Information Retrieval Exercises

Assignment 2:

Boolean Information Retrieval - Solutions

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Evaluation setup

- Evaluation was performed on a dedicated server of our research group
  - Evaluation set consisted of 9 queries

- Each query of each team was executed 10 times
  - Queries which took longer than 30 minutes where excluded
  - Best and worst runtime was excluded for each query
  - Average runtime was recorded

- For each query a ranking was calculated
  - The team which the highest average rank wins

Evaluation queries

1. plot:Swedish AND plot:Danish AND plot:bridge AND plot:"Saga Norén" AND plot:Øresund AND type:series
   - MV: "Bron/Broen" (2011)

2. plot:walter AND plot:jesse AND plot:mike AND episodetitle:(#5 AND episodetitle:6)
   - MV: "Breaking Bad" (2008) {Buyout (#5.6)}

3. year:2000 AND year:2001 AND year:2002 AND year:2003 AND year:2004 AND year:2005 AND year:2006 AND year:2007 AND year:2008 AND year:2009
   - []

Evaluation queries

4. title:a AND title:a AND title:a AND title:a AND title:a AND title:"A Serious Man" AND title:a AND title:a AND title:a AND title:a AND title:a

   – MV: A Serious Man (2009)

5. type:videogame AND title:"Warhammer 40,000" AND plot:Tau AND plot:Necrons AND plot:Orks AND plot:Eldar AND plot:"Chaos Marines" AND plot:"Imperial Guard" AND plot:"Space Marines"

   – MV: Warhammer 40,000: Dawn of War - Dark Crusade (2006) (VG)

6. plot:"London goth girl" AND plot:"who claims to be Death"

   – MV: Death: The High Cost of Living (????/II) {{SUSPENDED}}

Evaluation queries

7.   plot:a AND plot:about AND plot:above AND plot:after AND plot:again AND plot:against AND plot:all AND plot:am AND plot:an AND plot:and AND plot:any AND plot:are AND plot:aren't AND plot:as AND plot:at AND plot:be AND plot:because AND plot:been AND plot:before AND plot:being AND plot:below AND plot:between AND plot:both AND plot:but AND plot:by AND plot:can't AND plot:cannot AND plot:could AND plot:couldn't AND plot:did AND plot:didn't AND plot:do AND plot:does AND plot:doesn't AND plot:doing AND plot:don't AND plot:down AND plot:during AND plot:each AND plot:few AND plot:for AND plot:from AND plot:further AND plot:had AND plot:hadn't AND plot:has AND plot:hasn't AND plot:have AND plot:haven't AND plot:having AND plot:he AND plot:he'd AND plot:he'll AND plot:he's AND plot:her AND plot:here AND plot:here's AND plot:hers AND plot:herself AND plot:him AND plot:himself AND plot:his AND plot:how AND plot:how's AND plot:i AND plot:i'd AND plot:i'll AND plot:i'm AND plot:i've AND plot:if AND plot:in AND plot:into AND plot:is AND plot:isn't AND plot:it AND plot:it's AND plot:its AND plot:itself AND plot:let's AND plot:me AND plot:more AND plot:most AND plot:mustn't AND plot:my AND plot:myself AND plot:no AND plot:nor AND plot:not AND plot:of AND plot:off AND plot:on AND plot:once AND plot:only AND plot:or AND plot:other AND plot:ought AND plot:our AND plot:ours AND plot:ourselves AND plot:out AND plot:over AND plot:own AND plot:same AND plot:shan't AND plot:she AND plot:she'd AND plot:she'll AND plot:she's AND plot:should AND plot:shouldn't AND plot:so AND plot:some AND plot:such AND plot:than AND plot:that AND plot:that's AND plot:the AND plot:their AND plot:theirs AND plot:them AND plot:themselves AND plot:then AND plot:there AND plot:there's AND plot:these AND plot:they AND plot:they'd AND plot:they'll AND plot:they're AND plot:they've AND plot:this AND plot:those AND plot:through AND plot:to AND plot:too AND plot:under AND plot:until AND plot:up AND plot:very AND plot:was AND plot:wasn't AND plot:we AND plot:we'd AND plot:we'll AND plot:we're AND plot:we've AND plot:were AND plot:weren't AND plot:what AND plot:what's AND plot:when AND plot:when's AND plot:where AND plot:where's AND plot:which AND plot:while AND plot:who AND plot:who's AND plot:whom AND plot:why AND plot:why's AND plot:with AND plot:won't AND plot:would AND plot:wouldn't AND plot:you AND plot:you'd AND plot:you'll AND plot:you're AND plot:you've AND plot:your AND plot:yours AND plot:yourself AND plot:yourselves

  –   []

Evaluation queries

8. plot:A AND plot:mysterious AND plot:man AND plot:who AND plot:has AND plot:multiple AND plot:jobs AND plot:as AND plot:a AND plot:garage AND plot:mechanic AND plot:a AND plot:Hollywood AND plot:stuntman AND plot:and AND plot:a AND plot:getaway AND plot:driver AND plot:seems AND plot:to AND plot:be AND plot:trying AND plot:to AND plot:escape AND plot:his AND plot:shady AND plot:past AND plot:as AND plot:he AND plot:falls AND plot:for AND plot:his AND plot:neighbor AND plot:- AND plot:whose AND plot:husband AND plot:is AND plot:in AND plot:prison AND plot:and AND plot:who's AND plot:looking AND plot:after AND plot:her AND plot:child AND plot:alone AND plot:Meanwhile AND plot:his AND plot:garage AND plot:mechanic AND plot:boss AND plot:is AND plot:trying AND plot:to AND plot:set AND plot:up AND plot:a AND plot:race AND plot:team AND plot:using AND plot:gangland AND plot:money AND plot:which AND plot:implicates AND plot:our AND plot:driver AND plot:as AND plot:he AND plot:is AND plot:to AND plot:be AND plot:used AND plot:as AND plot:the AND plot:race AND plot:team's AND plot:main AND plot:driver AND plot:Our AND plot:hero AND plot:gets AND plot:more AND plot:than AND plot:he AND plot:bargained AND plot:for AND plot:when AND plot:he AND plot:meets AND plot:the AND plot:man AND plot:who AND plot:is AND plot:married AND plot:to AND plot:the AND plot:woman AND plot:he AND plot:loves

    – MV: Drive (2011/I)

Evaluation queries

9.   plot:"In the year 2139, the Earth has changed into a virtually uninhabitable place called the Cursed Earth. All of the Earth's population have crowded into the cities across the planet, now known as Mega-Cities. The crimes in these Mega-Cities became so violent and so powerful, that the regular justice system was powerless to contain, then it collapsed completely. However, a new justice system came from the ashes, there were three justice systems in one (police, jury and executioner), they were called Judges. In Mega-City One (formerly, New York City), there was a Judge, named Joseph Dredd, who was the toughest and most stringent Judge in history. One day, he was charged with murder, and was tried and sentenced to life in prison because of it."

   – MV: Judge Dredd (1995)

Final results: runtimes

Group	Index (s)	Runtime Q1 (ms)	Q2 (ms)	Q3 (ms)	Q4 (ms)	Q5 (ms)	Q6 (ms)	Q7 (ms)	Q8 (ms)	Q9 (ms)
C418	87.9	43.5	198.5	0.4	2847.8	0.7	1.8	1508911.7	64154.2	266897.7
DominateWunderWiesel	63.6	0.5	1.6	0.2	6.1	3.2	9.1	3.2	2.7	1.5
DoppelW	23.3	0.9	7.9	42.7	0.9	10.0	329.0	2.8	22.1	118.7
Einfallslos	60.8	0.8	-	9.1	0.6	0.9	-	3.6	1.5	2.0
Fiedner	53.1	0.9	1.9	0.5	0.6	2.5	14.9	2.3	1.7	1.0
FindingMovies	147.3	12.5	24.1	0.2	50.7	9.7	65.8	2243.6	2847.7	676.7
Google	74.1	1.0	1.9	6.5	0.6	0.8	0.9	1.3	1.1	1.3
GroupNo1	90.8	1.7	2.3	142.8	16.2	1.6	3.4	209.9	51.0	-
KSMR	66.7	0.9	28.4	21.4	54.9	0.9	2.9	5674.7	11250.0	83.7
KnockKnock	148.8	7.7	9.6	18.8	32.6	8.5	116.2	1315.5	1481.4	2315.6
Lejunds	37.8	1176.1	99.6	0.3	342.4	2535.6	1390.7	1182.1	886.2	943.3
Lilaloi	66.0	4.5	4.5	15.0	74.4	13.5	326.9	311.2	377.2	5710.3
Lovelace	37.1	9.3	12.0	32.7	40.7	158.0	122716.7	702.2	1084.5	-
Nebula	72.6	2.1	-	0.5	15.0	0.5	72.8	-	5.2	0.7
PonyUndKleid	57.9	44.9	24.2	189.5	83.3	121.8	2784.4	195.6	363.3	8015.1
RickUndFranz	81.7	1096.1	2419.9	1808.3	12225.5	685.4	85.6	65.8	831034.2	2302.5
Uberwinder	30.7	8.0	338.3	16.8	2020.7	133.0	395.7	1184.9	2088.1	1094.2
Valeria	68.9	0.8	0.8	0.9	4.2	0.8	4.5	24.9	75.2	103.6
WirSindGroot	82.3	0.9	10.3	7.0	0.7	3.3	14.1	13.9	14.4	2.2

Final results: runtimes

Group	Rank									
	Index	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**
C418	16	16	15	4	18	2	2	18	18	17
DominateWunderWiesel	8	1	2	1	7	9	6	4	4	4
DoppelW	1	4	7	16	5	13	14	3	7	9
Einfallslos	7	2	-	10	1	5	-	5	2	5
Fiedner	5	4	3	5	1	8	8	2	3	2
FindingMovies	18	15	11	1	12	12	9	16	16	10
Google	13	8	3	8	1	3	1	1	1	3
GroupNo1	17	9	5	17	9	7	4	10	8	-
KSMR	10	4	13	14	13	5	3	17	17	7
KnockKnock	19	12	8	13	10	11	12	15	14	14
Lejunds	4	19	14	3	16	19	16	13	12	11
Lilaloi	9	11	6	11	14	14	13	11	11	15
Lovelace	3	14	10	15	11	17	18	12	13	-
Nebula	12	10	-	5	8	1	10	-	5	1
PonyUndKleid	6	17	12	18	15	15	17	9	10	16
RickUndFranz	14	18	17	19	19	18	11	8	19	13
Uberwinder	2	13	16	12	17	16	15	14	15	12
Valeria	11	2	1	7	6	3	5	7	9	8
WirSindGroot	15	4	9	9	4	10	7	6	6	6

Final results: competition

Group	Average Rank	Rank	Position	Points
C418	12.6	10		
DominateWunderWiesel	4.6	3	3	2
DoppelW	7.9	6		
Einfallslos	-	-		
Fiedner	4.1	1	1	5
FindingMovies	12	9		
Google	4.2	2	2	3
GroupNo1	-	-		
KSMR	10.3	7		
KnockKnock	12.8	12		
Lejunds	12.7	11		
Lilaloi	11.5	8		
Lovelace	-	-		
Nebula	-	-		
PonyUndKleid	13.5	14		
RickUndFranz	15.6	15		
Uberwinder	13.2	13		
Valeria	5.9	4	4	1
WirSindGroot	7.6	5	5	1

Questions?