54	-0.04	0.04	0.29
113.	114.	112.	61.	System 113	Native XML DBMS	0.54	0.03	0.25	0.30
114.	113.	91.		System 114	Relational DBMS	0.52	0.01	0.03	
115.	115.	102.		System 115	Relational DBMS	0.47	0.01	0.12	
116.	117.	99.		System 116	Search engine	0.46	0.01	0.09	
117.	116.	105.	56.	System 117	Key-value store	0.44	-0.01	0.10	0.14
118.	118.	117.		System 118	Relational DBMS	0.43	0.00	0.19	
119.	126.	128.		System 119	Relational DBMS	0.42	0.04	0.28	
120.	122.	110.	57.	System 120	Relational DBMS	0.41	0.02	0.11	0.14
121.	121.	116.	62.	System 121	Relational DBMS	0.41	0.01	0.16	0.18
122.	123.	89.		System 122	Object oriented DBMS	0.40	0.00	-0.11	
123.	119.	111.		System 123	Relational DBMS	0.39	-0.04	0.10	
124.	125.	109.	60.	System 124	Relational DBMS	0.39	0.01	0.08	0.15
125.	120.			System 125	Graph DBMS	0.38	-0.02		
126.	124.			System 126	Multivalue DBMS	0.37	-0.01		
127.	129.			System 127	Key-value store	0.37	0.01		
128.	127.	124.	86.	System 128	Multi-Model	0.36	-0.01	0.19	0.36
129.	128.	120.		System 129	Relational DBMS	0.34	-0.01	0.15	
130.	132.	162.		System 130	Document store	0.33	0.01	0.33	
131.	133.			System 131	Key-value store	0.31	0.00		
132.	134.	118.	65.	System 132	Relational DBMS	0.31	0.00	0.10	0.13
133.	131.			System 133	Key-value store	0.29	-0.06		
134.	135.	139.		System 134	Relational DBMS	0.28	0.01	0.16	
135.	136.	147.	85.	System 135	Relational DBMS	0.27	0.00	0.19	0.26
136.	138.			System 136	Search engine	0.25	0.02		
137.	137.	162.	86.	System 137	Multi-Model	0.25	-0.01	0.25	0.25
138.	130.	158.		System 138	RDF store	0.25	-0.10	0.24	
139.	139.	150.	84.	System 139	Object oriented DBMS	0.25	0.02	0.18	0.23
140.	140.	162.		System 140	Document store	0.23	0.01	0.23	
141.	141.	133.	63.	System 141	Key-value store	0.23	0.01	0.09	0.03
142.	142.	126.		System 142	Key-value store	0.22	0.01	0.06	
143.	144.	125.	70.	System 143	Relational DBMS	0.20	0.01	0.03	0.09
144.	143.	121.		System 144	Search engine	0.19	0.00	0.01	
145.	145.	103.	71.	System 145	Key-value store	0.19	0.00	-0.16	0.08
146.	146.			System 146	Key-value store	0.19	0.00		
147.	153.			System 147	Relational DBMS	0.18	0.04		

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Sep 2014	Aug 2014	Sep 2013	Jan 2013			Sep 2014	Diff to Aug 2014	Diff to Sep 2013	Diff to Jan 2013
148.	147.	122.	64.	System 148	Object oriented DBMS	0.18	0.01	0.00	-0.01
149.	148.	144.	83.	System 149	Graph DBMS	0.18	0.01	0.08	0.16
150.	149.	135.	73.	System 150	Relational DBMS	0.17	0.02	0.04	0.09
151.	150.	137.		System 151	Object oriented DBMS	0.15	0.00	0.02	
152.	152.			System 152	RDF store	0.14	0.00		
153.	151.			System 153	Multi-Model	0.13	-0.01		
154.	160.	134.	86.	System 154	Key-value store	0.13	0.02	-0.01	0.13
155.	155.	141.	82.	System 155	Relational DBMS	0.12	0.01	0.01	0.09
156.	154.	132.		System 156	Relational DBMS	0.12	0.00	-0.01	
157.	169.			System 157	Relational DBMS	0.12	0.05		
158.	158.	119.	76.	System 158	RDF store	0.12	0.01	-0.08	0.05
159.	156.	127.		System 159	RDF store	0.11	0.00	-0.05	
160.	162.	155.	78.	System 160	Graph DBMS	0.11	0.02	0.08	0.06
161.	159.	123.	80.	System 161	Relational DBMS	0.11	0.00	-0.06	0.07
162.	157.	156.	68.	System 162	Key-value store	0.11	-0.01	0.07	-0.04
163.	163.	162.		System 163	Document store	0.10	0.00	0.10	
164.	164.	145.		System 164	Graph DBMS	0.10	0.01	0.01	
165.	176.	162.		System 165	Relational DBMS	0.09	0.05	0.09	
166.	161.	162.	86.	System 166	Native XML DBMS	0.09	-0.01	0.09	0.09
167.	177.	153.		System 167	Relational DBMS	0.09	0.05	0.05	
168.	185.	160.		System 168	Key-value store	0.07	0.06	0.07	
169.	166.	162.	86.	System 169	Document store	0.07	0.00	0.07	0.07
170.	167.	159.	86.	System 170	Key-value store	0.07	0.00	0.06	0.07
171.	172.			System 171	Key-value store	0.06	0.01		
172.	165.	130.	86.	System 172	Relational DBMS	0.06	-0.02	-0.07	0.06
173.	171.	162.	86.	System 173	Object oriented DBMS	0.06	0.00	0.06	0.06
174.	170.			System 174	Relational DBMS	0.05	0.00		
175.	168.	157.		System 175	RDF store	0.05	-0.01	0.04	
176.	173.	142.	79.	System 176	RDF store	0.05	0.00	-0.06	0.00
177.	175.	129.	86.	System 177	Relational DBMS	0.05	0.00	-0.09	0.05
178.	174.	162.		System 178	Object oriented DBMS	0.04	-0.01	0.04	
179.	180.	143.		System 179	Search engine	0.04	0.00	-0.06	
180.	181.	154.		System 180	Relational DBMS	0.04	0.01	0.00	
181.	182.	162.	86.	System 181	Key-value store	0.04	0.01	0.04	0.04
182.	179.			System 182	Object oriented DBMS	0.04	0.00		
183.	183.	161.	86.	System 183	Multivalued DBMS	0.03	0.01	0.03	0.03
184.	187.	162.	86.	System 184	Document store	0.02	0.02	0.02	0.02
185.	186.	162.	86.	System 185	Content store	0.01	0.01	0.01	0.01
186.	192.			System 186	Object oriented DBMS	0.01	0.01		
187.	191.	148.	86.	System 187	Graph DBMS	0.01	0.00	-0.08	0.01
188.	192.	162.		System 188	Relational DBMS	0.00	0.00	0.00	
189.	192.	152.		System 189	Search engine	0.00	0.00	-0.05	
190.	192.			System 190	Multi-Model	0.00	0.00		
190.	188.	162.	86.	System 191	Key-value store	0.00	-0.01	0.00	0.00
190.	192.	162.	86.	System 192	RDF store	0.00	0.00	0.00	0.00
190.	192.	162.		System 193	Key-value store	0.00	0.00	0.00	
190.	192.	138.		System 194	RDF store	0.00	0.00	-0.13	
190.	192.	162.		System 195	Document store	0.00	0.00	0.00	
190.	192.	162.	86.	System 196	Document store	0.00	0.00	0.00	0.00
190.	192.	162.		System 197	RDF store	0.00	0.00	0.00	
190.	192.			System 198	Search engine	0.00	0.00		
190.	192.	162.		System 199	Document store	0.00	0.00	0.00	
190.	192.			System 200	Multi-Model	0.00	0.00		

Rank				System	Database Model	Score			
Sep 2014	Aug 2014	Sep 2013	Jan 2013			Sep 2014	Diff to Aug 2014	Diff to Sep 2013	Diff to Jan 2013
190.	192.	151.	86.	System 201	Graph DBMS	0.00	0.00	-0.07	0.00
190.	192.			System 202	Object oriented DBMS	0.00	0.00		
190.	192.	162.		System 203	Document store	0.00	0.00	0.00	
190.	192.	162.	86.	System 204	Relational DBMS	0.00	0.00	0.00	0.00
190.	184.	162.	86.	System 205	Key-value store	0.00	-0.02	0.00	0.00
190.	178.	149.		System 206	Key-value store	0.00	-0.04	-0.07	
190.	192.	162.		System 207	Relational DBMS	0.00	0.00	0.00	
190.	192.	140.	81.	System 208	RDF store	0.00	0.00	-0.12	-0.03
190.	192.	162.		System 209	Key-value store	0.00	0.00	0.00	
190.	192.			System 210	Relational DBMS	0.00	0.00		
190.	188.	162.	86.	System 211	Document store	0.00	-0.01	0.00	0.00
190.	192.	162.		System 212	Key-value store	0.00	0.00	0.00	
190.	192.			System 213	Key-value store	0.00	0.00		
190.	192.			System 214	Document store	0.00	0.00		
190.	192.			System 215	Document store	0.00	0.00		
190.	192.	162.		System 216	Document store	0.00	0.00	0.00	
190.	192.	131.	74.	System 217	RDF store	0.00	0.00	-0.13	-0.07
190.	192.	136.		System 218	RDF store	0.00	0.00	-0.13	
190.	192.			System 219	Relational DBMS	0.00	0.00		
190.	190.	162.	86.	System 220	Key-value store	0.00	0.00	0.00	0.00
190.	192.	162.		System 221	Key-value store	0.00	0.00	0.00	
190.	192.			System 222	Object oriented DBMS	0.00	0.00		
190.	192.			System 223	Object oriented DBMS	0.00	0.00		

4 Ranking sorted by the popularity growth

The following table shows the change of popularity for all systems in the ranking for at least 12 months. In addition to the absolute difference of the score (the sorting criterium), the percentage of the change is indicated, based on the score 12 months ago.

The table is sorted according to the absolute growth of the score over the last year.

Diff Sep 2014 to Sep 2013		System	Database Model	Score
absolut	in percent			Sep 2014
88.80	58%	System 1	Document store	240.98
73.56	40%	System 2	Relational DBMS	255.79
42.49	132%	System 3	Key-value store	74.60
36.16	70%	System 4	Wide column store	87.86
35.32	87%	System 5	Search engine	75.77
27.75	202%	System 6	Search engine	41.52
24.78	14%	System 7	Relational DBMS	197.03
17.62	64%	System 8	Wide column store	45.02
15.87	43%	System 9	Relational DBMS	52.63
15.06	29%	System 10	Relational DBMS	66.15
14.62	171%	System 11	Relational DBMS	23.18
13.89	135%	System 12	Graph DBMS	24.22
11.87	152%	System 13	Document store	19.67
11.16	55%	System 14	Relational DBMS	31.40
10.08	13%	System 15	Relational DBMS	85.42
10.02	174%	System 16	Relational DBMS	15.78
9.83	12%	System 17	Relational DBMS	92.61
7.06	37%	System 18	Document store	25.97
5.57	20%	System 19	Relational DBMS	33.45
4.95	58%	System 20	Relational DBMS	13.55
4.62	59%	System 21	Key-value store	12.49
4.45	148%	System 22	Multi-Model	7.46
4.37	34%	System 23	Relational DBMS	17.20
4.26	67%	System 24	Key-value store	10.67
3.64	309%	System 25	Relational DBMS	4.82
3.39	288%	System 26	Key-value store	4.57
2.79	20%	System 27	Relational DBMS	16.54
2.55	41%	System 28	Relational DBMS	8.72
2.28	72%	System 29	Relational DBMS	5.46
1.93	217%	System 30	Relational DBMS	2.82
1.89	93%	System 31	Relational DBMS	3.93
1.78	74%	System 32	Relational DBMS	4.20
1.71	308%	System 33	Document store	2.27
1.68	92%	System 34	Search engine	3.51
1.46	241%	System 35	Graph DBMS	2.06
1.16	4%	System 36	Key-value store	31.59
1.13	142%	System 37	Multi-Model	1.93
0.93	109%	System 38	Relational DBMS	1.78
0.91	51%	System 39	Wide column store	2.70
0.87	19%	System 40	Relational DBMS	5.52
0.84	121%	System 41	RDF store	1.53
0.77	17%	System 42	Document store	5.36
0.74	28%	System 43	Relational DBMS	3.34
0.73	818%	System 44	Document store	0.82
0.73	235%	System 45	Relational DBMS	1.04

Diff Sep 2014 to Sep 2013		System	Database Model	Score
absolut	in percent			Sep 2014
0.69	75%	System 46	Object oriented DBMS	1.60
0.67	215%	System 47	Key-value store	0.99
0.65	233%	System 48	Search engine	0.93
0.64	19%	System 49	Content store	4.04
0.57	6%	System 50	Search engine	10.23
0.56	9%	System 51	Key-value store	7.05
0.51	24%	System 52	Multi-Model	2.63
0.51	151%	System 53	Graph DBMS	0.84
0.48	102%	System 54	Key-value store	0.96
0.46	29%	System 55	Document store	2.02
0.45	47%	System 56	Relational DBMS	1.42
0.43	158%	System 57	RDF store	0.70
0.42	83%	System 58	Relational DBMS	0.92
0.41	145%	System 59	Relational DBMS	0.69
0.41	50%	System 60	RDF store	1.22
0.40	120%	System 61	Relational DBMS	0.73
0.39	110%	System 62	Relational DBMS	0.75
0.38	14%	System 63	Key-value store	3.08
0.35	27%	System 64	Object oriented DBMS	1.63
0.33	n.a.	System 65	Document store	0.33
0.32	15%	System 66	Relational DBMS	2.37
0.30	72%	System 67	Key-value store	0.73
0.30	42%	System 68	Multivalue DBMS	1.01
0.29	65%	System 69	Relational DBMS	0.72
0.28	204%	System 70	Relational DBMS	0.42
0.27	72%	System 71	Wide column store	0.65
0.27	29%	System 72	Key-value store	1.19
0.25	n.a.	System 73	Multi-Model	0.25
0.25	84%	System 74	Native XML DBMS	0.54
0.24	61%	System 75	Relational DBMS	0.63
0.24	1717%	System 76	RDF store	0.25
0.23	n.a.	System 77	Document store	0.23
0.23	16%	System 78	Key-value store	1.64
0.23	41%	System 79	Document store	0.78
0.22	62%	System 80	Relational DBMS	0.58
0.20	50%	System 81	Key-value store	0.61
0.19	113%	System 82	Multi-Model	0.36
0.19	10%	System 83	Object oriented DBMS	2.07
0.19	230%	System 84	Relational DBMS	0.27
0.19	76%	System 85	Relational DBMS	0.43
0.18	281%	System 86	Object oriented DBMS	0.25
0.18	12%	System 87	Relational DBMS	1.62
0.18	35%	System 88	Multivalue DBMS	0.69
0.17	7%	System 89	Key-value store	2.66
0.17	18%	System 90	Relational DBMS	1.09
0.16	134%	System 91	Relational DBMS	0.28
0.16	64%	System 92	Relational DBMS	0.41
0.15	5%	System 93	Key-value store	3.14
0.15	25%	System 94	Document store	0.74
0.15	77%	System 95	Relational DBMS	0.34
0.14	8%	System 96	Relational DBMS	1.94
0.14	16%	System 97	Object oriented DBMS	1.02
0.14	21%	System 98	Multivalue DBMS	0.78
0.12	28%	System 99	Key-value store	0.56

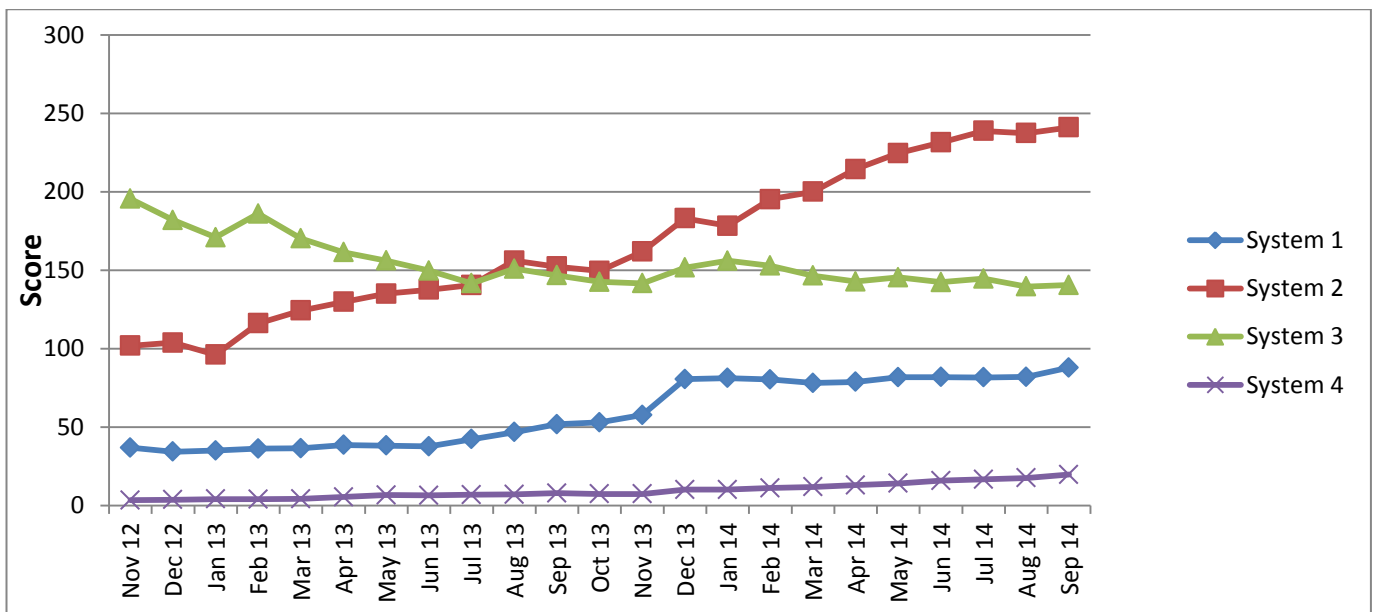
Diff Sep 2014 to Sep 2013		System	Database Model	Score
absolut	in percent			Sep 2014
0.12	34%	System 100	Relational DBMS	0.47
0.11	2%	System 101	Relational DBMS	5.18
0.11	36%	System 102	Relational DBMS	0.41
0.10	36%	System 103	Relational DBMS	0.39
0.10	31%	System 104	Key-value store	0.44
0.10	n.a.	System 105	Document store	0.10
0.10	46%	System 106	Relational DBMS	0.31
0.09	70%	System 107	Key-value store	0.23
0.09	n.a.	System 108	Relational DBMS	0.09
0.09	n.a.	System 109	Native XML DBMS	0.09
0.09	25%	System 110	Search engine	0.46
0.08	79%	System 111	Graph DBMS	0.18
0.08	215%	System 112	Graph DBMS	0.11
0.08	24%	System 113	Relational DBMS	0.39
0.07	216%	System 114	Key-value store	0.11
0.07	7%	System 115	Relational DBMS	1.10
0.07	n.a.	System 116	Document store	0.07
0.07	1546%	System 117	Key-value store	0.07
0.06	n.a.	System 118	Object oriented DBMS	0.06
0.06	34%	System 119	Key-value store	0.22
0.06	560%	System 120	Key-value store	0.07
0.05	7%	System 121	Relational DBMS	0.73
0.05	104%	System 122	Relational DBMS	0.09
0.04	n.a.	System 123	Object oriented DBMS	0.04
0.04	32%	System 124	Relational DBMS	0.17
0.04	8%	System 125	Relational DBMS	0.54
0.04	n.a.	System 126	Key-value store	0.04
0.04	260%	System 127	RDF store	0.05
0.03	3%	System 128	Navigational DBMS	1.16
0.03	19%	System 129	Relational DBMS	0.20
0.03	6%	System 130	Relational DBMS	0.52
0.03	5094%	System 131	Multivalue DBMS	0.03
0.02	19%	System 132	Object oriented DBMS	0.15
0.02	n.a.	System 133	Document store	0.02
0.02	1%	System 134	Multivalue DBMS	2.15
0.02	2%	System 135	Native XML DBMS	1.00
0.01	n.a.	System 136	Content store	0.01
0.01	5%	System 137	Search engine	0.19
0.01	6%	System 138	Graph DBMS	0.10
0.01	5%	System 139	Relational DBMS	0.12
0.00	n.a.	System 140	Relational DBMS	0.00
0.00	0%	System 141	Key-value store	0.00
0.00	0%	System 142	RDF store	0.00
0.00	0%	System 143	Key-value store	0.00
0.00	0%	System 144	Document store	0.00
0.00	0%	System 145	Document store	0.00
0.00	0%	System 146	RDF store	0.00
0.00	0%	System 147	Document store	0.00
0.00	0%	System 148	Document store	0.00
0.00	0%	System 149	Relational DBMS	0.00
0.00	0%	System 150	Key-value store	0.00
0.00	0%	System 151	Relational DBMS	0.00
0.00	0%	System 152	Key-value store	0.00
0.00	0%	System 153	Document store	0.00

Diff Sep 2014 to Sep 2013		System	Database Model	Score
absolut	in percent			Sep 2014
0.00	0%	System 154	Key-value store	0.00
0.00	0%	System 155	Document store	0.00
0.00	0%	System 156	Key-value store	0.00
0.00	0%	System 157	Key-value store	0.00
0.00	-1%	System 158	Object oriented DBMS	0.18
0.00	-7%	System 159	Relational DBMS	0.04
-0.01	-5%	System 160	Key-value store	0.13
-0.01	0%	System 161	Multivalued DBMS	3.19
-0.01	-11%	System 162	Relational DBMS	0.12
-0.03	-2%	System 163	Relational DBMS	1.19
-0.05	-29%	System 164	RDF store	0.11
-0.05	-99%	System 165	Search engine	0.00
-0.06	-56%	System 166	RDF store	0.05
-0.06	-37%	System 167	Relational DBMS	0.11
-0.06	-60%	System 168	Search engine	0.04
-0.07	-100%	System 169	Graph DBMS	0.00
-0.07	-100%	System 170	Key-value store	0.00
-0.07	-6%	System 171	Relational DBMS	1.05
-0.07	-55%	System 172	Relational DBMS	0.06
-0.08	-93%	System 173	Graph DBMS	0.01
-0.08	-42%	System 174	RDF store	0.12
-0.09	-10%	System 175	Relational DBMS	0.76
-0.09	-65%	System 176	Relational DBMS	0.05
-0.10	-11%	System 177	Native XML DBMS	0.82
-0.11	-21%	System 178	Object oriented DBMS	0.40
-0.12	-100%	System 179	RDF store	0.00
-0.13	-100%	System 180	RDF store	0.00
-0.13	-100%	System 181	RDF store	0.00
-0.13	-9%	System 182	Navigational DBMS	1.30
-0.13	-100%	System 183	RDF store	0.00
-0.16	-10%	System 184	Relational DBMS	1.33
-0.16	-46%	System 185	Key-value store	0.19
-0.56	-8%	System 186	Relational DBMS	6.77
-0.69	-7%	System 187	Relational DBMS	9.92
-6.23	-4%	System 188	Relational DBMS	140.48
-8.62	-1%	System 189	Relational DBMS	1297.14
-62.70	-4%	System 190	Relational DBMS	1466.91
-104.91	-8%	System 191	Relational DBMS	1208.87

5 Detailed trends for the selected systems

This table together with the following chart show the popularity trend for the selected systems for all rankings since begin of collecting that data in November 2012.

Score	System 1	System 2	System 3	System 4
Nov 12	36.84	101.77	195.55	3.38
Dec 12	34.21	103.77	181.93	3.60
Jan 13	34.92	96.13	170.93	4.00
Feb 13	36.16	116.14	186.05	3.98
Mar 13	36.36	124.22	170.17	4.18
Apr 13	38.57	129.75	161.40	5.33
May 13	38.17	134.95	156.08	6.58
Jun 13	37.64	137.49	149.66	6.37
Jul 13	42.24	140.46	141.64	6.83
Aug 13	46.71	155.99	150.88	7.01
Sep 13	51.69	152.19	146.71	7.79
Oct 13	52.92	149.48	142.49	7.32
Nov 13	57.58	161.87	141.60	7.27
Dec 13	80.51	183.07	151.67	10.02
Jan 14	81.18	178.23	155.99	10.11
Feb 14	80.31	195.17	152.88	11.06
Mar 14	78.09	199.99	146.48	11.83
Apr 14	78.72	214.34	142.76	12.92
May 14	81.73	224.62	145.36	14.06
Jun 14	81.85	231.44	142.36	15.79
Jul 14	81.58	238.78	144.62	16.58
Aug 14	81.90	237.36	139.62	17.54
Sep 14	87.86	240.98	140.48	19.67



6 Ranking Components

The DB-Engines Ranking score is clustered into the following components:

- *Information Supply,*
- *Information Requests,*
- *Job Offers* and
- *Community Size.*

These components are detailed in the next chapters.

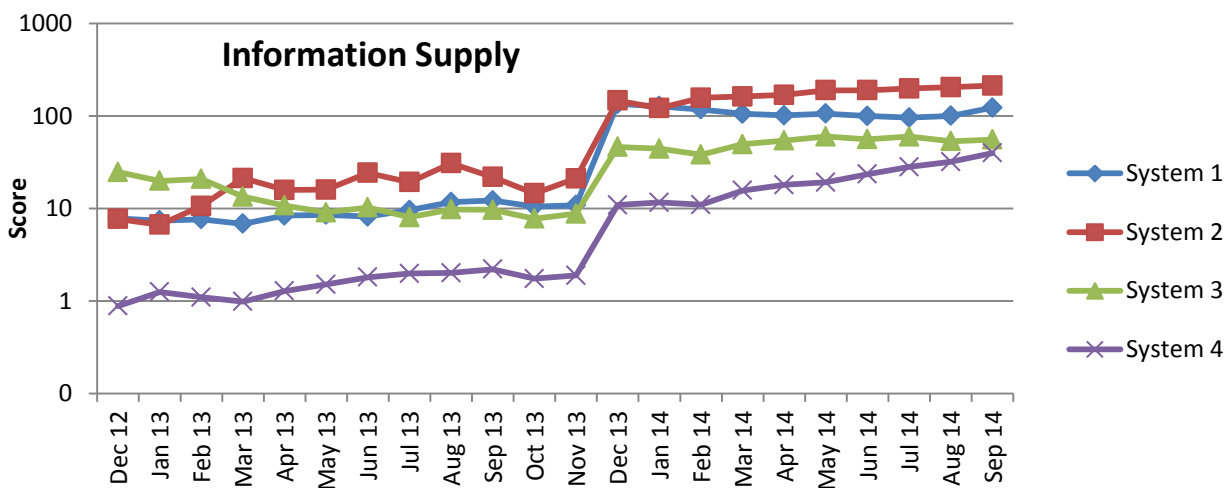
The underlying mathematical transformations are made in a way so that the distance of the individual systems is preserved. That means for example, when system A's number in the component Job Offers is twice as large as the number of system B, then system A has twice the number of job offers.

6.1 Information Supply

This component gathers how much information is available for the specific system on the web.

We count the number of mentions of the system on websites, by making appropriate queries to *Google* and *Bing* and the number of *Twitter* tweets (with hashtags).

Information Supply	System 1	System 2	System 3	System 4
Dec 12	7.79	7.69	24.71	0.88
Jan 13	7.37	6.67	19.84	1.25
Feb 13	7.63	10.61	20.83	1.09
Mar 13	6.83	21.21	13.35	0.99
Apr 13	8.36	15.79	10.72	1.28
May 13	8.54	15.93	9.04	1.51
Jun 13	8.15	24.17	10.24	1.81
Jul 13	9.56	19.24	8.01	1.97
Aug 13	11.70	30.78	9.77	2.01
Sep 13	12.15	21.79	9.64	2.20
Oct 13	10.49	14.52	7.75	1.74
Nov 13	10.81	21.07	8.77	1.88
Dec 13 ¹	134.86	146.43	46.13	10.89
Jan 14	127.24	121.20	44.18	11.58
Feb 14 ²	117.13	156.73	38.16	10.97
Mar 14	105.26	161.91	49.44	15.62
Apr 14	101.38	168.55	54.22	17.98
May 14	105.75	189.52	59.80	19.15
Jun 14	99.67	188.91	55.92	23.43
Jul 14	95.76	197.42	59.72	28.07
Aug 14	100.14	203.92	53.34	31.89
Sep 14	122.50	212.46	55.49	39.66



¹ In December 2013 Microsoft changed the algorithm for calculating the number of Bing query results. That is the reason for the discontinuity of the ranking numbers between November and December 2013. Although affecting this ranking components, the effect on the overall ranking is minimal.

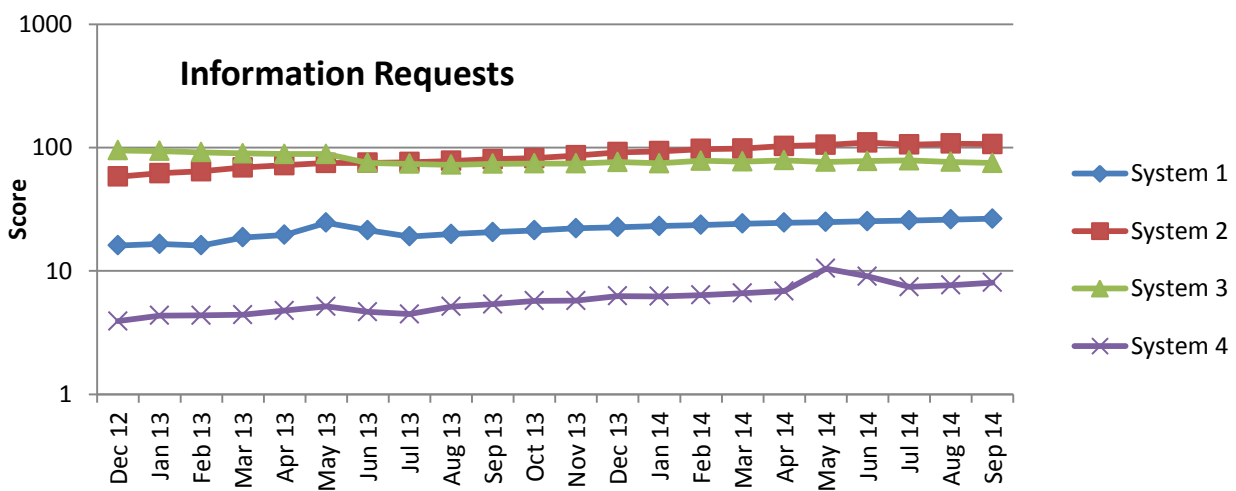
² In order to become more resilient against anomalies in our ranking sources, we added Twitter to that ranking component by February 2014.

6.2 Information Requests:

In this component we gather the frequency of information requests regarding the specific system.

We count the number of technical questions on *Stack Overflow* and *DBA Stack Exchange* and the frequency of searches for the system in *Google Trends*.

Information Requests	System 1	System 2	System 3	System 4
Dec 12	16.07	58.22	95.08	3.91
Jan 13	16.53	61.99	93.95	4.34
Feb 13	16.08	64.27	91.71	4.36
Mar 13	18.66	68.97	89.82	4.41
Apr 13	19.59	71.81	88.62	4.77
May 13	24.60	75.01	88.62	5.16
Jun 13	21.35	75.28	75.12	4.65
Jul 13	19.01	76.12	73.98	4.46
Aug 13	19.88	78.01	72.64	5.13
Sep 13	20.63	80.58	73.93	5.38
Oct 13	21.34	82.10	74.30	5.72
Nov 13	22.17	86.23	74.26	5.74
Dec 13	22.64	91.68	76.46	6.26
Jan 14	23.07	93.24	74.50	6.22
Feb 14	23.56	97.28	78.11	6.36
Mar 14	24.18	98.14	76.93	6.61
Apr 14	24.57	103.00	78.96	6.86
May 14	24.93	105.25	76.54	10.46
Jun 14	25.30	109.82	77.62	9.05
Jul 14	25.67	105.68	78.69	7.43
Aug 14	26.09	107.54	76.46	7.66
Sep 14	26.49	106.65	74.92	8.06

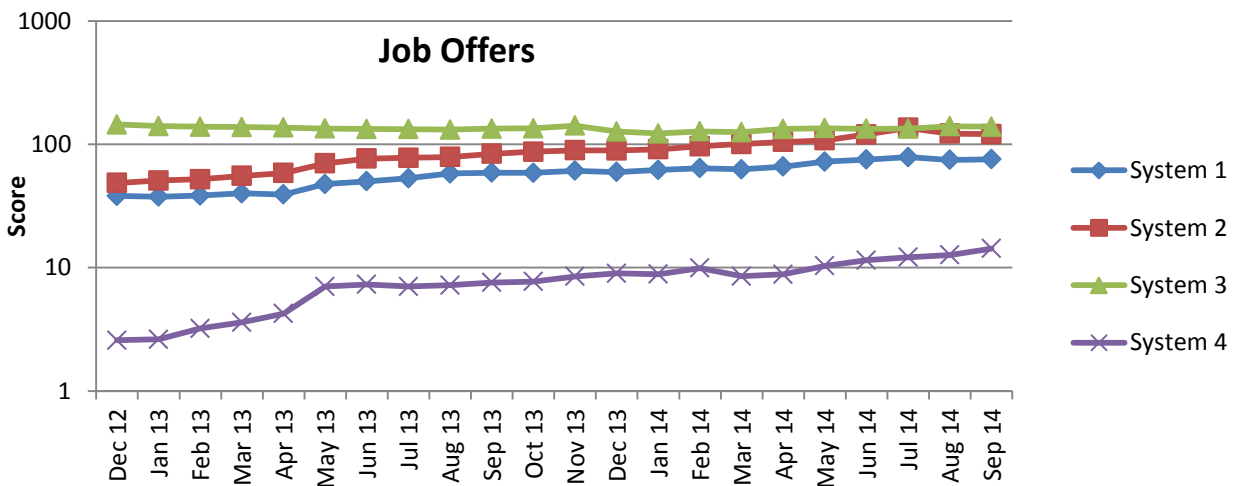


6.3 Job Offers

For this component we count the number of job offers, in which the system is mentioned.

We use the number of offers on the leading job search engines *Simply Hired* and *Indeed*.

Job Offers	System 1	System 2	System 3	System 4
Dec 12	38.11	48.63	144.63	2.58
Jan 13	37.56	50.89	140.36	2.62
Feb 13	38.37	52.15	138.96	3.22
Mar 13	40.05	55.53	138.08	3.60
Apr 13	39.26	58.53	136.71	4.25
May 13	47.64	70.09	134.50	7.04
Jun 13	50.13	76.60	133.05	7.31
Jul 13	52.95	77.62	132.70	7.03
Aug 13	57.91	78.81	131.52	7.20
Sep 13	58.92	83.70	133.97	7.58
Oct 13	58.62	87.09	134.62	7.72
Nov 13	61.00	89.51	141.52	8.49
Dec 13	59.50	89.22	126.85	8.97
Jan 14	61.96	91.19	122.31	8.85
Feb 14	63.96	96.48	127.30	9.92
Mar 14	62.59	100.61	125.34	8.51
Apr 14	66.01	104.55	133.17	8.82
May 14	72.33	107.55	135.09	10.35
Jun 14	75.17	120.23	133.67	11.48
Jul 14	78.73	135.82	134.09	12.17
Aug 14	74.79	121.93	139.97	12.66
Sep 14	75.64	120.97	138.92	14.26

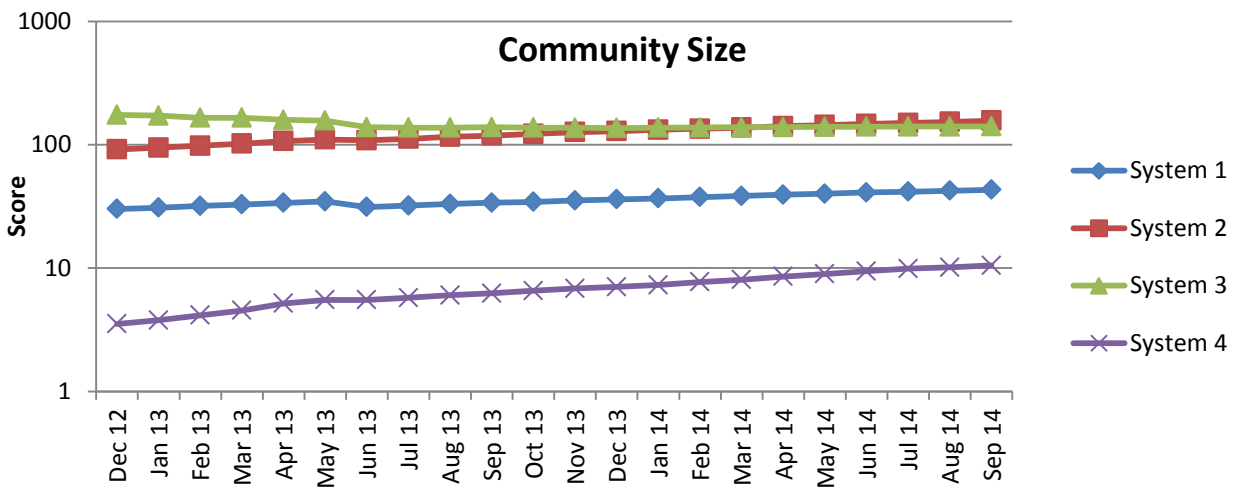


6.4 Community Size

This component measures the relevance of the specific system in the respective community.

We count the number of profiles mentioning the system in the internationally most popular professional network *LinkedIn*, and the number of followers of the system in *Stack Overflow* and *DBA Stack Exchange*.

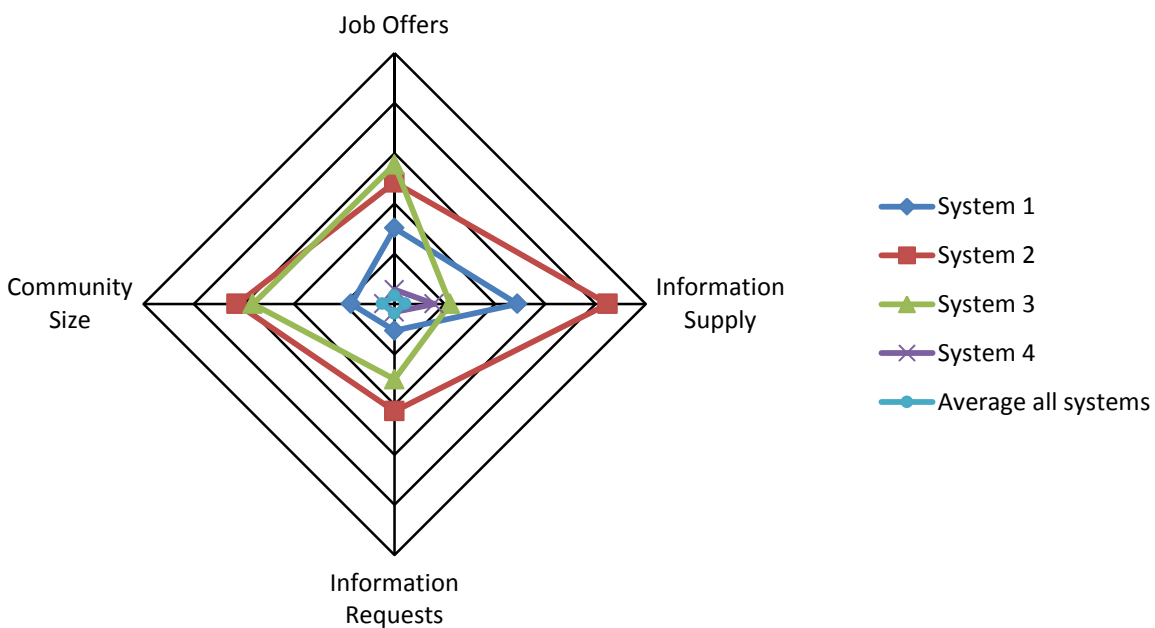
Community Size	System 1	System 2	System 3	System 4
Dec 12	30.13	91.55	174.65	3.52
Jan 13	30.87	94.61	171.91	3.77
Feb 13	31.92	98.01	165.66	4.14
Mar 13	32.76	102.16	165.62	4.54
Apr 13	33.77	106.89	159.34	5.17
May 13	34.73	110.33	156.82	5.52
Jun 13	31.26	108.78	138.76	5.52
Jul 13	32.11	111.43	137.49	5.74
Aug 13	33.02	115.91	137.39	6.03
Sep 13	33.87	118.53	138.85	6.23
Oct 13	34.36	122.39	137.45	6.55
Nov 13	35.32	126.33	137.06	6.82
Dec 13	36.06	128.91	136.90	7.03
Jan 14	36.71	132.21	137.47	7.29
Feb 14	37.57	134.67	137.82	7.72
Mar 14	38.43	137.55	138.76	8.03
Apr 14	39.28	141.18	138.89	8.55
May 14	40.01	144.39	139.60	8.97
Jun 14	40.98	147.38	139.84	9.44
Jul 14	41.61	149.96	140.28	9.88
Aug 14	42.36	153.24	140.49	10.13
Sep 14	43.17	156.87	141.04	10.48



6.5 Components Comparison

Based on the most recent ranking we show a comparison of the four ranking components for the selected systems including an average of all systems in the ranking.

Points Sep 2014	System 1	System 2	System 3	System 4	Average all systems
Job Offers	75.64	120.97	138.92	14.26	8.16
Information Supply	122.50	212.46	55.49	39.66	11.09
Information Requests	26.49	106.65	74.92	8.06	9.89
Community Size	43.17	156.87	141.04	10.48	12.06



The next table shows the rank of a system within each ranking component.

Rank Sep 2014	System 1	System 2	System 3	System 4
Job Offers	29	20	18	54
Information Supply	16	8	33	47
Information Requests	34	20	26	75
Community Size	32	10	15	77

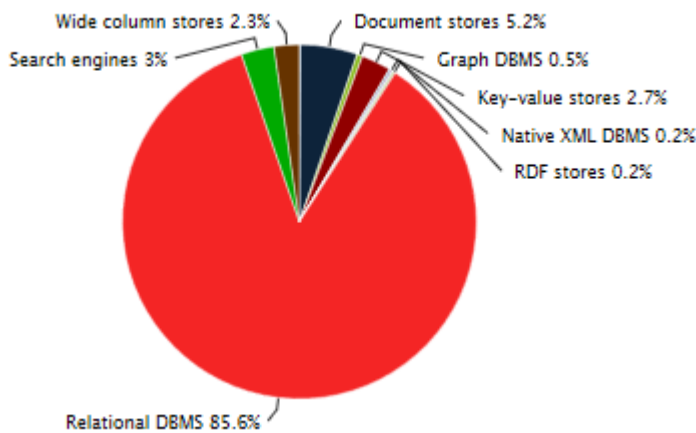
We see that System 1 and System 2 are very strong in disclosing information. This is somehow in contrast with the number of information requests for those systems. We count many open job positions for System 3, probably due to its strong installation base in rather large companies. System 3 has a large community, which seems necessary because the information supply is rather modest. System 4, although steadily increasing its popularity, still has a comparably small community (below average of all systems), but is rather open in providing information.

7 Ranking trend by supported database model

DB-Engines classifies the listed database management systems according to their database model (e.g. relational DBMS, key-value stores etc.).

The following chart shows the most recent score per database category. For that the scores of all systems in a category are summed up and shown as a percentage of the total score of all systems. As an example Relational DBMS currently account for 85,6% of the score of all listed database management systems.

Note that some of the systems belong to more than one category.



The next chart shows the historical trend of the categories' popularity. For each month the best three systems per category are chosen and the average of their scores is calculated. In order to allow comparisons, the initial value is normalized to 100. For most of the categories the trend starts with January 2013 but search engines and multivalued DBMS are collected since February 2013 and May 2013.

