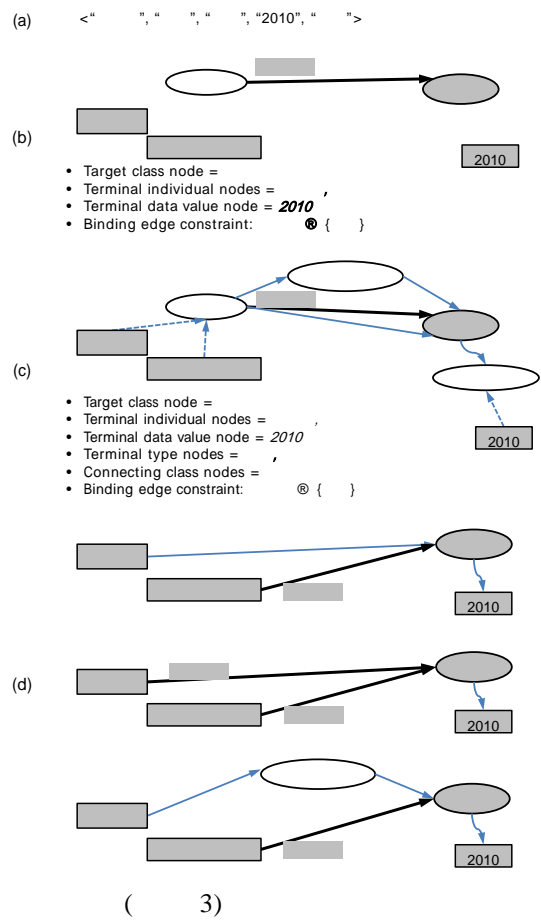
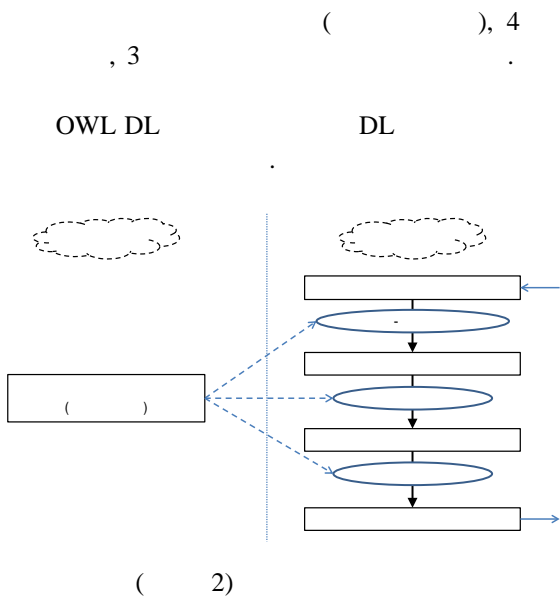


가 , 가 , 3(b) , () , , 1(c) 1(d) terminal 가 individual data value , target node 가 class 가 relation edge individual class 가 edge

SPARQL , OWL DL , (d) data value node class “ ” node, data type node , relation individual class, data value data type type relation

3.



2010 , 가 , 가 , 3(c) 3(b) relation terminal node type node(class data type node) , target node target node recursively traversing

3(a) class type, data type, relation

3(d) 3(c)

“ ” “ ” Ontorus 가 가

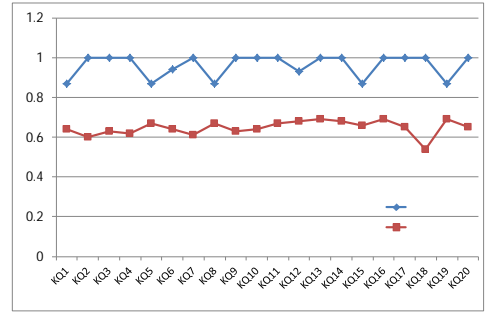
3(c) terminal node() 20
 target node() direct edge 가 1
 , Intel 3.2GHz i7 CPU 8GB , Windows7
 , terminal node() Professional PC
 target node() top-K 1 20 가
 가 가
 terminal node 2 가
 , “ 가
 ”

	< 2 > 가()		()
	0.96	0.65	0.748
Top-K	0.76	0.48	2.188

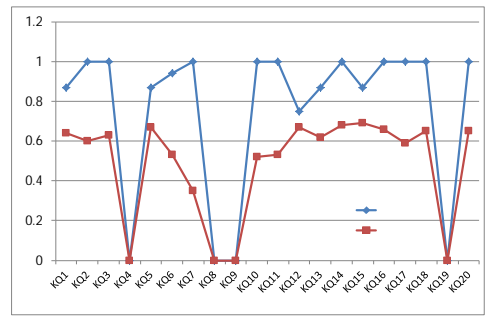
4. Java, OWL API(OWL DL KB 가
), Pellet()
 OWL DL
 95 가 , 25 , 17
 가 , IMDB ,
 4,230
 111,852 가
 2 0.96
 0.65
 가 96%가
 65%가

< 1 > 가()

KQ1		
KQ2		+
KQ3		+
KQ4		+
KQ5		
KQ6		+
KQ7		+,
KQ8		
KQ9		+
KQ10	2012	
KQ11	2012	+,
KQ12		
KQ13		+
KQ14		
KQ15		+
KQ16		
KQ17		
KQ18	가	
KQ19		
KQ20		



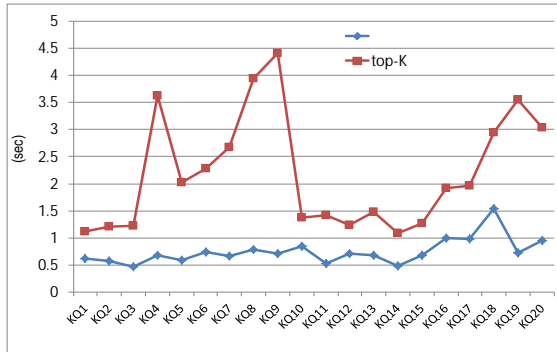
(4)



(5) top-K

[18] top-K

, top-K 2.188 가 0.748 6



(6)

top-K 가 , top-K

Zhou et al.[5] 12 , 19 , 11,018
0.249
, Chen et al.[8] 10 , 10 , 1,640,000
0.803

111,852 95 , 25 , 17 ,
[5] [8]

5.

가

가

가

가

가

가

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