**GROUP NUMBER:**  11

**GROUP MEMBERS:** João Fonseca, Milica Masić

**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.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **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 | 0.023090432228144817 | 0.023658326669455103 | 0.02341186623144221 | 0.0006424155242649619 | 0.0003770867510228931 | 0.0005248642335789314 |
| 20 | 148.70788794412542 | 133.2245385975814 | 110.72045337978345 | 4.150232778352231 | 4.900158850445759 | 3.538738575521868 |
| 50 | 257.58307712017205 | 250.1380373059195 | 260.4843679269776 | 4.587814007895068 | 21.762022128161775 | 23.41337196417681 |
| 100 | 636.7545612916404 | 280.61395601713485 | 373.33299410370665 | 44.00985326029185 | 23.33096108864889 | 32.06264280994342 |

**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.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **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 | 0.9035119818991018 | 0.6990623226705215 | 0.8964221122129787 | 0.3010617213667893 | 0.009810643666159054 | 0.20349508104650654 |
| 10 | 0.2469980532646972 | 0.24697313389269232 | 0.24775615440681142 | 0.003528049072794898 | 0.00590326052124806 | 0.004711752790746717 |
| 20 | 0.12342030402071602 | 0.12186324049818162 | 0.12253964874415693 | 0.001055027551868872 | 0.0016377611587866017 | 0.0007870467781210209 |
| 50 | 0.04732552724551422 | 0.0486287599725448 | 0.04794837871173378 | 0.0005995655863692043 | 0.0011180487438765686 | 0.0005852610144174737 |