Dear Editor-of-Chief of Applied Sciences

The efficiency of databases is a core part of computing. It also relates to any application domain where large data sets are manipulated. Therefore, we think that the study certainly belongs to the scope of Applied Sciences. There are also earlier efficiency testing of databases published in Applied Sciences.

Relational databases are the most popular database paradigm whereas graph databases are the most growing database paradigm. Therefore, the comparison of the efficiency of these database types is topical. All the earlier comparisons indicate that graph databases would be more efficient than relation databases. Also, the study published in Applies science one and half years ago (Győrödi, et al. Applied Sciences 2020, 10(23), 8524). However, our research shows that efficiency of relational databases has been increased and among the selected databases, the graph database is more efficient only in simple queries, whereas a relational database can be dramatically faster in complex queries. The results are novel.

We have not strictly followed the proposed section partition: Introduction-Materials and Methods-Results-Discussion-Conclusions. We saw better to isolate ‘related work’ as its own section, and divide Materials and Methods into three sections.

We confirm that neither the manuscript nor any parts of its content are currently under consideration or published in another journal. All authors have approved the manuscript and agree with its submission to Applied Sciences.

On the behalf of authors

Dr. Marko Junkkari, University of Tampere