1. Installing the Program

Note: These instructions assume that you are in a Linux environment (you should be...)

1.1. Clone repo and change into it

```
git clone https://github.com/jramsdell/cs753_team2_assignment2.git
cd cs753_team2_assignment2
```

1.2. Compile program

You can either use the precompiled program located in bin/program.jar or you can compile it yourself. Compilation requires maven (skip the first line if it's already installed) and that you be in the project directory:

```
sudo apt-get install maven
./compile.sh
```

This will create a new jar file located at: target/team2_2-1.0-SNAPSHOT-jar-with-dependencies.jar

2. Indexing

Note: For brevity's sake, we will be referring to the precompiled jar for the following commands. You can replace this with the one compiled in target if you like.

While in the project directory, call:

```
java -jar bin/program.jar index PARAGRAPHS
```

Where PARAGRAPHS is the location of the paragraphs .cbor file that you wish to index with this command. The output of this command is a new directory (created in the project directory) called paragraphs/

3. Generating Runfiles

While in the project directory, call:

```
java -jar bin/program.jar search paragraphs/ OUTLINES
```

Where OUTLINES is the path to the outlines .cbor file. This will run the standard BM25 algorithm. The output is called standard_bm25.run
To run the search with the custom score function, instead call:

```
java -jar bin/program.jar custom paragraphs/ OUTLINES
```

4. Analyzing Runfiles

To get the stats (MAP, NDCG@20, RPREC) using our implementations of these algorithms, call the following:

```
java -jar bin/program.jar evaluate RUNFILE QRELS
```

Where RUNFILE is the path to the runfile generated in the previous step (for example, standard_bm25.run), and QRELS is the path to the qrels file to evaluate the runfile with.

Calling this command will print the metrics to standard out.