

Information Retrieval – HW1

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Task 3:

Following are the precisions generated by running the Perl script on implemented retrieval models:

Model	Average precision (non-interpolated)	Precision at 10 docs	Precision at 30 docs
ES built-in	0.2835	0.3960	0.3360
Okapi TF	0.2200	0.3840	0.3067
TF-IDF	0.2843	0.4120	0.3813
Okapi BM25	0.2874	0.4000	0.3320
Unigram LM Laplace	0.2360	0.4080	0.3147
Unigram LM Jelinek-Mercer	0.2116	0.3560	0.2867

Task4

Evaluation:

ES built-in Model	Non-Interpolated Mean Average Precision	Precision at 10 docs	Precision at 30 docs
Pseudo-relevance feedback	0.2985	0.4000	0.3507
Pseudo relevance feedback using Elastic search aggs “significant terms”	0.2835	0.3960	0.3360