HW2 experiment

Query term 1: halifax_explosion large casualties

Relevant documents for this query after running manually using the corpus are (0, 1, 3, 4)

Document id score from program :
0
1
3
4

The program returned the following documents
(0,1,3,4)

Score performance of the documents:
[(1, 0.9978675427701514),
(3, 0.9978675427701514),
(0, 0.9947073711390857),
(4, 0.9947073711390857)]

recall@5 = 4/4 =1 (returned all the relevant documents)
precision@5 = 4/4 =1 (returned all the documents that were relevant)

```
vigy@Vigneshs-MacBook-Pro HW2 % python3 IndexPrinter.py my_corpus_1.txt 5 halifax_explosion large casualties
File my_corpus_1.txt
Number of results 5
Input queries [['halifax', 'explosion'], ['large'], ['casualties']]
Found the phrase here  [0, 61] [0, 62]
Found the phrase here  [0, 69] [0, 69]
Found the phrase here  [0, 39] [0, 39]
0
Found the phrase here  [0, 101] [0, 102]
Found the phrase here  [1, 96] [1, 97]
Found the phrase here  [1, 2] [1, 2]
Found the phrase here  [1, 114] [1, 114]
Found the phrase here  [2, 78] [2, 79]
Found the phrase here  [3, 1] [3, 2]
Found the phrase here  [3, 18] [3, 18]
Found the phrase here  [3, 115] [3, 115]
Found the phrase here  [4, 35] [4, 36]
Found the phrase here  [4, 30] [4, 30]
Found the phrase here  [4, 77] [4, 77]
Found the phrase here  [5, 111] [5, 112]
Found the phrase here  [8, 44] [8, 45]
Found the phrase here  [9, 87] [9, 88]
Found the phrase here  [10, 16] [10, 17]
[(1, 0.9978675427701514), (3, 0.9978675427701514), (0, 0.9947073711390857), (4, 0.9947073711390857)]
vigy@Vigneshs MacBook Pro HW2 %
```

Query term 2: memorial_library halifax resulted

Relevant documents for this query after running manually using the corpus are (2 and 4)

Document id score from program :

[(2, 0.9856828170567308),
(4, 0.9668398431280459)]

The program returned the following documents
(2 and 4)

Recall @ 5 = 2/2 = 1 (program returned 2 documents and both are relevant)

Precision @ 5 = 2/2 = 1 (program returned all the results that are relevant)

```
vigy@Vigneshs-MacBook-Pro HW2 % python3 IndexPrinter.py my_corpus_1.txt 5 memorial_library halifax resulted
File my_corpus_1.txt
Number of results 5
Input queries [['memorial', 'library'], ['halifax'], ['resulted']]
Found the phrase here  [2, 55] [2, 56]
Found the phrase here  [2, 53] [2, 53]
Found the phrase here  [2, 98] [2, 98]
2
Found the phrase here  [4, 17] [4, 18]
Found the phrase here  [4, 15] [4, 15]
Found the phrase here  [4, 74] [4, 74]
[(2, 0.9856828170567308), (4, 0.9668398431280459)]
vigy@Vigneshs MacBook Pro HW2 %
```

Both queries had better result and both returned what were relevant.