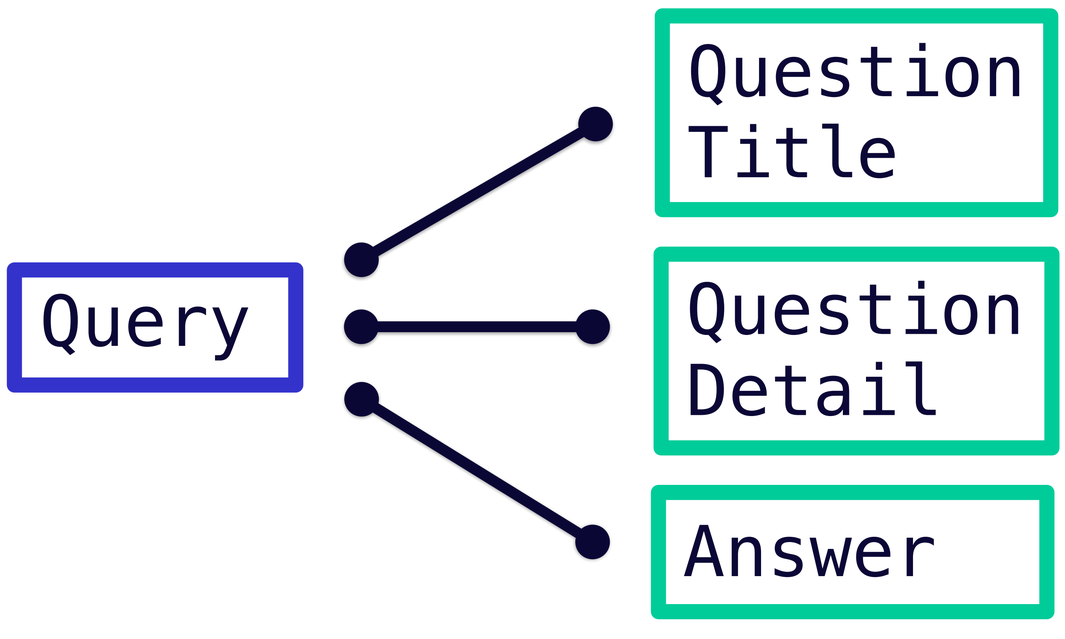
QA Search

Our goal

>Allow users to search a set of question answer pairs.
>See what fields and retrial techniques methods improve search in a QA context.

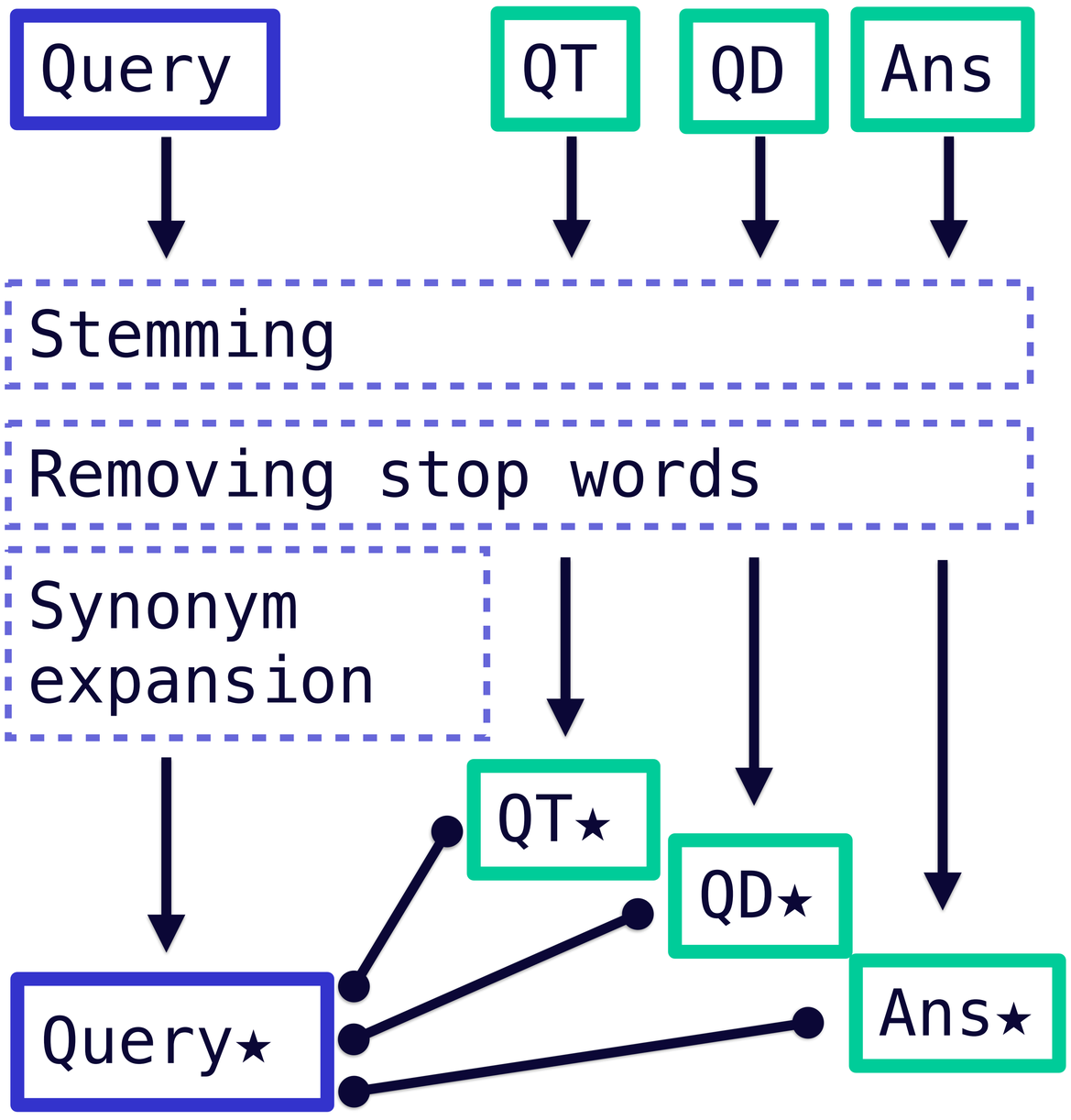
Baseline

>Elastic search on any subset of three fields.
>Lucene practical scoring (~tf-idf & vector space model).



Advanced search

All of the above as well as:
>Reduce words to their stems.
>Remove stop words.
>Expand query with synonyms (wordnet)



Evaluation

>Take 50 random answers from the corpus.
>Formulate new questions for each answer.
>Query the engine and rate the returned answer w.r.t our question.

0. Not relevant at all
1. Same topic/somewhat relevant
2. Answers the question

matching question title

2	0	0	0	1	1	0	0	2	0	2	2	1	0	0	2	2	0	0	0	2	0	2	2	0
2	0	1	0	0	0	1	0	2	0	2	2	0	0	0	0	0	2	0	1	2	0	2	1	0

matching question title & detail

2	0	0	0	1	0	1	0	2	0	2	2	0	0	0	2	2	0	0	0	2	0	2	2	0
2	0	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	2	0	1	2	0	2	1	0

matching question title & detail & answer

2	2	1	2	2	1	0	2	2	2	2	2	1	2	0	2	2	0	1	0	2	2	2	2	0
2	0	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	2	0	1	2	0	2	1	0

**baseline above, advanced below*

Results

>Best results when querying on question & answer fields.
>However, our evaluation method is <u>biased</u> towards the answer field.
>Surprisingly, the advanced search methods did not produce better results in our sample.

Future work

>Run isolated experiments on each search engine feature to better understand their implications within the QA context.
>Develop the evaluation method.
>Answer summarisation.

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