



docker

Dockerization Impacts in Database Performance Benchmarking

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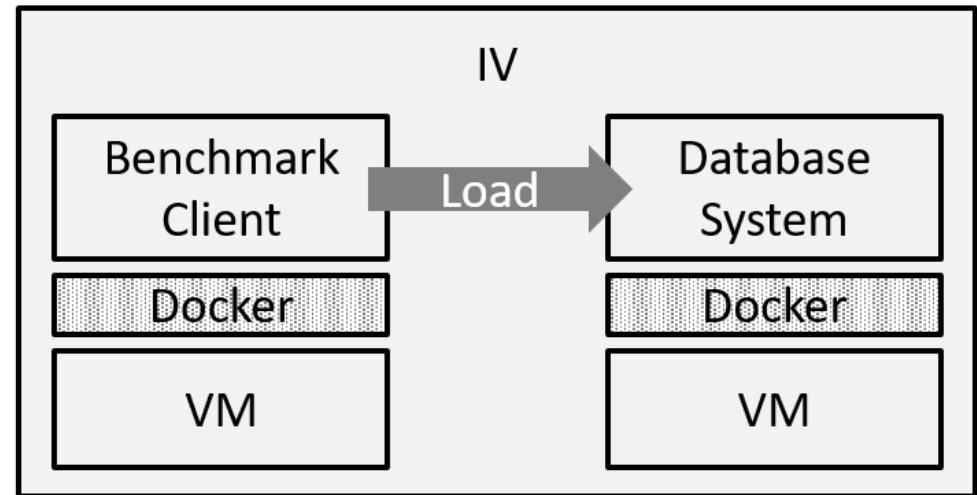
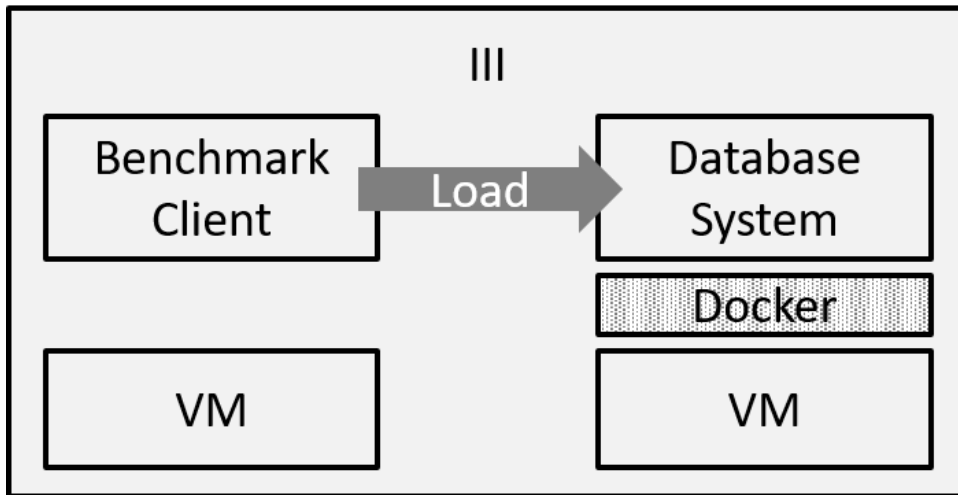
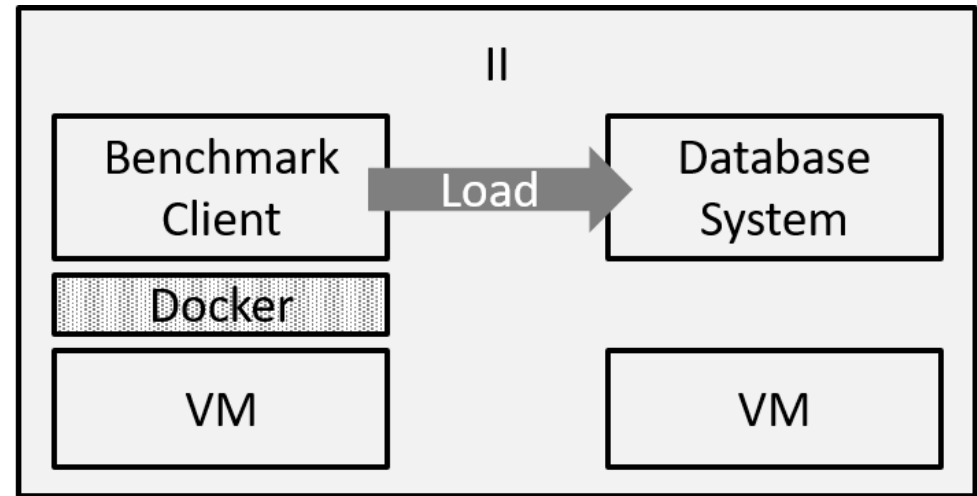
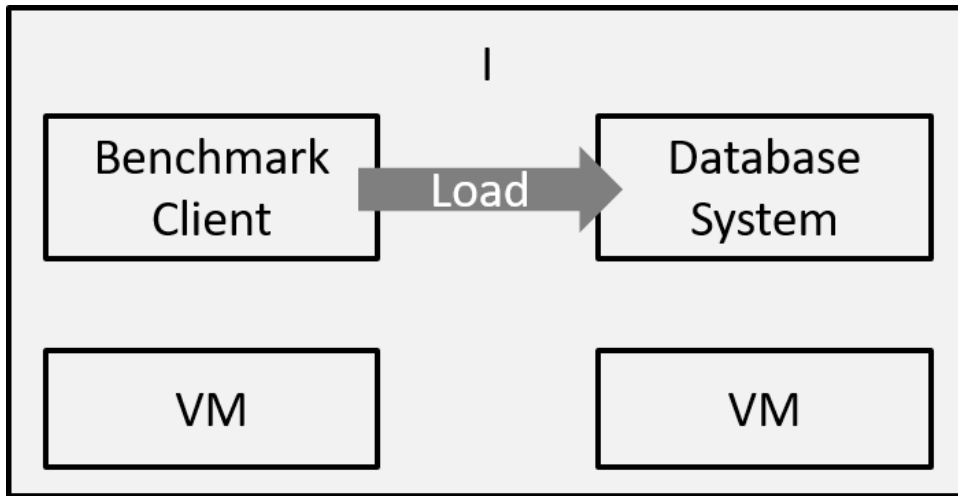
The Problems of Benchmarking

- **Configuration process of a single node is complex and involves a lot of effort**
 - Benchmarking client;
 - System under test (SUT);
- **Node needs to be fresh or cleaned**
- **Benchmark runs need to be repeated**

Probable Solution

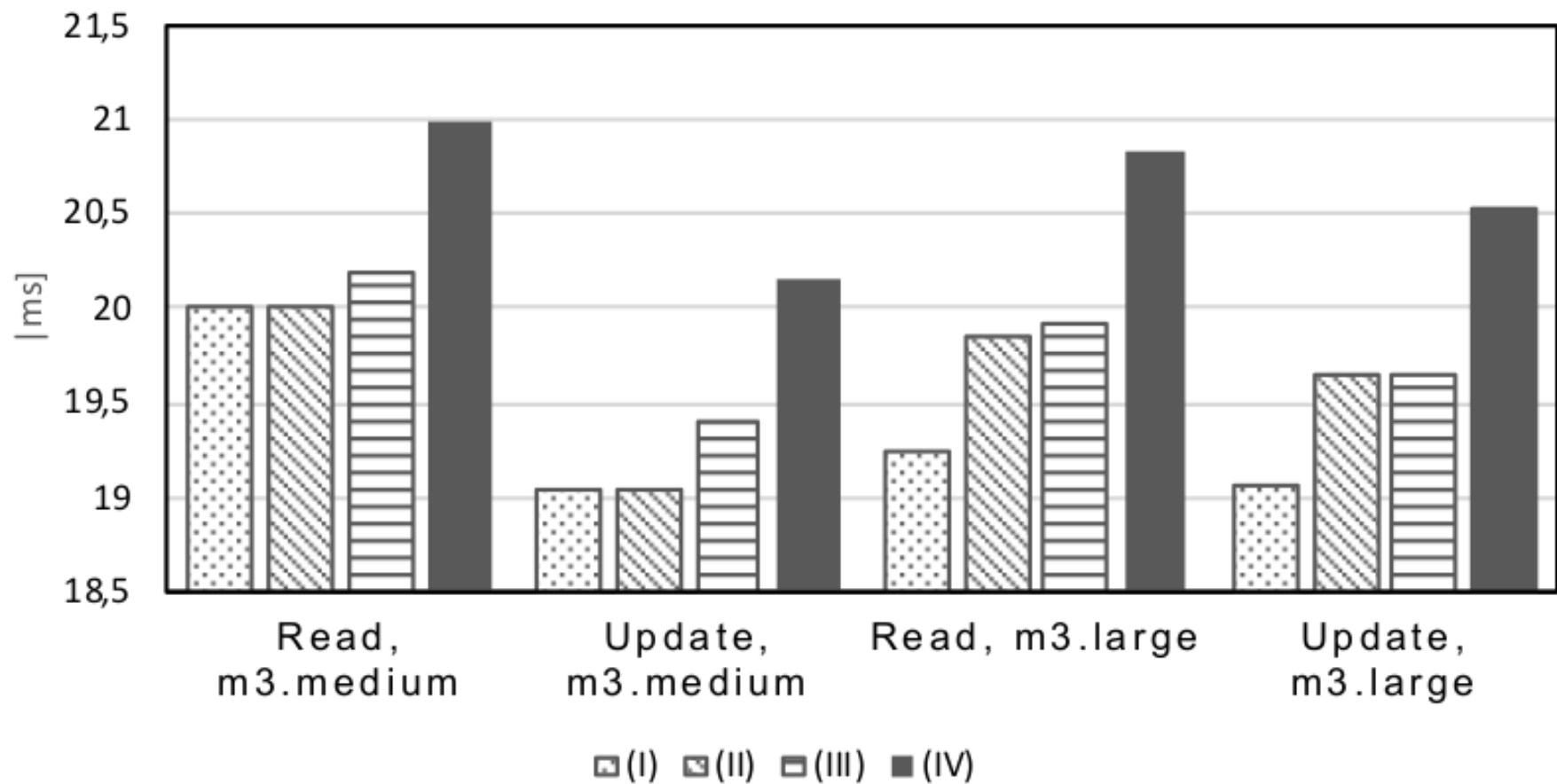
- **Build the Docker image;**
- **Deploy a container;**
- **Run benchmark tests;**
- **Dispose used container;**
- **Recreate fresh container out of the same image;**

Performance Impacts?



Test Results

Time Window Compaction Strategy without caching



Implications

- **Results of dockerized benchmarks can be acceptable when comparing different database systems.**
- **Benchmark setups should be as close as possible to the production environment that they try to emulate.**
- **When evaluating system configurations or implementation alternatives, it may be an option to dockerize the benchmark.**
- **In many cases it may be acceptable to dockerize the benchmark as long as it stays dockerized and no configuration changes are made.**
- **Repeating sufficiently long experiments is always important in benchmarking.**

Thank you for listening!