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**Task 1 – Web Benchmarks (20%)**

**Name four relevant reasons why benchmarks such as TPC, OLTPBench, YCSB or YCSB++ are not optimal for benchmarking cloud database systems or cloud database services.**

TPC or OLTPBench have strict functional and non-functional requirements on supported database systems and services which today are only fulfilled by RDBMS. --> cannot be used to study NoSQL systems and often only specification and not actually implemented.

YCSB and YCSB++ are essentially micro-benchmarks --> usefull for understanding how tiny changes in workloads affect system quality or for testing isolated database features. Not good for use cases such as selecting or optimizing the configuration of a database system, since micro-benchmarks rarely mimick application workloads realistically.

More criterias, which are disadvantages for benchmarking cloud database systems/cloud database services:

* lacking in the aspects like extensibility in terms of workloads
* multiquality measurements
* (geo-) distribution support of the benchmark out of the box
* fine-grained resulst collection
* ease-of-use