1. I indicated in the code where the Indexing and evaluation exists.

2. The indexing in this project was very similar to how I implemented it in the previous project, so I had no problems with that. I had problems with implementing the QL and BM25 formulas within my code. At first I had the wrong formula for QL, but then resolved that issue. Then I was messing up the order of the terms in the BM25 formula which was giving me very odd results, so I moved the terms around and had them inside the parentheses to fix the problem.

3. In my "P4.py" file, I imported gzip, json, math, and queue. I imported gzip and json so that I could open the shakespeare-scenes.json.gz file. I imported math so that I could take the logs inside the BM25 and QL formulas. Then I imported queue so that I could implement the priority queue that we needed for this project.

4. Bad. Since it's "To be or not to be", one of the most common queries, it exists mostly in every scene. It's even there in random scenes which makes the results even worse for this query.

5. I expect the results for a new Query "setting the scene" to be bad. This is because "setting", "the", and "scene" are used mostly in every scene. They are going to come up so often that the results will be bad.

6. File is included in the submission

7. On Q3, my system did a good job using both BM25 and QL to get the results. BM25 appears to be better because when comparing the ranks between the two, BM25 has the better rank for each scene.