

Usage of Code -- Executing our Program

To execute our program you may run `python controller.py` in the command line or you may execute it in the IDE. For example, in VS Code you may choose your python interpreter and execute `controller.py`. This code also requires Python version 3.7 or below but not greater.

Query 1

| | Precision | Recall |
|-------------------|-----------|--------|
| Group 1 | 10% | 39.29% |
| Group 2 | 17.39% | 27.27% |
| Group 3 | 18.82% | 42.11% |
| Group 4 | 17.24% | 32.25% |
| Group 5 | 12.96% | 45.16% |
| Group 6 | 3.92% | 14.29% |
| Group 7 | 10.81% | 21.05% |
| Average Precision | 13.02 | |

Query 2

| | Precision | Recall |
|-------------------|-----------|--------|
| Group 1 | 9.33% | 25.0% |
| Group 2 | 19.56% | 20.45% |
| Group 3 | 22.64% | 31.58% |
| Group 4 | 11.11% | 12.90% |
| Group 5 | 14.28% | 35.48% |
| Group 6 | 5.71% | 14.28% |
| Group 7 | 12.5% | 18.42% |
| Average Precision | 13.59 | |

Query 3

| | Precision | Recall |
|-------------------|-----------|--------|
| Group 1 | 16.67% | 21.43% |
| Group 2 | 21.875% | 15.91% |
| Group 3 | 27.027% | 26.32% |
| Group 4 | 5.55% | 3.22% |
| Group 5 | 14% | 22.58% |
| Group 6 | 4.76% | 7.14% |
| Group 7 | 10.71% | 7.89% |
| Average Precision | 14.37% | |

Mean Average Precision: 13.66%
Approximate Runtime: 1 hr