Database Systems on Modern CPU Architectures

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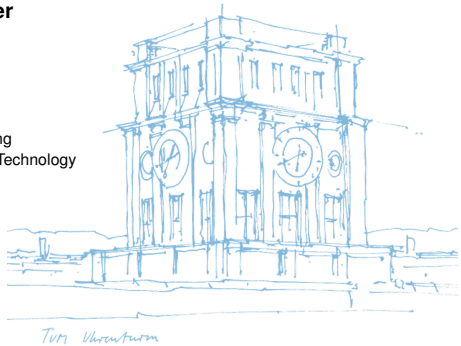
Tuesday 25th June, 2024

Chair of Data Science and Engineering
TUM School of Computation, Information and Technology
Technical University of Munich



Hashing

Insert the following tuples into an extendible hash table whose buckets can hold up to two entries.

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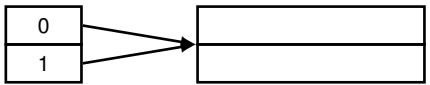
25	Meier	100110
30	Schmidt	011110
18	Krause	010010
40	Schulz	000101
45	Kaufmann	101101



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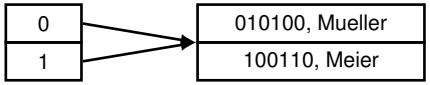

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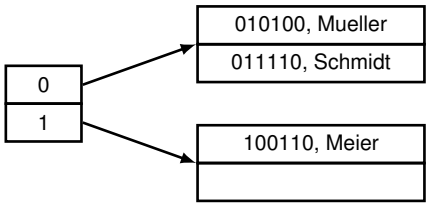

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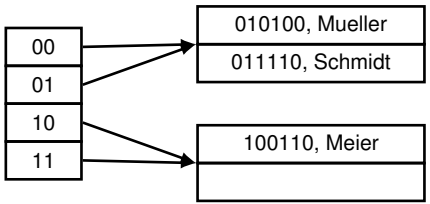

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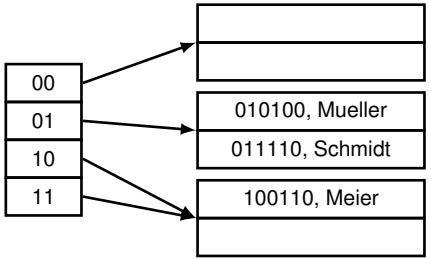

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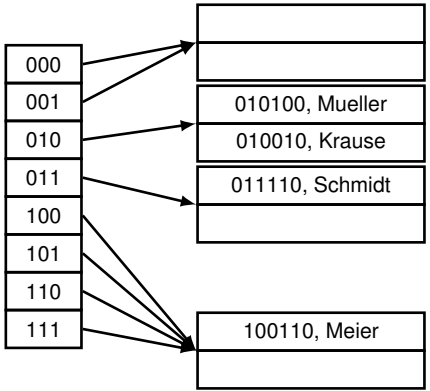

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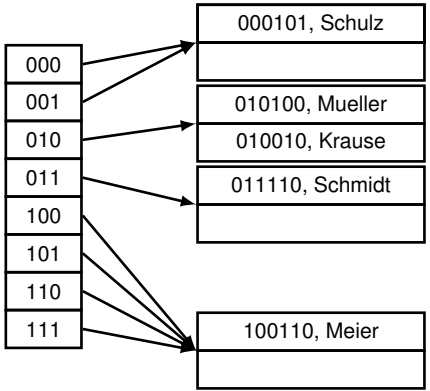

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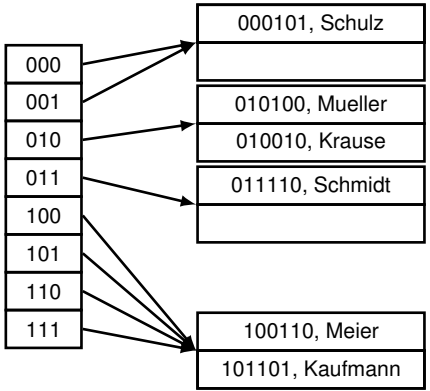
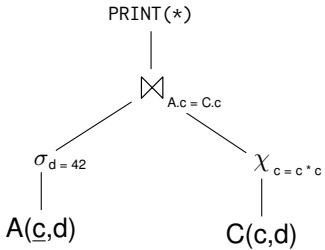


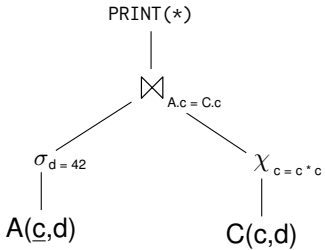
Data-Centric Query Execution

Generate (pseudo-)code for the following operator tree using the push model.



Exchange Parallelism

Parallelize the given query plan by introducing `XchgHashSplit(n:m)` and `Xchg(n:m)` operators for **2 threads** as necessary.



Questions?