INFORMATION RETRIEVAL

HOMEWORK EXERCISES L03. EVALUATION

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EXERCISE 1

➢ The following list of Rs and Ns represent relevant (R) and nonrelevant (N) returned documents in a ranked list of 20 documents retrieved in response to a query from a collection of 10,000 documents. The top of the ranked list is on the left of the list. This list shows 6 relevant documents. Assume there are 8 relevant documents in total in the collection.

R R N N N N N N R N R N N N R N N N N R

➢ Calculate (show your calculations):

a. Precision

b. Recall

c. F1

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EXERCISE 2

R R N N N   N N N R N   R N N N R   N N N N R

➢ Given this same result list and the known number of relevant documents in the collection, calculate (show your calculation) the Average Precision

EXERCISE 3

R R N N N   N N N R N   R N N N R   N N N N R

➢ Assume that the gain for a relevant document (R) is 1 and for a non-relevant document (N) is 0.

➢ Calculate (show your calculations):

a. CG@20

b. DCG@20

c. nDCG@20