**BIG DATA COMPUTING 2020/21 – HOMEWORK 2**

Do the tests with the parameters indicated in the first 3 columns of the following table. Fill the table reporting, for each test, 4 values: the approximate average silhouette coefficient of the input clustering (**approxSilhFull**); the time to compute approxSilhFull; the exact silhouette coefficient of the clustering sample (**exactSilhSample**); the time to compute exactSilhSample. The running times must not include the time to load the input file and to compute the sample. The values in the table for Uber\_3\_small.csv must be the average of 3 runs of the same experiment.

**Table to be filled**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Dataset** | **k** | **t** | **approxSilhFull** | **Time (ms) to compute approxSilhFull** | **exactSilhSample** | **Time (ms) to compute exactSilhSample** |
| **Uber\_10\_large.csv** | **10** | **2000** | 0.9999999999977554 | 56565ms | 0.943447226766584 | 4948ms |
| **Uber\_3\_large.csv** | **3** | **2000** | 0.9290682217994826 | 15334ms | 0.9263242530755712 | 466ms |
| **Uber\_3\_small.csv** | **3** | **40** | 0.9310338429411754 | 59ms | 0.5114864864864865 | 1ms |
| **Uber\_3\_small.csv** | **3** | **80** | 0.9299437989409424 | 54ms | 0.9935064935064936 | 3ms |
| **Uber\_3\_small.csv** | **3** | **1000** | 0.9289446866612711 | 105ms | 0.9990118577075099 | 34ms |