

Your Name:

Your Andrew ID:

Homework 1

0 Introduction

0.1 Collaboration and Originality

1. Did you receive help of any kind from anyone (other than the instructor or TAs) in developing your software for this assignment (Yes or No)? If you answered Yes, provide the name(s) of anyone who provided help, and describe the type of help that you received.
2. Did you give help of any kind to anyone in developing their software for this assignment (Yes or No)? If you answered Yes, provide the name(s) of anyone that you helped, and describe the type of help that you provided.
3. Did you examine anyone else's software for this assignment (Yes or No)? Do not describe software provided by the instructor.
4. Are you (or the course instructor) the author of every line of source code submitted for this assignment (Yes or No)? If you answered No:
 - a. identify the software that you did not write,
 - b. explain where it came from, and
 - c. explain why you used it.
5. Are you the author of every word of your report (Yes or No)? If you answered No:
 - a. identify the text that you did not write,
 - b. explain where it came from, and
 - c. explain why you used it.

0.2 Format

Instructions are shown in this red italic bold font. Do not include instructions in your report. For example, delete this subsection, and in the next section, delete the instruction paragraphs.

Leave the page breaks between sections, as shown in this template. For example, Sections 1.1 and 1.2 must be on different pages.

There is a 2 point deduction for not following format instructions because it creates extra work during grading.

1 Structure in Boolean Queries

1.1 Structure in Boolean Queries: Queries

Show the structured queries used in your experiments. Briefly describe the thinking behind each structured query, i.e., what it was intended to do or why you thought it would work well. Hint: Probably a sentence or two is all you need for each query.

1.2 Structure in Boolean Queries: Experimental Results

Present your experimental results for each query set, in the format shown below.

Your .zip / .tgz file must include files named HW1-Exp-1.1a.qry, HW1-Exp-1.1a.param, etc., in the QryEval directory. The experimental results shown below must be reproducible by these files.

| | Unranked Boolean | | |
|--------------------|---------------------------|------------------------------|--------------------------|
| | BOW #AND (Exp-1.1a) | BOW #NEAR/3 (Exp-1.1b) | Structured (Exp-1.1c) |
| MRR | 0.0000 | 0.0000 | 0.0000 |
| P@10 | 0.0000 | 0.0000 | 0.0000 |
| P@20 | 0.0000 | 0.0000 | 0.0000 |
| P@30 | 0.0000 | 0.0000 | 0.0000 |
| MAP@1K | 0.0000 | 0.0000 | 0.0000 |
| Recall@100 | 0.0000 | 0.0000 | 0.0000 |
| Recall@1000 | 0.0000 | 0.0000 | 0.0000 |
| Run Time | mm:ss | mm:ss | mm:ss |

| | Ranked Boolean | | |
|--------------------|---------------------------|------------------------------|--------------------------|
| | BOW #AND (Exp-1.2a) | BOW #NEAR/3 (Exp-1.2b) | Structured (Exp-1.2c) |
| MRR | 0.0000 | 0.0000 | 0.0000 |
| P@10 | 0.0000 | 0.0000 | 0.0000 |
| P@20 | 0.0000 | 0.0000 | 0.0000 |
| P@30 | 0.0000 | 0.0000 | 0.0000 |
| MAP@1K | 0.0000 | 0.0000 | 0.0000 |
| Recall@100 | 0.0000 | 0.0000 | 0.0000 |
| Recall@1000 | 0.0000 | 0.0000 | 0.0000 |
| Run Time | mm:ss | mm:ss | mm:ss |

2 Document Representations: Experimental Results

| | Ranked Boolean | | | | |
|--------------------|--------------------|---------------------|-------------------|------------------------|----------------------|
| | body (Exp-1.2a) | title (Exp-2.1b) | url (Exp-2.1c) | keywords (Exp-2.1d) | inlink (Exp-2.1e) |
| MRR | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| P@10 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| P@20 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| P@30 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| MAP@1000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Recall@100 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Recall@1000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Run Time | mm:ss | mm:ss | mm:ss | mm:ss | mm:ss |

| | BM25 | | | | |
|--------------------|--------------------|---------------------|-------------------|------------------------|----------------------|
| | body (Exp-2.2a) | title (Exp-2.2b) | url (Exp-2.2c) | keywords (Exp-2.2d) | inlink (Exp-2.2e) |
| MRR | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| P@10 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| P@20 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| P@30 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| MAP@1000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Recall@100 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Recall@1000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Run Time | mm:ss | mm:ss | mm:ss | mm:ss | mm:ss |

The Exp-1.2a result from Section 1.2 is used as a baseline for comparison.

3 Multifield BM25: Experimental Results

| | body (Exp-2.2a) | 0.00 inlink 0.00 url 0.00 keywords 0.00 title 0.00 body (Exp-3.1b) | 0.00 inlink 0.00 url 0.00 keywords 0.00 title 0.00 body (Exp-3.1c) | 0.00 inlink 0.00 url 0.00 keywords 0.00 title 0.00 body (Exp-3.1d) | 0.00 inlink 0.00 url 0.00 keywords 0.00 title 0.00 body (Exp-3.1e) |
|-----------------|--------------------|---|---|---|---|
| MRR | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| P@10 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| P@20 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| P@30 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| MAP@1000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| R@100 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| R@1000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Run Time | mm:ss | mm:ss | mm:ss | mm:ss | mm:ss |

The Exp-2.2a result from Section 2 is used as a baseline for comparison.