## 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