**GROUP NUMBER:** 36

**GROUP MEMBERS:** Alessandro Dario, Luca Pellegrini, Francesco Visonà

**TEST 1:** The goal is to assess the accuracy of the CM and CS estimations for the top-K heavy hitters for varying K and **fixed D=9, W=100, T=100000, and port 8886.** You must fill in the following table (3 runs per configuration).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **k** | **Average Relative Error of frequency estimations for top-K heavy hitters with CM** | | | **Average Relative Error of frequency estimations for top-K heavy hitters with CS** | | |
| **RUN 1** | **RUN 2** | **RUN 3** | **RUN 1** | **RUN 2** | **RUN 3** |
| 10 | 0.023852 | 0.023341 | 0.023857 | 0.000691 | 0.000708 | 0.000735 |
| 20 | 144.341293 | 133.241278 | 91.697419 | 4.216896 | 4.266882 | 2.312773 |
| 50 | 342.504303 | 361.643861 | 398.381579 | 28.954604 | 29.956488 | 32.552909 |
| 100 | 198.038335 | 351.394833 | 221.555679 | 17.051171 | 28.991294 | 19.868458 |

**TEST 2:** The goal is to assess the accuracy of the CM and CS estimations for the top-K heavy hitters for varying columns W and **fixed D=9, K=10, T=100000, and port 8886.** You must fill in the following table (3 runs per configuration).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **W** | **Average Relative Error of frequency estimations for top-K heavy hitters with CM** | | | **Average Relative Error of frequency estimations for top-K heavy hitters with CS** | | |
| **RUN 1** | **RUN 2** | **RUN 3** | **RUN 1** | **RUN 2** | **RUN 3** |
| 5 | 0.796540 | 0.798179 | 0.796300 | 0.301519 | 0.301213 | 0.301521 |
| 10 | 0.247017 | 0.247369 | 0.248041 | 0.299990 | 0.300001 | 0.299966 |
| 20 | 0.122550 | 0.122090 | 0.122555 | 0.002555 | 0.002436 | 0.002529 |
| 50 | 0.047713 | 0.047619 | 0.047899 | 0.001096 | 0.000948 | 0.000954 |